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NogII69.....	126
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HVS1

AcqA

NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGGGTACCAACCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCTGTACAT	16101
PCR303.1 (Acq_XXXV) 15996.ab1	--.....	103
PCR317.7 (Acq_XXXV) 15996.ab1	--.....R.....	103
PCR300.1 (Acq_XXXV) 16117.ab1	-----	0
PCR304.1 (Acq_VIII) 16117.ab1	-----	0
PCR216.9 (Acq_XXXV) 16209.ab1	-----	0
PCR268.1 (Acq_VIII) 16209K.ab1	-----	0
PCR136.6 (Acq_VIII) 16287.ab1	-----	0
PCR320.2 (Acq_XXX) 16287.ab1	-----	0

NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR303.1 (Acq_XXXV) 15996.ab1	.....C.....	143
PCR317.7 (Acq_XXXV) 15996.ab1	.....C.....	143
PCR300.1 (Acq_XXXV) 16117.ab1	-----C.....A.....	89
PCR304.1 (Acq_VIII) 16117.ab1	-----C.....A.....	89
PCR216.9 (Acq_XXXV) 16209.ab1	-----	0
PCR268.1 (Acq_VIII) 16209K.ab1	-----	0
PCR136.6 (Acq_VIII) 16287.ab1	-----	0
PCR320.2 (Acq_XXX) 16287.ab1	-----	0

NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR303.1 (Acq_XXXV) 15996.ab1		143
PCR317.7 (Acq_XXXV) 15996.ab1		143
PCR300.1 (Acq_XXXV) 16117.ab1	.....	115
PCR304.1 (Acq_VIII) 16117.ab1	.....	115
PCR216.9 (Acq_XXXV) 16209.ab1	---T...T.T.....	100
PCR268.1 (Acq_VIII) 16209K.ab1	---T...T.T.....	102
PCR136.6 (Acq_VIII) 16287.ab1	---T...T.T.....	24
PCR320.2 (Acq_XXX) 16287.ab1	---T...T.T.....	24

NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCTTGACCACCATCCTC	16410
PCR303.1 (Acq_XXXV) 15996.ab1		143
PCR317.7 (Acq_XXXV) 15996.ab1		143
PCR300.1 (Acq_XXXV) 16117.ab1		115
PCR304.1 (Acq_VIII) 16117.ab1		115

PCR216.9 (Acq_XXXV) 16209.ab1	.....	111
PCR268.1 (Acq_VIII) 16209K.ab1	.....	113
PCR136.6 (Acq_VIII) 16287.ab1	.....	122
PCR320.2 (Acq_XXX) 16287.ab1	.....	122

LV60/1

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT										
PCR234.2 (LV60-1 IX) 16117K.ab1											

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	T	A	C	T	G	C	C	A	C	C	16206
PCR234.2 (LV60-1 IX) 16117K.ab1	T	A	C	T	G	C	C	A	C	C	88

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR234.2 (LV60-1 IX) 16117K.ab1	.....	99

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR234.2 (LV60-1 IX) 16117K.ab1										99

LV60/2

NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR216.2 (LV60-2_XXXIV) 16209K.ab1	---.Y.....R.....T.....	93
PCR313.2 (LV60-2_XXXIV) 16287.ab1	-----	23
	<div style="text-align: center;"> -----+-----+-----+-----+-----+-----+-----+-----+----- 16320 16330 16340 16350 16360 16370 16380 16390 16400 -----+-----+-----+-----+-----+-----+-----+-----+----- </div>	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR216.2 (LV60-2_ExXXXIV) 16209k.ab1		93
PCR313.2 (LV60-2_XXXIV) 16287.ab1	.....C.....	121

LV60/4

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR234.4 (LV60-4_XXXVI) 16117K.ab1												0
PCR252.2 (LV60-4_XXXVI) 16117.ab1												0
PCR256.1 (LV60-4_XXXVI) 16117.ab1												0
PCR318.6 (LV60-4_XXXVI) 16117.ab1												0
PCR305.2 (LV60-4_XXXVI) 16209.ab1												0
PCR319.1 (LV60-4_XXXVI) 16209.ab1												0
PCR302.1 (LV60-4_XXXVI) 16287.ab1												0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR234.4 (LV60-4_XXXVI) 16117K.ab1	.....N.....										39
PCR252.2 (LV60-4_XXXVI) 16117.ab1	.....Y.....										84
PCR256.1 (LV60-4_XXXVI) 16117.ab1	.....										89
PCR318.6 (LV60-4_XXXVI) 16117.ab1	.....T.....										89
PCR305.2 (LV60-4_XXXVI) 16209.ab1											0
PCR319.1 (LV60-4_XXXVI) 16209.ab1											0
PCR302.1 (LV60-4_XXXVI) 16287.ab1											

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR234.4 (LV60-4_XXXVI) 16117K.ab1												39
PCR252.2 (LV60-4_XXXVI) 16117.ab1	.....Y.....											110
PCR256.1 (LV60-4_XXXVI) 16117.ab1	.....Y.....											139
PCR318.6 (LV60-4_XXXVI) 16117.ab1	...T.....T.C.....											115
PCR305.2 (LV60-4_XXXVI) 16209.ab1	-----											95
PCR319.1 (LV60-4_XXXVI) 16209.ab1	-----Y											100
PCR302.1 (LV60-4_XXXVI) 16287.ab1	-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR234.4 (LV60-4_XXXVI) 16117K.ab1										39
PCR252.2 (LV60-4_XXXVI) 16117.ab1										110
PCR256.1 (LV60-4_XXXVI) 16117.ab1										139
PCR318.6 (LV60-4_XXXVI) 16117.ab1										115
PCR305.2 (LV60-4_XXXVI) 16209.ab1	.....									131
PCR319.1 (LV60-4_XXXVI) 16209.ab1	.....					--				155
PCR302.1 (LV60-4_XXXVI) 16287.ab1	.....					C				122

LV75/2

[illegible]

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR327.2 (LV75-2_XXXII) 15996.ab1												118
PCR327.2 (LV75-2_XXXII) 16142.ab1												1
PCR213.6 (LV75-2_XXXII) 16117.ab1												51
PCR318.2 (LV75-2_XXXII) 16117.ab1	.....											114
PCR214.6 (LV75-2_XXXII) 16209k.ab1	-----.....											73
PCR329.3 (LV75-2_XXXII) 16209.ab1	-----.....											100
PCR329.3 (LV75-2_XXXII) 16348.ab1	---.....											34
PCR272.2 (LV75-2_XXXII) 16287.ab1	-----.....											22
PCR306.1 (LV75-2_XXXII) 16287.ab1	-----.....											23
PCR330.2 (LV75-2_XXXII) 16287.ab1	-----.....											24
PCR310.2 (LV75-2_XVIII) 15996.ab1												144
PCR317.2 (LV75-2_XVIII) 15996.ab1												145
PCR318.1 (LV75-2_XVIII) 16117.ab1	.....											115
PCR328.2 (LV75_XVIII) 16117.ab1	.....											115
PCR328.2 (LV75_XVIII) 16233.ab1	.....											1
PCR268.3 (LV75-2_XVIII) 16209_K.ab1	---.....											93
PCR329.2 (LV75_XVIII) 16209.ab1	-----.....											100
PCR329.2 (LV75_XVIII) 16348.ab1	---.....											34
PCR302.2 (LV75-2_XVIII) 16287.ab1	-----.....											1

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR327.2 (LV75-2_XXXII) 15996.ab1										118
PCR327.2 (LV75-2_XXXII) 16142.ab1										1
PCR213.6 (LV75-2_XXXII) 16117.ab1										51
PCR318.2 (LV75-2_XXXII) 16117.ab1										114
PCR214.6 (LV75-2_XXXII) 16209k.ab1										73
PCR329.3 (LV75-2_XXXII) 16209.ab1	.....									136
PCR329.3 (LV75-2_XXXII) 16348.ab1	.....									1
PCR272.2 (LV75-2_XXXII) 16287.ab1	.....Y...Y.Y.....									120
PCR306.1 (LV75-2_XXXII) 16287.ab1	.....W.....Y...Y.....									121
PCR330.2 (LV75-2_XXXII) 16287.ab1	.....Y...Y.....									122
PCR310.2 (LV75-2_XVIII) 15996.ab1										144
PCR317.2 (LV75-2_XVIII) 15996.ab1										145
PCR318.1 (LV75-2_XVIII) 16117.ab1										115
PCR328.2 (LV75_XVIII) 16117.ab1										115
PCR328.2 (LV75_XVIII) 16233.ab1										1
PCR268.3 (LV75-2_XVIII) 16209_K.ab1										93
PCR329.2 (LV75_XVIII) 16209.ab1	.....									136
PCR329.2 (LV75_XVIII) 16348.ab1	.....									1
PCR302.2 (LV75-2_XVIII) 16287.ab1	-----.....Y...Y.Y.....									87

LV76/3A

		16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1		TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR279.1 (LV76-3a_XXXVII) 16142.ab1		.....											38
PCR251.6 (LV76-3a_XXXVII) 16233.ab1		-----											69
PCR268.4 (LV76-3a_XXXVII) 16209K.ab1		-----											0
PCR301.1 (LV76-3a_XXXVII) 16209.ab1		-----											0
PCR301.1 (LV76-3a_XXXVII) 16348.ab1		-----											136
PCR272.8 (LV76-3a_XXXVII) 16287.ab1		-----											0
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
		16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1		TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA											16206
PCR279.1 (LV76-3a_XXXVII) 16142.ab1		.....A.....											1
PCR251.6 (LV76-3a_XXXVII) 16233.ab1		-----A.....C.....											1
PCR268.4 (LV76-3a_XXXVII) 16209K.ab1		-----											0
PCR301.1 (LV76-3a_XXXVII) 16209.ab1		-----											0
PCR301.1 (LV76-3a_XXXVII) 16348.ab1		-----											136
PCR272.8 (LV76-3a_XXXVII) 16287.ab1		-----											0
		---+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+---											
		16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1		AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR279.1 (LV76-3a_XXXVII) 16142.ab1		-----											1
PCR251.6 (LV76-3a_XXXVII) 16233.ab1		-----											1
PCR268.4 (LV76-3a_XXXVII) 16209K.ab1		-----											91
PCR301.1 (LV76-3a_XXXVII) 16209.ab1		-----											100
PCR301.1 (LV76-3a_XXXVII) 16348.ab1		-----											34
PCR272.8 (LV76-3a_XXXVII) 16287.ab1		-----											24
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
		16320	16330	16340	16350	16360	16370	16380	16390	16400			
NC_012920.1		ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT											16409
PCR279.1 (LV76-3a_XXXVII) 16142.ab1		-----											1
PCR251.6 (LV76-3a_XXXVII) 16233.ab1		-----											1
PCR268.4 (LV76-3a_XXXVII) 16209K.ab1		-----											91
PCR301.1 (LV76-3a_XXXVII) 16209.ab1		....G.....											134
PCR301.1 (LV76-3a_XXXVII) 16348.ab1		....G.....											1
PCR272.8 (LV76-3a_XXXVII) 16287.ab1		....G.....S..Y.....											122

LV76/3B

NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR234.5 (LV76-3b_XXXV) 16117.ab1	-----	0
PCR216.6 (LV76-3b_XXXV) 16209K.ab1	-----	0
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR234.5 (LV76-3b_XXXV) 16117.ab1	-----.....T-----	75
PCR216.6 (LV76-3b_XXXV) 16209K.ab1	-----	0
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT	16311
PCR234.5 (LV76-3b_XXXV) 16117.ab1	....	79
PCR216.6 (LV76-3b_XXXV) 16209K.ab1	-----.....	91
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR234.5 (LV76-3b_XXXV) 16117.ab1		79
PCR216.6 (LV76-3b_XXXV) 16209K.ab1		91

Mezzo2

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGTTGGGTACCAACCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR188.2 (M22_XXII) 16333.ab1	-----											55
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCTCCATGCTTACAAGCA											16206
PCR188.2 (M22_XXII) 16333.ab1	-----											55
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR188.2 (M22_XXII) 16333.ab1	-----T.T-----											23
	16320	16330	16340	16350	16360	16370	16380	16390	16400			
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCTTGACCACCATCCT											16409
PCR188.2 (M22_XXII) 16333.ab1	.....											1

MP1a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR255.1 (MP1_XVI) 15996.ab1	.....G.....K.....S.....											105
PCR255.1 (MP1_XVI) 16142.ab1	.....G.....											41
PCR303.6 (MP1_XVI) 15996.ab1	--.....G.....											102
PCR256.2 (MP1_XVI) 16117.ab1	-----											0
PCR304.5 (MP1_XVI) 16117.ab1	-----											0
PCR285.3 (MP1_XVI) 16209.ab1	-----											0
PCR285.3 (MP1_XVI) 16348.ab1	-----											137
PCR301.4 (MP1_XVI) 16348.ab1	-----											133
PCR319.4 (MP1_XVI) 16209.ab1	-----											0
PCR164.12 (MP1_XVI) 16410.ab1	-----											112
PCR258.3 (MP1_XVI) 16287.ab1	-----											

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCCAATCCACATCAAAACCCCCTCCCCATGCTTACAAGCA										16206
PCR255.1 (MP1_XVI) 15996.ab1	.....C.....										145
PCR255.1 (MP1_XVI) 16142.ab1	.....C.....										1
PCR303.6 (MP1_XVI) 15996.ab1	.....C.....										142
PCR256.2 (MP1_XVI) 16117.ab1	-----C.....										88
PCR304.5 (MP1_XVI) 16117.ab1	-----C.....										88
PCR285.3 (MP1_XVI) 16209.ab1	-----										0
PCR285.3 (MP1_XVI) 16348.ab1	-----										137
PCR301.4 (MP1_XVI) 16348.ab1	-----										133
PCR319.4 (MP1_XVI) 16209.ab1	-----										0
PCR164.12 (MP1_XVI) 16410.ab1	-----										112
PCR258.3 (MP1_XVI) 16287.ab1	-----										

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR255.1 (MP1_XVI) 15996.ab1												145
PCR255.1 (MP1_XVI) 16142.ab1												1
PCR303.6 (MP1_XVI) 15996.ab1												142
PCR256.2 (MP1_XVI) 16117.ab1	.....											114
PCR304.5 (MP1_XVI) 16117.ab1	.....											114
PCR285.3 (MP1_XVI) 16209.ab1	-----T.T.....C.....											71
PCR285.3 (MP1_XVI) 16348.ab1	---.....Y.....T.T.....C.....											35
PCR301.4 (MP1_XVI) 16348.ab1	---.....T.T.....C.....											31
PCR319.4 (MP1_XVI) 16209.ab1	-----T.T.....C.....											99
PCR164.12 (MP1_XVI) 16410.ab1	-----T.T.T.....C.....											88
PCR258.3 (MP1_XVI) 16287.ab1	-----T.T.....C.....											24

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCTTGACCACCATCCT	16409
PCR255.1 (MP1_XVI) 15996.ab1		145
PCR255.1 (MP1_XVI) 16142.ab1		1
PCR303.6 (MP1_XVI) 15996.ab1		142
PCR256.2 (MP1_XVI) 16117.ab1		114
PCR304.5 (MP1_XVI) 16117.ab1		114
PCR285.3 (MP1_XVI) 16209.ab1	.....	107
PCR285.3 (MP1_XVI) 16348.ab1	.....	1
PCR301.4 (MP1_XVI) 16348.ab1	.....K.....	1
PCR319.4 (MP1_XVI) 16209.ab1	.....	135
PCR164.12 (MP1_XVI) 16410.ab1	.....W.....	1
PCR258.3 (MP1_XVI) 16287.ab1	.....	122

MP1b

NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR287.1 (MP1_XXXVIII) 16142.ab1	.....S.....	41
PCR237.2 (MP1_XXXVIII) 16117.ab1	-----	0
PCR237.2 (MP1_XXXVIII) 16233.ab1	-----	59
PCR300.7 (MP1_XXXVIII) 16117.ab1	-----	0
PCR268.5 (MP1_XXXVIII) 16209K.ab1	-----	0
PCR286.3 (MP1_XXXVIII) 16348.ab1	-----	106
PCR305.4 (MP1_XXXVIII) 16209.ab1	-----	0
PCR219.2 (MP1_XXXVIII) 16287.ab1	-----	0
PCR219.2 (MP1_XXXVIII) 16410.ab1	-----	121
PCR302.5 (MP1_XXXVIII) 16287.ab1	-----	0

NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR287.1 (MP1_XXXVIII) 16142.ab1	.....	1
PCR237.2 (MP1_XXXVIII) 16117.ab1	-----	89
PCR237.2 (MP1_XXXVIII) 16233.ab1	-----	1
PCR300.7 (MP1_XXXVIII) 16117.ab1	-----	89
PCR268.5 (MP1_XXXVIII) 16209K.ab1	-----	0
PCR286.3 (MP1_XXXVIII) 16348.ab1	-----	106
PCR305.4 (MP1_XXXVIII) 16209.ab1	-----	0
PCR219.2 (MP1_XXXVIII) 16287.ab1	-----	0
PCR219.2 (MP1_XXXVIII) 16410.ab1	-----	121
PCR302.5 (MP1_XXXVIII) 16287.ab1	-----	0

NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTAACAGTACATAGT	16311
PCR287.1 (MP1_XXXVIII) 16142.ab1	.....	1
PCR237.2 (MP1_XXXVIII) 16117.ab1	.....	115
PCR237.2 (MP1_XXXVIII) 16233.ab1	.....	1
PCR300.7 (MP1_XXXVIII) 16117.ab1	.....	115
PCR268.5 (MP1_XXXVIII) 16209K.ab1	---.....T.....	92
PCR286.3 (MP1_XXXVIII) 16348.ab1	---.....T.....Y	37
PCR305.4 (MP1_XXXVIII) 16209.ab1	---.....T.....Y	101
PCR219.2 (MP1_XXXVIII) 16287.ab1	-----.....C	24
PCR219.2 (MP1_XXXVIII) 16410.ab1	-----.....C	97
PCR302.5 (MP1_XXXVIII) 16287.ab1	-----.....C	24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR287.1 (MP1_XXXVIII) 16142.ab1										1
PCR237.2 (MP1_XXXVIII) 16117.ab1										115
PCR237.2 (MP1_XXXVIII) 16233.ab1										1
PCR300.7 (MP1_XXXVIII) 16117.ab1										115
PCR268.5 (MP1_XXXVIII) 16209K.ab1										92
PCR286.3 (MP1_XXXVIII) 16348.ab1	.....R.....									1
PCR305.4 (MP1_XXXVIII) 16209.ab1	.....									137
PCR219.2 (MP1_XXXVIII) 16287.ab1	.....T.....									122
PCR219.2 (MP1_XXXVIII) 16410.ab1	.....W.....T.....									1
PCR302.5 (MP1_XXXVIII) 16287.ab1	.....T.....									122

MP2a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR179.5 (MP2_X) 15996.ab1	----- T										96	
PCR179.5 (MP2_X) 16142.ab1	. . . . . M M . M T										36	
PCR259.10 (MP2_X) 15996.ab1	- - - - - T S										103	
PCR259.10 (MP2_X) 16142.ab1	. . . . . S T										41	
PCR260.1 (MP2_X) 16117.ab1	-----											0
PCR304.4 (MP2_X) 16117.ab1	-----											0
PCR285.4 (MP2_X) 16209.ab1	-----											0
PCR285.4 (MP2_X) 16348.ab1	-----											138
PCR301.2 (MP2_X) 16209.ab1	-----											0
PCR301.2 (MP2_X) 16348.ab1	-----											137
PCR330.3 (MP2_X) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAACCCCTCCCCATGCTTACAAGCA										16206
PCR179.5 (MP2_X) 15996.ab1	.....Y.....										136
PCR179.5 (MP2_X) 16142.ab1	.....C.....										1
PCR259.10 (MP2_X) 15996.ab1	.....M...W.....C.....										143
PCR259.10 (MP2_X) 16142.ab1	.....C.....										1
PCR260.1 (MP2_X) 16117.ab1	-----C.....										88
PCR304.4 (MP2_X) 16117.ab1	-----C.....										89
PCR285.4 (MP2_X) 16209.ab1	-----										0
PCR285.4 (MP2_X) 16348.ab1	-----										138
PCR301.2 (MP2_X) 16209.ab1	-----										0
PCR301.2 (MP2_X) 16348.ab1	-----										137
PCR330.3 (MP2_X) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT										16311
PCR179.5 (MP2_X) 15996.ab1											136
PCR179.5 (MP2_X) 16142.ab1											1
PCR259.10 (MP2_X) 15996.ab1											143
PCR259.10 (MP2_X) 16142.ab1											1
PCR260.1 (MP2_X) 16117.ab1											114
PCR304.4 (MP2_X) 16117.ab1											115
PCR285.4 (MP2_X) 16209.ab1											74
PCR285.4 (MP2_X) 16348.ab1											36
PCR301.2 (MP2_X) 16209.ab1											100
PCR301.2 (MP2_X) 16348.ab1											35
PCR330.3 (MP2_X) 16287.ab1											24

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR179.5 (MP2_X) 15996.ab1		136
PCR179.5 (MP2_X) 16142.ab1		1
PCR259.10 (MP2_X) 15996.ab1		143
PCR259.10 (MP2_X) 16142.ab1		1
PCR260.1 (MP2_X) 16117.ab1		114
PCR304.4 (MP2_X) 16117.ab1		115
PCR285.4 (MP2_X) 16209.ab1	.....	110
PCR285.4 (MP2_X) 16348.ab1	.....	1
PCR301.2 (MP2_X) 16209.ab1	.....	136
PCR301.2 (MP2_X) 16348.ab1	.....	1
PCR330.3 (MP2_X) 16287.ab1	.....	122

NC 012920.1

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR310.3 (MP2_XXXVIII) 15996.ab1	-.....C.....											104
PCR317.5 (MP2_XXXVIII) 15996.ab1	-----C.....											91
PCR237.5 (MP2_XXXVIII) 16117.ab1	-----											0
PCR300.5 (MP2_XXXVIII) 16233.ab1	-----											114
PCR286.4 (MP2_XXXVIII) 16348.ab1	-----											139
PCR305.3 (MP2_XXXVIII) 16209.ab1	-----											0
PCR219.5 (MP2_XXXVIII) 16287.ab1	..-----											2
PCR306.2 (MP2_XXXVIII) 16410.ab1	..-----											119
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA											16206
PCR310.3 (MP2_XXXVIII) 15996.ab1	.....											144
PCR317.5 (MP2_XXXVIII) 15996.ab1	.....											131
PCR237.5 (MP2_XXXVIII) 16117.ab1	-----											89
PCR300.5 (MP2_XXXVIII) 16233.ab1	-----											25
PCR286.4 (MP2_XXXVIII) 16348.ab1	-----											139
PCR305.3 (MP2_XXXVIII) 16209.ab1	-----											0
PCR219.5 (MP2_XXXVIII) 16287.ab1	-----											2
PCR306.2 (MP2_XXXVIII) 16410.ab1	-----											119
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCTCAACTATCACACATCAACTGCAACTCCAAGCCACCCTCACCCACTAGGATACCAACAAACCTACCCACCTTAACAGTACATAGT											16311
PCR310.3 (MP2_XXXVIII) 15996.ab1	.....											144
PCR317.5 (MP2_XXXVIII) 15996.ab1	.....											131
PCR237.5 (MP2_XXXVIII) 16117.ab1	.....C.....											115
PCR300.5 (MP2_XXXVIII) 16233.ab1	.....C.....											1
PCR286.4 (MP2_XXXVIII) 16348.ab1	---.....C.....											37
PCR305.3 (MP2_XXXVIII) 16209.ab1	---.....C.....											101
PCR219.5 (MP2_XXXVIII) 16287.ab1	-----											24
PCR306.2 (MP2_XXXVIII) 16410.ab1	-----											97
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----											
	16320	16330	16340	16350	16360	16370	16380	16390	16400			
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT											16409
PCR310.3 (MP2_XXXVIII) 15996.ab1	.....											144
PCR317.5 (MP2_XXXVIII) 15996.ab1	.....											131
PCR237.5 (MP2_XXXVIII) 16117.ab1	.....											115
PCR300.5 (MP2_XXXVIII) 16233.ab1	.....											1
PCR286.4 (MP2_XXXVIII) 16348.ab1	.....											1
PCR305.3 (MP2_XXXVIII) 16209.ab1	.....											137
PCR219.5 (MP2_XXXVIII) 16287.ab1	.....											122
PCR306.2 (MP2_XXXVIII) 16410.ab1	.....										

MP3

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT	16311
PCR217.8 (MP3_XXXVII) 16287.ab1	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	24
	.....C	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR217.8 (MP3_XXXVII) 16287^.ab1	.....	98

MP6

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR179.6 (MP6_XI)15996.ab1	.....											105
PCR179.6 (MP6_XI)16142.ab1	.....											41
PCR310.4 (MP6_XI)16142.ab1	.....											40
PCR266.10 (MP6_XI)16117.ab1	-----											0
PCR266.10 (MP6_XI)16233.ab1	-----											58
PCR300.8 (MP6_XI)16233.ab1	-----											114
PCR268.6 (MP6_XVII)16209K.ab1	-----											0
PCR285.5 (MP6_XI)16209.ab1	-----											0
PCR285.5 (MP6_XI)16348.ab1	-----											86
PCR151.2 (MP6_XI)16410.ab1	-----											12

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCCTCCCCATGCTTACAAGCA										16206
PCR179.6 (MP6_XI)15996.ab1	.....										145
PCR179.6 (MP6_XI)16142.ab1	.....										1
PCR310.4 (MP6_XI)16142.ab1	.....										1
PCR266.10 (MP6_XI)16117.ab1	-----.....										89
PCR266.10 (MP6_XI)16233.ab1	-----.....										1
PCR300.8 (MP6_XI)16233.ab1	-----.....										25
PCR268.6 (MP6_XVII)16209K.ab1	-----										0
PCR285.5 (MP6_XI)16209.ab1	-----										0
PCR285.5 (MP6_XI)16348.ab1	-----										86
PCR151.2 (MP6_XI)16410.ab1	-----										120

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR179.6 (MP6_XI) 15996.ab1												145
PCR179.6 (MP6_XI) 16142.ab1												1
PCR310.4 (MP6_XI) 16142.ab1												1
PCR266.10 (MP6_XI) 16117.ab1	.....											115
PCR266.10 (MP6_XI) 16233.ab1												1
PCR300.8 (MP6_XI) 16233.ab1	.....											1
PCR268.6 (MP6_XVII) 16209K.ab1	----.....C....											92
PCR285.5 (MP6_XI) 16209.ab1	-----.....C.....											94
PCR285.5 (MP6_XI) 16348.ab1	-----.....C.....											36
PCR151.2 (MP6_XI) 16410.ab1	-----.....C.....											96

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	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR179.6 (MP6_XI) 15996.ab1		145
PCR179.6 (MP6_XI) 16142.ab1		1
PCR310.4 (MP6_XI) 16142.ab1		1
PCR266.10 (MP6_XI) 16117.ab1		115
PCR266.10 (MP6_XI) 16233.ab1		1
PCR300.8 (MP6_XI) 16233.ab1		1
PCR268.6 (MP6_XVII) 16209K.ab1		92
PCR285.5 (MP6_XI) 16209.ab1	.....	130
PCR285.5 (MP6_XI) 16348.ab1	.....	1
PCR151.2 (MP6_XI) 16410.ab1	.....	1

MP7a

NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR268.7 (MP7_XXI) 16209K.ab1	-----	0
PCR172_3 (MP7_XXI) 16287.ab1	..-----	2
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR268.7 (MP7_XXI) 16209K.ab1	-----	0
PCR172_3 (MP7_XXI) 16287.ab1	-----	2
	---+-----+-----+-----+-----+-----+-----+-----+-----+-----+---	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCTTAACAGTACATAGT	16311
PCR268.7 (MP7_XXI) 16209K.ab1	---.....T.....	92
PCR172_3 (MP7_XXI) 16287.ab1	-----.....C	24
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR268.7 (MP7_XXI) 16209K.ab1		92
PCR172_3 (MP7_XXI) 16287.ab1	.....T.....	122

MP7b

	NC_012920.1	TAAGATTCTAATTTTAAACTATTCTCTGTCTCTTCATGGGGAAGCAGATTTGCGTACCACCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
	PCR249.10 (MP7_XXXIX) 15996.ab1	.....	105
	PCR249.10 (MP7_XXXIX) 16142.ab1	.....	41
	PCR237.8 (MP7_XXXIX) 16117.ab1	-----	0
	PCR285.6 (MP7_XXXIX) 16348.ab1	-----	58
	PCR220.3 (MP7_XXXIX) 16287.ab1	-----	2
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTAGACATAAAAACCCAATCCACATCAAACCCCCTCCCCATGCTTACAAGCA	16206
	PCR249.10 (MP7_XXXIX) 15996.ab1	.....	145
	PCR249.10 (MP7_XXXIX) 16142.ab1	.....	1
	PCR237.8 (MP7_XXXIX) 16117.ab1	-----C....	76
	PCR285.6 (MP7_XXXIX) 16348.ab1	-----	58
	PCR220.3 (MP7_XXXIX) 16287.ab1	-----	2
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCCTTAACAGTACATAGT	16311
	PCR249.10 (MP7_XXXIX) 15996.ab1	.....	145
	PCR249.10 (MP7_XXXIX) 16142.ab1	.....	1
	PCR237.8 (MP7_XXXIX) 16117.ab1	.....	76
	PCR285.6 (MP7_XXXIX) 16348.ab1	-----	36
	PCR220.3 (MP7_XXXIX) 16287.ab1	-----	24
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16320 16330 16340 16350 16360 16370 16380 16390 16400	
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
	PCR249.10 (MP7_XXXIX) 15996.ab1	.....	145
	PCR249.10 (MP7_XXXIX) 16142.ab1	.....	1
	PCR237.8 (MP7_XXXIX) 16117.ab1	.....	76
	PCR285.6 (MP7_XXXIX) 16348.ab1	.....	1
	PCR220.3 (MP7_XXXIX) 16287.ab1	.....	122

MP8

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR216.10 (MP8_XXXV) 16209K.ab1												0
PCR162.4 (MP8_XVI) 16410.ab1												110
PCR164.13 (MP8_XVI) 16410.ab1												106
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTACTTGACCACCTGTAGTACATAAAAAACCCCAATCCACATCAAAACCCCCTCCCCATGCTTACAAGCA											16206
PCR216.10 (MP8_XXXV) 16209K.ab1												0
PCR162.4 (MP8_XVI) 16410.ab1												110
PCR164.13 (MP8_XVI) 16410.ab1												106
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR216.10 (MP8_XXXV) 16209K.ab1	----.....T.....											92
PCR162.4 (MP8_XVI) 16410.ab1	.....Y.....											88
PCR164.13 (MP8_XVI) 16410.ab1	.....Y.....											84
	16320	16330	16340	16350	16360	16370	16380	16390	16400			
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT											16409
PCR216.10 (MP8_XXXV) 16209K.ab1												92
PCR162.4 (MP8_XVI) 16410.ab1	.....W.....											1
PCR164.13 (MP8_XVI) 16410.ab1												1

Nogl169

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR179.9 (Nog69_XVIII) 15996.ab1	.....S.....											105
PCR239.2 (Nog69_XXIII) 16142.ab1	.....S.....											41
PCR243.1 (Nog69_XXXIX) 15996.ab1	.....S.....											105
PCR243.1 (Nog69_XXXIX) 16142.ab1	.....S.....											41
PCR196.8 (Nog69_XVIII) 16233.ab1	-----											65
PCR237.6 (Nog69_XXXIX) 16117.ab1	-----											0
PCR237.6 (Nog69_XXXIX) 16233.ab1	-----											77
PCR240.2 (Nog69_XXIII) 16117.ab1	-----											0
PCR240.2 (Nog69_XXIII) 16233.ab1	-----											104
PCR245.2 (Nog69_XVIII) 16209.ab1	-----											0
PCR301.5 (Nog69_XVIII) 16348.ab1	-----											138
PCR166.3 (Nog69_XVIII) 16287.ab1	-----											0
PCR220.1 (Nog69_XXXIX) 16287.ab1	-----											0
PCR220.1 (Nog69_XXXIX) 16410.ab1	-----											120
PCR258.4 (Nog69_XXIII) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA										16206
PCR179.9 (Nog69_XVIII) 15996.ab1	.....										145
PCR239.2 (Nog69_XXIII) 16142.ab1	.....										1
PCR243.1 (Nog69_XXXIX) 15996.ab1	.....										145
PCR243.1 (Nog69_XXXIX) 16142.ab1	.....										1
PCR196.8 (Nog69_XVIII) 16233.ab1	-----										1
PCR237.6 (Nog69_XXXIX) 16117.ab1	-----										89
PCR237.6 (Nog69_XXXIX) 16233.ab1	-----										1
PCR240.2 (Nog69_XXIII) 16117.ab1	-----										88
PCR240.2 (Nog69_XXIII) 16233.ab1	-----										15
PCR245.2 (Nog69_XVIII) 16209.ab1	-----										0
PCR301.5 (Nog69_XVIII) 16348.ab1	-----										138
PCR166.3 (Nog69_XVIII) 16287.ab1	-----										0
PCR220.1 (Nog69_XXXIX) 16287.ab1	-----										0
PCR220.1 (Nog69_XXXIX) 16410.ab1	-----										120
PCR258.4 (Nog69_XXIII) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR179.9 (Nog69_XVIII) 15996.ab1												145
PCR239.2 (Nog69_XXIII) 16142.ab1												1
PCR243.1 (Nog69_XXXIX) 15996.ab1												145
PCR243.1 (Nog69_XXXIX) 16142.ab1												1
PCR196.8 (Nog69_XVIII) 16233.ab1												1
PCR237.6 (Nog69_XXXIX) 16117.ab1	.....											115
PCR237.6 (Nog69_XXXIX) 16233.ab1												1
PCR240.2 (Nog69_XXIII) 16117.ab1	.....											114
PCR240.2 (Nog69_XXIII) 16233.ab1	.....R....											1
PCR245.2 (Nog69_XVIII) 16209.ab1	---.....T.....C.....											101
PCR301.5 (Nog69_XVIII) 16348.ab1	---.....T.....C.....											36
PCR166.3 (Nog69_XVIII) 16287.ab1	-----.....T.....C.....											23
PCR220.1 (Nog69_XXXIX) 16287.ab1	-----.....T.....C.....											24
PCR220.1 (Nog69_XXXIX) 16410.ab1	-----.....T.....C.....											96
PCR258.4 (Nog69_XXIII) 16287.ab1	-----.....T.....C.....											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR179.9 (Nog69_XVIII) 15996.ab1										145
PCR239.2 (Nog69_XXIII) 16142.ab1										1
PCR243.1 (Nog69_XXXIX) 15996.ab1										145
PCR243.1 (Nog69_XXXIX) 16142.ab1										1
PCR196.8 (Nog69_XVIII) 16233.ab1										1
PCR237.6 (Nog69_XXXIX) 16117.ab1										115
PCR237.6 (Nog69_XXXIX) 16233.ab1										1
PCR240.2 (Nog69_XXIII) 16117.ab1										114
PCR240.2 (Nog69_XXIII) 16233.ab1										1
PCR245.2 (Nog69_XVIII) 16209.ab1	.....T.....									137
PCR301.5 (Nog69_XVIII) 16348.ab1	.....T.....									1
PCR166.3 (Nog69_XVIII) 16287.ab1	.....T.....									121
PCR220.1 (Nog69_XXXIX) 16287.ab1	.....T.....									122
PCR220.1 (Nog69_XXXIX) 16410.ab1	.....T.....									1
PCR258.4 (Nog69_XXIII) 16287.ab1	.....T.....									122

NogIII75

	+-----+-----+-----+-----+-----+-----+-----+-----+	
	16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100	
	+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT	16101
PCR243.2 (Nog75_XXXVI) 15996.ab1	. . . . . T	105
PCR243.2 (Nog75_XXXVI) 16142.ab1	. . . . . T	41
PCR270.6 (Nog75_VII) 15996.ab1	. . . . . T	105
PCR310.5 (Nog75_VII) 16142.ab1	. . . . . T	41
PCR141.4 (Nog75_VII) 16117.ab1	-----	0
PCR237.11 (Nog75_XXXVI) 16117.ab1	-----	0
PCR237.11 (Nog75_XXXVI) 16233.ab1	-----	40
PCR140.4 (Nog75_VII) 16209.ab1	-----	0
PCR286.7 (Nog75_XXXVI) 16209.ab1	-----	0
PCR135.2 (Nog75_VII) 16287.ab1	-----	0
PCR217.2 (Nog75_XXXVI) 16287.ab1	-----	0
	+-----+-----+-----+-----+-----+-----+-----+-----+	
	16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
	+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTAGACATAAAAACCCAATCCACATCAAAACCCCCTCCCCATGCTTACAAGCA	16206
PCR243.2 (Nog75_XXXVI) 15996.ab1	. . . . . C	145
PCR243.2 (Nog75_XXXVI) 16142.ab1	. . . . . C	1
PCR270.6 (Nog75_VII) 15996.ab1	. . . . . C	145
PCR310.5 (Nog75_VII) 16142.ab1	. . . . . C	1
PCR141.4 (Nog75_VII) 16117.ab1	----- C	79
PCR237.11 (Nog75_XXXVI) 16117.ab1	----- C	75
PCR237.11 (Nog75_XXXVI) 16233.ab1	----- C	15
PCR140.4 (Nog75_VII) 16209.ab1	-----	0
PCR286.7 (Nog75_XXXVI) 16209.ab1	-----	0
PCR135.2 (Nog75_VII) 16287.ab1	-----	0
PCR217.2 (Nog75_XXXVI) 16287.ab1	-----	0
	--+-----+-----+-----+-----+-----+-----+-----+-----+	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT	16311
PCR243.2 (Nog75_XXXVI) 15996.ab1	. . . . .	145
PCR243.2 (Nog75_XXXVI) 16142.ab1	. . . . .	1
PCR270.6 (Nog75_VII) 15996.ab1	. . . . .	145
PCR310.5 (Nog75_VII) 16142.ab1	. . . . .	1
PCR141.4 (Nog75_VII) 16117.ab1	. . . . .	79
PCR237.11 (Nog75_XXXVI) 16117.ab1	. . . . .	75
PCR237.11 (Nog75_XXXVI) 16233.ab1	. . . . .	1
PCR140.4 (Nog75_VII) 16209.ab1	-----	98
PCR286.7 (Nog75_XXXVI) 16209.ab1	-----	59
PCR135.2 (Nog75_VII) 16287.ab1	-----	21
PCR217.2 (Nog75_XXXVI) 16287.ab1	-----	21

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCTTGACCACCATCCT	16409
PCR243.2 (Nog75_XXXVI) 15996.ab1		145
PCR243.2 (Nog75_XXXVI) 16142.ab1		1
PCR270.6 (Nog75_VII) 15996.ab1		145
PCR310.5 (Nog75_VII) 16142.ab1		1
PCR141.4 (Nog75_VII) 16117.ab1		79
PCR237.11 (Nog75_XXXVI) 16117.ab1		75
PCR237.11 (Nog75_XXXVI) 16233.ab1		1
PCR140.4 (Nog75_VII) 16209.ab1	.....--.....A	154
PCR286.7 (Nog75_XXXVI) 16209.ab1	.....--.....	114
PCR135.2 (Nog75_VII) 16287.ab1	.....	119
PCR217.2 (Nog75_XXXVI) 16287.ab1	.....	119

NogIII78

NC_012920.1	TAGATTCTAATTTAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR155.1 (NogIII78_XIII) 16333.ab1	-----	54
	<div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>16110</div> <div>16120</div> <div>16130</div> <div>16140</div> <div>16150</div> <div>16160</div> <div>16170</div> <div>16180</div> <div>16190</div> <div>16200</div> </div>	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAACCCCTCCCCATGCTTACAAGCA	16206
PCR155.1 (NogIII78_XIII) 16333.ab1	-----	54
	<div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>16210</div> <div>16220</div> <div>16230</div> <div>16240</div> <div>16250</div> <div>16260</div> <div>16270</div> <div>16280</div> <div>16290</div> <div>16300</div> <div>16310</div> </div>	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR155.1 (NogIII78_XIII) 16333.ab1	-----	22
	<div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> <div>+</div> </div> <div> <div>16320</div> <div>16330</div> <div>16340</div> <div>16350</div> <div>16360</div> <div>16370</div> <div>16380</div> <div>16390</div> <div>16400</div> </div>	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR155.1 (NogIII78_XIII) 16333.ab1	.....	1

PdVT2

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR243.3 (PdVT2_XXXV) 15996.ab1	.....											105
PCR243.3 (PdVT2_XXXV) 16142.ab1	.....											39
PCR287.5 (PdVT2_XXXV) 16142.ab1	.....											41
PCR237.12 (PdVT2_XXXV) 16117.ab1	-----											0
PCR237.12 (PdVT2_XXXV) 16233.ab1	-----											61
PCR256.3 (PdVT2_XXXV) 16117.ab1	-----											0
PCR328.5 (PdVT2_XXXV) 16117.ab1	-----											0
PCR328.5 (PdVT2_XXXV) 16233.ab1	-----											53
PCR216.8 (PdVT2_XXXV) 16209.ab1	-----											0
PCR233.2 (PdVT2_XXXV) 16209.ab1	-----											0
PCR233.2 (PdVT2_XXXV) 16348.ab1	-----											139
PCR286.9 (PdVT2_XXXV) 16209.ab1	-----											0
PCR215.8 (PdVT2_XXXV) 16287.ab1	-----											0
PCR258.5 (PdVT2_XXXV) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA										16206
PCR243.3 (PdVT2_XXXV) 15996.ab1	.....										145
PCR243.3 (PdVT2_XXXV) 16142.ab1	.....										1
PCR287.5 (PdVT2_XXXV) 16142.ab1	.....										1
PCR237.12 (PdVT2_XXXV) 16117.ab1	-----.....C....										76
PCR237.12 (PdVT2_XXXV) 16233.ab1	-----.....C.....										27
PCR256.3 (PdVT2_XXXV) 16117.ab1	-----.....C..										75
PCR328.5 (PdVT2_XXXV) 16117.ab1	-----.....C....										77
PCR328.5 (PdVT2_XXXV) 16233.ab1	-----.....C.....										27
PCR216.8 (PdVT2_XXXV) 16209.ab1	-----										0
PCR233.2 (PdVT2_XXXV) 16209.ab1	-----										0
PCR233.2 (PdVT2_XXXV) 16348.ab1	-----										139
PCR286.9 (PdVT2_XXXV) 16209.ab1	-----										0
PCR215.8 (PdVT2_XXXV) 16287.ab1	-----										0
PCR258.5 (PdVT2_XXXV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR243.3 (PdVT2_XXXV) 15996.ab1												145
PCR243.3 (PdVT2_XXXV) 16142.ab1												1
PCR287.5 (PdVT2_XXXV) 16142.ab1												1
PCR237.12 (PdVT2_XXXV) 16117.ab1												76
PCR237.12 (PdVT2_XXXV) 16233.ab1	.....T.....											1
PCR256.3 (PdVT2_XXXV) 16117.ab1												75
PCR328.5 (PdVT2_XXXV) 16117.ab1												77
PCR328.5 (PdVT2_XXXV) 16233.ab1	.....T.....											1
PCR216.8 (PdVT2_XXXV) 16209.ab1	----.....T.....T.....											100
PCR233.2 (PdVT2_XXXV) 16209.ab1	----.....T.....T.....											101
PCR233.2 (PdVT2_XXXV) 16348.ab1	--.....T.....T.....											37
PCR286.9 (PdVT2_XXXV) 16209.ab1	----.....T.....T.....											100
PCR215.8 (PdVT2_XXXV) 16287.ab1	-----											24
PCR258.5 (PdVT2_XXXV) 16287.ab1	-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR243.3 (PdVT2_XXXV) 15996.ab1										145
PCR243.3 (PdVT2_XXXV) 16142.ab1										1
PCR287.5 (PdVT2_XXXV) 16142.ab1										1
PCR237.12 (PdVT2_XXXV) 16117.ab1										76
PCR237.12 (PdVT2_XXXV) 16233.ab1										1
PCR256.3 (PdVT2_XXXV) 16117.ab1										75
PCR328.5 (PdVT2_XXXV) 16117.ab1										77
PCR328.5 (PdVT2_XXXV) 16233.ab1										1
PCR216.8 (PdVT2_XXXV) 16209.ab1	.....									111
PCR233.2 (PdVT2_XXXV) 16209.ab1	.....									137
PCR233.2 (PdVT2_XXXV) 16348.ab1	.....									1
PCR286.9 (PdVT2_XXXV) 16209.ab1	.....									136
PCR215.8 (PdVT2_XXXV) 16287.ab1	.....									122
PCR258.5 (PdVT2_XXXV) 16287.ab1	.....									122

PdVT3

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100
NC_012920.1	TAAGATTCTAATTTAAACTATTCTGTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCTCAACAACCGCTATGTATTTTCGTACAT										
PCR142.5 (PdVT3_VII) 15996.ab1	-----.....										
PCR243.4 (PdVT3_XXXVI) 15996.ab1	.....									
PCR243.4 (PdVT3_XXXVI) 16142.ab1	.....S.....										
PCR141.5 (PdVT3_VII) 16233.ab1	-----										
PCR238.11 (PdVT3_XXXVI) 16117.ab1	-----										
PCR238.11 (PdVT3_XXXVI) 16233.ab1	-----										
PCR140.5 (PdVT3_VII) 16209.ab1	-----										
PCR233.3 (PdVT3_XXXVI) 16209.ab1	-----										
PCR233.3 (PdVT3_XXXVI) 16348.ab1	-----										
PCR135.8 (PdVT3_VII) 16287.ab1	-----										
PCR217.3 (PdVT3_XXXVI) 16287.ab1	-----										

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCCTCCCCATGCTTACAAGCA										16206
PCR142.5 (PdVT3_VII) 15996.ab1	.....										138
PCR243.4 (PdVT3_XXXVI) 15996.ab1	.....										145
PCR243.4 (PdVT3_XXXVI) 16142.ab1	.....										1
PCR141.5 (PdVT3_VII) 16233.ab1	-----										27
PCR238.11 (PdVT3_XXXVI) 16117.ab1	-----										89
PCR238.11 (PdVT3_XXXVI) 16233.ab1	-----										1
PCR140.5 (PdVT3_VII) 16209.ab1	-----										0
PCR233.3 (PdVT3_XXXVI) 16209.ab1	-----										0
PCR233.3 (PdVT3_XXXVI) 16348.ab1	-----										139
PCR135.8 (PdVT3_VII) 16287.ab1	-----										0
PCR217.3 (PdVT3_XXXVI) 16287.ab1	-----										2

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR142.5 (PdVT3_VII) 15996.ab1												138
PCR243.4 (PdVT3_XXXVI) 15996.ab1												145
PCR243.4 (PdVT3_XXXVI) 16142.ab1												1
PCR141.5 (PdVT3_VII) 16233.ab1												1
PCR238.11 (PdVT3_XXXVI) 16117.ab1												115
PCR238.11 (PdVT3_XXXVI) 16233.ab1												1
PCR140.5 (PdVT3_VII) 16209.ab1												98
PCR233.3 (PdVT3_XXXVI) 16209.ab1												102
PCR233.3 (PdVT3_XXXVI) 16348.ab1												37
PCR135.8 (PdVT3_VII) 16287.ab1												20
PCR217.3 (PdVT3_XXXVI) 16287.ab1												2

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	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR142.5 (PdVT3_VII) 15996.ab1		138
PCR243.4 (PdVT3_XXXVI) 15996.ab1		145
PCR243.4 (PdVT3_XXXVI) 16142.ab1		1
PCR141.5 (PdVT3_VII) 16233.ab1		1
PCR238.11 (PdVT3_XXXVI) 16117.ab1		115
PCR238.11 (PdVT3_XXXVI) 16233.ab1		1
PCR140.5 (PdVT3_VII) 16209.ab1	.....	134
PCR233.3 (PdVT3_XXXVI) 16209.ab1	.....	138
PCR233.3 (PdVT3_XXXVI) 16348.ab1	.....	1
PCR135.8 (PdVT3_VII) 16287.ab1	.....	118
PCR217.3 (PdVT3_XXXVI) 16287.ab1	.....	122

RomIII82

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR310.7 (Rom82_XXXIV) 16142.ab1	.....											1
PCR317.9 (Rom82_XXXIV) 15996.ab1	.....Y...Y..											105
PCR266.11 (Rom82_XXXIV) 16117.ab1	-----											0
PCR300.9 (Rom82_XI) 16117.ab1	-----											0
PCR216.4 (Rom82_XXXIV) 16209K.ab1	-----											0
PCR264.2 (Rom82_XXXIV) 16348.ab1	-----											102
PCR268.8 (Rom82_XI) 16209K.ab1	-----											0
PCR301.10 (Rom82_XI) 16348.ab1	-----											137
PCR305.9 (Rom82_XXXIV) 16209.ab1	-----											0
PCR151.3 (Rom82_XI) 16410.ab1	-----											118
PCR262.12 (Rom82_XXXIV) 16287.ab1	-----											0
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA											16206
PCR310.7 (Rom82_XXXIV) 16142.ab1	.....											1
PCR317.9 (Rom82_XXXIV) 15996.ab1	.....											145
PCR266.11 (Rom82_XXXIV) 16117.ab1	-----											89
PCR300.9 (Rom82_XI) 16117.ab1	-----											89
PCR216.4 (Rom82_XXXIV) 16209K.ab1	-----											0
PCR264.2 (Rom82_XXXIV) 16348.ab1	-----											102
PCR268.8 (Rom82_XI) 16209K.ab1	-----											0
PCR301.10 (Rom82_XI) 16348.ab1	-----											137
PCR305.9 (Rom82_XXXIV) 16209.ab1	-----											0
PCR151.3 (Rom82_XI) 16410.ab1	-----											118
PCR262.12 (Rom82_XXXIV) 16287.ab1	-----											0
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR310.7 (Rom82_XXXIV) 16142.ab1	.....											1
PCR317.9 (Rom82_XXXIV) 15996.ab1	.....											145
PCR266.11 (Rom82_XXXIV) 16117.ab1	.....											115
PCR300.9 (Rom82_XI) 16117.ab1	.....											115
PCR216.4 (Rom82_XXXIV) 16209K.ab1	-----Y...Y.....											79
PCR264.2 (Rom82_XXXIV) 16348.ab1	-----T...T.....C.....											36
PCR268.8 (Rom82_XI) 16209K.ab1	-----.-----											38
PCR301.10 (Rom82_XI) 16348.ab1	---.-----T...T.....C.....											35
PCR305.9 (Rom82_XXXIV) 16209.ab1	-----.-----T...T.....C.....											100
PCR151.3 (Rom82_XI) 16410.ab1	-----C.....											94
PCR262.12 (Rom82_XXXIV) 16287.ab1	-----C.....											21

	16320	16330	16340	16350	16360	16370	16380	16390	16400
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCTTGACCACCATCCT								
PCR310.7 (Rom82_XXXIV) 16142.ab1									
PCR317.9 (Rom82_XXXIV) 15996.ab1									
PCR266.11 (Rom82_XXXIV) 16117.ab1									
PCR300.9 (Rom82_XI) 16117.ab1									
PCR216.4 (Rom82_XXXIV) 16209K.ab1									
PCR264.2 (Rom82_XXXIV) 16348.ab1	.....							
PCR268.8 (Rom82_XI) 16209K.ab1									
PCR301.10 (Rom82_XI) 16348.ab1	.....R.....								
PCR305.9 (Rom82_XXXIV) 16209.ab1	.....							
PCR151.3 (Rom82_XI) 16410.ab1	.....W.....								
PCR262.12 (Rom82_XXXIV) 16287.ab1	.....R.....								

RomIII83

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR249.11 (Rom83_XXIII) 15996.ab1	.....											105
PCR154.5 (Rom83_XII) 16410.ab1	-----											84
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA											16206
PCR249.11 (Rom83_XXIII) 15996.ab1	.....											145
PCR154.5 (Rom83_XII) 16410.ab1	-----											84
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR249.11 (Rom83_XXIII) 15996.ab1	.....											145
PCR154.5 (Rom83_XII) 16410.ab1	-----..T....S.....Y											60
	16320	16330	16340	16350	16360	16370	16380	16390	16400			
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT											16409
PCR249.11 (Rom83_XXIII) 15996.ab1	.....											145
PCR154.5 (Rom83_XII) 16410.ab1	.Y.....R.....W.M.Y.....WK.....N.M.Y.....											1

RomIII85

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR142.10 (Rom85_VIII) 15996.ab1	-----R-----											94
PCR243.5 (Rom85_XXXXI) 15996.ab1	-----T-----											104
PCR243.5 (Rom85_XXXXI) 16142.ab1	-----T-----											41
PCR303.9 (Rom85_XXXXI) 15996.ab1	-----T-----											105
PCR310.8 (Rom85_VIII) 16142.ab1	-----T-----											40
PCR141.10 (Rom85_VIII) 16233.ab1	-----											116
PCR238.9 (Rom85_XXXXI) 16117.ab1	-----											0
PCR238.9 (Rom85_XXXXI) 16233.ab1	-----											110
PCR260.2 (Rom85_VIII) 16117.ab1	-----											0
PCR233.4 (Rom85_XXXXI) 16209.ab1	-----											0
PCR245.5 (Rom85_VIII) 16209.ab1	-----											0
PCR305.10 (Rom85_VIII) 16209.ab1	-----											0
PCR136.2 (Rom85_VIII) 16287.ab1	-----											0
PCR222.4 (Rom85_XXXXI) 16287.ab1	-----											0
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCCTCCCCATGCTTACAAGCA											16206
PCR142.10 (Rom85_VIII) 15996.ab1	-----C-----											134
PCR243.5 (Rom85_XXXXI) 15996.ab1	-----C-----											144
PCR243.5 (Rom85_XXXXI) 16142.ab1	-----C-----											1
PCR303.9 (Rom85_XXXXI) 15996.ab1	-----C-----											145
PCR310.8 (Rom85_VIII) 16142.ab1	-----C-----											1
PCR141.10 (Rom85_VIII) 16233.ab1	-----M-----											27
PCR238.9 (Rom85_XXXXI) 16117.ab1	-----C-----											89
PCR238.9 (Rom85_XXXXI) 16233.ab1	-----C-----											21
PCR260.2 (Rom85_VIII) 16117.ab1	-----C-----											89
PCR233.4 (Rom85_XXXXI) 16209.ab1	-----											0
PCR245.5 (Rom85_VIII) 16209.ab1	-----											0
PCR305.10 (Rom85_VIII) 16209.ab1	-----											0
PCR136.2 (Rom85_VIII) 16287.ab1	-----											0
PCR222.4 (Rom85_XXXXI) 16287.ab1	-----											0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR142.10 (Rom85_VIII) 15996.ab1												134
PCR243.5 (Rom85_XXXXI) 15996.ab1												144
PCR243.5 (Rom85_XXXXI) 16142.ab1												1
PCR303.9 (Rom85_XXXXI) 15996.ab1												145
PCR310.8 (Rom85_VIII) 16142.ab1												1
PCR141.10 (Rom85_VIII) 16233.ab1	.....											1
PCR238.9 (Rom85_XXXXI) 16117.ab1	.....											115
PCR238.9 (Rom85_XXXXI) 16233.ab1	.....											1
PCR260.2 (Rom85_VIII) 16117.ab1	.....											115
PCR233.4 (Rom85_XXXXI) 16209.ab1	----.....T.....											100
PCR245.5 (Rom85_VIII) 16209.ab1	----.....T.....											100
PCR305.10 (Rom85_VIII) 16209.ab1	-----.....Y.....T.....Y.....											95
PCR136.2 (Rom85_VIII) 16287.ab1	-----											17
PCR222.4 (Rom85_XXXXI) 16287.ab1	-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR142.10 (Rom85_VIII) 15996.ab1										134
PCR243.5 (Rom85_XXXXI) 15996.ab1										144
PCR243.5 (Rom85_XXXXI) 16142.ab1										1
PCR303.9 (Rom85_XXXXI) 15996.ab1										145
PCR310.8 (Rom85_VIII) 16142.ab1										1
PCR141.10 (Rom85_VIII) 16233.ab1										1
PCR238.9 (Rom85_XXXXI) 16117.ab1										115
PCR238.9 (Rom85_XXXXI) 16233.ab1										1
PCR260.2 (Rom85_VIII) 16117.ab1										115
PCR233.4 (Rom85_XXXXI) 16209.ab1	.....									136
PCR245.5 (Rom85_VIII) 16209.ab1	.....									136
PCR305.10 (Rom85_VIII) 16209.ab1	.....									131
PCR136.2 (Rom85_VIII) 16287.ab1	.....									115
PCR222.4 (Rom85_XXXXI) 16287.ab1	.....									122

RomIII89

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR142.1 (Rom89_VII) 15996.ab1	-----.....Y..C.....											99
PCR243.6 (Rom89_XXXVIII) 15996.ab1	.....C.....											105
PCR243.7 (Rom89_XXXIX) 15996.ab1	.....C.....											105
PCR243.7 (Rom89_XXXIX) 16142.ab1	.....S.....C.....											41
PCR243.6 (Rom89_XXXVIII) 16142.ab1	.....C.....											40
PCR237.1 (Rom89_XXXVIII) 16117.ab1	-----											0
PCR237.9 (Rom89_XXXIX) 16117.ab1	-----											0
PCR311.3 (Rom89_VII) 16117.ab1	-----											0
PCR311.3 (Rom89_VII) 16233.ab1	-----											48
PCR311.4 (Rom89_XXXVIII) 16233.ab1	-----											48
PCR245.7 (Rom89_XXXVIII) 16209.ab1	-----											0
PCR286.1 (Rom89_XXXIX) 16209.ab1	-----											0
PCR285.7 (Rom89_VII) 16348.ab1	-----											138
PCR301.11 (Rom89_VII) 16348.ab1	-----											138
PCR135.3 (Rom89_VII) 16287.ab1	-----											0
PCR219.1 (Rom89_XXXVIII) 16287.ab1	-----											0
PCR220.4 (Rom89_XXXIX) 16287.ab1	..-----											2
PCR219.1 (Rom89_XXXVIII) 16410.ab1	-----											118

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCCCTCCCATGCTTACAAGCA										16206
PCR142.1 (Rom89_VII) 15996.ab1	.....										139
PCR243.6 (Rom89_XXXVIII) 15996.ab1	.....										145
PCR243.7 (Rom89_XXXIX) 15996.ab1	.....										145
PCR243.7 (Rom89_XXXIX) 16142.ab1	.....										1
PCR243.6 (Rom89_XXXVIII) 16142.ab1	.....										1
PCR237.1 (Rom89_XXXVIII) 16117.ab1	-----T.....C....										76
PCR237.9 (Rom89_XXXIX) 16117.ab1	-----T.....C....										75
PCR311.3 (Rom89_VII) 16117.ab1	-----T.....C...										75
PCR311.3 (Rom89_VII) 16233.ab1	-----C.....										25
PCR311.4 (Rom89_XXXVIII) 16233.ab1	-----M....C.....										23
PCR245.7 (Rom89_XXXVIII) 16209.ab1	-----										0
PCR286.1 (Rom89_XXXIX) 16209.ab1	-----										0
PCR285.7 (Rom89_VII) 16348.ab1	-----										138
PCR301.11 (Rom89_VII) 16348.ab1	-----										138
PCR135.3 (Rom89_VII) 16287.ab1	-----										0
PCR219.1 (Rom89_XXXVIII) 16287.ab1	-----										0
PCR220.4 (Rom89_XXXIX) 16287.ab1	-----										2
PCR219.1 (Rom89_XXXVIII) 16410.ab1	-----										118

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR142.1 (Rom89_VII) 15996.ab1												139
PCR243.6 (Rom89_XXXVIII) 15996.ab1												145
PCR243.7 (Rom89_XXXIX) 15996.ab1												145
PCR243.7 (Rom89_XXXIX) 16142.ab1												1
PCR243.6 (Rom89_XXXVIII) 16142.ab1												1
PCR237.1 (Rom89_XXXVIII) 16117.ab1												76
PCR237.9 (Rom89_XXXIX) 16117.ab1												75
PCR311.3 (Rom89_VII) 16117.ab1												75
PCR311.3 (Rom89_VII) 16233.ab1	.....T.....											1
PCR311.4 (Rom89_XXXVIII) 16233.ab1	.....T.....											1
PCR245.7 (Rom89_XXXVIII) 16209.ab1	---.....T.....											101
PCR286.1 (Rom89_XXXIX) 16209.ab1	-----T.....R.....T.....											99
PCR285.7 (Rom89_VII) 16348.ab1	---.....T.....T.....											36
PCR301.11 (Rom89_VII) 16348.ab1	---.....T.....T.....											36
PCR135.3 (Rom89_VII) 16287.ab1	-----											24
PCR219.1 (Rom89_XXXVIII) 16287.ab1	-----											24
PCR220.4 (Rom89_XXXIX) 16287.ab1	-----											24
PCR219.1 (Rom89_XXXVIII) 16410.ab1	-----											94

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR142.1 (Rom89_VII) 15996.ab1										139
PCR243.6 (Rom89_XXXVIII) 15996.ab1										145
PCR243.7 (Rom89_XXXIX) 15996.ab1										145
PCR243.7 (Rom89_XXXIX) 16142.ab1										1
PCR243.6 (Rom89_XXXVIII) 16142.ab1										1
PCR237.1 (Rom89_XXXVIII) 16117.ab1										76
PCR237.9 (Rom89_XXXIX) 16117.ab1										75
PCR311.3 (Rom89_VII) 16117.ab1										75
PCR311.3 (Rom89_VII) 16233.ab1										1
PCR311.4 (Rom89_XXXVIII) 16233.ab1										1
PCR245.7 (Rom89_XXXVIII) 16209.ab1	.....									137
PCR286.1 (Rom89_XXXIX) 16209.ab1	.....									135
PCR285.7 (Rom89_VII) 16348.ab1	.....									1
PCR301.11 (Rom89_VII) 16348.ab1	.....									1
PCR135.3 (Rom89_VII) 16287.ab1	....M.....C.....M.....S.....									122
PCR219.1 (Rom89_XXXVIII) 16287.ab1	.....C.....									122
PCR220.4 (Rom89_XXXIX) 16287.ab1	.....C.....									121
PCR219.1 (Rom89_XXXVIII) 16410.ab1	.....W.....C.....									1

RomIII90

		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		- - - + - - - + - - - + - - - + - - - + - - - + - - - + - - - + - - -	
		16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100	
		- - - + - - - + - - - + - - - + - - - + - - - + - - - + - - -	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT		16101
PCR179.13 (Rom90_XIII) 15996.ab1	. . . K		105
PCR243.8 (Rom90_XXXIX) 15996.ab1	. . . K		105
PCR243.8 (Rom90_XXXIX) 16142.ab1	. . . . . S C		41
PCR179.13 (Rom90_XIII) 16142.ab1	. . . . . S S C		41
PCR237.7 (Rom90_XXXIX) 16117.ab1	-----		0
PCR244.2 (Rom90_XIII) 16117.ab1	-----		0
PCR244.2 (Rom90_XIII) 16233.ab1	-----		50
PCR237.7 (Rom90_XXXIX) 16233.ab1	-----		50
PCR245.9 (Rom90_XIII) 16209.ab1	-----		0
PCR305.12 (Rom90_XXXIX) 16209.ab1	-----		0
PCR245.9 (Rom90_XIII) 16348.ab1	-----		137
PCR301.12 (Rom90_XIII) 16348.ab1	-----		138
PCR220.2 (Rom90_XXXIX) 16287.ab1	-----		0
PCR156.2 (Rom90_XIII) 16410.ab1	-----		87
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		- - - + - - - + - - - + - - - + - - - + - - - + - - - + - - -	
		16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
		- - - + - - - + - - - + - - - + - - - + - - - + - - - + - - -	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAAACCCCCTCCCCATGCTTACAAGCA		16206
PCR179.13 (Rom90_XIII) 15996.ab1	. . . . .		145
PCR243.8 (Rom90_XXXIX) 15996.ab1	. . . . .		145
PCR243.8 (Rom90_XXXIX) 16142.ab1	. . . . .		1
PCR179.13 (Rom90_XIII) 16142.ab1	. . . . .		1
PCR237.7 (Rom90_XXXIX) 16117.ab1	----- T C		76
PCR244.2 (Rom90_XIII) 16117.ab1	----- T C		76
PCR244.2 (Rom90_XIII) 16233.ab1	----- C		27
PCR237.7 (Rom90_XXXIX) 16233.ab1	----- C		27
PCR245.9 (Rom90_XIII) 16209.ab1	-----		0
PCR305.12 (Rom90_XXXIX) 16209.ab1	-----		0
PCR245.9 (Rom90_XIII) 16348.ab1	-----		137
PCR301.12 (Rom90_XIII) 16348.ab1	-----		138
PCR220.2 (Rom90_XXXIX) 16287.ab1	-----		0
PCR156.2 (Rom90_XIII) 16410.ab1	-----		87

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR179.13 (Rom90_XIII) 15996.ab1												145
PCR243.8 (Rom90_XXXIX) 15996.ab1												145
PCR243.8 (Rom90_XXXIX) 16142.ab1												1
PCR179.13 (Rom90_XIII) 16142.ab1												1
PCR237.7 (Rom90_XXXIX) 16117.ab1												76
PCR244.2 (Rom90_XIII) 16117.ab1												76
PCR244.2 (Rom90_XIII) 16233.ab1	.....T.....											1
PCR237.7 (Rom90_XXXIX) 16233.ab1	.....T.....											1
PCR245.9 (Rom90_XIII) 16209.ab1	----.....T.....RY.....T.....											100
PCR305.12 (Rom90_XXXIX) 16209.ab1	----.....T.....T.....											100
PCR245.9 (Rom90_XIII) 16348.ab1	--.....T.....T.....											35
PCR301.12 (Rom90_XIII) 16348.ab1	--.....T.....T.....											36
PCR220.2 (Rom90_XXXIX) 16287.ab1	-----											24
PCR156.2 (Rom90_XIII) 16410.ab1	-----											63

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR179.13 (Rom90_XIII) 15996.ab1										145
PCR243.8 (Rom90_XXXIX) 15996.ab1										145
PCR243.8 (Rom90_XXXIX) 16142.ab1										1
PCR179.13 (Rom90_XIII) 16142.ab1										1
PCR237.7 (Rom90_XXXIX) 16117.ab1										76
PCR244.2 (Rom90_XIII) 16117.ab1										76
PCR244.2 (Rom90_XIII) 16233.ab1										1
PCR237.7 (Rom90_XXXIX) 16233.ab1										1
PCR245.9 (Rom90_XIII) 16209.ab1	.....									136
PCR305.12 (Rom90_XXXIX) 16209.ab1	.....									136
PCR245.9 (Rom90_XIII) 16348.ab1	.....									1
PCR301.12 (Rom90_XIII) 16348.ab1	.....									1
PCR220.2 (Rom90_XXXIX) 16287.ab1	.....C.....									122
PCR156.2 (Rom90_XIII) 16410.ab1	.Y...W.R.....W.....Y..KCY.....									1

RomIII91a

		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGCGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT		16101
PCR179.14 (Rom91_XIV) 15996.ab1	. . . K . . . K . . . Y . K S T		105
PCR179.14 (Rom91_XIV) 16142.ab1	. . . . . K T		41
PCR303.10 (Rom91_XIV) 15996.ab1	. . . . . T		105
PCR196.12 (Rom91_XIV) 16233.ab1	-----		67
PCR318.5 (Rom91_XIV) 16117.ab1	-----		0
PCR301.13 (Rom91_XIV) 16348.ab1	-----		138
PCR319.5 (Rom91_XIV) 16209.ab1	-----		0
PCR330.4 (Rom91_XIV) 16287.ab1	-----		0
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAAACCCCTCCCCATGCCTTACAAGCA		16206
PCR179.14 (Rom91_XIV) 15996.ab1	. . . . . C		145
PCR179.14 (Rom91_XIV) 16142.ab1	. . . . . C		1
PCR303.10 (Rom91_XIV) 15996.ab1	. . . . . C		145
PCR196.12 (Rom91_XIV) 16233.ab1	-----		21
PCR318.5 (Rom91_XIV) 16117.ab1	----- C		88
PCR301.13 (Rom91_XIV) 16348.ab1	-----		138
PCR319.5 (Rom91_XIV) 16209.ab1	-----		0
PCR330.4 (Rom91_XIV) 16287.ab1	-----		0
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCTTAACAGTACATAGT		16311
PCR179.14 (Rom91_XIV) 15996.ab1			145
PCR179.14 (Rom91_XIV) 16142.ab1			1
PCR303.10 (Rom91_XIV) 15996.ab1			145
PCR196.12 (Rom91_XIV) 16233.ab1	. . . . .		1
PCR318.5 (Rom91_XIV) 16117.ab1	. . . . .		114
PCR301.13 (Rom91_XIV) 16348.ab1	-- T		36
PCR319.5 (Rom91_XIV) 16209.ab1	---- T		99
PCR330.4 (Rom91_XIV) 16287.ab1	-----		24
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16320 16330 16340 16350 16360 16370 16380 16390 16400	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCTCAGATAGGGGTCCCTTGACCACCATCCT		16409
PCR179.14 (Rom91_XIV) 15996.ab1			145
PCR179.14 (Rom91_XIV) 16142.ab1			1
PCR303.10 (Rom91_XIV) 15996.ab1			145
PCR196.12 (Rom91_XIV) 16233.ab1			1
PCR318.5 (Rom91_XIV) 16117.ab1			114
PCR301.13 (Rom91_XIV) 16348.ab1	. . . . .		1
PCR319.5 (Rom91_XIV) 16209.ab1	. . . . .		135
PCR330.4 (Rom91_XIV) 16287.ab1	. . . . .		122

RomIII91b

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR243.9 (Rom91_XXXIV) 15996.ab1	.....											105
PCR243.9 (Rom91_XXXIV) 16142.ab1	.....											40
PCR317.10 (Rom91_XXXIV) 15996.ab1	.....											105
PCR244.3 (Rom91_XXXIV) 16117.ab1	-----											0
PCR244.3 (Rom91_XXXIV) 16233.ab1	-----											52
PCR300.10 (Rom91_XXXIV) 16233.ab1	-----											28
PCR300.10_Rom91_XXXIV) 16117.ab1	-----											0
PCR216.1 (Rom91_XXXIV) 16209.ab1	-----											0
PCR245.11 (Rom91_XXXIV) 16209.ab1	-----											0
PCR245.11 (Rom91_XXXIV) 16348.ab1	-----											137
PCR215.1_ (Rom91_XXXIV) 16287.ab1	-----											0
PCR320.4 (Rom91_XXXIV) 16287.ab1	-----											0
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAAACCCCTCCCCATGCTTACAAGCA											16206
PCR243.9 (Rom91_XXXIV) 15996.ab1	.....											145
PCR243.9 (Rom91_XXXIV) 16142.ab1	.....											1
PCR317.10 (Rom91_XXXIV) 15996.ab1	.....											145
PCR244.3 (Rom91_XXXIV) 16117.ab1	-----C.											72
PCR244.3 (Rom91_XXXIV) 16233.ab1	-----C.....											27
PCR300.10 (Rom91_XXXIV) 16233.ab1	-----											19
PCR300.10_Rom91_XXXIV) 16117.ab1	-----C...											75
PCR216.1 (Rom91_XXXIV) 16209.ab1	-----											0
PCR245.11 (Rom91_XXXIV) 16209.ab1	-----											0
PCR245.11 (Rom91_XXXIV) 16348.ab1	-----											137
PCR215.1_ (Rom91_XXXIV) 16287.ab1	-----											0
PCR320.4 (Rom91_XXXIV) 16287.ab1	-----											0
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR243.9 (Rom91_XXXIV) 15996.ab1	.....											145
PCR243.9 (Rom91_XXXIV) 16142.ab1	.....											1
PCR317.10 (Rom91_XXXIV) 15996.ab1	.....											145
PCR244.3 (Rom91_XXXIV) 16117.ab1	.....											72
PCR244.3 (Rom91_XXXIV) 16233.ab1	.....T.....											1
PCR300.10 (Rom91_XXXIV) 16233.ab1	.....T.											1
PCR300.10_Rom91_XXXIV) 16117.ab1	.....											75
PCR216.1 (Rom91_XXXIV) 16209.ab1	----T.....T.....											100
PCR245.11 (Rom91_XXXIV) 16209.ab1	---T.....T.....											101
PCR245.11 (Rom91_XXXIV) 16348.ab1	--T.....T.....											35
PCR215.1_ (Rom91_XXXIV) 16287.ab1	-----											24
PCR320.4 (Rom91_XXXIV) 16287.ab1	-----											2

	-----+-----+-----+-----+-----+-----+-----+-----+-----	
	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR243.9 (Rom91_XXXIV) 15996.ab1		145
PCR243.9 (Rom91_XXXIV) 16142.ab1		1
PCR317.10 (Rom91_XXXIV) 15996.ab1		145
PCR244.3 (Rom91_XXXIV) 16117.ab1		72
PCR244.3 (Rom91_XXXIV) 16233.ab1		1
PCR300.10 (Rom91_XXXIV) 16233.ab1		1
PCR300.10_Rom91_XXXIV) 16117.ab1		75
PCR216.1 (Rom91_XXXIV) 16209.ab1	.....	111
PCR245.11 (Rom91_XXXIV) 16209.ab1	.....	137
PCR245.11 (Rom91_XXXIV) 16348.ab1	.....	1
PCR215.1_ (Rom91_XXXIV) 16287.ab1	.....	122
PCR320.4 (Rom91_XXXIV) 16287.ab1	.....	122

RomIII97

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR243.10 (Rom97_XXXXI) 15996.ab1	.....	105
PCR243.10 (Rom97_XXXXI) 16142.ab1	.....	41
PCR303.11 (Rom97_XIV) 15996.ab1	.....	105
PCR238.8 (Rom97_XXXXI) 16117.ab1	-----	0
PCR244.4 (Rom97_XIV) 16117.ab1	-----	
PCR244.4 (Rom97_XIV) 16233.ab1	-----	54
PCR245.12 (Rom97_XIV) 16348.ab1	-----	139
PCR245.13 (Rom97_XXXXI) 16348.ab1	-----	139
PCR254.12 (Rom97_XIV) 16209.ab1	-----	0
PCR158.2 (Rom97_XIV) 16410.ab1	-----	111
PCR222.3 (Rom97_XXXXI) 16287.ab1	-----	0
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAACCCCCTCCCCATGCCTACAAGCA	16206
PCR243.10 (Rom97_XXXXI) 15996.ab1	.....	145
PCR243.10 (Rom97_XXXXI) 16142.ab1	.....	1
PCR303.11 (Rom97_XIV) 15996.ab1	.....	145
PCR238.8 (Rom97_XXXXI) 16117.ab1	-----	89
PCR244.4 (Rom97_XIV) 16117.ab1	-----	89
PCR244.4 (Rom97_XIV) 16233.ab1	-----	25
PCR245.12 (Rom97_XIV) 16348.ab1	-----	139
PCR245.13 (Rom97_XXXXI) 16348.ab1	-----	139
PCR254.12 (Rom97_XIV) 16209.ab1	-----	0
PCR158.2 (Rom97_XIV) 16410.ab1	-----	111
PCR222.3 (Rom97_XXXXI) 16287.ab1	-----	0
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR243.10 (Rom97_XXXXI) 15996.ab1	.....	145
PCR243.10 (Rom97_XXXXI) 16142.ab1	.....	1
PCR303.11 (Rom97_XIV) 15996.ab1	.....	145
PCR238.8 (Rom97_XXXXI) 16117.ab1	.....	115
PCR244.4 (Rom97_XIV) 16117.ab1	.....	115
PCR244.4 (Rom97_XIV) 16233.ab1	.....	1
PCR245.12 (Rom97_XIV) 16348.ab1	--.....C	37
PCR245.13 (Rom97_XXXXI) 16348.ab1	--.....C	37
PCR254.12 (Rom97_XIV) 16209.ab1	---.....C	101
PCR158.2 (Rom97_XIV) 16410.ab1	-----.....C	88
PCR222.3 (Rom97_XXXXI) 16287.ab1	-----.....C	2

	-----+-----+-----+-----+-----+-----+-----+-----+-----	
	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR243.10 (Rom97_XXXXI) 15996.ab1		145
PCR243.10 (Rom97_XXXXI) 16142.ab1		1
PCR303.11 (Rom97_XIV) 15996.ab1		145
PCR238.8 (Rom97_XXXXI) 16117.ab1		115
PCR244.4 (Rom97_XIV) 16117.ab1		115
PCR244.4 (Rom97_XIV) 16233.ab1		1
PCR245.12 (Rom97_XIV) 16348.ab1	.....	1
PCR245.13 (Rom97_XXXXI) 16348.ab1	.....	1
PCR254.12 (Rom97_XIV) 16209.ab1	.....	137
PCR158.2 (Rom97_XIV) 16410.ab1	.....	1
PCR222.3 (Rom97_XXXXI) 16287.ab1	.....	122

RomIII100a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR180.1 (Rom100_XIV) 15996.ab1	.....											105
PCR180.1 (Rom100_XIV) 16142.ab1	.....											41
PCR310.6 (Rom100_XIV) 16142.ab1	.....											40
PCR244.1 (Rom100_XIV) 16117.ab1	-----											0
PCR244.1 (Rom100_XIV) 16233.ab1	-----											77
PCR244.1 (Rom100_XIV) 16233b.ab1	-----											50
PCR304.6 (Rom100_XIV) 16117.ab1	-----											0
PCR245.1 (Rom100_XIV) 16209.ab1	-----											0
PCR301.6 (Rom100_XIV) 16348.ab1	-----											139
PCR158.3 (Rom100_XIV) 16410.ab1	-----											118
PCR313.1 (Rom100_XIV) 16287.ab1	-----											0
PCR320.5 (Rom100_XIV) 16287.ab1	-----											0
PCR330.5 (Rom100_XIV) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA										16206
PCR180.1 (Rom100_XIV) 15996.ab1	.....										145
PCR180.1 (Rom100_XIV) 16142.ab1	.....										1
PCR310.6 (Rom100_XIV) 16142.ab1	.....										1
PCR244.1 (Rom100_XIV) 16117.ab1	-----										89
PCR244.1 (Rom100_XIV) 16233.ab1	-----										1
PCR244.1 (Rom100_XIV) 16233b.ab1	-----										21
PCR304.6 (Rom100_XIV) 16117.ab1	-----										89
PCR245.1 (Rom100_XIV) 16209.ab1	-----										0
PCR301.6 (Rom100_XIV) 16348.ab1	-----										139
PCR158.3 (Rom100_XIV) 16410.ab1	-----										118
PCR313.1 (Rom100_XIV) 16287.ab1	-----										0
PCR320.5 (Rom100_XIV) 16287.ab1	-----										0
PCR330.5 (Rom100_XIV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR180.1 (Rom100_XIV) 15996.ab1												145
PCR180.1 (Rom100_XIV) 16142.ab1												1
PCR310.6 (Rom100_XIV) 16142.ab1												1
PCR244.1 (Rom100_XIV) 16117.ab1	.....											115
PCR244.1 (Rom100_XIV) 16233.ab1												1
PCR244.1 (Rom100_XIV) 16233b.ab1	.....											1
PCR304.6 (Rom100_XIV) 16117.ab1	.....											115
PCR245.1 (Rom100_XIV) 16209.ab1	-----											101
PCR301.6 (Rom100_XIV) 16348.ab1	-----											37
PCR158.3 (Rom100_XIV) 16410.ab1	-----											94
PCR313.1 (Rom100_XIV) 16287.ab1	-----											23
PCR320.5 (Rom100_XIV) 16287.ab1	-----											21
PCR330.5 (Rom100_XIV) 16287.ab1	-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.1 (Rom100_XIV) 15996.ab1										145
PCR180.1 (Rom100_XIV) 16142.ab1										1
PCR310.6 (Rom100_XIV) 16142.ab1										1
PCR244.1 (Rom100_XIV) 16117.ab1										115
PCR244.1 (Rom100_XIV) 16233.ab1										1
PCR244.1 (Rom100_XIV) 16233b.ab1										1
PCR304.6 (Rom100_XIV) 16117.ab1										115
PCR245.1 (Rom100_XIV) 16209.ab1	.....									137
PCR301.6 (Rom100_XIV) 16348.ab1	.....									1
PCR158.3 (Rom100_XIV) 16410.ab1	.....									1
PCR313.1 (Rom100_XIV) 16287.ab1	.....									121
PCR320.5 (Rom100_XIV) 16287.ab1	.....									119
PCR330.5 (Rom100_XIV) 16287.ab1	.....									122

Rom III 100b

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR239.1 (Rom100_XXXXI) 15996.ab1	...K.....											105
PCR239.1 (Rom100_XXXXI) 16142.ab1	.....S.....											41
PCR303.7 (Rom100_XXXXI) 15996.ab1	.....											105
PCR238.10 (Rom100_XXXXI) 16117.ab1	-----											0
PCR238.10 (Rom100_XXXXI) 16233.ab1	-----											45
PCR240.1 (Rom100_XXXXI) 16117.ab1	-----											0
PCR240.1 (Rom100_XXXXI) 16233.ab1	-----											46
PCR260.3 (Rom100_XXXXI) 16117.ab1	-----											0
PCR305.6 (Rom100_XXXXI) 16209.ab1	-----											0
PCR319.2 (Rom100_XXXXI) 16209.ab1	-----											0
PCR222.5 (Rom100_XXXXI) 16287.ab1	-----											0
PCR306.4 (Rom100_XXXXI) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR239.1 (Rom100_XXXXI) 15996.ab1	.....										145
PCR239.1 (Rom100_XXXXI) 16142.ab1	.....										1
PCR303.7 (Rom100_XXXXI) 15996.ab1	.....										145
PCR238.10 (Rom100_XXXXI) 16117.ab1	-----.....CC.....C....										76
PCR238.10 (Rom100_XXXXI) 16233.ab1	-----.....-C.....C.....										21
PCR240.1 (Rom100_XXXXI) 16117.ab1	-----.....CC.....C....										75
PCR240.1 (Rom100_XXXXI) 16233.ab1	-----.....-CC.....C.....K.....										21
PCR260.3 (Rom100_XXXXI) 16117.ab1	-----.....CC.....C....										75
PCR305.6 (Rom100_XXXXI) 16209.ab1	-----										0
PCR319.2 (Rom100_XXXXI) 16209.ab1	-----										0
PCR222.5 (Rom100_XXXXI) 16287.ab1	-----										0
PCR306.4 (Rom100_XXXXI) 16287.ab1	-----										0

	-+--+--+--+--+--+--+--+--+--+--+--+--+--+--+	
	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-+--+--+--+--+--+--+--+--+--+--+--+--+--+--+	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAACCTACCCACCCTTAACAGTACATAGT	16311
PCR239.1 (Rom100_XXXXI) 15996.ab1		145
PCR239.1 (Rom100_XXXXI) 16142.ab1		1
PCR303.7 (Rom100_XXXXI) 15996.ab1		145
PCR238.10 (Rom100_XXXXI) 16117.ab1		76
PCR238.10 (Rom100_XXXXI) 16233.ab1	.....	1
PCR240.1 (Rom100_XXXXI) 16117.ab1		75
PCR240.1 (Rom100_XXXXI) 16233.ab1	R.....	1
PCR260.3 (Rom100_XXXXI) 16117.ab1		75
PCR305.6 (Rom100_XXXXI) 16209.ab1	-----.....T.....	99
PCR319.2 (Rom100_XXXXI) 16209.ab1	-----.T.....	100
PCR222.5 (Rom100_XXXXI) 16287.ab1	-----	24
PCR306.4 (Rom100_XXXXI) 16287.ab1	-----	24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCTT									16409
PCR239.1 (Rom100_XXXXI) 15996.ab1										145
PCR239.1 (Rom100_XXXXI) 16142.ab1										1
PCR303.7 (Rom100_XXXXI) 15996.ab1										145
PCR238.10 (Rom100_XXXXI) 16117.ab1										76
PCR238.10 (Rom100_XXXXI) 16233.ab1										1
PCR240.1 (Rom100_XXXXI) 16117.ab1										75
PCR240.1 (Rom100_XXXXI) 16233.ab1										1
PCR260.3 (Rom100_XXXXI) 16117.ab1										75
PCR305.6 (Rom100_XXXXI) 16209.ab1	.....C.....									135
PCR319.2 (Rom100_XXXXI) 16209.ab1	.....C.....									136
PCR222.5 (Rom100_XXXXI) 16287.ab1	.....C.....									122
PCR306.4 (Rom100_XXXXI) 16287.ab1	.....C.....									122

RomIII103

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR180.2 (Rom103_XV) 16142.ab1	.....K.....M.M.....Y.....K.....K.....											41
PCR243.11 (Rom103_XXXXI) 15996.ab1												105
PCR243.11 (Rom103_XXXXI) 16142.ab1												41
PCR238.6 (Rom103_XXXXI) 16117.ab1												0
PCR238.6 (Rom103_XXXXI) 16233.ab1												112
PCR244.5 (Rom103_XV) 16117.ab1												0
PCR244.5 (Rom103_XV) 16233.ab1												55
PCR245.14 (Rom103_XV) 16348.ab1												139
PCR286.10 (Rom103_XXXXI) 16209.ab1												0
PCR286.10 (Rom103_XXXXI) 16348.ab1												65
PCR160.1 (Rom103_XV) 16410.ab1												136
PCR222.1 (Rom103_XXXXI) 16287.ab1												0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR180.2 (Rom103_XV) 16142.ab1	.....										1
PCR243.11 (Rom103_XXXXI) 15996.ab1	.....										145
PCR243.11 (Rom103_XXXXI) 16142.ab1	.....A.....										1
PCR238.6 (Rom103_XXXXI) 16117.ab1	-----.....										89
PCR238.6 (Rom103_XXXXI) 16233.ab1	-----.....										23
PCR244.5 (Rom103_XV) 16117.ab1	-----.....										89
PCR244.5 (Rom103_XV) 16233.ab1	-----.....										22
PCR245.14 (Rom103_XV) 16348.ab1	-----										139
PCR286.10 (Rom103_XXXXI) 16209.ab1	-----										0
PCR286.10 (Rom103_XXXXI) 16348.ab1	-----										65
PCR160.1 (Rom103_XV) 16410.ab1	-----										136
PCR222.1 (Rom103_XXXXI) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR180.2 (Rom103_XV) 16142.ab1												1
PCR243.11 (Rom103_XXXXI) 15996.ab1												145
PCR243.11 (Rom103_XXXXI) 16142.ab1												1
PCR238.6 (Rom103_XXXXI) 16117.ab1	.....											115
PCR238.6 (Rom103_XXXXI) 16233.ab1	.....											1
PCR244.5 (Rom103_XV) 16117.ab1	.....											115
PCR244.5 (Rom103_XV) 16233.ab1	.....											1
PCR245.14 (Rom103_XV) 16348.ab1	--.Y.....Y.....Y.....Y..Y....R.....Y.....Y.....Y.....Y.....											37
PCR286.10 (Rom103_XXXXI) 16209.ab1	-----.....											99
PCR286.10 (Rom103_XXXXI) 16348.ab1	-----.....											11
PCR160.1 (Rom103_XV) 16410.ab1	-----.....											92
PCR222.1 (Rom103_XXXXI) 16287.ab1	-----.....											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.2 (Rom103_XV) 16142.ab1										1
PCR243.11 (Rom103_XXXXI) 15996.ab1										145
PCR243.11 (Rom103_XXXXI) 16142.ab1										1
PCR238.6 (Rom103_XXXXI) 16117.ab1										115
PCR238.6 (Rom103_XXXXI) 16233.ab1										1
PCR244.5 (Rom103_XV) 16117.ab1										115
PCR244.5 (Rom103_XV) 16233.ab1										1
PCR245.14 (Rom103_XV) 16348.ab1	.....R.....									1
PCR286.10 (Rom103_XXXXI) 16209.ab1	.....									135
PCR286.10 (Rom103_XXXXI) 16348.ab1	.....									1
PCR160.1 (Rom103_XV) 16410.ab1	.....									1
PCR222.1 (Rom103_XXXXI) 16287.ab1	.....									122

RomIII105

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR180.3 (Rom105_XV) 15996.ab1	...K.....											105
PCR180.3 (Rom105_XV) 16142.ab1	.....											38
PCR243.12 (Rom105_XXXIX) 15996.ab1	.....											105
PCR243.12 (Rom105_XXXIX) 16142.ab1	.....											41
PCR237.10 (Rom105_XXXIX) 16117.ab1	-----											0
PCR237.10 (Rom105_XXXIX) 16233.ab1	-----											80
PCR244.6 (Rom105_XV) 16117.ab1	-----											0
PCR244.6 (Rom105_XV) 16233.ab1	-----											49
PCR284.4 (Rom105_XV) 16209.ab1	-----											0
PCR284.4 (Rom105_XV) 16348.ab1	-----											138
PCR286.11 (Rom105_XXXIX) 16209.ab1	-----											0
PCR160.2 (Rom105_XV) 16410.ab1	-----											122
PCR220.5 (Rom105_XXXIX) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA										16206
PCR180.3 (Rom105_XV) 15996.ab1	.....										145
PCR180.3 (Rom105_XV) 16142.ab1	.....										1
PCR243.12 (Rom105_XXXIX) 15996.ab1	.....										145
PCR243.12 (Rom105_XXXIX) 16142.ab1	.....										1
PCR237.10 (Rom105_XXXIX) 16117.ab1	-----										89
PCR237.10 (Rom105_XXXIX) 16233.ab1	-----										1
PCR244.6 (Rom105_XV) 16117.ab1	-----										88
PCR244.6 (Rom105_XV) 16233.ab1	-----										26
PCR284.4 (Rom105_XV) 16209.ab1	-----										0
PCR284.4 (Rom105_XV) 16348.ab1	-----										138
PCR286.11 (Rom105_XXXIX) 16209.ab1	-----										0
PCR160.2 (Rom105_XV) 16410.ab1	-----										122
PCR220.5 (Rom105_XXXIX) 16287.ab1	-----										0

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	16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACAATCAACTGCAACTCAAAGCCACCCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT	16311
PCR180.3 (Rom105_XV) 15996.ab1		145
PCR180.3 (Rom105_XV) 16142.ab1		1
PCR243.12 (Rom105_XXXIX) 15996.ab1		145
PCR243.12 (Rom105_XXXIX) 16142.ab1		1
PCR237.10 (Rom105_XXXIX) 16117.ab1	.....	115
PCR237.10 (Rom105_XXXIX) 16233.ab1		1
PCR244.6 (Rom105_XV) 16117.ab1	.....	114
PCR244.6 (Rom105_XV) 16233.ab1	.....	1
PCR284.4 (Rom105_XV) 16209.ab1	-----.....	100
PCR284.4 (Rom105_XV) 16348.ab1	---.....	36
PCR286.11 (Rom105_XXXIX) 16209.ab1	-----.....	100
PCR160.2 (Rom105_XV) 16410.ab1	-----.....	98
PCR220.5 (Rom105_XXXIX) 16287.ab1	-----.....	24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.3 (Rom105_XV) 15996.ab1										145
PCR180.3 (Rom105_XV) 16142.ab1										1
PCR243.12 (Rom105_XXXIX) 15996.ab1										145
PCR243.12 (Rom105_XXXIX) 16142.ab1										1
PCR237.10 (Rom105_XXXIX) 16117.ab1										115
PCR237.10 (Rom105_XXXIX) 16233.ab1										1
PCR244.6 (Rom105_XV) 16117.ab1										114
PCR244.6 (Rom105_XV) 16233.ab1										1
PCR284.4 (Rom105_XV) 16209.ab1	.....									136
PCR284.4 (Rom105_XV) 16348.ab1	.....									1
PCR286.11 (Rom105_XXXIX) 16209.ab1	.....									136
PCR160.2 (Rom105_XV) 16410.ab1	.....									1
PCR220.5 (Rom105_XXXIX) 16287.ab1	.....									122

RomIII114

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR180.4 (Rom114_XVII) 15996.ab1	...K...S.....Y...S...R.....											105
PCR180.4 (Rom114_XVII) 16142.ab1	.....											40
PCR243.13 (Rom114_XXIV) 15996.ab1	...K.....											105
PCR243.13 (Rom114_XXIV) 16142.ab1	.....											41
PCR244.7 (Rom114_XVII) 16117.ab1	-----											0
PCR244.7 (Rom114_XVII) 16233.ab1	-----											116
PCR244.8 (Rom114_XXIV) 16117.ab1	-----											0
PCR244.8 (Rom114_XXIV) 16233.ab1	-----											103
PCR183.1 (Rom114_XXIV) 16209.ab1	-----											0
PCR284.5 (Rom114_XVII) 16209.ab1	-----											0
PCR284.5 (Rom114_XVII) 16348.ab1	-----											138
PCR164.1 (Rom114_XVII) 16410.ab1	-----											118
PCR246.1 (Rom114_XXIV) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR180.4 (Rom114_XVII) 15996.ab1	.....W.....										145
PCR180.4 (Rom114_XVII) 16142.ab1	.....-.....										1
PCR243.13 (Rom114_XXIV) 15996.ab1	.....										145
PCR243.13 (Rom114_XXIV) 16142.ab1	.....										1
PCR244.7 (Rom114_XVII) 16117.ab1	-----.....										89
PCR244.7 (Rom114_XVII) 16233.ab1	-----.....										27
PCR244.8 (Rom114_XXIV) 16117.ab1	-----.....										89
PCR244.8 (Rom114_XXIV) 16233.ab1	-----.....										22
PCR183.1 (Rom114_XXIV) 16209.ab1	-----										0
PCR284.5 (Rom114_XVII) 16209.ab1	-----										0
PCR284.5 (Rom114_XVII) 16348.ab1	-----										138
PCR164.1 (Rom114_XVII) 16410.ab1	-----										118
PCR246.1 (Rom114_XXIV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR180.4 (Rom114_XVII) 15996.ab1												145
PCR180.4 (Rom114_XVII) 16142.ab1												1
PCR243.13 (Rom114_XXIV) 15996.ab1												145
PCR243.13 (Rom114_XXIV) 16142.ab1												1
PCR244.7 (Rom114_XVII) 16117.ab1	.....											115
PCR244.7 (Rom114_XVII) 16233.ab1	.....											1
PCR244.8 (Rom114_XXIV) 16117.ab1	.....											115
PCR244.8 (Rom114_XXIV) 16233.ab1	.....											1
PCR183.1 (Rom114_XXIV) 16209.ab1	----.....C.....											99
PCR284.5 (Rom114_XVII) 16209.ab1	----.....C.....											100
PCR284.5 (Rom114_XVII) 16348.ab1	--.....C.....											36
PCR164.1 (Rom114_XVII) 16410.ab1	-----C.....											94
PCR246.1 (Rom114_XXIV) 16287.ab1	-----C.....											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.4 (Rom114_XVII) 15996.ab1										145
PCR180.4 (Rom114_XVII) 16142.ab1										1
PCR243.13 (Rom114_XXIV) 15996.ab1										145
PCR243.13 (Rom114_XXIV) 16142.ab1										1
PCR244.7 (Rom114_XVII) 16117.ab1										115
PCR244.7 (Rom114_XVII) 16233.ab1										1
PCR244.8 (Rom114_XXIV) 16117.ab1										115
PCR244.8 (Rom114_XXIV) 16233.ab1										1
PCR183.1 (Rom114_XXIV) 16209.ab1	.....									135
PCR284.5 (Rom114_XVII) 16209.ab1	.....									136
PCR284.5 (Rom114_XVII) 16348.ab1	.....									1
PCR164.1 (Rom114_XVII) 16410.ab1									1
PCR246.1 (Rom114_XXIV) 16287.ab1									121

RomIII117

[illegible]

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	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR180.5 (Rom117_XVII) 15996.ab1		144
PCR180.5 (Rom117_XVII) 16142.ab1		1
PCR255.8 (Rom117_XVII) 15996.ab1		145
PCR255.8 (Rom117_XVII) 16142.ab1		1
PCR244.9 (Rom117_XVII) 16117.ab1		115
PCR256.4 (Rom117_XVII) 16117.ab1		114
PCR284.6 (Rom117_XVII) 16209.ab1	.....	137
PCR284.6 (Rom117_XVII) 16348.ab1	.....	1
PCR286.12 (Rom117_XVII) 16209.ab1	.....	128
PCR286.12 (Rom117_XVII) 16348.ab1	.....	1
PCR164.2 (Rom117_XVII) 16410.ab1	.....	1
PCR258.6 (Rom117_XVII) 16287.ab1	.....	122
PCR258.6 (Rom117_XVII) 16410.ab1	.....	122

RomIII118a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR243.14 (Rom118_XXV) 15996.ab1	.....											105
PCR317.11 (Rom118_XXV) 15996.ab1	.....											105
PCR244.10 (Rom118_XXV) 16117.ab1	-----											0
PCR244.10 (Rom118_XXV) 16233.ab1	-----											77
PCR318.7 (Rom118_XXV) 16117.ab1	-----											0
PCR183.8 (Rom118_XXV) 16209.ab1	-----											0
PCR301.7 (Rom118_XXV) 16348.ab1	-----											139
PCR246.2 (Rom118_XXV) 16287.ab1	-----											0
PCR272.3 (Rom118_XXV) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR243.14 (Rom118_XXV) 15996.ab1	.....										145
PCR317.11 (Rom118_XXV) 15996.ab1	.....										145
PCR244.10 (Rom118_XXV) 16117.ab1	-----										89
PCR244.10 (Rom118_XXV) 16233.ab1	-----										1
PCR318.7 (Rom118_XXV) 16117.ab1	-----										88
PCR183.8 (Rom118_XXV) 16209.ab1	-----										0
PCR301.7 (Rom118_XXV) 16348.ab1	-----										139
PCR246.2 (Rom118_XXV) 16287.ab1	-----										0
PCR272.3 (Rom118_XXV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCAGCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT										
PCR243.14 (Rom118_XXV) 15996.ab1											
PCR317.11 (Rom118_XXV) 15996.ab1											
PCR244.10 (Rom118_XXV) 16117.ab1											
PCR244.10 (Rom118_XXV) 16233.ab1											
PCR318.7 (Rom118_XXV) 16117.ab1											
PCR183.8 (Rom118_XXV) 16209.ab1											
PCR301.7 (Rom118_XXV) 16348.ab1											
PCR246.2 (Rom118_XXV) 16287.ab1											
PCR272.3 (Rom118_XXV) 16287.ab1											

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	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR243.14 (Rom118_XXV) 15996.ab1		145
PCR317.11 (Rom118_XXV) 15996.ab1		145
PCR244.10 (Rom118_XXV) 16117.ab1		115
PCR244.10 (Rom118_XXV) 16233.ab1		1
PCR318.7 (Rom118_XXV) 16117.ab1		114
PCR183.8 (Rom118_XXV) 16209.ab1	.....T.....	137
PCR301.7 (Rom118_XXV) 16348.ab1	.....T.....	1
PCR246.2 (Rom118_XXV) 16287.ab1	.....T.....	122
PCR272.3 (Rom118_XXV) 16287.ab1	.....T.....	122

RomIII118b

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR239.3 (Rom118_XXXIV) 16142.ab1	.....											26
PCR317.12 (Rom118_XXXIV) 15996.ab1	.....											105
PCR240.3 (Rom118_XXXIV) 16117.ab1	-----											0
PCR240.3 (Rom118_XXXIV) 16233.ab1	-----											115
PCR318.8 (Rom118_XXXIV) 16117.ab1	-----											0
PCR305.7 (Rom118_XXXIV) 16209.ab1	-----											0
PCR329.4 (Rom118_XXXIV) 16209.ab1	-----											0
PCR329.4 (Rom118_XXXIV) 16348.ab1	-----											136
PCR242.1 (Rom118_XXXIV) 16287.ab1	-----											0
PCR242.1 (Rom118_XXXIV) 16410.ab1	-----											121
PCR262.3 (Rom118_XXXIV) 16287.ab1	-----											0
PCR306.5 (Rom118_XXXIV) 16410.ab1	-----											121

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR239.3 (Rom118_XXXIV) 16142.ab1	.....										1
PCR317.12 (Rom118_XXXIV) 15996.ab1	.....										145
PCR240.3 (Rom118_XXXIV) 16117.ab1	-----										89
PCR240.3 (Rom118_XXXIV) 16233.ab1	-----										26
PCR318.8 (Rom118_XXXIV) 16117.ab1	-----										89
PCR305.7 (Rom118_XXXIV) 16209.ab1	-----										0
PCR329.4 (Rom118_XXXIV) 16209.ab1	-----										0
PCR329.4 (Rom118_XXXIV) 16348.ab1	-----										136
PCR242.1 (Rom118_XXXIV) 16287.ab1	-----										0
PCR242.1 (Rom118_XXXIV) 16410.ab1	-----										121
PCR262.3 (Rom118_XXXIV) 16287.ab1	-----										0
PCR306.5 (Rom118_XXXIV) 16410.ab1	-----										121

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR239.3 (Rom118_XXXIV) 16142.ab1												1
PCR317.12 (Rom118_XXXIV) 15996.ab1												145
PCR240.3 (Rom118_XXXIV) 16117.ab1	.....											115
PCR240.3 (Rom118_XXXIV) 16233.ab1	.....											1
PCR318.8 (Rom118_XXXIV) 16117.ab1	.....											115
PCR305.7 (Rom118_XXXIV) 16209.ab1	----.....T.....C.....											101
PCR329.4 (Rom118_XXXIV) 16209.ab1	----.....T.....C.....											100
PCR329.4 (Rom118_XXXIV) 16348.ab1	---.....T.....C.....											34
PCR242.1 (Rom118_XXXIV) 16287.ab1	-----.....T.....C.....											24
PCR242.1 (Rom118_XXXIV) 16410.ab1	-----.....T.....C.....											97
PCR262.3 (Rom118_XXXIV) 16287.ab1	-----.....T.....C.....											24
PCR306.5 (Rom118_XXXIV) 16410.ab1	-----.....T.....C.....											97

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR239.3 (Rom118_XXXIV) 16142.ab1										1
PCR317.12 (Rom118_XXXIV) 15996.ab1										145
PCR240.3 (Rom118_XXXIV) 16117.ab1										115
PCR240.3 (Rom118_XXXIV) 16233.ab1										1
PCR318.8 (Rom118_XXXIV) 16117.ab1										115
PCR305.7 (Rom118_XXXIV) 16209.ab1	.....									137
PCR329.4 (Rom118_XXXIV) 16209.ab1	.....									136
PCR329.4 (Rom118_XXXIV) 16348.ab1	.....									1
PCR242.1 (Rom118_XXXIV) 16287.ab1	.....									122
PCR242.1 (Rom118_XXXIV) 16410.ab1	.....W.....									1
PCR262.3 (Rom118_XXXIV) 16287.ab1	.....									122
PCR306.5 (Rom118_XXXIV) 16410.ab1	.....									1

RomIII120a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR180.6 (Rom120_XV) 15996.ab1	-----											92
PCR180.6 (Rom120_XV) 16142.ab1	.....S.....											41
PCR244.11 (Rom120_XV) 16117.ab1	-----											0
PCR244.11 (Rom120_XV) 16233.ab1	-----											80
PCR286.14 (Rom120_XV) 16209.ab1	-----											0
PCR301.8 (Rom120_XV) 16209.ab1	-----											0
PCR164.10 (Rom120_XV) 16410.ab1	-----											120
PCR302.8 (Rom120_XV) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR180.6 (Rom120_XV) 15996.ab1	.....										132
PCR180.6 (Rom120_XV) 16142.ab1	.....										1
PCR244.11 (Rom120_XV) 16117.ab1	-----										89
PCR244.11 (Rom120_XV) 16233.ab1	-----										1
PCR286.14 (Rom120_XV) 16209.ab1	-----										0
PCR301.8 (Rom120_XV) 16209.ab1	-----										0
PCR164.10 (Rom120_XV) 16410.ab1	-----										120
PCR302.8 (Rom120_XV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR180.6 (Rom120_XV) 15996.ab1												132
PCR180.6 (Rom120_XV) 16142.ab1												1
PCR244.11 (Rom120_XV) 16117.ab1	.....											115
PCR244.11 (Rom120_XV) 16233.ab1												1
PCR286.14 (Rom120_XV) 16209.ab1	-----.R.....											100
PCR301.8 (Rom120_XV) 16209.ab1	--.....											102
PCR164.10 (Rom120_XV) 16410.ab1	-----											96
PCR302.8 (Rom120_XV) 16287.ab1	-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.6 (Rom120_XV) 15996.ab1										132
PCR180.6 (Rom120_XV) 16142.ab1										1
PCR244.11 (Rom120_XV) 16117.ab1										115
PCR244.11 (Rom120_XV) 16233.ab1										1
PCR286.14 (Rom120_XV) 16209.ab1	.....									136
PCR301.8 (Rom120_XV) 16209.ab1	.....									138
PCR164.10 (Rom120_XV) 16410.ab1	.....W.									1
PCR302.8 (Rom120_XV) 16287.ab1	.....									122

RomIII120b

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT										
PCR239.4 (Rom120_XXXVII) 15996.ab1	.....									
PCR239.4 (Rom120_XXXVII) 16142.ab1	.....									
PCR303.8 (Rom120_XXXVII) 15996.ab1	.....									
PCR218.10 (Rom120_XXXVII) 16117.ab1	-----										
PCR240.4 (Rom120_XXXVII) 16117.ab1	-----										
PCR240.4 (Rom120_XXXVII) 16233.ab1	-----										
PCR256.5 (Rom120_XXXVII) 16117.ab1	-----										
PCR311.2 (Rom120_XXXVII) 16117.ab1	-----										
PCR241.4 (Rom120_XXXVII) 16209.ab1	-----										
PCR305.8 (Rom120_XXXVII) 16209.ab1	-----										
PCR242.2 (Rom120_XXXVII) 16287.ab1	-----										

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR239.4 (Rom120_XXXVII) 15996.ab1	.....										145
PCR239.4 (Rom120_XXXVII) 16142.ab1	.....										1
PCR303.8 (Rom120_XXXVII) 15996.ab1	.....										145
PCR218.10 (Rom120_XXXVII) 16117.ab1	-----.....CC.....C....										75
PCR240.4 (Rom120_XXXVII) 16117.ab1	-----.....CC.....C....										76
PCR240.4 (Rom120_XXXVII) 16233.ab1	-----.....-C.....C.....										23
PCR256.5 (Rom120_XXXVII) 16117.ab1	-----.....CC.....C....										75
PCR311.2 (Rom120_XXXVII) 16117.ab1	-----.....CC.....C.....										76
PCR241.4 (Rom120_XXXVII) 16209.ab1	-----										0
PCR305.8 (Rom120_XXXVII) 16209.ab1	-----										0
PCR242.2 (Rom120_XXXVII) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT										
PCR239.4 (Rom120_XXXVII) 15996.ab1											
PCR239.4 (Rom120_XXXVII) 16142.ab1											
PCR303.8 (Rom120_XXXVII) 15996.ab1											
PCR218.10 (Rom120_XXXVII) 16117.ab1											
PCR240.4 (Rom120_XXXVII) 16117.ab1											
PCR240.4 (Rom120_XXXVII) 16233.ab1	.....									
PCR256.5 (Rom120_XXXVII) 16117.ab1											
PCR311.2 (Rom120_XXXVII) 16117.ab1											
PCR241.4 (Rom120_XXXVII) 16209.ab1	----.....T.....										
PCR305.8 (Rom120_XXXVII) 16209.ab1	--.....T.....										
PCR242.2 (Rom120_XXXVII) 16287.ab1	-----.....										

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	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR239.4 (Rom120_XXXVII) 15996.ab1		145
PCR239.4 (Rom120_XXXVII) 16142.ab1		1
PCR303.8 (Rom120_XXXVII) 15996.ab1		145
PCR218.10 (Rom120_XXXVII) 16117.ab1		75
PCR240.4 (Rom120_XXXVII) 16117.ab1		76
PCR240.4 (Rom120_XXXVII) 16233.ab1		1
PCR256.5 (Rom120_XXXVII) 16117.ab1		75
PCR311.2 (Rom120_XXXVII) 16117.ab1		76
PCR241.4 (Rom120_XXXVII) 16209.ab1	.....C.....	136
PCR305.8 (Rom120_XXXVII) 16209.ab1	.....C.....	138
PCR242.2 (Rom120_XXXVII) 16287.ab1	.....C.....	122

RomIII121

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR180.7 (Rom121_XVI) 15996.ab1	-----S-----											78
PCR180.7 (Rom121_XVI) 16142.ab1	.....S.....											41
PCR270.1 (Rom121_XVI) 15996.ab1	.....											105
PCR270.1 (Rom121_XVI) 16142.ab1	.....											41
PCR287.7 (Rom121_XVI) 16142.ab1	.....S.....M.....W.....											33
PCR244.12 (Rom121_XVI) 16117.ab1	-----											0
PCR244.12 (Rom121_XVI) 16233.ab1	-----											72
PCR266.1 (Rom121_XVI) 16117.ab1	-----											0
PCR284.7 (Rom121_XVI) 16209.ab1	-----											0
PCR284.7 (Rom121_XVI) 16348.ab1	-----											137
PCR162.1 (Rom121_XVI) 16410.ab1	-----											118
PCR262.4 (Rom121_XVI) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR180.7 (Rom121_XVI) 15996.ab1	.....										118
PCR180.7 (Rom121_XVI) 16142.ab1	.....										1
PCR270.1 (Rom121_XVI) 15996.ab1	.....										145
PCR270.1 (Rom121_XVI) 16142.ab1	.....										1
PCR287.7 (Rom121_XVI) 16142.ab1	.....										1
PCR244.12 (Rom121_XVI) 16117.ab1	-----.....										88
PCR244.12 (Rom121_XVI) 16233.ab1	-----.....										1
PCR266.1 (Rom121_XVI) 16117.ab1	-----.....										71
PCR284.7 (Rom121_XVI) 16209.ab1	-----										0
PCR284.7 (Rom121_XVI) 16348.ab1	-----										137
PCR162.1 (Rom121_XVI) 16410.ab1	-----										118
PCR262.4 (Rom121_XVI) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR180.7 (Rom121_XVI) 15996.ab1												118
PCR180.7 (Rom121_XVI) 16142.ab1												1
PCR270.1 (Rom121_XVI) 15996.ab1												145
PCR270.1 (Rom121_XVI) 16142.ab1												1
PCR287.7 (Rom121_XVI) 16142.ab1												1
PCR244.12 (Rom121_XVI) 16117.ab1	.....											114
PCR244.12 (Rom121_XVI) 16233.ab1												1
PCR266.1 (Rom121_XVI) 16117.ab1	.....											97
PCR284.7 (Rom121_XVI) 16209.ab1	-----T.....C.....											72
PCR284.7 (Rom121_XVI) 16348.ab1	---.....T.....C.....											35
PCR162.1 (Rom121_XVI) 16410.ab1	-----T.Y.....C.....											94
PCR262.4 (Rom121_XVI) 16287.ab1	-----T.....C.....											2

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	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCTCAGATAGGGGTCCTTGACCACCATCCT	16409
PCR180.7 (Rom121_XVI) 15996.ab1		118
PCR180.7 (Rom121_XVI) 16142.ab1		1
PCR270.1 (Rom121_XVI) 15996.ab1		145
PCR270.1 (Rom121_XVI) 16142.ab1		1
PCR287.7 (Rom121_XVI) 16142.ab1		1
PCR244.12 (Rom121_XVI) 16117.ab1		114
PCR244.12 (Rom121_XVI) 16233.ab1		1
PCR266.1 (Rom121_XVI) 16117.ab1		97
PCR284.7 (Rom121_XVI) 16209.ab1	.....T.....	108
PCR284.7 (Rom121_XVI) 16348.ab1	.....T.....	1
PCR162.1 (Rom121_XVI) 16410.ab1	.....Y.....	1
PCR262.4 (Rom121_XVI) 16287.ab1	.....T.....	122

RomIIT11A-a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR180.8 (RomT11A_XVII) 15996.ab1	.....											105
PCR180.8 (RomT11A_XVII) 16142.ab1	.....											41
PCR248.1 (RomT11A_XXXXI) 15996.ab1	.....											105
PCR248.1 (RomT11A_XXXXI) 16142.ab1	.....											34
PCR238.7 (RomT11A_XXXXI) 16117.ab1	-----											0
PCR238.7 (RomT11A_XXXXI) 16233.ab1	-----											113
PCR244.13 (RomT11A_XVII) 16117.ab1	-----											0
PCR244.13 (RomT11A_XVII) 16233.ab1	-----											71
PCR271.2 (RomT11A_XXXXI) 16209.ab1	-----											0
PCR285.8 (RomT11A_XVII) 16209.ab1	-----											0
PCR319.8 (RomT11A_XXXXI) 16209.ab1	-----											0
PCR164.4 (RomT11A_XVII) 16410.ab1	-----											118
PCR222.2 (RomT11A_XXXXI) 16287.ab1	-----											0
PCR272.4 (RomT11A_XVII) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAACCCCTCCCCATGCTTACAAGCA										16206
PCR180.8 (RomT11A_XVII) 15996.ab1	.....										145
PCR180.8 (RomT11A_XVII) 16142.ab1	.....										1
PCR248.1 (RomT11A_XXXXI) 15996.ab1	.....										145
PCR248.1 (RomT11A_XXXXI) 16142.ab1	.....										1
PCR238.7 (RomT11A_XXXXI) 16117.ab1	-----										89
PCR238.7 (RomT11A_XXXXI) 16233.ab1	-----										24
PCR244.13 (RomT11A_XVII) 16117.ab1	-----										89
PCR244.13 (RomT11A_XVII) 16233.ab1	-----										1
PCR271.2 (RomT11A_XXXXI) 16209.ab1	-----										0
PCR285.8 (RomT11A_XVII) 16209.ab1	-----										0
PCR319.8 (RomT11A_XXXXI) 16209.ab1	-----										0
PCR164.4 (RomT11A_XVII) 16410.ab1	-----										118
PCR222.2 (RomT11A_XXXXI) 16287.ab1	-----										0
PCR272.4 (RomT11A_XVII) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR180.8 (RomT11A_XVII) 15996.ab1												145
PCR180.8 (RomT11A_XVII) 16142.ab1												1
PCR248.1 (RomT11A_XXXXI) 15996.ab1												145
PCR248.1 (RomT11A_XXXXI) 16142.ab1												1
PCR238.7 (RomT11A_XXXXI) 16117.ab1	.....											115
PCR238.7 (RomT11A_XXXXI) 16233.ab1	.....											1
PCR244.13 (RomT11A_XVII) 16117.ab1	.....											115
PCR244.13 (RomT11A_XVII) 16233.ab1												1
PCR271.2 (RomT11A_XXXXI) 16209.ab1	-----.T.....C.....											100
PCR285.8 (RomT11A_XVII) 16209.ab1	-----.T.....C.....											98
PCR319.8 (RomT11A_XXXXI) 16209.ab1	-----.T.....C.....											100
PCR164.4 (RomT11A_XVII) 16410.ab1	-----T.....C.....											94
PCR222.2 (RomT11A_XXXXI) 16287.ab1	-----T.....C.....											24
PCR272.4 (RomT11A_XVII) 16287.ab1	-----T.....C.....											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.8 (RomT11A_XVII) 15996.ab1										145
PCR180.8 (RomT11A_XVII) 16142.ab1										1
PCR248.1 (RomT11A_XXXXI) 15996.ab1										145
PCR248.1 (RomT11A_XXXXI) 16142.ab1										1
PCR238.7 (RomT11A_XXXXI) 16117.ab1										115
PCR238.7 (RomT11A_XXXXI) 16233.ab1										1
PCR244.13 (RomT11A_XVII) 16117.ab1										115
PCR244.13 (RomT11A_XVII) 16233.ab1										1
PCR271.2 (RomT11A_XXXXI) 16209.ab1	.....T.....									136
PCR285.8 (RomT11A_XVII) 16209.ab1	.....T.....									134
PCR319.8 (RomT11A_XXXXI) 16209.ab1	.....T.....									136
PCR164.4 (RomT11A_XVII) 16410.ab1	.....T.....									1
PCR222.2 (RomT11A_XXXXI) 16287.ab1	.....T.....									122
PCR272.4 (RomT11A_XVII) 16287.ab1	.....T.....									122

RomIII T11A-b

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR239.5 (RomT11A_XXV) 15996.ab1	...K.....											105
PCR239.5 (RomT11A_XXV) 16142.ab1	.....											35
PCR317.14 (RomT11A_XXV) 15996.ab1	.....											105
PCR240.5 (RomT11A_XXV) 16117.ab1	-----											0
PCR240.5 (RomT11A_XXV) 16233_(1).ab1	-----											111
PCR240.5 (RomT11A_XXV) 16233.ab1	-----											77
PCR318.10 (RomT11A_XXV) 16117.ab1	-----											0
PCR286.5 (RomT11A_XXV) 16209.ab1	-----											0
PCR319.9 (RomT11A_XXV) 16209.ab1	-----											0
PCR242.3 (RomT11A_XXV) 16287.ab1	-----											0
PCR282.1 (RomT11A_XXV) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAACCCCCCTCCCCATGCTTACAAGCA										16206
PCR239.5 (RomT11A_XXV) 15996.ab1	.....										145
PCR239.5 (RomT11A_XXV) 16142.ab1	.....										1
PCR317.14 (RomT11A_XXV) 15996.ab1	.....										145
PCR240.5 (RomT11A_XXV) 16117.ab1	-----										89
PCR240.5 (RomT11A_XXV) 16233_(1).ab1	-----										22
PCR240.5 (RomT11A_XXV) 16233.ab1	-----										1
PCR318.10 (RomT11A_XXV) 16117.ab1	-----										89
PCR286.5 (RomT11A_XXV) 16209.ab1	-----										0
PCR319.9 (RomT11A_XXV) 16209.ab1	-----										0
PCR242.3 (RomT11A_XXV) 16287.ab1	-----										0
PCR282.1 (RomT11A_XXV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT										
PCR239.5 (RomT11A_XXV) 15996.ab1											
PCR239.5 (RomT11A_XXV) 16142.ab1											
PCR317.14 (RomT11A_XXV) 15996.ab1											
PCR240.5 (RomT11A_XXV) 16117.ab1											
PCR240.5 (RomT11A_XXV) 16233_(1).ab1											
PCR240.5 (RomT11A_XXV) 16233.ab1											
PCR318.10 (RomT11A_XXV) 16117.ab1											
PCR286.5 (RomT11A_XXV) 16209.ab1											
PCR319.9 (RomT11A_XXV) 16209.ab1											
PCR242.3 (RomT11A_XXV) 16287.ab1											
PCR282.1 (RomT11A_XXV) 16287.ab1											

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	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCTTGACCACCATCCT	16409
PCR239.5 (RomT11A_XXV) 15996.ab1		145
PCR239.5 (RomT11A_XXV) 16142.ab1		1
PCR317.14 (RomT11A_XXV) 15996.ab1		145
PCR240.5 (RomT11A_XXV) 16117.ab1		115
PCR240.5 (RomT11A_XXV) 16233_(1).ab1		1
PCR240.5 (RomT11A_XXV) 16233.ab1		1
PCR318.10 (RomT11A_XXV) 16117.ab1		115
PCR286.5 (RomT11A_XXV) 16209.ab1	.....	136
PCR319.9 (RomT11A_XXV) 16209.ab1	.....	136
PCR242.3 (RomT11A_XXV) 16287.ab1	.....	122
PCR282.1 (RomT11A_XXV) 16287.ab1	.....	122

RomIIT12E-a

	NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTCTTTTCATGGGGAAGCAGATTG	16101
	PCR180.9 (RomT12E_XVIII)	15996.ab1	105
	PCR180.9 (RomT12E_XVIII)	16142.ab1	41
	PCR310.9 (RomT12E_XVIII)	16142.ab1	41
	PCR256.6 (RomT12E_XVIII)	16117.ab1	0
	PCR304.8 (RomT12E_XVIII)	16233.ab1	113
	PCR301.14 (RomT12E_XVIII)	16348.ab1	139
	PCR166.4 (RomT12E_XVIII)	16287.ab1	0
	PCR302.9 (RomT12E_XVIII)	16287.ab1	0
	NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
	PCR180.9 (RomT12E_XVIII)	15996.ab1	145
	PCR180.9 (RomT12E_XVIII)	16142.ab1	1
	PCR310.9 (RomT12E_XVIII)	16142.ab1	1
	PCR256.6 (RomT12E_XVIII)	16117.ab1	88
	PCR304.8 (RomT12E_XVIII)	16233.ab1	24
	PCR301.14 (RomT12E_XVIII)	16348.ab1	139
	PCR166.4 (RomT12E_XVIII)	16287.ab1	0
	PCR302.9 (RomT12E_XVIII)	16287.ab1	0
	NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
	PCR180.9 (RomT12E_XVIII)	15996.ab1	145
	PCR180.9 (RomT12E_XVIII)	16142.ab1	1
	PCR310.9 (RomT12E_XVIII)	16142.ab1	1
	PCR256.6 (RomT12E_XVIII)	16117.ab1	114
	PCR304.8 (RomT12E_XVIII)	16233.ab1	1
	PCR301.14 (RomT12E_XVIII)	16348.ab1	37
	PCR166.4 (RomT12E_XVIII)	16287.ab1	24
	PCR302.9 (RomT12E_XVIII)	16287.ab1	24
	NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
	PCR180.9 (RomT12E_XVIII)	15996.ab1	145
	PCR180.9 (RomT12E_XVIII)	16142.ab1	1
	PCR310.9 (RomT12E_XVIII)	16142.ab1	1
	PCR256.6 (RomT12E_XVIII)	16117.ab1	114
	PCR304.8 (RomT12E_XVIII)	16233.ab1	1
	PCR301.14 (RomT12E_XVIII)	16348.ab1	1
	PCR166.4 (RomT12E_XVIII)	16287.ab1	122
	PCR302.9 (RomT12E_XVIII)	16287.ab1	122

RomIIT12E-b

	NC_012920.1	TAA GAT TCT A ATTT AA ACT ATT CT CT GTT C TTTC ATGGGGAAGCAGATT TGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTT CGT ACAT	16101
	PCR248.2 (RomT12E_XXII) 15996.ab1	. . . . . T	105
	PCR248.2 (RomT12E_XXII) 16142.ab1	. . . . . T	41
	PCR260.4 (RomT12E_XXII) 16117.ab1	-----	0
	PCR300.11 (RomT12E_XXII) 16117.ab1	-----	0
	PCR305.13 (RomT12E_XXII) 16209.ab1	-----	0
	PCR258.7 (RomT12E_XXII) 16287.ab1	-----	0
	PCR306.7 (RomT12E_XXII) 16287.ab1	-----	0
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAA AACCCCCTCCCCATGCTTACAAGCA	16206
	PCR248.2 (RomT12E_XXII) 15996.ab1	. . . . . C	145
	PCR248.2 (RomT12E_XXII) 16142.ab1	. . . . . C	1
	PCR260.4 (RomT12E_XXII) 16117.ab1	----- C	89
	PCR300.11 (RomT12E_XXII) 16117.ab1	----- C	88
	PCR305.13 (RomT12E_XXII) 16209.ab1	-----	0
	PCR258.7 (RomT12E_XXII) 16287.ab1	-----	0
	PCR306.7 (RomT12E_XXII) 16287.ab1	-----	0
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	NC_012920.1	AGTACAGCAATCA ACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT	16311
	PCR248.2 (RomT12E_XXII) 15996.ab1	. . . . .	145
	PCR248.2 (RomT12E_XXII) 16142.ab1	. . . . .	1
	PCR260.4 (RomT12E_XXII) 16117.ab1	. . . . .	115
	PCR300.11 (RomT12E_XXII) 16117.ab1	. . . . .	114
	PCR305.13 (RomT12E_XXII) 16209.ab1	-----.	100
	PCR258.7 (RomT12E_XXII) 16287.ab1	-----	24
	PCR306.7 (RomT12E_XXII) 16287.ab1	-----	24
		-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
		16320 16330 16340 16350 16360 16370 16380 16390 16400	
		+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	NC_012920.1	ACATAAAGCCATTTACCGTAGCATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
	PCR248.2 (RomT12E_XXII) 15996.ab1	. . . . .	145
	PCR248.2 (RomT12E_XXII) 16142.ab1	. . . . .	1
	PCR260.4 (RomT12E_XXII) 16117.ab1	. . . . .	115
	PCR300.11 (RomT12E_XXII) 16117.ab1	. . . . .	114
	PCR305.13 (RomT12E_XXII) 16209.ab1	. . . . .	136
	PCR258.7 (RomT12E_XXII) 16287.ab1	. . . . .	122
	PCR306.7 (RomT12E_XXII) 16287.ab1	. . . . .	122

RomIIT12E-c

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR239.6 (RomT12E_XXXV) 15996.ab1	.....S.....	105
PCR239.6 (RomT12E_XXXV) 16142.ab1	.....S.....	41
PCR239.7 (RomT12E_XXXIV) 16142.ab1	.....S.....	41
PCR303.13 (RomT12E_XXXV) 15996.ab1	.....S.....	105
PCR266.2 (RomT12E_XXXIV) 16117.ab1	-----	0
PCR267.1 (RomT12E_XXXV) 16117.ab1	-----	0
PCR300.12 (RomT12E_XXXV) 16117.ab1	-----	0
PCR241.6 (RomT12E_XXXV) 16209.ab1	-----	0
PCR241.7 (RomT12E_XXXIV) 16209.ab1	-----	0
PCR305.14 (RomT12EXXXV) 16209.ab1	-----	0
PCR215.5 (RomT12E_XXXIV) 16287.ab1	-----	0
PCR215.7 (RomT12E_XXXV) 16287.ab1	-----	0
PCR246.3 (RomT12E_XXXIV) 16287.ab1	-----	0
PCR330.7 (RomT12E_XXXV) 16287.ab1	-----	0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAACCCCTCCCATGCTTACAAGCA										16206
PCR239.6 (RomT12E_XXXV) 15996.ab1	.....										145
PCR239.6 (RomT12E_XXXV) 16142.ab1	.....										1
PCR239.7 (RomT12E_XXXIV) 16142.ab1	.....										1
PCR303.13 (RomT12E_XXXV) 15996.ab1	.....										145
PCR266.2 (RomT12E_XXXIV) 16117.ab1	-----.....										89
PCR267.1 (RomT12E_XXXV) 16117.ab1	-----.....										88
PCR300.12 (RomT12E_XXXV) 16117.ab1	-----.....										89
PCR241.6 (RomT12E_XXXV) 16209.ab1	-----										0
PCR241.7 (RomT12E_XXXIV) 16209.ab1	-----										0
PCR305.14 (RomT12E_XXXV) 16209.ab1	-----										0
PCR215.5 (RomT12E_XXXIV) 16287.ab1	-----										0
PCR215.7 (RomT12E_XXXV) 16287.ab1	-----										0
PCR246.3 (RomT12E_XXXIV) 16287.ab1	-----										0
PCR330.7 (RomT12E_XXXV) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR239.6 (RomT12E_XXXV) 15996.ab1												145
PCR239.6 (RomT12E_XXXV) 16142.ab1												1
PCR239.7 (RomT12E_XXXIV) 16142.ab1												1
PCR303.13 (RomT12E_XXXV) 15996.ab1												145
PCR266.2 (RomT12E_XXXIV) 16117.ab1	.....											115
PCR267.1 (RomT12E_XXXV) 16117.ab1	.....											114
PCR300.12 (RomT12E_XXXV) 16117.ab1	.....											115
PCR241.6 (RomT12E_XXXV) 16209.ab1	---.....T.....C.....											102
PCR241.7 (RomT12E_XXXIV) 16209.ab1	----.....T.....C.....											100
PCR305.14 (RomT12E_XXXV) 16209.ab1	----.....T.....C.....											100
PCR215.5 (RomT12E_XXXIV) 16287.ab1	-----.....T.....C.....											20
PCR215.7 (RomT12E_XXXV) 16287.ab1	-----.....T.....C.....											24
PCR246.3 (RomT12E_XXXIV) 16287.ab1	-----.....T.....C.....											24
PCR330.7 (RomT12E_XXXV) 16287.ab1	-----.....T.....C.....											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR239.6 (RomT12E_XXXV) 15996.ab1										145
PCR239.6 (RomT12E_XXXV) 16142.ab1										1
PCR239.7 (RomT12E_XXXIV) 16142.ab1										1
PCR303.13 (RomT12E_XXXV) 15996.ab1										145
PCR266.2 (RomT12E_XXXIV) 16117.ab1										115
PCR267.1 (RomT12E_XXXV) 16117.ab1										114
PCR300.12 (RomT12E_XXXV) 16117.ab1										115
PCR241.6 (RomT12E_XXXV) 16209.ab1	.....T.....									138
PCR241.7 (RomT12E_XXXIV) 16209.ab1	.....T.....									136
PCR305.14 (RomT12E_XXXV) 16209.ab1	.....T.....									136
PCR215.5 (RomT12E_XXXIV) 16287.ab1	.....T.....									118
PCR215.7 (RomT12E_XXXV) 16287.ab1	.....T.....									122
PCR246.3 (RomT12E_XXXIV) 16287.ab1	.....T.....									122
PCR330.7 (RomT12E_XXXV) 16287.ab1	.....T.....									122

RomIVT2A

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCACATCAACAACCGCTATGTATTTTCGTACAT										
PCR259.14 (RomIVT2A_XXIV) 15996.ab1	..K-.....										
PCR259.14 (RomIVT2A_XXIV) 16142.ab1	.....									
PCR317.16 (RomIVT2A_XXXIII) 15996.ab1	..-.....										
PCR180.10 (RomIVT2A_XVII) 15996.ab1	.....									
PCR180.10 (RomIVT2A_XVII) 16142.ab1	.....S.....										
PCR317.15 (RomIVT2A_XVII) 15996.ab1	.....									
PCR327.5 (RomIVT2A_XVII) 15996.ab1	.....									
PCR327.5 (RomIVT2A_XVII) 16142.ab1	.....									
PCR213.8 (RomIVT2A_XXXIII) 16117.ab1	-----										
PCR260.13 (RomIVT2A_XXIV) 16117.ab1	-----										
PCR304.9 (RomIVT2A_XXXIII) 16233.ab1	-----										
PCR197.10 (RomIVT2A_XVII) 16233.ab1	-----										
PCR318.11 (RomIVT2A_XVII) 16117.ab1	-----										
PCR328.7 (RomIVT2A_XVII) 16117.ab1	-----										
PCR328.7 (RomIVT2A_XVII) 16233.ab1	-----										
PCR268.9 (RomIVT2A_XXIV) 16209K.ab1	-----										
PCR286.2 (RomIVT2A_XXIV) 16209.ab1	-----										
PCR312.3 (RomIVT2A_XXIV) 16209.ab1	-----										
PCR301.15 (RomIVT2A_XVII) 16209.ab1	-----										
PCR329.5 (RomIVT2A_XVII) 16209.ab1	-----										
PCR329.5 (RomIVT2A_XVII) 16348.ab1	-----										
PCR164.3 (RomIV_T2A_XVII) 16410.ab1	-----										
PCR320.6 (RomIVT2A_XVII) 16287.ab1	-----										
PCR262.13 (RomIVT2A_XXIV) 16287.ab1	-----										
PCR282.2 (RomIVT2A_XXXIII) 16287.ab1	-----										

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR259.14 (RomIVT2A_XXIV) 15996.ab1	.....										144
PCR259.14 (RomIVT2A_XXIV) 16142.ab1	.....										1
PCR317.16 (RomIVT2A_XXXIII) 15996.ab1	.....										144
PCR180.10 (RomIVT2A_XVII) 15996.ab1	.....										145
PCR180.10 (RomIVT2A_XVII) 16142.ab1	.....										1
PCR317.15 (RomIVT2A_XVII) 15996.ab1	.....										145
PCR327.5 (RomIVT2A_XVII) 15996.ab1	.....										145
PCR327.5 (RomIVT2A_XVII) 16142.ab1	.....										1
PCR213.8 (RomIVT2A_XXXIII) 16117.ab1	-----.....										89
PCR260.13 (RomIVT2A_XXIV) 16117.ab1	-----.....										89
PCR304.9 (RomIVT2A_XXXIII) 16233.ab1	-----.....										18
PCR197.10 (RomIVT2A_XVII) 16233.ab1	-----.....										1
PCR318.11 (RomIVT2A_XVII) 16117.ab1	-----.....										89
PCR328.7 (RomIVT2A_XVII) 16117.ab1	-----.....										89
PCR328.7 (RomIVT2A_XVII) 16233.ab1	-----.....K.....										22
PCR268.9 (RomIVT2A_XXIV) 16209K.ab1	-----										0
PCR286.2 (RomIVT2A_XXIV) 16209.ab1	-----										0
PCR312.3 (RomIVT2A_XXIV) 16209.ab1	-----										0
PCR301.15 (RomIVT2A_XVII) 16209.ab1	-----										0
PCR329.5 (RomIVT2A_XVII) 16209.ab1	-----										0
PCR329.5 (RomIVT2A_XVII) 16348.ab1	-----										137
PCR164.3 (RomIV_T2A_XVII) 16410.ab1	-----										118
PCR320.6 (RomIVT2A_XVII) 16287.ab1	-----										0
PCR262.13 (RomIVT2A_XXIV) 16287.ab1	-----										0
PCR282.2 (RomIVT2A_XXXIII) 16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT										
PCR259.14 (RomIVT2A_XXIV) 15996.ab1											
PCR259.14 (RomIVT2A_XXIV) 16142.ab1											
PCR317.16 (RomIVT2A_XXXIII) 15996.ab1											
PCR180.10 (RomIVT2A_XVII) 15996.ab1											
PCR180.10 (RomIVT2A_XVII) 16142.ab1											
PCR317.15 (RomIVT2A_XVII) 15996.ab1											
PCR327.5 (RomIVT2A_XVII) 15996.ab1											
PCR327.5 (RomIVT2A_XVII) 16142.ab1											
PCR213.8 (RomIVT2A_XXXIII) 16117.ab1											
PCR260.13 (RomIVT2A_XXIV) 16117.ab1											
PCR304.9 (RomIVT2A_XXXIII) 16233.ab1											
PCR197.10 (RomIVT2A_XVII) 16233.ab1											
PCR318.11 (RomIVT2A_XVII) 16117.ab1											
PCR328.7 (RomIVT2A_XVII) 16117.ab1											
PCR328.7 (RomIVT2A_XVII) 16233.ab1											
PCR268.9 (RomIVT2A_XXIV) 16209K.ab1											
PCR286.2 (RomIVT2A_XXIV) 16209.ab1											
PCR312.3 (RomIVT2A_XXIV) 16209.ab1											
PCR301.15 (RomIVT2A_XVII) 16209.ab1											
PCR329.5 (RomIVT2A_XVII) 16209.ab1											
PCR329.5 (RomIVT2A_XVII) 16348.ab1											
PCR164.3 (RomIV_T2A_XVII) 16410.ab1											
PCR320.6 (RomIVT2A_XVII) 16287.ab1											
PCR262.13 (RomIVT2A_XXIV) 16287.ab1											
PCR282.2 (RomIVT2A_XXXIII) 16287.ab1											

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR259.14 (RomIVT2A_XXIV) 15996.ab1		144
PCR259.14 (RomIVT2A_XXIV) 16142.ab1		1
PCR317.16 (RomIVT2A_XXXIII) 15996.ab1		144
PCR180.10 (RomIVT2A_XVII) 15996.ab1		145
PCR180.10 (RomIVT2A_XVII) 16142.ab1		1
PCR317.15 (RomIVT2A_XVII) 15996.ab1		145
PCR327.5 (RomIVT2A_XVII) 15996.ab1		145
PCR327.5 (RomIVT2A_XVII) 16142.ab1		1
PCR213.8 (RomIVT2A_XXXIII) 16117.ab1		115
PCR260.13 (RomIVT2A_XXIV) 16117.ab1		115
PCR304.9 (RomIVT2A_XXXIII) 16233.ab1		1
PCR197.10 (RomIVT2A_XVII) 16233.ab1		1
PCR318.11 (RomIVT2A_XVII) 16117.ab1		115
PCR328.7 (RomIVT2A_XVII) 16117.ab1		115
PCR328.7 (RomIVT2A_XVII) 16233.ab1		1
PCR268.9 (RomIVT2A_XXIV) 16209K.ab1		93
PCR286.2 (RomIVT2A_XXIV) 16209.ab1	.....	137
PCR312.3 (RomIVT2A_XXIV) 16209.ab1	.....	138
PCR301.15 (RomIVT2A_XVII) 16209.ab1	.....	138
PCR329.5 (RomIVT2A_XVII) 16209.ab1	.....	136
PCR329.5 (RomIVT2A_XVII) 16348.ab1	.....	1
PCR164.3 (RomIV_T2A_XVII) 16410.ab1	.....	1
PCR320.6 (RomIVT2A_XVII) 16287.ab1	.....	122
PCR262.13 (RomIVT2A_XXIV) 16287.ab1	.....	122
PCR282.2 (RomIVT2A_XXXIII) 16287.ab1	.....	122

RomIVT2B

		+-----+-----+-----+-----+-----+-----+-----+										
	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
	+-----+-----+-----+-----+-----+-----+-----+											
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR239.8 (RomIVT2B_XXV) 15996.ab1	.....S.....RYK..KSY.K.R.....R...S....Y.....R...											105
PCR239.8 (RomIVT2B_XXV) 16142.ab1	.....S..M....M.M.....Y.....M.R.K.....SS.....R.....K.Y..											41
PCR248.4 (RomIVT2B_XXXIII) 16142.ab1	.....S.....R.....Y..											41
PCR213.9 (RomIVT2B_XXXIII) 16117.ab1	-----											0
PCR213.9 (RomIVT2B_XXXIII) 16233.ab1	-----											79
PCR240.6 (RomIVT2B_XXV) 16117.ab1	-----											0
PCR240.6 (RomIVT2B_XXV) 16233.ab1	-----											90
PCR214.9 (RomIVT2B_XXXIII) 16209.ab1	-----											0
PCR268.10 (RomIVT2B_XXV) 16209K.ab1	-----											0
PCR286.17 (RomIVT2B_XXV) 16348.ab1	-----											138
PCR262.5 (RomIVT2B_XXV) 16287.ab1	-----											0
PCR262.14 (RomIVT2B_XXXIII) 16287.ab1	-----											0
		+-----+-----+-----+-----+-----+-----+-----+										
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
	+-----+-----+-----+-----+-----+-----+-----+											
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA											16206
PCR239.8 (RomIVT2B_XXV) 15996.ab1	.....S....M....W.....											145
PCR239.8 (RomIVT2B_XXV) 16142.ab1	.....											1
PCR248.4 (RomIVT2B_XXXIII) 16142.ab1	.....											1
PCR213.9 (RomIVT2B_XXXIII) 16117.ab1	-----											89
PCR213.9 (RomIVT2B_XXXIII) 16233.ab1	-----											1
PCR240.6 (RomIVT2B_XXV) 16117.ab1	-----											89
PCR240.6 (RomIVT2B_XXV) 16233.ab1	-----											22
PCR214.9 (RomIVT2B_XXXIII) 16209.ab1	-----											0
PCR268.10 (RomIVT2B_XXV) 16209K.ab1	-----											0
PCR286.17 (RomIVT2B_XXV) 16348.ab1	-----											138
PCR262.5 (RomIVT2B_XXV) 16287.ab1	-----											0
PCR262.14 (RomIVT2B_XXXIII) 16287.ab1	-----											0
		+-----+-----+-----+-----+-----+-----+-----+										
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
	+-----+-----+-----+-----+-----+-----+-----+											
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR239.8 (RomIVT2B_XXV) 15996.ab1												145
PCR239.8 (RomIVT2B_XXV) 16142.ab1												1
PCR248.4 (RomIVT2B_XXXIII) 16142.ab1												1
PCR213.9 (RomIVT2B_XXXIII) 16117.ab1	.....G.....											115
PCR213.9 (RomIVT2B_XXXIII) 16233.ab1												1
PCR240.6 (RomIVT2B_XXV) 16117.ab1	.....G.....											115
PCR240.6 (RomIVT2B_XXV) 16233.ab1	.....G.....											1
PCR214.9 (RomIVT2B_XXXIII) 16209.ab1	-----.G.....A.....											100
PCR268.10 (RomIVT2B_XXV) 16209K.ab1	---.....G.....A.....											93
PCR286.17 (RomIVT2B_XXV) 16348.ab1	---.....G.....A.....											36
PCR262.5 (RomIVT2B_XXV) 16287.ab1	-----											24
PCR262.14 (RomIVT2B_XXXIII) 16287.ab1	-----											24

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR239.8 (RomIVT2B_XXV) 15996.ab1		145
PCR239.8 (RomIVT2B_XXV) 16142.ab1		1
PCR248.4 (RomIVT2B_XXXIII) 16142.ab1		1
PCR213.9 (RomIVT2B_XXXIII) 16117.ab1		115
PCR213.9 (RomIVT2B_XXXIII) 16233.ab1		1
PCR240.6 (RomIVT2B_XXV) 16117.ab1		115
PCR240.6 (RomIVT2B_XXV) 16233.ab1		1
PCR214.9 (RomIVT2B_XXXIII) 16209.ab1	.....	111
PCR268.10 (RomIVT2B_XXV) 16209K.ab1		93
PCR286.17 (RomIVT2B_XXV) 16348.ab1	.....	1
PCR262.5 (RomIVT2B_XXV) 16287.ab1	.....	122
PCR262.14 (RomIVT2B_XXXIII) 16287.ab1	.....	122

RomIV58

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR156.3 (RomIV58_XIII) 16410_(1).ab1	-----											122
PCR156.3 (RomIV58_XIII) 16410.ab1	-----											117
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAACCCCTCCCCATGCTTACAAGCA										16206	
PCR156.3 (RomIV58_XIII) 16410_(1).ab1	-----										122	
PCR156.3 (RomIV58_XIII) 16410.ab1	-----										117	
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR156.3 (RomIV58_XIII) 16410_(1).ab1	-----										98	
PCR156.3 (RomIV58_XIII) 16410.ab1	-----										93	
	16320	16330	16340	16350	16360	16370	16380	16390	16400			
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409		
PCR156.3 (RomIV58_XIII) 16410_(1).ab1	-----									1		
PCR156.3 (RomIV58_XIII) 16410.ab1	-----											

Solt55

	<pre> -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ NC_012920.1 TAAGATTCTAATTTAAACTATTCTCTGTCTTTTCATGGGGAAGCAGATTGTTGGGTACCACCCAAGTATTGACTCACCCTATCAACAACCGCTATGTATTTTCGTACAT PCR238.2 (Solt55_XXXX) 16117.ab1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ </pre>	16101 0
	<pre> -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 16110 16120 16130 16140 16150 16160 16170 16180 16190 16200 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ NC_012920.1 TACTGCCAGCCACCCTGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA PCR238.2 (Solt55_XXXX) 16117.ab1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ </pre>	16206 84
	<pre> -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ NC_012920.1 AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT PCR238.2 (Solt55_XXXX) 16117.ab1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ </pre>	16311 110
	<pre> -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ 16320 16330 16340 16350 16360 16370 16380 16390 16400 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ NC_012920.1 ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT PCR238.2 (Solt55_XXXX) 16117.ab1 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+ </pre>	16409 110

Solt56

NC_012920.1	TAAGATTCTAATTAAACTATTCTCTGTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR248.5 (Solt56_XIII) 15996.ab1	-.K.....C.....	105
PCR248.5 (Solt56_XIII) 16142.ab1	.....C.....	41
PCR255.3 (Solt56_XXXVIII) 15996.ab1	-.K.....C.....	104
PCR255.3 (Solt56_XXXVIII) 16142.ab1	.....G.....C.....	41
PCR237.4 (Solt56_XXXVIII) 16117.ab1	-----	0
PCR237.4 (Solt56_XXXVIII) 16233.ab1	-----	42
PCR244.14 (Solt56_XIII) 16117.ab1	-----	0
PCR284.10 (Solt56_XIII) 16348.ab1	-----	137
PCR285.10 (Solt56_XXXVIII) 16348.ab1	-----	137
PCR156.4 (Solt56_XIII) 16410.ab1	-----	118
PCR219.4 (Solt56_XXXVIII) 16287.ab1	-----	0
PCR219.4 (Solt56_XXXVIII) 16410.ab1	-----	121
PCR262.6 (Solt56_XIII) 16287.ab1	-----	0
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA	16206
PCR248.5 (Solt56_XIII) 15996.ab1	.....	145
PCR248.5 (Solt56_XIII) 16142.ab1	.....	1
PCR255.3 (Solt56_XXXVIII) 15996.ab1	.....	144
PCR255.3 (Solt56_XXXVIII) 16142.ab1	.....	1
PCR237.4 (Solt56_XXXVIII) 16117.ab1	-----,	88
PCR237.4 (Solt56_XXXVIII) 16233.ab1	-----,	1
PCR244.14 (Solt56_XIII) 16117.ab1	-----,	89
PCR284.10 (Solt56_XIII) 16348.ab1	-----	137
PCR285.10 (Solt56_XXXVIII) 16348.ab1	-----	137
PCR156.4 (Solt56_XIII) 16410.ab1	-----	118
PCR219.4 (Solt56_XXXVIII) 16287.ab1	-----	0
PCR219.4 (Solt56_XXXVIII) 16410.ab1	-----	121
PCR262.6 (Solt56_XIII) 16287.ab1	-----	0
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCTTAACAGTACATAGT	16311
PCR248.5 (Solt56_XIII) 15996.ab1	.....	145
PCR248.5 (Solt56_XIII) 16142.ab1	.....	1
PCR255.3 (Solt56_XXXVIII) 15996.ab1	.....	144
PCR255.3 (Solt56_XXXVIII) 16142.ab1	.....	1
PCR237.4 (Solt56_XXXVIII) 16117.ab1	.....C.....	114
PCR237.4 (Solt56_XXXVIII) 16233.ab1	.....	1
PCR244.14 (Solt56_XIII) 16117.ab1	.....C.....	115
PCR284.10 (Solt56_XIII) 16348.ab1	---.....C.....C	35
PCR285.10 (Solt56_XXXVIII) 16348.ab1	---.....C.....C	35
PCR156.4 (Solt56_XIII) 16410.ab1	-----,.....C	94
PCR219.4 (Solt56_XXXVIII) 16287.ab1	-----,.....C	24
PCR219.4 (Solt56_XXXVIII) 16410.ab1	-----,.....C	97
PCR262.6 (Solt56_XIII) 16287.ab1	-----,.....C	24

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	163201633016340163501636016370163801639016400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCTCAGATAGGGGTCCTTGACCACCATCCT	16409
PCR248.5 (Solt56_XIII) 15996.ab1		145
PCR248.5 (Solt56_XIII) 16142.ab1		1
PCR255.3 (Solt56_XXXVIII) 15996.ab1		144
PCR255.3 (Solt56_XXXVIII) 16142.ab1		1
PCR237.4 (Solt56_XXXVIII) 16117.ab1		114
PCR237.4 (Solt56_XXXVIII) 16233.ab1		1
PCR244.14 (Solt56_XIII) 16117.ab1		115
PCR284.10 (Solt56_XIII) 16348.ab1	.....	1
PCR285.10 (Solt56_XXXVIII) 16348.ab1	.....	1
PCR156.4 (Solt56_XIII) 16410.ab1	.....W.....	1
PCR219.4 (Solt56_XXXVIII) 16287.ab1	.....	122
PCR219.4 (Solt56_XXXVIII) 16410.ab1	.....W.....	1
PCR262.6 (Solt56_XIII) 16287.ab1	.....	122

Solt59

NC_012920.1	TAAGATTCTAATTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT	16101
PCR180.13(Solt59_XIV)15996.ab1	.....S.....T.....	105
PCR180.13(Solt59_XIV)16142.ab1	.....T.....	40
PCR248.6(Solt59_XXXVIII)15996.ab1	.....T.....	105
PCR248.6(Solt59_XXXVIII)16142.ab1	.....T.....	41
PCR237.3(Solt59_XXXVIII)16117.ab1	-----	0
PCR237.3(Solt59_XXXVIII)16233.ab1	-----	71
PCR251.1(Solt59_XIV)16117.ab1	-----	0
PCR304.10_Solt59_XIV)16117.ab1	-----	0
PCR284.11(Solt59_XXXVIII)16348.ab1	-----	138
PCR285.11(Solt59_XIV)16348.ab1	-----	120
PCR158.4(Solt_59_XIV)16410.ab1	-----	103
PCR219.3(Solt59_XXXVIII)16287.ab1	-----	0
PCR219.3(Solt59_XXXVIII)16410.ab1	-----	120
PCR262.7(Solt59_XIV)16287.ab1	-----	2

NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR180.13(Solt59_XIV)15996.ab1	.....C.....	145
PCR180.13(Solt59_XIV)16142.ab1	.....C.....	1
PCR248.6(Solt59_XXXVIII)15996.ab1	.....C.....	145
PCR248.6(Solt59_XXXVIII)16142.ab1	.....C.....	1
PCR237.3(Solt59_XXXVIII)16117.ab1	-----C.....	89
PCR237.3(Solt59_XXXVIII)16233.ab1	-----C.....	1
PCR251.1(Solt59_XIV)16117.ab1	-----C.....	89
PCR304.10_Solt59_XIV)16117.ab1	-----C.....	89
PCR284.11(Solt59_XXXVIII)16348.ab1	-----	138
PCR285.11(Solt59_XIV)16348.ab1	-----	120
PCR158.4(Solt_59_XIV)16410.ab1	-----	103
PCR219.3(Solt59_XXXVIII)16287.ab1	-----	0
PCR219.3(Solt59_XXXVIII)16410.ab1	-----	120
PCR262.7(Solt59_XIV)16287.ab1	-----	2

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR180.13(Solt59_XIV)15996.ab1												145
PCR180.13(Solt59_XIV)16142.ab1												1
PCR248.6(Solt59_XXXVIII)15996.ab1												145
PCR248.6(Solt59_XXXVIII)16142.ab1												1
PCR237.3(Solt59_XXXVIII)16117.ab1	.....											115
PCR237.3(Solt59_XXXVIII)16233.ab1												1
PCR251.1(Solt59_XIV)16117.ab1	.....											115
PCR304.10_Solt59_XIV)16117.ab1	.....											115
PCR284.11(Solt59_XXXVIII)16348.ab1	---.....											36
PCR285.11(Solt59_XIV)16348.ab1	---.....											18
PCR158.4(Solt_59_XIV)16410.ab1	-----											81
PCR219.3(Solt59_XXXVIII)16287.ab1	-----											20
PCR219.3(Solt59_XXXVIII)16410.ab1	-----											98
PCR262.7(Solt59_XIV)16287.ab1	-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.13(Solt59_XIV)15996.ab1										145
PCR180.13(Solt59_XIV)16142.ab1										1
PCR248.6(Solt59_XXXVIII)15996.ab1										145
PCR248.6(Solt59_XXXVIII)16142.ab1										1
PCR237.3(Solt59_XXXVIII)16117.ab1										115
PCR237.3(Solt59_XXXVIII)16233.ab1										1
PCR251.1(Solt59_XIV)16117.ab1										115
PCR304.10_Solt59_XIV)16117.ab1										115
PCR284.11(Solt59_XXXVIII)16348.ab1	.....									1
PCR285.11(Solt59_XIV)16348.ab1	.....									1
PCR158.4(Solt_59_XIV)16410.ab1	.....W.....-.....									1
PCR219.3(Solt59_XXXVIII)16287.ab1	.....									118
PCR219.3(Solt59_XXXVIII)16410.ab1	.....W.....									1
PCR262.7(Solt59_XIV)16287.ab1	.....									122

Solt60

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR255.4 (Solt60_XXXX) 15996.ab1	.....T.....S.....											105
PCR255.4 (Solt60_XXXX) 16142.ab1	.....T.....											41
PCR270.2 (Solt60_XXXX) 15996.ab1	-----T.....											99
PCR270.2 (Solt60_XXXX) 16142.ab1	.....T.....											41
PCR238.4 (Solt60_XXXX) 16117.ab1	-----											0
PCR238.4 (Solt60_XXXX) 16233.ab1	-----											80
PCR256.7 (Solt60_XXXX) 16117.ab1	-----											0
PCR284.12 (Solt60_XXXX) 16348.ab1	-----											138
PCR285.12 (Solt60_XXXX) 16348.ab1	-----											139
PCR258.8 (Solt60_XXXX) 16287.ab1	-----											0
PCR272.6 (Solt60_XXXX) 16287.ab1	-----											0
	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200		
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA											16206
PCR255.4 (Solt60_XXXX) 15996.ab1	.....R.M.....C.....											145
PCR255.4 (Solt60_XXXX) 16142.ab1	.....C.....											1
PCR270.2 (Solt60_XXXX) 15996.ab1	.....C.....											139
PCR270.2 (Solt60_XXXX) 16142.ab1	.....C.....											1
PCR238.4 (Solt60_XXXX) 16117.ab1	-----C.....											89
PCR238.4 (Solt60_XXXX) 16233.ab1	-----C.....											1
PCR256.7 (Solt60_XXXX) 16117.ab1	-----C.....											89
PCR284.12 (Solt60_XXXX) 16348.ab1	-----											138
PCR285.12 (Solt60_XXXX) 16348.ab1	-----											139
PCR258.8 (Solt60_XXXX) 16287.ab1	-----											0
PCR272.6 (Solt60_XXXX) 16287.ab1	-----											0
	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR255.4 (Solt60_XXXX) 15996.ab1												145
PCR255.4 (Solt60_XXXX) 16142.ab1												1
PCR270.2 (Solt60_XXXX) 15996.ab1												139
PCR270.2 (Solt60_XXXX) 16142.ab1												1
PCR238.4 (Solt60_XXXX) 16117.ab1	.....											115
PCR238.4 (Solt60_XXXX) 16233.ab1	.....											1
PCR256.7 (Solt60_XXXX) 16117.ab1	.....											115
PCR284.12 (Solt60_XXXX) 16348.ab1	---.....											36
PCR285.12 (Solt60_XXXX) 16348.ab1	---.....											37
PCR258.8 (Solt60_XXXX) 16287.ab1	-----											24
PCR272.6 (Solt60_XXXX) 16287.ab1	-----											2

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	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	+-----+-----+-----+-----+-----+-----+-----+-----+	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR255.4 (Solt60_XXXX) 15996.ab1		145
PCR255.4 (Solt60_XXXX) 16142.ab1		1
PCR270.2 (Solt60_XXXX) 15996.ab1		139
PCR270.2 (Solt60_XXXX) 16142.ab1		1
PCR238.4 (Solt60_XXXX) 16117.ab1		115
PCR238.4 (Solt60_XXXX) 16233.ab1		1
PCR256.7 (Solt60_XXXX) 16117.ab1		115
PCR284.12 (Solt60_XXXX) 16348.ab1	.....	1
PCR285.12 (Solt60_XXXX) 16348.ab1	.....	1
PCR258.8 (Solt60_XXXX) 16287.ab1	.....	122
PCR272.6 (Solt60_XXXX) 16287.ab1	.....	122

Solt61

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR255.5(Solt61_XXXVI)15996.ab1	--.K.....											103
PCR270.3(Solt61_XXXVI)15996.ab1	-.....											104
PCR270.3(Solt61_XXXVI)16142.ab1	.....S.....											31
PCR287.8(Solt61_XXXVI)16142.ab1	.....S.....											34
PCR218.4(Solt61_XXXVI)16117K.ab1	-----											0
PCR256.8(Solt61_XXXVI)16117.ab1	-----											0
PCR266.3(Solt61_XXXVI)16117.ab1	-----											0
PCR284.13(Solt61_XXXVI)16348.ab1	-----											138
PCR285.13(Solt61_XXXVI)16348.ab1	-----											138
PCR301.16(Solt61_XXXVI)16348.ab1	-----											137
PCR217.4(Solt61_XXXVI)16287.ab1	-----											0
PCR258.9(Solt61_XXXVI)16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR255.5(Solt61_XXXVI)15996.ab1	.....										143
PCR270.3(Solt61_XXXVI)15996.ab1	.....										144
PCR270.3(Solt61_XXXVI)16142.ab1	.....										1
PCR287.8(Solt61_XXXVI)16142.ab1	.....										1
PCR218.4(Solt61_XXXVI)16117K.ab1	-----.....										89
PCR256.8(Solt61_XXXVI)16117.ab1	-----.....										88
PCR266.3(Solt61_XXXVI)16117.ab1	-----.....										89
PCR284.13(Solt61_XXXVI)16348.ab1	-----										138
PCR285.13(Solt61_XXXVI)16348.ab1	-----										138
PCR301.16(Solt61_XXXVI)16348.ab1	-----										137
PCR217.4(Solt61_XXXVI)16287.ab1	-----										0
PCR258.9(Solt61_XXXVI)16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR255.5(Solt61_XXXVI)15996.ab1												143
PCR270.3(Solt61_XXXVI)15996.ab1												144
PCR270.3(Solt61_XXXVI)16142.ab1												1
PCR287.8(Solt61_XXXVI)16142.ab1												1
PCR218.4(Solt61_XXXVI)16117K.ab1	.....											100
PCR256.8(Solt61_XXXVI)16117.ab1	.....											114
PCR266.3(Solt61_XXXVI)16117.ab1	.....											115
PCR284.13(Solt61_XXXVI)16348.ab1	---	G.....C										36
PCR285.13(Solt61_XXXVI)16348.ab1	---	G.....C										36
PCR301.16(Solt61_XXXVI)16348.ab1	---	G.....C										35
PCR217.4(Solt61_XXXVI)16287.ab1	-----										C	24
PCR258.9(Solt61_XXXVI)16287.ab1	-----										C	2

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR255.5 (Solt61_XXXVI) 15996.ab1										143
PCR270.3 (Solt61_XXXVI) 15996.ab1										144
PCR270.3 (Solt61_XXXVI) 16142.ab1										1
PCR287.8 (Solt61_XXXVI) 16142.ab1										1
PCR218.4 (Solt61_XXXVI) 16117K.ab1										100
PCR256.8 (Solt61_XXXVI) 16117.ab1										114
PCR266.3 (Solt61_XXXVI) 16117.ab1										115
PCR284.13 (Solt61_XXXVI) 16348.ab1	.....									1
PCR285.13 (Solt61_XXXVI) 16348.ab1	.....									1
PCR301.16 (Solt61_XXXVI) 16348.ab1	.....									1
PCR217.4 (Solt61_XXXVI) 16287.ab1									122
PCR258.9 (Solt61_XXXVI) 16287.ab1									122

Solt63

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NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT	16101
PCR248.7 (Solt63_XXXVII) 15996.ab1	.....	105
PCR248.7 (Solt63_XXXVII) 16142.ab1	.....	41
PCR255.10 (Solt63_XXXVII) 15996.ab1	--.....	103
PCR287.9 (Solt63_XXXVII) 16142.ab1	.....S.....	34
PCR218.9 (Solt63_XXXVII) 16117.ab1	-----	0
PCR256.9 (Solt63_XXXVII) 16117.ab1	-----	0
PCR284.14 (Solt63_XXXVII) 16348.ab1	-----	138
PCR285.14 (Solt63_XXXVII) 16348.ab1	-----	138
PCR217.9 (Solt63_XXXVII) 16287.ab1	-----	0
PCR258.10 (Solt63_XXXVII) 16287.ab1	-----	0
PCR320.8 (Solt63_XXXVII) 16287.ab1	-----	0
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-- 16110161201613016140161501616016170161801619016200 -----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+--	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR248.7 (Solt63_XXXVII) 15996.ab1	.....	145
PCR248.7 (Solt63_XXXVII) 16142.ab1	.....	1
PCR255.10 (Solt63_XXXVII) 15996.ab1	.....	143
PCR287.9 (Solt63_XXXVII) 16142.ab1	.....	1
PCR218.9 (Solt63_XXXVII) 16117.ab1	-----	84
PCR256.9 (Solt63_XXXVII) 16117.ab1	-----.....	89
PCR284.14 (Solt63_XXXVII) 16348.ab1	-----	138
PCR285.14 (Solt63_XXXVII) 16348.ab1	-----	138
PCR217.9 (Solt63_XXXVII) 16287.ab1	-----	0
PCR258.10 (Solt63_XXXVII) 16287.ab1	-----	0
PCR320.8 (Solt63_XXXVII) 16287.ab1	-----	0
	---+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-- 1621016220162301624016250162601627016280162901630016310 ---+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+--	
NC_012920.1	AGTACAGCAATCAACCCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR248.7 (Solt63_XXXVII) 15996.ab1	.....	145
PCR248.7 (Solt63_XXXVII) 16142.ab1	.....	1
PCR255.10 (Solt63_XXXVII) 15996.ab1	.....	143
PCR287.9 (Solt63_XXXVII) 16142.ab1	.....	1
PCR218.9 (Solt63_XXXVII) 16117.ab1	.....	110
PCR256.9 (Solt63_XXXVII) 16117.ab1	.....	115
PCR284.14 (Solt63_XXXVII) 16348.ab1	--.....	36
PCR285.14 (Solt63_XXXVII) 16348.ab1	--.....	36
PCR217.9 (Solt63_XXXVII) 16287.ab1	-----	24
PCR258.10 (Solt63_XXXVII) 16287.ab1	-----	24
PCR320.8 (Solt63_XXXVII) 16287.ab1	-----	24

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	163201633016340163501636016370163801639016400	
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NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR248.7 (Solt63_XXXVII) 15996.ab1		145
PCR248.7 (Solt63_XXXVII) 16142.ab1		1
PCR255.10 (Solt63_XXXVII) 15996.ab1		143
PCR287.9 (Solt63_XXXVII) 16142.ab1		1
PCR218.9 (Solt63_XXXVII) 16117.ab1		110
PCR256.9 (Solt63_XXXVII) 16117.ab1		115
PCR284.14 (Solt63_XXXVII) 16348.ab1	.....	1
PCR285.14 (Solt63_XXXVII) 16348.ab1	.....	1
PCR217.9 (Solt63_XXXVII) 16287.ab1	.....	122
PCR258.10 (Solt63_XXXVII) 16287.ab1	.....	122
PCR320.8 (Solt63_XXXVII) 16287.ab1	.....	122

Solt64a

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR180.14 (Solt64_XIV)15996.ab1	-----.....C.....											99
PCR310.11 (Solt64_XIV)16142.ab1	.....C.....											41
PCR251.3 (Solt64_XIV)16117.ab1	-----											0
PCR260.5 (Solt64_XIV)16117.ab1	-----											0
PCR304.11 (Solt64_XIV)16233.ab1	-----											113
PCR285.15 (Solt64_XIV)16348.ab1	-----											87
PCR301.17 (Solt64_XIV)16209.ab1	-----											0
PCR158.5 (Solt64_XIV)16410.ab1	-----											118
PCR320.9 (Solt64_XIV)16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR180.14 (Solt64_XIV)15996.ab1	.....										139
PCR310.11 (Solt64_XIV)16142.ab1	.....										1
PCR251.3 (Solt64_XIV)16117.ab1	-----										89
PCR260.5 (Solt64_XIV)16117.ab1	-----										89
PCR304.11 (Solt64_XIV)16233.ab1	-----										25
PCR285.15 (Solt64_XIV)16348.ab1	-----										87
PCR301.17 (Solt64_XIV)16209.ab1	-----										0
PCR158.5 (Solt64_XIV)16410.ab1	-----										118
PCR320.9 (Solt64_XIV)16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCTTAACAGTACATAGT										
PCR180.14 (Solt64_XIV)15996.ab1											
PCR310.11 (Solt64_XIV)16142.ab1											
PCR251.3 (Solt64_XIV)16117.ab1	.....C.....										
PCR260.5 (Solt64_XIV)16117.ab1	.....C.....										
PCR304.11 (Solt64_XIV)16233.ab1	.....C.....										
PCR285.15 (Solt64_XIV)16348.ab1	-----C										37
PCR301.17 (Solt64_XIV)16209.ab1	----C.....	-----C									100
PCR158.5 (Solt64_XIV)16410.ab1	-----C										94
PCR320.9 (Solt64_XIV)16287.ab1	-----C										24

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	16320 16330 16340 16350 16360 16370 16380 16390 16400	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR180.14 (Solt64_XIV) 15996.ab1		139
PCR310.11 (Solt64_XIV) 16142.ab1		1
PCR251.3 (Solt64_XIV) 16117.ab1		115
PCR260.5 (Solt64_XIV) 16117.ab1		115
PCR304.11 (Solt64_XIV) 16233.ab1		1
PCR285.15 (Solt64_XIV) 16348.ab1	.....	1
PCR301.17 (Solt64_XIV) 16209.ab1	.....	136
PCR158.5 (Solt64_XIV) 16410.ab1	.....	1
PCR320.9 (Solt64_XIV) 16287.ab1	.....	122

Solt64b

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT											16101
PCR248.8 (Solt64_XXXX) 15996.ab1	.....											105
PCR248.8 (Solt64_XXXX) 16142.ab1	.....											41
PCR238.1 (Solt64_XXXX) 16117.ab1	-----											0
PCR238.1 (Solt64_XXXX) 16233.ab1	-----											71
PCR284.15 (Solt64_XXXX) 16348.ab1	-----											138
PCR305.16 (Solt64_XXXX) 16209.ab1	-----											0
PCR221.1 (Solt64_XXXX) 16287.ab1	-----											0
PCR306.9 (Solt64_XXXXI) 16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAAACCCCTCCCATGCTTACAAGCA										16206
PCR248.8(Solt64_XXXX)15996.ab1	.....										145
PCR248.8(Solt64_XXXX)16142.ab1	.....										1
PCR238.1(Solt64_XXXX)16117.ab1	-----										89
PCR238.1(Solt64_XXXX)16233.ab1	-----										1
PCR284.15(Solt64_XXXX)16348.ab1	-----										138
PCR305.16(Solt64_XXXX)16209.ab1	-----										0
PCR221.1(Solt64_XXXX)16287.ab1	-----										0
PCR306.9(Solt64_XXXXI)16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310
NC_012920.1	AGTACAGCAATCAACCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAACCTACCCACCCCTTAACAGTACATAGT										
PCR248.8 (Solt64_XXXX) 15996.ab1											
PCR248.8 (Solt64_XXXX) 16142.ab1											
PCR238.1 (Solt64_XXXX) 16117.ab1	.....									
PCR238.1 (Solt64_XXXX) 16233.ab1											
PCR284.15 (Solt64_XXXX) 16348.ab1	---.....G.....										
PCR305.16 (Solt64_XXXX) 16209.ab1	----.....G.....										
PCR221.1 (Solt64_XXXX) 16287.ab1	-----.....G.....										
PCR306.9 (Solt64_XXXXI) 16287.ab1	-----.....G.....										

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCTTGACCACCATCCT									16409
PCR248.8(Solt64_XXXX)15996.ab1										145
PCR248.8(Solt64_XXXX)16142.ab1										1
PCR238.1(Solt64_XXXX)16117.ab1										115
PCR238.1(Solt64_XXXX)16233.ab1										1
PCR284.15(Solt64_XXXX)16348.ab1	.....									1
PCR305.16(Solt64_XXXX)16209.ab1	.....									136
PCR221.1(Solt64_XXXX)16287.ab1	.....									122
PCR306.9(Solt64_XXXXI)16287.ab1	.....									120

Solt65a

		NC_012920.1	TAAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT	16101
		PCR329.6(Solt65_XIV)16209.ab1		0
		PCR329.6(Solt65_XIV)16348.ab1		137
		PCR320.10(Solt65_XIV)16287.ab1		0
		NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAACTTGACCACCTGTAGTACATAAAAAACCAATCCACATCAAACCCCCTCCCCATGCTTACAAGCA	16206
		PCR329.6(Solt65_XIV)16209.ab1		0
		PCR329.6(Solt65_XIV)16348.ab1		137
		PCR320.10(Solt65_XIV)16287.ab1		0
		NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT	16311
		PCR329.6(Solt65_XIV)16209.ab1	-----.....T.....C.....	100
		PCR329.6(Solt65_XIV)16348.ab1	--.....T.....C.....	35
		PCR320.10(Solt65_XIV)16287.ab1	-----.....T.....C.....	24
		NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCTCT	16409
		PCR329.6(Solt65_XIV)16209.ab1	.....T.....	136
		PCR329.6(Solt65_XIV)16348.ab1	.....T.....K.....	1
		PCR320.10(Solt65_XIV)16287.ab1	.....T.....	122

Solt65b

NC_012920.1			TAAGATTCTAATTTAAACTATTCTCTGTTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTTCGTACAT	16101
PCR259.2 (Solt65_XXXX) 15996.ab1			...K.....	105
PCR259.2 (Solt65_XXXX) 16142.ab1			-. S M . M	41
PCR270.4 (Solt65_XXXX) 15996.ab1			...K.....	105
PCR270.4 (Solt65_XXXX) 16142.ab1			-. S M	41
PCR238.5 (Solt65_XXXX) 16117.ab1			-----	0
PCR238.5 (Solt65_XXXX) 16233.ab1			-----	79
PCR266.4 (Solt65_XXXX) 16117.ab1			-----	0
PCR285.16 (Solt65_XXXX) 16348.ab1			-----	138
PCR272.7 (Solt65_XXXX) 16287.ab1			-----	0
NC_012920.1			TACTGCCAGCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTTAGTACATAAAAACCCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA	16206
PCR259.2 (Solt65_XXXX) 15996.ab1			.....	145
PCR259.2 (Solt65_XXXX) 16142.ab1			.....	1
PCR270.4 (Solt65_XXXX) 15996.ab1			.....	145
PCR270.4 (Solt65_XXXX) 16142.ab1			.....	1
PCR238.5 (Solt65_XXXX) 16117.ab1			-----	89
PCR238.5 (Solt65_XXXX) 16233.ab1			-----	1
PCR266.4 (Solt65_XXXX) 16117.ab1			-----	89
PCR285.16 (Solt65_XXXX) 16348.ab1			-----	138
PCR272.7 (Solt65_XXXX) 16287.ab1			-----	0
NC_012920.1			AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT	16311
PCR259.2 (Solt65_XXXX) 15996.ab1			.....	145
PCR259.2 (Solt65_XXXX) 16142.ab1			.....	1
PCR270.4 (Solt65_XXXX) 15996.ab1			.....	145
PCR270.4 (Solt65_XXXX) 16142.ab1			.....	1
PCR238.5 (Solt65_XXXX) 16117.ab1			.....	114
PCR238.5 (Solt65_XXXX) 16233.ab1			.....	1
PCR266.4 (Solt65_XXXX) 16117.ab1			.....	115
PCR285.16 (Solt65_XXXX) 16348.ab1			--.....C	36
PCR272.7 (Solt65_XXXX) 16287.ab1			-----.....C	24
NC_012920.1			ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT	16409
PCR259.2 (Solt65_XXXX) 15996.ab1			.....	145
PCR259.2 (Solt65_XXXX) 16142.ab1			.....	1
PCR270.4 (Solt65_XXXX) 15996.ab1			.....	145
PCR270.4 (Solt65_XXXX) 16142.ab1			.....	1
PCR238.5 (Solt65_XXXX) 16117.ab1			.....	114
PCR238.5 (Solt65_XXXX) 16233.ab1			.....	1
PCR266.4 (Solt65_XXXX) 16117.ab1			.....	115
PCR285.16 (Solt65_XXXX) 16348.ab1			.....	1
PCR272.7 (Solt65_XXXX) 16287.ab1			.....	122

Solt67

	+-----+-----+-----+-----+	
	-	
	16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100	
	+-----+-----+-----+-----+	
NC_012920.1	TAAGATTCTAATTTTAAACTATTTCCTGTCTTTTCATGGGGAAGCAGATTTGGGTACCACCCAAGTATTGACTCACCCCATCAACAACCGCTATGTATTTTCGTACAT	16101
PCR180.15(Solt67_XV)15996.ab1	. . . . . S T S	105
PCR248.9(Solt67_XXXIII)16142.ab1	. . . . . T S	41
PCR255.6(Solt67_XV)15996.ab1	. . . . . S T S	105
PCR213.10(Solt67_XXXIII)16117.ab1	-----	0
PCR213.10(Solt67_XXXIII)16233.ab1	-----	40
PCR251.4(Solt67_XV)16117.ab1	-----	0
PCR256.10(Solt67_XV)16117.ab1	-----	0
PCR304.12(Solt67_XXXIII)16233.ab1	-----	116
PCR214.10(Solt67_XXXIII)16209K.ab1	-----	0
PCR285.17(Solt67_XV)16348.ab1	-----	94
PCR286.6(Solt67_XXXII)16348.ab1	-----	94
PCR164.11(Solt67_XV)16410.ab1	-----	118
PCR246.4(Solt67_XXXIII)16410.ab1	-----	119
PCR246.4(Solt67_XXXIII)16287.ab1	-----	0
	+-----+-----+-----+-----+	
	-	
	16110 16120 16130 16140 16150 16160 16170 16180 16190 16200	
	+-----+-----+-----+-----+	
NC_012920.1	TACTGCCAGCCCACCATGAATATTGTACGGTACCATAAAATACTTGACCACCTGTAGTAGACATAAAAAACCCAATCCACATCAAACCCCCCTCCCCATGCTTACAAGCA	16206
PCR180.15(Solt67_XV)15996.ab1	. . . . . C	145
PCR248.9(Solt67_XXXIII)16142.ab1	. . . . . C	1
PCR255.6(Solt67_XV)15996.ab1	. . . . . C	145
PCR213.10(Solt67_XXXIII)16117.ab1	----- C T	89
PCR213.10(Solt67_XXXIII)16233.ab1	----- T	1
PCR251.4(Solt67_XV)16117.ab1	----- A C T	88
PCR256.10(Solt67_XV)16117.ab1	----- A C T	88
PCR304.12(Solt67_XXXIII)16233.ab1	----- C T	27
PCR214.10(Solt67_XXXIII)16209K.ab1	-----	0
PCR285.17(Solt67_XV)16348.ab1	-----	94
PCR286.6(Solt67_XXXII)16348.ab1	-----	94
PCR164.11(Solt67_XV)16410.ab1	-----	118
PCR246.4(Solt67_XXXIII)16410.ab1	-----	119
PCR246.4(Solt67_XXXIII)16287.ab1	-----	

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCTAGGATACCAACAAACCTACCCACCCCTTAACAGTACATAGT											16311
PCR180.15 (Solt67_XV) 15996.ab1												145
PCR248.9 (Solt67_XXXIII) 16142.ab1												1
PCR255.6 (Solt67_XV) 15996.ab1												145
PCR213.10 (Solt67_XXXIII) 16117.ab1	.....											115
PCR213.10 (Solt67_XXXIII) 16233.ab1												1
PCR251.4 (Solt67_XV) 16117.ab1	.....											114
PCR256.10 (Solt67_XV) 16117.ab1	.....											114
PCR304.12 (Solt67_XXXIII) 16233.ab1	.....											1
PCR214.10 (Solt67_XXXIII) 16209K.ab1	----	.....T.....T.....									91	
PCR285.17 (Solt67_XV) 16348.ab1	---	.....T.....T.....									1	
PCR286.6 (Solt67_XXXII) 16348.ab1	---	.....T.....T.....									1	
PCR164.11 (Solt67_XV) 16410.ab1	-----T-----											94
PCR246.4 (Solt67_XXXIII) 16410.ab1	-----T-----											95
PCR246.4 (Solt67_XXXIII) 16287.ab1	-----T-----											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR180.15 (Solt67_XV) 15996.ab1										145
PCR248.9 (Solt67_XXXIII) 16142.ab1										1
PCR255.6 (Solt67_XV) 15996.ab1										145
PCR213.10 (Solt67_XXXIII) 16117.ab1										115
PCR213.10 (Solt67_XXXIII) 16233.ab1										1
PCR251.4 (Solt67_XV) 16117.ab1										114
PCR256.10 (Solt67_XV) 16117.ab1										114
PCR304.12 (Solt67_XXXIII) 16233.ab1										1
PCR214.10 (Solt67_XXXIII) 16209K.ab1										91
PCR285.17 (Solt67_XV) 16348.ab1										1
PCR286.6 (Solt67_XXXII) 16348.ab1										1
PCR164.11 (Solt67_XV) 16410.ab1	.....R.....W.....	.....Y.....M.....M.....							1	
PCR246.4 (Solt67_XXXIII) 16410.ab1	.....W.....								1	
PCR246.4 (Solt67_XXXIII) 16287.ab1	.....									122

Schlanders 203

	16000	16010	16020	16030	16040	16050	16060	16070	16080	16090	16100	
NC_012920.1	TAAGATTCTAATTTAAACTATTCTCTGTTCTTTCATGGGAAGCAGATTGGGTACCACCCAAGTATTGACTCACCCATCAACAACCGCTATGTATTTCGTACAT											16101
PCR74.3(Schla203a_V)15996.ab1	--.....											103
PCR74.4(Schla203b_V)15996.ab1	--.....											103
PCR74.4(Schla203b_V)16142.ab1	.....											41
PCR180.11(Schla203a_V)15996.ab1	-.....											103
PCR180.11(Schla203a_V)16142.ab1	.....S.....											40
PCR141.12(Schla203a_V)16233.ab1	-----											113
PCR141.13(Schla203b_V)16233.ab1	-----											116
PCR240.7_Schla203b_V)16117.ab1	-----											0
PCR240.7(Schla203b_V)16233.ab1	-----											114
PCR140.12(Schla203a_V)16209.ab1	-----											0
PCR140.12(Schla203a_V)16348.ab1	-----											137
PCR285.9(Schla203a_V)16348.ab1	-----											77
PCR319.7(Schla203a_V)16209.ab1	-----											0
PCR138.8(Schla203a_V)16287.ab1	-----											0
PCR138.9(Schla203b_V)16287.ab1	-----											0
PCR320.7(Schla203a_V)16287.ab1	-----											0

	16110	16120	16130	16140	16150	16160	16170	16180	16190	16200	
NC_012920.1	TACTGCCAGCCACCATGAATATTGTACGGTACCATAAATACTTGACCACCTGTAGTACATAAAAAACCCAATCCACATCAAAACCCCTCCCCATGCTTACAAGCA										16206
PCR74.3(Schla203a_V)15996.ab1	.....C.....										143
PCR74.4(Schla203b_V)15996.ab1	.....C.....										143
PCR74.4(Schla203b_V)16142.ab1	.....C.....										1
PCR180.11(Schla203a_V)15996.ab1	.....C.....										143
PCR180.11(Schla203a_V)16142.ab1	.....C.....										1
PCR141.12(Schla203a_V)16233.ab1	-----M.M.....										24
PCR141.13(Schla203b_V)16233.ab1	-----M.....R.....										27
PCR240.7_Schla203b_V)16117.ab1	-----C.....										88
PCR240.7(Schla203b_V)16233.ab1	-----C.....										25
PCR140.12(Schla203a_V)16209.ab1	-----										0
PCR140.12(Schla203a_V)16348.ab1	-----										137
PCR285.9(Schla203a_V)16348.ab1	-----										77
PCR319.7(Schla203a_V)16209.ab1	-----										0
PCR138.8(Schla203a_V)16287.ab1	-----										0
PCR138.9(Schla203b_V)16287.ab1	-----										0
PCR320.7(Schla203a_V)16287.ab1	-----										0

	16210	16220	16230	16240	16250	16260	16270	16280	16290	16300	16310	
NC_012920.1	AGTACAGCAATCAACCCTCAACTATCACACATCAACTGCAACTCCAAAGCCACCCCTCACCCACTAGGATACCAACAAACCTACCCACCCTTAACAGTACATAGT											16311
PCR74.3(Schla203a_V)15996.ab1												143
PCR74.4(Schla203b_V)15996.ab1												143
PCR74.4(Schla203b_V)16142.ab1												1
PCR180.11(Schla203a_V)15996.ab1												143
PCR180.11(Schla203a_V)16142.ab1												1
PCR141.12(Schla203a_V)16233.ab1	.....											1
PCR141.13(Schla203b_V)16233.ab1	.....											1
PCR240.7_Schla203b_V)16117.ab1	.....											114
PCR240.7(Schla203b_V)16233.ab1	.....											1
PCR140.12(Schla203a_V)16209.ab1	-----S.....T.T.....											90
PCR140.12(Schla203a_V)16348.ab1	--.....T.T.....											35
PCR285.9(Schla203a_V)16348.ab1	-----T.T.....											17
PCR319.7(Schla203a_V)16209.ab1	----.....T.T.....											100
PCR138.8(Schla203a_V)16287.ab1	-----T.T.....											21
PCR138.9(Schla203b_V)16287.ab1	-----T.T.....											21
PCR320.7(Schla203a_V)16287.ab1	-----T.T.....											24

	16320	16330	16340	16350	16360	16370	16380	16390	16400	
NC_012920.1	ACATAAAGCCATTTACCGTACATAGCACATTACAGTCAAATCCCTTCTCGTCCCATGGATGACCCCCCTCAGATAGGGGTCCCTTGACCACCATCCT									16409
PCR74.3(Schla203a_V)15996.ab1										143
PCR74.4(Schla203b_V)15996.ab1										143
PCR74.4(Schla203b_V)16142.ab1										1
PCR180.11(Schla203a_V)15996.ab1										143
PCR180.11(Schla203a_V)16142.ab1										1
PCR141.12(Schla203a_V)16233.ab1										1
PCR141.13(Schla203b_V)16233.ab1										1
PCR240.7_Schla203b_V)16117.ab1										114
PCR240.7(Schla203b_V)16233.ab1										1
PCR140.12(Schla203a_V)16209.ab1	R.....C.....									126
PCR140.12(Schla203a_V)16348.ab1	.....C.....									1
PCR285.9(Schla203a_V)16348.ab1	.....C...									1
PCR319.7(Schla203a_V)16209.ab1	.....C.....									136
PCR138.8(Schla203a_V)16287.ab1	.....C.....									119
PCR138.9(Schla203b_V)16287.ab1	.....C.....									119
PCR320.7(Schla203a_V)16287.ab1	.....C.....									122

mtDNA pos. 12308 (A>G)

MP1a

NC_012920.1
PCR324.1 (MP1_XVI) 12352U

1230512310162301624016250162601627016280

CCAA**AA**AATTTTGGTGCAACTCCAAATAAAAGTAATAACCATGCACACTACTATAACCACCCTAACCCCTGACTTCCA
.....

Rom82

NC_012920.1
PCR335.3 (Rom82_XXXIV) 12352U

1230512310162301624016250162601627016280

CCAA**AA**AATTTTGGTGCAACTCCAAATAAAAGTAATAACCATGCACACTACTATAACCACCCTAACCCCTGACTTCCA
-...G.....-

Rom100b

NC_012920.1
PCR335.4 (Rom100_XXXXI) 12352U

1230512310162301624016250162601627016280

CCAA**AA**AATTTTGGTGCAACTCCAAATAAAAGTAATAACCATGCACACTACTATAACCACCCTAACCCCTGACTTCCA
....G.....-

Rom120b

NC_012920.1
PCR325.3 (Rom120_XXXVII) 12352U
PCR335.5 (Rom120_XXXVII) 12352U

1230512310162301624016250162601627016280

CCAA**AA**AATTTTGGTGCAACTCCAAATAAAAGTAATAACCATGCACACTACTATAACCACCCTAACCCCTGACTTCCA
-...G.....
....G.....

HERC2

MP1a

	+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
HERC2.seq	GAGGCCAGTTTCATTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGGCCGAGGCTTCTCTTTGT	300
PCR288.1 (MP1_XVI) HERC2-B.ab1	-----.....R.....Y.....	1
PCR307.1 (MP1_XVI) HERC-A.ab1	-----.....R.....	33
PCR331.1 (MP1_XVI) HERC-B.ab1	-----.....R.....	1

MP1b

	-----+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR290.4 (MP1 XXXVIII) HERC-B.ab1	-----.....A.....Y.....	1

MP6

	- - - + - - - + - - - + - - - + - - - + - - - +	
	230 240 250 260 270 280 290 300	
	- - - + - - - + - - - + - - - + - - - + - - - +	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR288.3 (MP6_XI) HERC-B.ab1	- - - - - G	1
PCR307.2 (MP6_XI) HERC-A.ab1	- - - - - A	33

MP7b

	-----+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCAATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR288.4 (MP7 XXXIX) HERC-B.ab1	-----+-----+-----+-----+-----+-----+-----+	
	.....A.....	1

Nogl169

	-----+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGGCCGAGGCTTCTCTTTGT	300
PCR288.5(Nog69_XVIII)HERC-B.ab1	-----.....R.....	1
PCR307.3(Nog69_XVIII)HERC-A.ab1	-----.....A.....	33
PCR331.2(Nog69)HERC-B.ab1	-----.....R.....	1

NogIII75

	+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR148.2 (Nog75_VII) HERC-B.ab1	-----A.....	1
PCR307.4 (Nog75_VII) HERC-A.ab1	-----A.....	31

PdVT2

	230	240	250	260	270	280	290	300
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT							300
PCR288.7 (PdVT2_XXXV) HERC-B.ab1	-----A-----							1
PCR307.5 (PdVT2_XXXV) HERC-A.ab1	-----A-----							33

PdVT3

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTTCATTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR148.4 (PdVT3_VII) HERC-A.ab1	-----.....R.....	33
PCR148.4 (PdVT3_VII) HERC-B.ab1	-----.....R.....	1
PCR288.8 (PdVT3_XXXVI) HERC2-B.ab1	-----.....M.....	1
PCR307.6 (PdVT3_VII) HERC-A.ab1	-----.....A.....	33

RomIII89

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCAATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR148.1 (Rom89_VII) HERC-A.ab1	-----.....R.....	34
PCR148.1 (Rom89_VII) HERC-B.ab1	-----.....R.....	1
PCR288.11 (Rom89_XXXVIII) HERC-B.ab1	-----.....R.....	1
PCR307.7 (Rom89_VII) HERC-A.ab1	-----.....R.....	33
PCR314.2 (Rom89_XXXVIII) HERC-A.ab1	-----.....R.....	33

RomIII90

	230	240	250	260	270	280	290	300	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT								300
PCR288.12 (Rom90_XIII) HERC-B.ab1	-----T								1
PCR290.7 (Rom90_XXXIX) HERC-B.ab1	-----Y								1
PCR331.3 (Rom90_XIII) HERC-B.ab1	-----								1

RomIII91a

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGCCGAGGCTTCTCTTTGT	300
PCR288.13 (Rom91 XIV) HERC-B.ab1	-----.....G.....	1

RomIII91b

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR290.8 (Rom91_XXXIV) HERC-B.ab1	-----R-----	1
PCR325.2 (Rom91_XXXIV) HERC-A.ab1	-----R-----	33

RomIII97

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR290.9 (Rom97_XXXI) HERC-B.ab1	----- A	1
PCR331.5 (Rom97_XIV) HERC-B.ab1	----- A	1

RomIII105

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.2 (Rom105_XV) HERC2-A.ab1	----- A	33
PCR289.2 (Rom105_XV) HERC2-B.ab1	----- A	1
PCR290.12 (Rom105_XXXIX) HERC-B.ab1	----- A	1

RomIII114

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.3 (Rom114_XVII) HERC2-A.ab1	----- A	29
PCR289.3 (Rom114_XVII) HERC2-B.ab1	----- A	1
PCR290.13 (Rom114_XXIV) HERC-B.ab1	----- A	1

RomIII120

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.5 (Rom120_XV) HERC-B.ab1	----- G	1

	+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR288.16 (RomT11a_XXV) HERC2-A.ab1	----- A	33
PCR288.16 (RomT11a_XXV) HERC2-B.ab1	----- A	1

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR293.9 (RomT12E_XXII) HERC2-A.ab1	----- R	33
PCR293.9 (RomT12E_XXII) HERC2-B.ab1	----- R	1

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR293.2 (RomT12E_XXXIV) HERC2-A.ab1	-----.....G.....	28
PCR293.2 (RomT12E_XXXIV) HERC2-B.ab1	-----.....G.....	1

	230	240	250	260	270	280	290	300	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT								300
PCR289.9(RomIV_T2A_XVII)HERC2-A.ab1	-----R-----								33
PCR289.9(RomIV_T2A_XVII)HERC2-B.ab1	-----R..								1
PCR325.5(RomIVT2A_XVII)HERC-A.ab1	-----R-----								33

RomIVT2B

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.10 (RomIVT2B_XXV) HERC-B.ab1	-----A-----	1
PCR331.8 (RomIV_T2B) HERC-B.ab1	-----A-----	1

Solt56

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.12 (Solt56_XIII) HERC2-A.ab1	-----R-----	33
PCR289.12 (Solt56_XIII) HERC2-B.ab1	-----R-----GYC-----	1
PCR293.5 (Solt56_XXXVII) HERC-B.ab1	-----R-----C-----	1

Solt59

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.13 (Solt59_XIV) HERC2-A.ab1	-----AT-----	30
PCR289.13 (Solt59_XIV) HERC2-B.ab1	-----	1
PCR293.6 (Solt59_XXXVIII) HERC-B.ab1	-----	1

Solt60

	-----+-----+-----+-----+-----+-----+-----+-----+-----+ 230240250260270280290300 -----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.14 (Solt60_XXXX) HERC2-A.ab1	-----R-----	33
PCR289.14 (Solt60_XXXX) HERC2-B.ab1	-----R-----	1
PCR307.9 (Solt60_XXXX) HERC-A.ab1	-----R-----	28

Solt61

	-----+-----+-----+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGGCCAGTTTCATTGAGCATTAARTGTCAAGTCTCGACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR289.15 (Solt61_XXXVI) HERC-B.ab1	-----.....A.....	1
PCR325.7 (Solt61) HERC-A.ab1	-----.....A.....	33

Solt63

	+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTTCGTGCACGCTATCATCATCAGGGGCGGAGGCTTCTCTTTGT	300
PCR289.16 (Solt63_XXXVII) HERC-B.ab1	-----.....Y.....	1
PCR307.11 (Solt63_XXXVII) HERC-A.ab1	-----.....	33

Solt64b

	+-----+	+
	230 240 250 260 270 280 290 300	
	+-----+	
HERC2.seq	GAGGCCAGTTTCATTTGAGCATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR290.1 (Solt64 XIV) HERC-B.abl	-----.....R....	1

Solt67

	-----+-----+-----+-----+-----+-----+-----+	
	230 240 250 260 270 280 290 300	
	-----+-----+-----+-----+-----+-----+-----+	
HERC2.seq	GAGGCCAGTTTCATTGTGACATTAARTGTCAAGTCTGCACGCTATCATCATCAGGGGCCGAGGCTTCTCTTTGT	300
PCR290.3(Solt67_XV) HERC-B.ab1	-----.....G.....Y.....	1
PCR293.8(Solt67_XXXII) HERC-B.ab1	-----.....G.....	1
PCR331.9(Solt67_XV) HERC-B.ab1	-----.....G.....	1
PCR331.12(Solt67_XXXII) HERC-B.ab1	-----.....G.....	1

MP2a

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-----+-----+-----+-----+-----+-----+-----+
          90       100       110       120       130       140       150       160
-----+-----+-----+-----+-----+-----+-----+
Lact5.seq      AGTAGGCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCCTCCTTAGGTTGCATTT      160
PCR_173.3_(MP2_X)_Lac5-B.ab1  -----+-----+-----+-----+-----+-----+-----+
                                     .....C.....
-----+-----+-----+-----+-----+-----+-----+
          170       180       190       200       210       220       230       240
-----+-----+-----+-----+-----+-----+-----+

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NogIII69

	+-----+-----+-----+-----+-----+-----+-----+-----+	
	100 110 120 130 140 150 160 170 180	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCCTCCTTAGGTTGCATTGTGTATAATGTTTTGATTTTTAGATTGTT	186
PCR173.21 (Nog69_XVIII) Lact-A.ab1	.....C.....	67
PCR332.1 (Nog69_XXXIX) Lact-B.ab1	.....C.....	1

PdVT2

	-----+-----+-----+-----+-----+-----+-----+-----+-----	
	100 110 120 130 140 150 160 170 180	
	-----+-----+-----+-----+-----+-----+-----+-----+-----	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAActcTCTCCTCCTTAGGTTGCATTtGTATAATgTTTGATTTTTAGATTGTT	186
PCR_236.4_(PdV_T2_XXXV)_Lac5-A.ab1	-----+-----+-----+-----+-----+-----+-----+-----+----- .K...C.....	67
PCR_236.4_(PdV2_XXXV)_Lac5-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----+-----C.....	1
PCR332.2(PdVT2)Lact-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----+-----C.....Y..C.....	1

PdVT3

	-----+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
	-----+-----+-----+-----+-----+-----+-----+	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATT	160
PCR_236.5_(PdV_T3_XXXVI)_Lac5-A.ab1	.....C.....M.....D.....	45
PCR_236.5_(PdV_T3_XXXVI)_Lac5-B_WH.ab1	.....C..Y.....	22
PCR_236.5_(PdV_T3_XXXVI)_Lac5-B.ab1	.....KC..Y.....	18
PCR247.12(PdVT3_VII)Lac5-A.ab1	..K...T.....	46
PCR247.12(PdVT3_VII)Lac5-B.ab1	.....T.....	22
PCR288.8(PdVT3_XXXVI)Lac5-A.ab1	.....M.....	26
PCR288.8(PdVT3_XXXVI)Lac5-B.ab1	.....C....N.G.....K.....A....AC	18
PCR298.2(PdVT3_VII)Lac5-A.ab1	.....C.....M.....R...	44
PCR298.2(PdVT3_VII)Lac5-B.ab1	.....C.....S.....	16
PCR298.3(PdVT3_XXXVI)Lac5-A.ab1	.....	39
PCR298.3(PdVT3_XXXVI)Lac5-B.ab1	.....C.....	16
	-----+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+-----+	
Lact5.seq	GTATAATGTTTGATTTTTAGATTGTTCTTTGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTA AAAAG	240
PCR_236.5_(PdV_T3_XXXVI)_Lac5-A.ab1	.....	66
PCR_236.5_(PdV_T3_XXXVI)_Lac5-B_WH.ab1	.....	1
PCR_236.5_(PdV_T3_XXXVI)_Lac5-B.ab1	.....	1
PCR247.12(PdVT3_VII)Lac5-A.ab1	.....	67
PCR247.12(PdVT3_VII)Lac5-B.ab1	.....	1
PCR288.8(PdVT3_XXXVI)Lac5-A.ab1	..C....A.....	47
PCR288.8(PdVT3_XXXVI)Lac5-B.ab1	.....G.....	1
PCR298.2(PdVT3_VII)Lac5-A.ab1	.....	65
PCR298.2(PdVT3_VII)Lac5-B.ab1	.....	2
PCR298.3(PdVT3_XXXVI)Lac5-A.ab1	.....	60
PCR298.3(PdVT3_XXXVI)Lac5-B.ab1	.....	1

RomII89

	100	110	120	130	140	150	160	170	180	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTTGTATAATGTTTGATTTTTAGATTGTT									186
PCR247.14 (RomIII89_XXXVIII) Lac5-B.ab1	----- C									1
PCR247.15 (RomIII89_XXXIX) Lac5-B.ab1	----- C . . Y									1
PCR332.3 (Rom89) LacT-B.ab1	----- C									1

RomII90

	+-----+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
	+-----+-----+-----+-----+-----+-----+-----+	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTT	160
PCR_236.1_(Rom90_XIII)_Lac5-A.ab1	-----...C.....	43
PCR_236.1_(RomIII90_XIII)_Lac5-B.ab1	-----...C.....	22
PCR288.12(Rom90_XIII)Lac5-B.ab1	-----...C.	1
	+-----+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	+-----+-----+-----+-----+-----+-----+-----+	
Lact5.seq	GTATAATGTTTGATTTTTtagattgTtctttGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTAAAAG	240
PCR_236.1_(Rom90_XIII)_Lac5-A.ab1	.....	64
PCR_236.1_(RomIII90_XIII)_Lac5-B.ab1	.....	1
PCR288.12(Rom90_XIII)Lac5-B.ab1	.....	1

RomIII91b

	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
	100 110 120 130 140 150 160 170 180	
	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCCTCCTTAGGTTGCATTGTATAATGTTTGATTTTATAGATTGTT	186
PCR290.8 (Rom91 XXXIV) Lac5-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----+-----+-----C.....R...	1

RomII97

	+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
	+-----+-----+-----+-----+-----+-----+	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTT	160
PCR_173.7_(RomIII_97_XIV)_Lac5-B.ab1	-----.....C.....	21
PCR_173.7_(RomIII97_XIV)_Lac5-A.ab1	-----.....C.....	45
	+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	+-----+-----+-----+-----+-----+-----+	
Lact5.seq	GTATAATGTTTGATTTTTAgATTGTTCTTTGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTA AAAAG	240
PCR_173.7_(RomIII_97_XIV)_Lac5-B.ab1	-----..	2
PCR_173.7_(RomIII97_XIV)_Lac5-A.ab1	-----	66

RomIII100a

	+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAAGTCTCCTCCTTAGGTTGCATTT	160
PCR_173.8_(RomIII100_XIV)_Lac5-A.ab1	-----...T.....	43
PCR_173.8_(RomIII100_XIV)_Lac5-B.ab1	-----....T.....	18
	+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	+-----+-----+-----+-----+-----+-----+	
Lact5.seq	GTATAATGTTTGATTTTTAGATTGTTCTTTGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTA AAAAG	240
PCR_173.8_(RomIII100_XIV)_Lac5-A.ab1	.....	64
PCR_173.8_(RomIII100_XIV)_Lac5-B.ab1	.....	1

RomIII103

	-----+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAActCTCCTCCTTAGGTTGCATT	160
PCR290.11 (Rom103_XXXXI) Lac5-B.ab1	.....C.....A.....	1
	-----+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+-----+	

RomIII105

Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTTGTATAATGTTTGATTTTGTAGATTGTT	186
PCR290.12 (Rom105_XXXIX) Lac5-B.ab1	-----.....C.	1

RomIII114

Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACTCTCCTCCTTAGGTTGCATTTGTATAATGTTTATTTAGATTGTT	186
PCR_173.17_(RomIII_114_XVII)_Lac5-B.ab1	-----.....C.....	1
PCR_173.17_(RomIII114_XVII)_Lac5-A.ab1	-----.....C.....	65
PCR289.3(Rom114_XVII)Lac5-A.ab1	-----.....C.....R.....YW.....	65
PCR289.3(Rom114_XVII)Lac5-B.ab1	-----.....C.Y.....K.....	1

RomIII120b

Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGTTCATT	160
PCR290.16 (Rom120_XXXVII) Lac5-B.ab1	-----C-----	3
	-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+	
Lact5.seq	GTATAATGTTTGATTTTTAGATTGTTCTTTGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTAAGAAG	240
PCR290.16 (Rom120 XXXVII) Lac5-B.ab1	..	1

RomIVT2A

	100	110	120	130	140	150	160	170	180	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTGTGTATAATGTTTGTATTTTAGATTGTT									186
PCR_173.19_(RomIV_T2A_XVII)_Lac5-B.ab1	.....C.....									1
PCR_173.19_(RomIV_T2A_XVII)_Lac5-A.ab1	.....C.....									67
PCR289.9 (RomIV_T2A_XVII) Lac5-B.ab1	.....C.YSY.K.....K.....C.Y.....TG.....									1
PCR332.8 (RomIVT2a_XVII) Lact-B.ab1	.....C.....									9

RomIVT2B

	+-----+	
	90 100 110 120 130 140 150 160	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAActCTCCTCCTTAGGTTGCATT	160
PCR_236.2_(RomIV_T2B_XXXIII)_Lac5-B_NIX.	-----,WRW.WCMMMYRW,M.....M...MMY.MK...RK.....	11
PCR_236.2_(RomIV_T2B_XXXIII)_Lac5-A.ab1	-----,C.....K.....M.....M..S.....AK.....	46
	+-----+	
	170 180 190 200 210 220 230 240	
	+-----+	
Lact5.seq	GTATAATGTTTgatttttagattgttctttgagccctgcattccacgaggataggTCAGTGGGTATTAACGAGGTAAAAG	240
PCR_236.2_(RomIV_T2B_XXXIII)_Lac5-B_NIX.	.K.....	1
PCR_236.2_(RomIV_T2B_XXXIII)_Lac5-A.ab1	67

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RomIIT11A-b

Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAAGCTCTCCTCCTTAGGTTGCATTGTGATAATGTTTGATTTTGTAGATTGTT	186
PCR293.1 (RomT11A_XXXXI) Lac5-A.ab1	-----C-----T..GST.....TT.....	66
PCR293.1 (RomT11A_XXXXI) Lac5-B.ab1	-----C.....Y..	1

RomIIT12E-b

Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTTGTATAATGTTTGATTTTATAGATTGTT	186
PCR293.9(RomT12E XXII)Lac5-B.ab1	-----.....C.YS.....	1

Schlanders

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Lact5.seq      AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCCTCCTTAGGTTGCATTT      160
PCR247.5 (Schla203a_V) Lac5-A.ab1 -----C.....D.....M.....W.....      46

      +-----+-----+-----+-----+-----+-----+
      170      180      190      200      210      220      230      240
      +-----+-----+-----+-----+-----+-----+

Lact5.seq      GTATAATGTTTGATTTTGTAGATTGTTCTTTGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTAAAAG      240
PCR247.5 (Schla203a_V) Lac5-A.ab1 .....      67

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Solt56

Lact5.seq	AGATAATGTAGYCCCTGGCCTCAAAGGAACTCTCCTCCTTAGGTTGCATTTGTATAATGTTTATTTAGATTGTTCTT	189
PCR_173.25_(Solt56_ExXIII)_Lac5-A.ab1	-----...C.....	65
PCR_173.25_(Solt56_ExXIII)_Lac5-B.ab1	-----...C.....	1
PCR_173.25_(Solt56_XIII)_Lac5_(2).ab1	-----...C.....	67
PCR_173.25_(Solt56_XIII)_Lac5.ab1	-----...C.....	67
PCR289.12(Solt56_XIII)Lac5-A.ab1	-----..WTC...R...K.....N.....	65

Solt59

	90	100	110	120	130	140	150	160
Lact5.seq	AGTAGGCCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTT							
PCR_173.9_(Solt59_XIV)_Lac5_(2).ab1	.....C.....							
PCR_173.9_(Solt59_XIV)_Lac5.ab1	.....C.....							
PCR289.13(Solt59_XIV)Lac5-B.ab1	.....C.YSYSK.....							

Solt61

	+-----+-----+-----+-----+-----+-----+-----+	
	100 110 120 130 140 150 160 170 180	
	+-----+-----+-----+-----+-----+-----+-----+	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTGTGTATAATGTTTGATTTTTAGATTGTT	186
PCR_236.6_(Solt61_XXXVI)_Lac5-A.ab1	-----.....C.....	67
PCR_236.6_(Solt61_XXXVI)_Lac5-B.ab1	-----.....C...Y.....	1

Solt63

	-----+-----+-----+-----+-----+-----+-----+	
	90 100 110 120 130 140 150 160	
Lact5.seq	AGTAGGCCTCTGCGCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAAGTCTCTCTCTTAGGTTGCATTT	160
PCR_236.7_(Solt63_XXXVII)_Lac5-A.ab1	-----+.C-----	46
PCR_236.7_(Solt63_XXXVII)_Lac5-B.ab1	-----+.C-----	18
PCR308.10(Solt63_XXXVII)Lact-B.ab1	-----+.C-----	22
	-----+-----+-----+-----+-----+-----+-----+	
	170 180 190 200 210 220 230 240	
	-----+-----+-----+-----+-----+-----+-----+	
Lact5.seq	GTATAATGTTTGATTTTTAGATTGTTCTTTGAGCCCTGCATTCCACGAGGATAGGTCAGTGGGTATTAACGAGGTAAAAG	240
PCR_236.7_(Solt63_XXXVII)_Lac5-A.ab1	.....A.	67
PCR_236.7_(Solt63_XXXVII)_Lac5-B.ab1	.....	1
PCR308.10(Solt63_XXXVII)Lact-B.ab1	R.....	1

Solt67

	100	110	120	130	140	150	160	170	180	
Lact5.seq	GCTGGCAATACAGATAAGATAATGTAGYCCCTGGCCTCAAAGGAACCTCTCCTCCTTAGGTTGCATTTGTATAATGTTTATTTAGATTGTT									186
PCR247.6 (Solt67_XXXIII) Lac5-A.ab1	-----...C.....K...Y..M..SM.....									49
PCR247.6 (Solt67_XXXIII) Lac5-B.ab1	-----.....C...Y.K.....M.....M....K.....M.....									1
PCR290.3 (Solt67_XV) Lac5-B.ab1	-----..RWW.C.Y..K.....									1
PCR332.11 (Solt67_XV) Lact-B.ab1	-----.....C.....									1

M201

MP6

	-----+-----+-----+-----+-----+-----+-----	
	10203040506070	
	-----+-----+-----+-----+-----+-----+-----	
M201.seq	TTAGTTTCTCAGATCTAATAATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGA	75
PCR295.2 (MP6_XI) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----	19
	.T.W..M..M.....	

NogII69

	-----+-----+-----+-----+-----+-----+-----+-----	
	2030405060708090	
	-----+-----+-----+-----+-----+-----+-----+-----	
M201.seq	AATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGATAGGATGCTGGATATGGGATTTGA	99
PCR175.10 (Nog69_XVIII) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----+-----	19
	..T.....	
PCR201.1 (Nog69_XVIII) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR201.2 (Nog69_XXIII) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----+-----	19
	..T.....	
PCR201.2 (Nog69_XXIII) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR321.1 (Nog69_XVIII) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----+-----	19
	..T.....	
PCR321.1 (Nog69_XVIII) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR321.2 (Nog69_XXXIX) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----+-----	18
	..T.....	
PCR321.2 (Nog69_XXXIX) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR333.1 (Nog69_XVIII) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR333.3 (Nog69_XXXIX) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----+-----	1
	..T.....	

PdVT3

	-----+-----+-----+-----+-----+-----+-----	
	10203040506070	
	-----+-----+-----+-----+-----+-----+-----	
M201.seq	TTAGTTTCTCAGATCTAATAATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGA	75
PCR295.4 (PdVT3_VII) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----	18
	.T.....	
PCR296.1 (PdVT3_XXXVI) M201-A.ab1	-----+-----+-----+-----+-----+-----+-----	18
	.T.....	
PCR321.3 (PdVT3_VII) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR321.4 (PdVT3_XXXVI) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR333.2 (PdVT3_VII) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----	1
	..T.....	
PCR333.4 (PdVT3_XXXVI) M201-B.ab1	-----+-----+-----+-----+-----+-----+-----	1
	..T.....	

RomIV58

-----+-----+-----+-----+-----+-----+-----
10203040506070

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-----+-----+-----+-----+-----+-----+-----+-----
M201.seq                TTAGTTTCTCAGATCTAATAATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGA 75
201.9_M201A_RomIV53.ab1 -----..T..... 19
201.9_M201B_RomIV53.ab1 -----..T.....R..... 1

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RomIIT12E-b

	10	20	30	40	50	60	70	
M201.seq	TTAGTTTCTCAGATCTAATAATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGA							75
PCR295.5 (RomT12E_XXII)M201-A.ab1	-----T.....							17
PCR321.5 (RomT12E_XXII)M201-B.ab1	-----T.....							1
PCR321.5 (RomT12E_XXII WH)M201-B.ab1	-----T.....							1

Solt63

	-----+-----+-----+-----+-----+-----+-----+-----	
	10 20 30 40 50 60 70	
	-----+-----+-----+-----+-----+-----+-----+-----	
M201.seq	TTAGTTTCTCAGATCTAATAATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGA	75
PCR296.9 (Solt63_XXXVII)M201-A.ab1	-----T.....	18

Solt65

	-----+-----+-----+-----+-----+-----+-----+-----	
	10 20 30 40 50 60 70	
	-----+-----+-----+-----+-----+-----+-----+-----	
M201.seq	TTAGTTTCTCAGATCTAATAATCCAGTATCAACTGAGGKTTTTCGTAATAGGTACTTAGTGTTGGATGAAGCTGA	75
PCR296.11 (Solt65_XXXX)M201-A.ab1	-----,T.....	18

L91

Nogl169

	+-----+-----+-----+-----+-----+-----+	
	10 20 30 40 50 60 70 80	
	+-----+-----+-----+-----+-----+-----+	
Y-21645555.seq	TCTCTTTTCAGAATCTCACTTCTGGAGAGCACTAAGCCACTTCCAGCCATGCTGTGAACCASGCCCATGGAAGCCATCTTT	80
PCR323.1 (Nog69_XVIII) L91-B.ab1	-----...M.....G.M..R...R...	1
PCR323.2 (Nog69_XXXIX) L91-B.ab1	-----.....G.....	1
PCR334.1 (Nog69_XVIII) L91-A.ab1	-----.....G.....	31
PCR334.3 (Nog69_XXXIX) L91-A.ab1	-----.....G.M..R...R.....	32

PdVT3

	10	20	30	40	50	60	70	80	
Y-21645555.seq	TCTCTTTTCAGAATCTCACTTCTGGAGAGCACTAAGCCACTTCCAGCCATGCTGTGAACCASGCCCATGGAAGCCATCTTT								80
PCR323.3 (PdVT3_VIII) L91-B.ab1	.....G...R...R..								1
PCR323.4 (PdVT3_XXXVI) L91-B.ab1	...M.....G.M...R...R..								1
PCR334.2 (PdVT3_VII) L91-A.ab1	...C.....G.A...G...G.....								32

RomIIT12E-b

[illegible]

Solt63

	+-----+-----+-----+-----+-----+-----+	
	10 20 30 40 50 60 70 80	
	+-----+-----+-----+-----+-----+-----+	
Y-21645555.seq	TCTCTTTT CAGAATCTCACTTCTGGAGAGCACTAAGCCACTTCCAGCCATGCTGTGAACCASGCCCATGGAAGCCATCTTT	80
PCR323.6(Solt63 XXXVII) L91-B.ab1	----- Y Y . S R . .	1