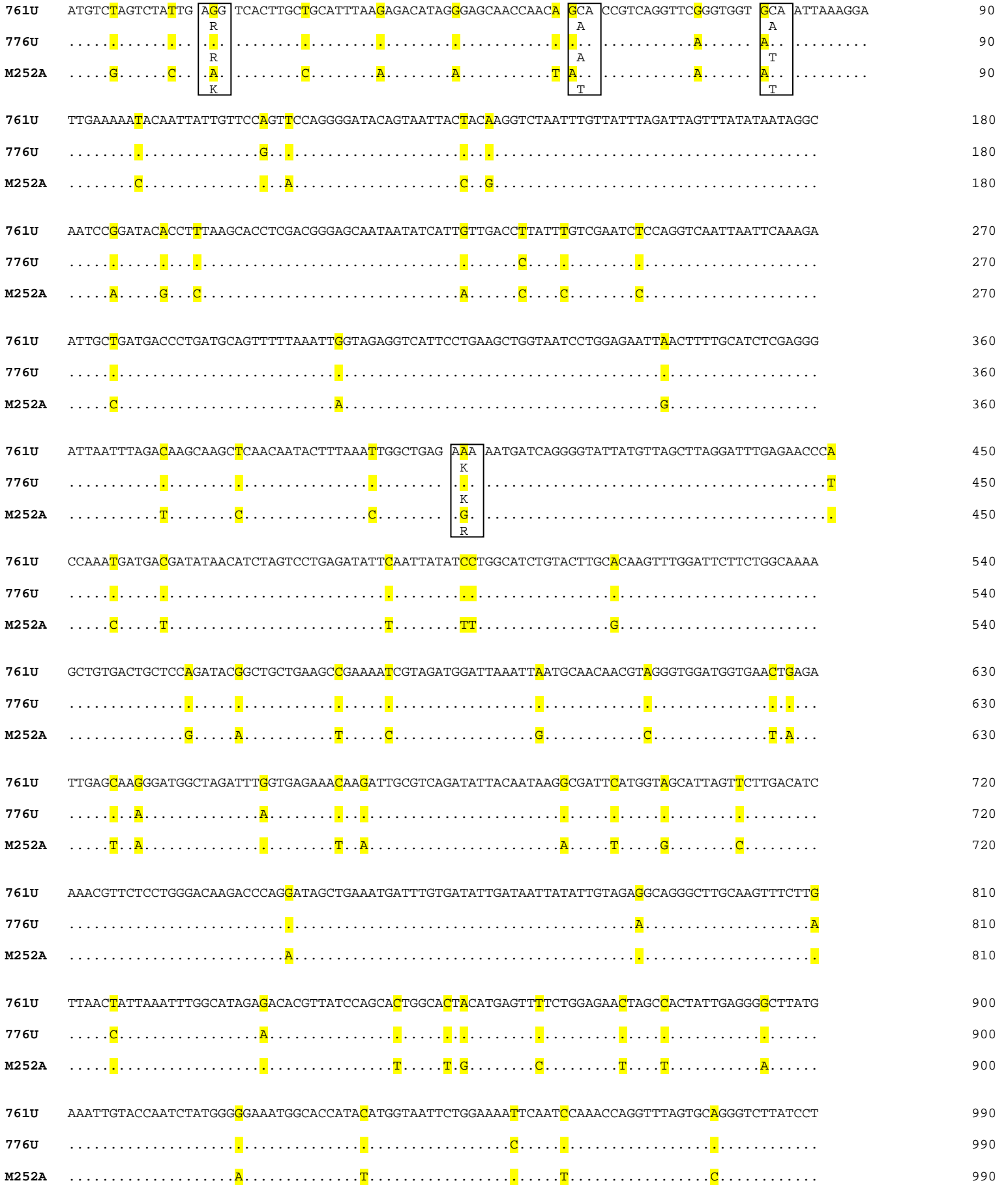


SI Fig. 3

N



761U CTGCTATGGAGTTATGCCATGGGTGTCGGGGTGGAGCTTGAAAGATCAATGGGTGGACTCAATTTCACTAGAAGCTTCTTTGACCCATACA 1080
 776UA.....G.. 1080
 M252A T.....C.T.T.....G.....T.T.G.....G 1080

761U TATTTTCAGACTTGGTCAAGAGATGGTGAGGAGATCTTCAGGGATGGTTAATAGTTCATTTCGCGAGAGAAGCTTGGCTATCTGATCATGAA 1170
 776UG.....G.....E.....G..... 1170
 M252A ..C.....A.....C.....G.....A.....G 1170

761U ACACAAGTGTGTCAGCCAGATTGTCAATTCGGGAGGTGAATCTGGGATACCTAAATTTGATGGATTTCAGAGCAAATCCAACAACTTTCTA 1260
 776UG.....G.....C..... 1260
 M252AT.....A.....T.....C..... 1260

761U GGAACCAAAAGATAACATAAATGATAGAGGTGAAGATCAGTCAAAATTCGATAATCAGGGTTACCTGGTCCACTATTACCCAGCCGTGACCTA 1350
 776UG.....G.....G.....R.....R.....I.....I..... 1350
 M252AT.....T.....N.....A.....G.....G.....A.....G.....T.....T..... 1350

761U AATCTTTCAGGTGATTTCATATGGAATTAAATAGTGGTGTGAAAAATGTCAGTGACAAACTGAAATGAAGGAGTATGGTCCAGACCATGATGTG 1440
 776U G.....L.....S.....I.....N.....S.....D.....N.....V.....G..... 1440
 M252A .C..A..C.....GCA.....G.....GA.....A.T.....T.....G.....S.....A.....A.....T..... 1440

761U TCCAGTCTCTGCCATGGAAGAATTGAGAGATTGGTTGAGTCCACCAACAGAATAGACACCAAACAGCCAGAGAGCTTCAAGGTGTCACCAAC 1530
 776UG.....G.....T.....T.....Q.....G.....S..... 1530
 M252A ..T.C.....G.G.A.....T.....T.....A.....G.....C.....P..... 1530

761U CATTATAATGATACTGACCTTCTAAAATA 1560
 776UG.....K..... 1560
 M252AC.C.....T.....G.....R..... 1560

761U	GACATTGACAATCTAAAAAAG	AAT	AGTGCTAAAGTGCAATTGGCTCTATCAACTATTGAGGGACATCTATCCAGTGTATGATTGCCATC	1080						
776U	.....T.....	N	.....A.....	1080				
M252A	.....G.....	N	.....ATG.....	1080				
		S								
761U	CCTGGTTCAGGTATTGATTCCACAGG	GAT	GAG	GAA	AAGGATCAG	ATA	AATTCTGACTTAAAACCACTGC	TAGGA	AGGGATCATTGTAGA	1170
776U	D		E	C	I				1170
M252AT.....	D		E		I				1170
		E		K		M				
761U	GCATTCGAGAAGTTACAATCCTCTAGATGAGTCT	TCA	CTAGCCAATTCTCCAACAAAACATGTTGCCAAG	STA	AAC	AAAACTGCACT	1260			
776U	.....	S		V	N	C		1260	
M252A	.....T.....	S	G	V	N	C	T	1260	
		L		I	D					
761U	CTTCAGAAATCAACAAGAACGAAACATCTGCAATCAAA	TTTGTCC	AGT	GAC	CAGTCATGCAAGCACATCAACCATC	AGA	TCAATTATC	1350		
776U	.....		S			R		1350	
M252A	.....A.....		S			R		1350	
			N			K				
761U	AGGTCATCTAATCTCGATCAGGATTTGAAAACAAAAATTGCTCACAATTC	TATCCCGATTAGAGGG	GCA	GAC	AAT	ATT	AGA	GAATCTAT	1440	
776U		A	D		I	R		1440	
M252AG.....		V	D		I	R		1440	
			T	E		V	K			
761U	GAAAAGGTTATGATATTAATAAAGAATAAGAATTAA	1476								
776U	.....	1476							
M252A	.....G.....	1476							

761U AATGGTCTCTTCAAGATTAATAG

1014

776U

1014

M252A

1014

F

761U	ATGAACAGAAATTAAGGTT	ATG	ATAATTAGTTCCTTA	TTATTATCAGATATTACGATTGCACAAATAGGTTGGGATAATTT	CACTTCGATT	90		
776U	. . . . . G . . . . .	. . . . . A . . . . .	. . . . . . . . . . .	. . . . . C . . . . .	. . . . . . . . . . .	90
M252A	. . . . . . . . . . .	. . . . . A . . . . .	. . . . . . . . . . .	. . . . . G . . . . .	. . . . . C A	90
761U	GGAGTTATAAGTACTAAGCAATAC	GAC	TATAAAAATAACTACTCTCAACACT	GAC	CAGTTAATGGTTATAAAGATGGTTCCTAATATATCA	180		
776U	. . . . . . . . . . .	. . . . . D . . . . .	. . . . . . . . . . .	. . . . . . . . . . .	. . . . . . . . . . .	180
M252A	. . . . . G . . . . .	. . . . . G . . . . .	. . . . . A . . . . .	. . . . . A T . . . . .	. . . . . A T	180
761U	TCAATCATTAAATGCACTAAACTCGAATTACA	ACA	AAATATAGAGAGTTAGTCTCAGGGATCATTAGACCAATAAATGAGTCATTAGAATTA			270		
776U	. . . . . . . . . . .	. . . . . . . . . . .	. . . . . C . . . . .	. . . . . . . . . . .	. . . . . . . . . . .	270
M252A	. . . . . . . . . . .	. . . . . T . . . . .	. . . . . G . . . . .	. . . . . . . . . . .	. . . . . . . . . . .	270
761U	ATGAATTCATACATTAAACATGAGA	GCA	GGTTCAGAGAGATTATAGGGCTGTAATAGCTGTTGAGCC	TTAGGAGTGGCAACTGCAGCA		360		
776U	. . . . . . . . . . .	. . . . . . . . . . .	. . . . . C . . . . .	. . . . . . . . . . .	. . . . . . . . . . .	360
M252A	. . . . . C . . . . .	. . . . . T . . . . .	. . . . . . . . . . .	. . . . . . . . . . .	. . . . . A A	360
761U	CAAATAACATCAGGGATTGCCCTACATAATTCAATTATGAACAAAAACA	A	AATACAAGA	ATTGAGGAAGGCTCTTAGTACTAC	CAACAAA	450		
776U	. . . . . . . . . . .	. . . . . . . . . . .	. . . . . G . . . . .	. . . . . . . . . . .	. . . . . T	450
M252A	. . . . . . . . . . .	. . . . . . . . . . .	. . . . . G . . . . .	. . . . . G . . . . .	. . . . . . . . . . .	450
761U	GCAATTGATGAAATAAGGATTGCAGGTGAAAGAACATTA	ATA	GCA	ATT	CAAGGTGTACAGGATTATATTAATAATATAATT	ATC	CCTATG	540
776U	540
M252A C G G A C	540
761U	CAGGACAAACTCCAATGTGATATTTTATCATCACAA	CTTCTGTGCT	TTACTCAGATATTATACAAATATA	CTAACAGT	TTTTGG	CCCA		630
776U T	630
M252A G A T C A	630
761U	AGTATACGGGATCCTATTACTAGTACA	ATT	TCA	GTACAAGCACTCAGTCAAGCATTCAATGGTAATCTTCAGGCATT	GCTTGATGGACTG	720		
776U G G T	720
M252A A C C G T C A	720
761U	GGCTATACTGGG	AGA	GACTTA	CGT	GATCTTCTAGAGAGTAAATCTATCACTGGC	CAGATAATTCATGCAGATATGACTGATTGTTCCTT	810	
776U A	810
M252A A T	810
761U	GTTT	TGAGAATAAATTAT	CCTTC	CATAACTGAGATGCAGGGAGTAACAATATAT	GGG	CTCAATTCAATTACATATCATATTGGGCCTGAA	900	
776U C T	900
M252A C T C AA G	900
761U	GAGTGGTATACCATTATGCCTGATTTTAT	TGCTGTT	CAGGGTTTTTAATATCTAATTTGATGAG	GAGAAAGTGTCA	GTA	ACTAAATCA	990	
776U A	990
M252A T A A G	990

761U	ATCAGGAGCCACATGAGATTGATAAAATTTGGTTAACATCT	GAT	AGAGGCCAAATTATCTCTGGTTATTTTCAGCATTGTTACCATT	1080				
776U	.....	D	.....	1080		
M252A	.....A.....A.A.....	D	.....G.G.....T.....	1080		
		E						
761U	ACAATTCGGAACTATAATAATTATCCCTACAAATGCTTAAATAACCCATGTTTTGACAACCTCTGAGAATTACTGTAGAGGATGGTATAAA			1170				
776U	.....		.....	1170	
M252A	.....T.....T.....T.C.....G.....			1170			
761U	AACATAACAGGAAGTACTGATGATGTTCCGATATTAGCATACTTATTGGTTGAAATGTATGATGAGGACGGACCTTTAATTACACTTGTGGCA			1260				
776U	.....		.....A.....	1260	
M252A	.....T.C.....C.A.....A.A.....A.....			1260			
761U	ATACCACTTACAATTATACAGCTCCATCTCATAATTCTCTTTACTATGATGACAAA	ATT	AATAAATTAATAATGACTACATCTCACATA	1350				
776U	.....	I	.....	1350		
M252A	.....C.G.....T.....	V	.....G.....	1350		
		I						
761U	GGT	TAT	ATTCAA	ATC	AACGAGGTGCATGAGGTAATTGTTGGCGATAAATTGAAGGCTATCCTCTTAAACAGATTCTCTGATGAACATCCT	1440		
776U	Y	I	A.	1440	
M252A	Y	I	A.	1440	
		C	G.T	A.	1440	
		H	V	A.	1440	
761U	AACCTGACTGCCTGTAGACTCAATCAGGTTATTAAGGAGCAATAC	AAG	TCTGACGGAACAATAATTTCAAATCT	GCA	CTTATTGATATA	1530		
776U	K	A	T.	1530	
M252AT.T.....C.....G.....	K	V	A.	1530	
		R	A	A.	1530	
761U	CAAGAACGAATGTACATTACA	GTT	AAAGCT	ATT	CCACCA	GCA	GGTAACTATAACTTTACAGTTGAGTTGCATTCTAGATCAAACACATC	1620
776U	V	I	AT	1620
M252AG.T.....	V	I	AT	1620
		I	V	TG	1620
761U	TAT	GTA	TCG	TTACCA	AAA	CAGTTTAAATGCTAAGTATGACAAATTACATCTTGAGTGCTTTAGCTGGGACAAATCTGGTGGTGTGCTCTG	1710	
776U	V	SG.....	K	1710
M252A	V	S	R	1710
		L	L	KCT	1710
761U	ATACCCAGTTTTCATTAAGTTGGAATGAATCCCTTTCTGTTGATACTGCCATTTCAATTTAATAAGCTGT	AAA	TGA	1788				
776U	.....T.....	K	.....	1788		
M252A	.....T.....T.....T.....	Q	.....	1788		
		K	.....	1788			

761U	ATTAATGGGCTTGATTACATTATTGACA	GTT	GATATTCATCTAACTGCAGAAGT	TTTTCTTTT	TAG	AAG	TTTGGTCATCCTTTT	1080										
776U	. . . . . A . . . . . .						. . . . . . . . . . .	1080			
M252A	. . . . . A A T . . . . .						. . . . . G C	1080			
761U	TTAGAGGCACAAAATGCTGCTAATAATGT	AAGGAAGTATATGAATAAG	CCTAAAG	GTAATATCATA	T	CAGACT	TTAATGCAAGGACATGCG	1170										
776U	. . . . . A C . . . . . .			. . . . . A C . . . . .			. . . . . . . . . . .	1170			
M252A	. . . . . A G . . . . .			. . . . . A . G C C C			. . . . . . . . . . .	1170					
761U	ATTTTGTGGGTATTATAATAAATGGATT	TAGAGACG	CGCCAC	GGGGGAACATGGCCTCCTGT	G	GAGTTACCA	AATCATGCATCTGCTGTA	1260										
776U	. . . . . . . . . . . T					A	. . . . . . . . . . .	1260								
M252A	. . . . . C T T T					A	. . . . . . . . . . .	1260								
761U	ATTGAAATGCCCACTTATCTGGAGAAGG	TAAACATCTGAACAATGTCTCAACACT	GGAGATCCTT	TGTTGGATT	AGA	TTTAAATGT	1350											
776U	. . . . . . . . . . . . . . . . .				C	. . . . . . . . . . .	1350									
M252A	. . . . . . C . . . . . . . . . . .					. . . . . . . . . . .	1350					
761U	TTTATGCCATTTGAGTCTAGATAGT	GACCTTACAATGTACCTT	AGA	GACAAGGCG	CTG	TCACCTGTC	GAGTGGGATT	AGTTTAT	1440									
776U	. . . . . . . . . . . C . . . . .		. . . . . . . . . . . T A . . . . .				. . . . . . . . . . . .	1440			
M252A	. . . . . C		C G T . . . . .				. . . . . . . . . . . T	1440					
761U	GCTAAGGAGTATTTAAGCTATAAT	CCAGGATTACCCACAAGTTCC	CAGAAGATT	GTAATGTAT	TCTTAGAAGAT	GATAAAGTTGAC	CCCA	1530										
776U	. . . . . . . . . . . A . . . . .		. . . . . . . . . . . . . . . .				. . . . . T	1530			
M252A	. . G . A A . C		T C . T C . A . G				T T	1530										
761U	TATGAAATGATCATGTACGTGATAAA	TGGTGATTACTTAAGAGACAAAG	AGTTTAA	CCTTTCATACAG	C	CCTTAAAGAGAAAG	AATTAAA	1620										
776U	. . . . . . . . . . . . . . . . .			. . . . . . . . . . . . . . . .			. . . . . . . . . . .	1620			
M252A	. . . . . . . . . . . . . . . . .			. . . . . T T			G C	1620						
761U	GAGGTAGGTCGATTGTTTGCTAAA	ATGACTATAAAG	GATGAGGCTTGT	CAAGTATAGCTGAAAC	CTGATTGCCAATGGAG	TAGGGAAG	1710											
776U	. . . . . . . . . . . C . . . . .		. . . . . A				1710								
M252A	. . . . . . . . . . . C C		T A C				1710										
761U	TTTTTCAAAGATAATGGAATGG	CAAAAGATGAACATAAAT	TAACTAA	GACGTTACACAAATTAG	CATTTCAGGTGTACCT	TAAAGATAAT	1800											
776U	. . . . . . . . . . . . . . . . .		. . . . . . . . . . . A . . . . .			. . . . . . . . . . .	1800					
M252A	. . C C A		. . . . . . . . . . . . . . . .			. . . . . . . . . . .	1800							
761U	TCTAAA	CTTTATTAGATGAATGTTGGG	GCAAGTA	ATT	CGACAATGTTCAAGTAGTACACAGATA	AGG	GAACAG	ACT	ATGAATTCACAA	1890								
776U K	I	R	T	1890								
M252A Q		C	I	R	A	1890								
761U	TCA	AAT	AGG	GAA	ATTGAATCAAAGTCTTCTAGG	GCA	CGT	CTT	AATAATAGAGATATCTTA	AAG	GGC	AAG	AGAGAT	TCG	AAC	AAACAA	GTA	1980
776U	A	R	L	K		K	S	V	1980	
M252A	. . G C		A	T	A	GA	K		K	S T	I	1980	

761U	AAGTATCCTTCAAACACCGAGTATTATGAGACTATCAGTAGTTTCATAACTACTGACCTTAAAAAGTATGTCTTAACTGGCGATATGAA	2070
776U	.....	2070
M252A	.....	2070
761U	TCAAGTAGTATGTTGCAGAGAGACTTAATGAAATTATGGAATGTCCTGGAATTTTTCAGTGGCTTCACAAAGATTTTGGAGAAATCTGTT	2160
776U	.....	2160
M252A	.....	2160
761U	CTATACGTTAGTGATCCAATCTAGTCCACCTGACTTTGATCAACATGTCGATATAGAATCAGTCCAAATGACCATATCTTTATCAAGTAC	2250
776U	.....	2250
M252A	.....	2250
761U	CCGATGGGTGGAATAGAGGGGTTCTGTCAAAAATTATGGACCATTAGTACAATTCCGTTCTATATTTAGCAGCTTTTGATACAGGGGTT	2340
776U	.....	2340
M252A	.....	2340
761U	AGAATCTCATCATTGTTCAAGGCGATAACCAGCAATTGCAGTAAACCAAAAGAGTTCCGTCATCTTGGAGTTACTCAAAGAAAAAGGAA	2430
776U	.....	2430
M252A	.....	2430
761U	GAATCAACTAAAATAACAACACAATATTTTCTTAATTTAAGACAACGCTTACACGATATAGGTCATGAATTCAAAGCAAATGAGACTATT	2520
776U	.....	2520
M252A	.....	2520
761U	ATATCCTCTCATTCTTTGTTTACTCTAAAGGTATTTATTAATGATGGAATACTTCTCTCCAGGCACTTAAAAGTATTGCAAGATGTGTC	2610
776U	.....	2610
M252A	.....	2610
761U	TTTGGTCTGAAACGATTGTTGATGAGACTAGGTCAGCTTGCAGTAAATATATCTACGACACTCGCAAAGCAATTGAAAGGGGTTATGAT	2700
776U	.....	2700
M252A	.....	2700
761U	AAATTGTGGCGTACGCTATCAATATTTATAAAACAATACATCAGGTGTTGATTGCATTGTCCTTTACGATTAATCCTACTATGACACCA	2790
776U	.....	2790
M252A	.....	2790
761U	GACATTACAGAACCTTTCTACAAGAGTTTAGATCTACTTAAGAACTAGTTCTGATTCTCTGCACCATTAGGGGGCATGAACATATGAAC	2880
776U	.....	2880
M252A	.....	2880
761U	ATGAGCAGGTTATTGTTAGGAATATAGGAGATCCATTACTGCTTCATTGCTGATATAAAGCGCATGATTGAATGTGGGTTCTTAGGA	2970
776U	.....	2970
M252A	.....	2970

761U	TGTAAGTATTCTGTGCACAAATAATGTACCAAAAATGTGGTTCCTCCAAATACTTAGACTGGGCTAGTGATCCTTATTC	3060												
776UT.....	3060												
M252AC.....G.....T.....C.....	3060												
761U	TATAGCCAAAGTATGACCAAGGTTTAAAAAATGTAACGCAAGATATGTACTTATGCATAGTCCCAA	3150												
776UC.....A.....C.....T.....	3150												
M252AC.....A.....C.....T.....	3150												
761U	CATGAAAAGTCTCAGGAAGAAGATGAAATCCTTGCTGAGTTTCTGTAGACCGACACTTAATAATCCCTAGAGCAGCACACGAG	3240												
776UA.....A.....A.....A.....	3240												
M252AA.....A.....A.....A.....	3240												
761U	TCAAATTCAGTACAGGTGCTAGAGAATCTATAGCAGGTATGCTTGACACTACTAAGGGTTTAATCCGTGCTAGTATGTCAAGAGGTGGG	3330												
776UC.....G.....	3330												
M252AG.....G.....	3330												
761U	TTGACCTCATACTTGTTTTAAAATTATCAACATATGATACCAACAGTTAGAACATGTCTTGAATGGCTTTATGCTCCT	3420												
776UA.....A.....C.....G.....	3420												
M252A	C.....A.....A.....C.....G.....	3420												
	<table border="1"> <tr><td>A</td><td>C</td></tr> <tr><td>T</td><td>.</td></tr> <tr><td>.</td><td>.</td></tr> <tr><td>T</td><td>.</td></tr> <tr><td>T</td><td>C</td></tr> <tr><td>I</td><td>.</td></tr> </table>	A	C	T	.	.	.	T	.	T	C	I	.	
A	C													
T	.													
.	.													
T	.													
T	C													
I	.													
761U	ATTGCTGTAAGCGTTGATTCTTGCTCTGTATTCTTAGCTAAGACCATCCGGAAGAGAATGTGGGTTCACTAAAGGAAGGGAGATT	3510												
776UT.....A.....T.....G.....	3510												
M252AT.....A.....T.....G.....	3510												
761U	TATGGGTTAGAAGTACCTGACATTTTGAATGTATGCAAAACAATATTATTGTTGATCACGAAGATTGTTACTCATGTATTCAAGGATCA	3600												
776UA.....A.....A.....A.....A.....T.....	3600												
M252A	..C.....G.....G.....C.....A.....A.....T.....	3600												
	<table border="1"> <tr><td>G</td><td>T</td></tr> <tr><td>V</td><td>.</td></tr> <tr><td>.</td><td>.</td></tr> <tr><td>V</td><td>.</td></tr> <tr><td>.</td><td>.</td></tr> <tr><td>I</td><td>.</td></tr> </table>	G	T	V	.	.	.	V	.	.	.	I	.	
G	T													
V	.													
.	.													
V	.													
.	.													
I	.													
761U	AGATATTATACATGGTTTTTTGTACCTTCAAATGTCAACTCGATCAATAAATAAGTCAACAAATCTCTCCGAGTACCTTATGTTGGA	3690												
776UA.....G.....	3690												
M252AA.....G.....	3690												
	<table border="1"> <tr><td>A</td><td>G</td></tr> <tr><td>R</td><td>.</td></tr> <tr><td>.</td><td>.</td></tr> <tr><td>R</td><td>.</td></tr> <tr><td>A</td><td>.</td></tr> <tr><td>K</td><td>.</td></tr> </table>	A	G	R	.	.	.	R	.	A	.	K	.	
A	G													
R	.													
.	.													
R	.													
A	.													
K	.													
761U	TCAACAACCTGAAGAAAGGAGTGATATGAAGTTGTCATATGTGAGGTCACCTAGTCGGCCACTTAAAGCAGCAGTTCGAATTGCAGCAGTA	3780												
776UA.....A.....A.....A.....G.....	3780												
M252AA.....A.....A.....C.....	3780												
761U	TATACATGGGCTTATGGTATGATGATTTGCTCTTGGCATGAACTTGGTATTTAGCAAGGACTAGAGCAAAATATTACTTTTGACGAACTC	3870												
776UA.....C.....G.....G.....G.....A.....T.....	3870												
M252AG.....A.....C.....G.....G.....G.....A.....T.....	3870												
	<table border="1"> <tr><td>A</td><td>A</td></tr> <tr><td>N</td><td>T</td></tr> <tr><td>.</td><td>T</td></tr> <tr><td>N</td><td>T</td></tr> <tr><td>G</td><td>A</td></tr> <tr><td>D</td><td>C</td></tr> </table>	A	A	N	T	.	T	N	T	G	A	D	C	
A	A													
N	T													
.	T													
N	T													
G	A													
D	C													
761U	AAATTAATAACACCTATAGCTACATCTACAATTTAGCACATAGATTGAGAGATAGAAGCACTCAAGTTAAATATTCAGGA	3960												
776UC.....G.....G.....T.....G.....C.....	3960												
M252AT.....G.....G.....T.....G.....C.....	3960												

761U	GTAAGAGTGGCAGCTATAACAACATATCTAATGATAATATGTCGTTC	ATT	ATTAAT	AAC	AAA	AAAGTCGATACTAATTTGTCTACCAG	4050		
776U	.....	I	.....	.....	K	.....	4050
M252A	.....	I	.....	.....	K	.....	4050
		T			R				
761U	CAAGGAATGTTATTAGGTTTGAGTATATTAGAATATATATTCAGATACTGTACAAGTACTGGACAGTCAAACTGTAATTCACTTACAT						4140		
776U	.....						4140	
M252A	.....						4140	
761U	GCAGATGTTAATTGTTGTATAGTACAGATGACTGATCAGCCTTATACACCAAGCTTAACA	AAA	AAGCTACCTGATATT	AGG	CCCATTAAT		4230		
776U	.....	R	.....	A	.....		4230
M252A	.....	K	.....	AA	.....		4230
		K		K					
761U	AATAAACTGATATATGATCCGGCTCCTATAATCGATACGATGCAGCTAGGCTATATCC	CAAAA	ATAGCTGT	CACAT	TAATAGATTT	C	4320		
776U	.....						4320	
M252A	.....						4320	
761U	CCAAGTTGGTCAACTACTCAGCTTAACACAGTGTGGCGAAAGTGGTGGCGGTATC	CAT	TGTAGA	ATTAAT	TACAAAAGT	TAGTAAAGAC	4410		
776U	.....						4410	
M252A	.....						4410	
761U	CATCTCAATGAGATAATAGCAGTTGTTGGTGATGATGATATCAATAGCTTTATTACAGA	ATTTCTACTT	GTGATCCACGT	CTGTTTACA			4500		
776U	.....						4500	
M252A	.....						4500	
761U	CTATATTTAGGCCAATAC	ACA	TCATTACA	ATGGGCATATGAA	GTC	CATTATCATAGACCAGTGGGTAAATACCAGATGGCTGAAGTGTTC	4590		
776U	.....	T	.....	.....	V	.....	4590
M252A	.....	T	.....	.....	V	.....	4590
		M			I				
761U	CATAATTTGCTGTCAAGAGCTAGTAGAGTATATTCAGCATATTTGACCAATGCCTTTAGCCAC	CCCAGAGTCTAC	AAAAGATTCTGGGAG				4680		
776U	.....						4680	
M252A	.....						4680	
761U	TGTGTTTATGAGCCTATTTATGGGCC	TATATAGGAAGTCAAAATCTACAT	AAT	GCA	ATG	ATTGATTATATCTATAATGCATAC	ATT	4770	
776U		N	M	I	4770	
M252A		N	M	I	4770	
			S		V		L		
761U	ACTTATTTGGATGCTTATTTATCTGATCAAGTAGATGATACTGATATTATAATA	TGTGAAACAGAGGAGACATGTTT	GCCGAAT	CGAATT			4860		
776U	.....						4860	
M252A	.....						4860	
761U	GACAATTA	CAAAGCAGACACT	TAGCTGTCTTATAGATCT	TGAT	TGTGATTCCACTAGATG	CCCAATATAAAAGGG	GCA	GATACAATT	4950
776U						A	4950
M252A						A	4950
							S		

761U	AATACAAATCGATTGATTGAT	CCTGATAGAAATAGTACAATACATA	GTT	AGAAATTTACAACCA	ACTCCAGTTACATTTTT	GTCCAT	TATT	6030				
776U	.....	.....	V	.....	.....	.....	.....	6030
M252A	.....	C	A	.....	T	.....	A	6030	
			I				C					
			A				I					
			I									
761U	TTTGAAACTAAGTATAGA	AAATAATATGGTTACAAATTATGGACT	GT	TGCTTGT	CAGACGGACACAAAAGTGATTAC	CT	TGTCATCAATTACA	6120				
776U	.....	.....	.....	.....	.....	.....	.....	6120
M252A	.....	C	.....	A	.....	T	.....	6120
761U	AAAATAGAG	AAC	GTTCTT	CTGTCATGTGGGTTAGAATTGAA	TGGACCTAAGATTATACAGCAATTATCAGGACATGACTATGCT	AAT	GGG	6210				
776U	.....	N	.....	.....	.....	.....	.....	6210
M252A	.....	T	.....	.....	.....	.....	.....	6210
		N										
		N										
		GT										
		S										
761U	GAGACTAGTCTAGAATCAAGTATAATGATATTAGTTAG	A	GAAATATCTT	AATGCAACTATACA	AGGCCGGGAAACATTAGGCTT	TTTTCA		6300				
776U	.....	.....	.....	.....	.....	.....	.....	6300
M252A	.....	G	.....	.....	.....	.....	.....	6300
761U	CCTTACCC	AGTCTT	A	CATGAGAGTCAGTTAAGAGAA	AATTAATAAGTGATT	GCA	TTGAAATAT	GTT	GTATATCTA	CTCTTTTATTCA	AGC	6390
776U	6390
M252A	G	C	T	G	6390
		A						V				
		A						V				
		T						I				
		V										
761U	TCTACATTATCTAGTAAACAAATAATGAGTAATCT	T	TAGAAAG	GGAAATATTGATGTATGATTGAGAGATGAA	TTTTTCATATCAAGATTG			6480				
776U	.....	.....	.....	.....	.....	.....	.....	6480
M252A	.....	.....	.....	.....	.....	.....	.....	6480
761U	TCAGCAAATTACAAGAAAAAG	GGT	GATGTCACA	AGAAGT	CAAACTACCTGGAT	CTT	TAAT	CTT	GATACTCCGACACGAAA	AGCA	TTATAT	6570
776U	6570
M252A	A	A	6570
			G									
			T									
			G									
			A									
			I									
761U	AAGTTAGTAGGTTA	TTCATTAATAATTAATCAT	GTA	TGA				6609				
776U	.....	.....	V	.....	.....	.....	.....	6609
M252A	.....	.....	.....	.....	.....	.....	.....	6609
			V									
			A									
			I									