

## pTAPKan1

	NdeI	KpnI	BamHI	NheI	Sall	AflIII	XmaI				
1	CACCATATGA GTGGTATACT	TCACCGGTAC AGTGGCCATG	CCTAGGATCC GGATCCTAGG	AGCGCTAGCG TCGCGATCGC	CTGTCTGACGG GACAGCTGCC	TCTTAAGGCG AGAATTCCGC	CCCGGGTTAA GGGCCCAATT	TTAAATCTCA AATTTAGAGT	CGAAAAGAGA GCTTTTCTCT	AGATGGAAGA TCTACCTTCT	
101	AGAACTTCAT TCTTGAAGTA	TGCTGTTTCT ACGACAAAAGA	GCTGCTAACA CGACGATTGT	GATTCAAGAA CTAAGTTCTT	GATTTCTCT CTAAAGGAGA	TCTGGTGTCT AGACCACGAA	TGGACTACGA ACCTGATGCT	CATTTCTAGA GTAAAGATCT	CCAACTACTG GGTTGATGAC	CCTCTGAAAA GGAGACTTTT	
201	TTTGTACTTT AAACATGAAA	CAAGGCGAGT GTTCCGCTCA	TGAAGACCAC ACTTCTGGTG	TGCTTCTGAA ACGAAGACTT	AACTTGTACT TTGAACATGA	TCCAAGGTGA AGGTTCCACT	GTTACTCGAG CAATGAGCTC	GGTGAATTGA CCACTTAACT	AGACTGCTGC TCTGACGACG	TTTGCTCAA AAACCGAGTT	
301	CACGACGAAG GTGCTGCTTC	CTGTTGATAA GACAACATT	TAAGTTCAAT ATTCAAGTTA	AAGGAACAGC TTCCTTGTCTG	AAAACGCATT TTTTGCGTAA	CTACGAGATT GATGCTCTAA	TTGCATTTGC AACGTAAACG	CAAATTTGAA GTTTAAACTT	CGAGGAGCAA GCTCCTCGTT	CGTAACGCTT GCATTGCGAA	
401	TTATTCAATC AATAAGTTAG	CTTGAAGGAT GAACTTCCTA	GACCCATCCC CTGGGTAGGG	AATCTGCCAA TTAGACGGTT	CTTGTTAGCT GAACAATCGA	GAAGCCAAGA CTTCGGTTCT	AGTAAACGA TCAATTTGCT	CGCTCAAGCC GCGAGTTCGG	CCAAAAGTTG GGTTTTCAAC	ACAATAAGTT TGTTATTCAA	
501	TAACAAGGAA ATTGTTCCCT	CAACAAAACG GTTGTTTTGC	CCTTTTACGA GGAAAATGCT	AATTTTGCAC TTAAAACGTG	TTGCCAAACT AACGGTTTGA	TGAACGAAGA ACTTGCTTCT	ACAAAAGAAAC TGTTTTCTTTG	GCTTTCATTC CGAAAAGTAAG	AATCTTTGAA TTAGAAACTT	GGACGACCCA CCTGCTGGGT	
601	TCTCAATCTG AGAGTTAGAC	CTAATTTGTT GATTAAACAA	GGCTGAAGCT CCGACTTCGA	AAGAAGTTGA TTCTTCAACT	ACGGTGCTCA TGCCACGAGT	AGCTCCAAAG TCGAGGTTTC	GTTGACGCTA CAACTGCGAT	ACTCTGCTGG TGAGACGACC	TAAGTCTACT ATTCAGATGA	TGAGGCGCGC ACTCCGCGCG	
701	CACTTCTAAA GTGAAGATTT	TAAGCGAATT ATTCGCTTAA	TCTTATGATT AGAATACTAA	TATGATTTTT ATACTAAAAA	ATTATTAAT TAATAATTTA	AAGTTATAAA TTCAATATTT	AAAAATAAGT TTTTTATTCA	GTATACAAAT CATATGTTTA	TTTAAAGTGA AAATTTCACT	CTCTTAGGTT GAGAATCCAA	
801	TTAAAACGAA AATTTTGCTT	AATTCTTATT TTAAGAATAA	CTTGAGTAAC GAACTCATTG	TCTTTCCTGT AGAAAAGGACA	AGGTCAGGTT TCCAGTCCAA	GCTTTCCTCAG CGAAAAGAGTC	GTATAGTATG CATATCATA	AGGTCGCTCT TCCAGCGAGA	TATTGACCAC ATAACTGGTG	ACCTCTACCG TGGAGATGGC	
901	GCGATCCGC CGTCTAGGCG	TAGGGATAAC ATCCCTATTG	AGGGTAATAT TCCCATTATA	AGATCTGTTT TCTAGACAAA	AGCTTGCCCTC TCGAACGGAG	GTCCCCGCCG CAGGGGCGGC	GGTCACCCGG CCAGTGGGCC	CCAGCGACAT GGTCGCTGTA	GGAGGCCAG CCTCCGGGTC	AATACCCTCC TTATGGGAGG	
1001	TTGACAGTCT AACTGTCAGA	TGACGTGCGC ACTGCACGCG	AGCTCAGGGG TCGAGTCCCC	CATGATGTGA GTACTACACT	CTGTCTGCCC GACAGCGGGC	TACATTTAGC ATGTAAATCG	CCATACATCC GGTATGTAGG	CCATGTATAA GGTACATATT	TCATTTGCAT AGTAAACGTA	CCATACATTT GGTATGTAAA	
1101	TGATGGCCGC ACTACCGGCG	ACGGCGCGAA TGCCGCGCTT	GCAAAAATTA CGTTTTTAAT	CGGCTCCTCG GCCGAGGAGC	CTGCAGACCT GACGTCTGGA	GCGAGCAGGG CGCTCGTCCC	AAACGCTCCC TTTGCGAGGG	CTCACAGACG GAGTGTCTGC	CGTTGAATTG GCAACTTAAC	TCCCCACGCC AGGGGTGCGG	
1201	GCGCCCCTGT CGCGGGGACA	AGAGAAATAT TCTCTTTATA	AAAAGGTTAG TTTTCCAATC	GATTTGCCAC CTAAACGGTG	TGAGGTTCTT ACTCCAAGAA	CTTTCATATA GAAAATATAT	CTTCCTTTTA GAAGGAAAAAT	AAATCTTGCT TTTAGAACGA	AGGATACAGT TCCTATGTCA	TCTCACATCA AGAGTGTAGT	
1301	CATCCGAACA GTAGGCTTGT	TAAACAACCA ATTTGTTGGT	TGGGTAAGGA ACCCATTCCCT	AAAGACTCAC TTTCTGAGTG	GTTTCGAGGC CAAAGCTCCG	CGCGATTTAA GCGCTAATTT	TTCCAACATG AAGGTTGTAC	GATGCTGATT CTACGACTAA	TATATGGGTA ATATACCCAT	TAAATGGGCT ATTTACCCGA	
1401	GCGGATAATG GCGCTATTAC	TCGGGCAATC AGCCCCTTAG	AGGTGCGACA TCCACGCTGT	ATCTATCGAT TAGATAGCTA	TGTATGGGAA ACATACCCTT	GCCCCGATGCG CGGGCTACGC	CCAGAGTTGT GGTCTCAACA	TTCTGAAAACA AAGACTTTGT	TGGCAAAGGT ACCGTTTCCA	AGCGTTGCCA TCGCAACGGT	
1501	ATGATGTTAC TACTACAATG	AGATGAGATG TCTACTCTAC	GTCAGACTAA CAGTCTGATT	ACTGGCTGAC TGACCGACTG	GGAATTTATG CCTTAAATAC	CCTCTTCCGA GGAGAAGGCT	CCATCAAGCA GGTAGTTCGT	TTTTATCCGT AAAATAGGCA	ACTCCTGATG TGAGGACTAC	ATGCATGGTT TACGTACCAA	

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1601	ACTCACC	ACT	GATCC	CGCG	GCAAA	ACAGC	ATTCC	AGGTA	TTAGA	AAGAAT	ATCCT	GATTC	AGGTG	AAAAAT	ATTGT	TGATG	CGCTG	GCAGT	GTTCT	GCGC	
	TGAGT	GGTGA	CGTAG	GGGG	CGTTTT	GTGTC	TAAGG	TCCAT	AATCT	TCTTA	TAGGA	CTAAG	TCCAC	TTTTA	TAACA	ACTAC	GCGAC	CGTCA	CAAGG	ACGCG	
1701	CGGTT	GCATT	CCCTGT	TTGTA	AATGT	CCTTTT	TAACA	GCGAT	CGCGT	ATTT	CGTCTC	GCTCA	GGCGC	AATCA	CGAAT	GAATA	ACGGT	TTGGT	TGATG		
	GCCA	ACGTAA	GCTA	AGGACA	AACAT	TAACA	GGAAA	ATTGT	CGT	AGCGCA	TAAAG	CAGAG	CGAGT	CCCGC	TTAGT	GCCTTA	CTTAT	TGCCA	AACCA	ACTAC	
1801	CGAGT	GATTT	TGATG	ACGAG	CGTAA	TGGCT	GGCCT	GTTGA	ACAAG	TCTGG	AAAGAA	TGC	ATAAG	CTTTT	GCCAT	TCTCA	CCGGAT	TCAG	TCGTC	ACTCA	
	GCTCA	CTAAA	ACTACT	GCCTC	GCATT	TACCGA	CCGGAC	AACT	TGTT	CAGACC	TTTCT	TTTACG	TATTC	GAAAA	CGGTA	AAGAGT	GGCCTA	AGTC	AGCAG	TGAGT	
1901	TGGTG	ATTTT	TCACT	TGATA	ACCTT	ATTTT	TGACG	AGGGG	AAATTA	ATAG	GTTGT	ATTGA	TGTTG	GACGA	GTCGG	AATCG	CAGAC	CGATA	CCAGG	ATCTT	
	ACCA	TAAAG	AGTGA	ACTAT	TGGA	ATAAAA	ACTG	CTCCC	TTTTA	ATTATC	CAACA	TAACT	ACAAC	CTGCT	CAGC	CTTAGC	GTCTG	GCCTAT	GGTCT	AGAA	
2001	GCCAT	CCTAT	GGAAC	TGCCT	CGGTG	AGTTT	TCTCC	TTCAT	TACAG	AAACG	GCTTTT	TCAA	AAATAT	TGGTA	TTGATA	AATCC	TGATA	TGAAT	AAATT	GCAGT	
	CGGT	AGGATA	CCTTG	ACGGA	GCCAC	TCAAA	AGAGG	AAAGTA	ATGTC	TTTGC	CGAAAA	AAGTT	TTTATA	ACCAT	AACTAT	TAGG	ACTATA	CTTA	TTTAA	CGTCA	
2101	TTCAT	TTTGAT	GCTCG	ATGAG	TTTTT	TCTAAT	CAGTA	CTGAC	AATAA	AAAAA	AGA	TTCTT	GTTTT	CAAGA	AACTTG	TCATTT	TGTAT	AGTTTT	TTTTTA	TATTG	TAGTT
	AAGTA	AACTA	CGAG	CTACTC	AAAAA	AGATTA	GTCAT	GACTG	TTAT	TTTTTCT	AAGA	ACAAAA	GTTCT	TGAAC	AGTAA	ACATA	TCAAAAA	AAAAAT	ATAAC	ATCAA	
2201	GTTCT	ATTTT	AATCA	AAATGT	TAGCG	TGATT	TATAT	TTTTT	TTCGC	CTCGA	CATCAT	CTGC	CCAGAT	TGCGA	AGTTA	AGTGC	GCAGAA	AGTA	ATATC	ATGCG	
	CAAGA	TAATA	TTAGT	TTTACA	ATCGC	ACTAA	ATATA	AAAAAA	AAGCG	GAGCT	GTAGT	AGACG	GGTCT	ACGCT	TCAAT	TACAG	CGTCT	TTTCAT	TATAG	TACGC	
2301	TCAAT	CGTAT	GTGA	ATGCTG	GTCG	CTATAC	TGCTG	TCGAT	TCGATA	CTAA	CGCCG	CCATC	CAGTTT	AAAC	GAGCT	TCGAAT	TCATC	GCATGA	TATCAG	ATCC	
	AGTT	AGCATA	CACTT	ACGAC	CAGCG	ATATG	ACGAC	AGCTA	AGCTA	TGATT	GCGGG	CGGTAG	GTCAA	ATTTG	CTCGA	GCCTTA	AGTAG	CTACT	ATAGT	CTAGG	
2401	ACTAG	TGGCC	TATGC	GGCCG	CGGAT	CTGCC	GGTCT	CCCTA	TAGTG	AGTCG	TATTA	ATTTT	GATAA	AGCCAG	GTTAA	ACCTGC	ATTAAT	TGAAT	CGGCC	AAACG	
	TGATC	ACCGG	ATACG	CCCGG	GCCTA	GACGG	CCAGA	GGGAT	ATCA	CTCAGC	ATAAT	TAAAG	CTATT	CGGTC	CAATT	TGGACG	TAATT	ACTTA	GCCGG	TTGCG	
2501	GCGGG	GAGAG	GCGGT	TTTGC	TATTG	GGCGC	TCTTC	CGCTT	CCTCG	CTCAC	TGACT	CTGCTG	CGCTC	GGTCTG	TTCGG	CTGCG	GCGAG	CGGTA	TCAGC	CTACT	
	CGCCC	TCTC	CGCCA	AAACG	ATAAC	CCCG	AGAAG	GGCGA	GGAGC	GAGTG	ACTG	AGCGAC	GCGAG	CCAGC	AAGCC	GACGC	CGCTC	GCAT	AGTC	GAGTA	
2601	CAAAG	GCGGT	AATAC	CGTTA	TCCAC	AGAAAT	CAGGG	GATAA	CGCAG	GAAAG	AACAT	TGTAG	CAAAA	AGGCCA	GCAAAA	AGGCC	AGGA	ACC	CGTA	AAAAG	GCCGC
	GTTTT	CCGCCA	TTATG	CCAAT	AGGTG	CTTA	GTCCC	TATT	GCGTC	TTTTT	TGACTC	GTTTT	CCGGT	CGTTTT	CCGG	TCCTT	TGGCAT	TTTT	CCGGC		
2701	GTTG	CTGGC	TTTTT	CCATA	GGCTC	CGCCC	CCCTG	ACGAG	CATCA	CAAAA	ATCGA	CGCTC	AAGTC	AGAGG	TGGCG	AAAACC	CGAC	AGGACT	ATAAA	AGATAC	
	CAACG	ACCGC	AAAAA	GGTAT	CCGAG	GCGGG	GGGACT	GCTC	GTAGT	GTTTT	TAGCT	GCGAG	TTCAG	TCTCC	ACCGC	TTTGG	GCTGT	CTCTGA	TATTT	CTATG	
2801	CAGGC	GTTTT	CCCCT	TGGAAG	CTCC	CTCGT	CGCTC	CTCTG	TTCCG	ACCCT	GCCG	CTTACC	GGATA	ACCTGT	CCGC	TTTTCT	CCCTC	CGGGA	AGCGT	GGCGC	
	GTCCG	CAAAAG	GGGG	ACCTT	GAGGG	AGCAC	GCGAG	AGGAC	AAGGT	TGGGA	CGGCG	AATGG	CCTAT	TGGACA	GGCGG	AAAAGA	GGGA	AGCCCT	TCGAC	CCGCG	
2901	TTTCT	CAATG	CTCAC	CGTGT	AGGTAT	CTCA	GTTCC	GTTGTA	GGTCG	TTCGC	TCCA	AAGCTGG	GCTGT	TGTGA	CGAAC	CCCCC	GTTCA	GCCCC	ACCGC	TGCGC	
	AAAGA	GTTAC	GAGT	GCGACA	TCCAT	AGAGT	CAAGC	CAAT	CCAGC	AAAGC	AGGT	TTCGACC	CGAC	ACACGT	GCTT	GGGGG	CAAGT	CGGGC	TGGC	GACGCG	
3001	CTTAT	CCGGT	AACTAT	CGT	TTGAG	TCCAA	CCCGG	TAAAGA	CACG	ACTTAT	CGCC	ACTGGC	AGCAG	CCACT	GGTAA	CAGGA	TTAGC	AGAGC	GAGGT	ATGTA	
	GAAT	AGGCCA	TTGAT	AGCAG	AACTC	AGGTT	GGGCC	ATTCT	GTGCT	TGAATA	GCGG	TGACC	TCGTC	GGTGA	CCATT	TGCTT	AAATC	GCTCT	CG	CTCACA	
3101	GGCGG	TGCTA	CAGAG	TTCTT	GAAGT	TGGTGG	CCTAA	CTACG	GCTAC	ACTAG	AAGG	ACAGTA	TTTGG	TATCT	GCGCT	CTGCT	GAAGC	AGTT	ACCTC	CGGAA	
	CCGCC	ACGAT	GTCTC	AAAGAA	CTTCA	CCACC	GGATT	TGATG	CGAT	TGATC	TTCT	TGTCAT	AAACC	ATAGA	CGCGA	AGCA	CTTCG	GTCAA	TGGA	AGCCTT	
3201	AAAGA	GTTGG	TAGCT	CTTGA	TCCGG	CAAAC	AAACC	ACC	TGGT	AGCGG	GGT	TTTTTTT	TTTGC	AAAGCA	GCAG	ATTACG	CGCAG	AAAAA	AAGG	ATCTCA	
	TTTCT	CAACC	ATCGA	AACT	AGGCC	TTTTG	TTTGG	TGGC	ACCAT	CGCCA	CCAAAA	AAAAAC	AAACG	TTCGT	CGTCT	AAATGC	CGCT	TTTTT	TTCT	TAGAGT	

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3301	AGAAGATCCT	TTGATCTTTT	CTACGGGGTC	TGACGCTCAG	TGGAACGAAA	ACTCACGTTA	AGGGATTTTG	GTCATGAGAT	TATCAAAAAG	GATCTTCACC
	TCTTCTAGGA	AACTAGAAAA	GATGCCCCAG	ACTGCGAGTC	ACCTTGCTTT	TGAGTGCAAT	TCCCTAAAAAC	CAGTACTCTA	ATAGTTTTTTT	CTAGAAGTGG
3401	TAGATCCTTT	TAAATTAATA	ATGAAGTTTT	AAATCAATCT	AAAGTATATA	TGAGTAAACT	TGGTCTGACA	GTTACCAATG	CTTAATCAGT	GAGGCACCTA
	ATCTAGGAAA	ATTTAATTTT	TACTTCAAAA	TTTAGTTAGA	TTTCATATAT	ACTCATTGTA	ACCAGACTGT	CAATGGTTAC	GAATTAGTCA	CTCCGTGGAT
3501	TCTCAGCGAT	CTGTCTATTT	CGTTCATCCA	TAGTTGCCTG	ACTCCCCGTC	GTGTAGATAA	CTACGATACG	GGAGGGCTTA	CCATCTGGCC	CCAGTGCTGC
	AGAGTCGCTA	GACAGATAAA	GCAAGTAGGT	ATCAACGGAC	TGAGGGGGCAG	CACATCTATT	GATGCTATGC	CCTCCCGAAT	GGTAGACCGG	GGTCACGACG
3601	AATGATACCG	CGAGACCCAC	GCTCACCGGC	TCCAGATTTA	TCAGCAATAA	ACCAGCCAGC	CGGAAGGGCC	GAGCGCAGAA	GTGGTCCTGC	AACTTTATCC
	TTACTATGGC	GCTCTGGGTG	CGAGTGGCCG	AGGTCTAAAT	AGTCGTTATT	TGGTCGGTCG	GCCTTCCCGG	CTCGCGTCTT	CACCAGGACG	TTGAAATAGG
3701	GCCTCCATCC	AGTCTATTAA	TTGTTGCCGG	GAAGCTAGAG	TAAGTAGTTC	GCCAGTTAAT	AGTTTGCSCA	ACGTTGTTGC	CATTGCTACA	GGCATCGTGG
	CGGAGGTAGG	TCAGATAAAT	AACAACGGCC	CTTCGATCTC	ATTCATCAAG	CGGTCAATTA	TCAAACGCGT	TGCAACAACG	GTAACGATGT	CCGTAGCACC
3801	TGTCACGCTC	GTCGTTTTGGT	ATGGCTTCAT	TCAGCTCCGG	TTCCCAACGA	TCAAGGCGAG	TTACATGATC	CCCCATGTTG	TGCAAAAAAAG	CGGTTAGCTC
	ACAGTGCGAG	CAGCAAACCA	TACCGAAGTA	AGTCGAGGCC	AAGGGTTGCT	AGTTCGCTC	AATGTACTAG	GGGGTACAAC	ACGTTTTTTTC	GCCAATCGAG
3901	CTTCGGTCCT	CCGATCGTTG	TCAGAAGTAA	GTTGGCCGCA	GTGTTATCAC	TCATGGTTAT	GGCAGCACTG	CATAATTCTC	TTACTGTGAT	GCCATCCGTA
	GAAGCCAGGA	GGCTAGCAAC	AGTCTTCATT	CAACCGGCGT	CACAATAGTG	AGTACCAATA	CCGTCGTGAC	GTATTAAGAG	AATGACAGTA	CGGTAGGCAT
4001	AGATGCTTTT	CTGTGACTGG	TGAGTACTCA	ACCAAGTCAT	TCTGAGAATA	GTGTATGCGG	CGACCCGAGTT	GCTCTTGCCC	GGCGTCAATA	CGGGATAATA
	TCTACGAAAA	GACACTGACC	ACTCATGAGT	TGGTTCAGTA	AGACTCTTAT	CACATACGCC	GCTGGCTCAA	CGAGAACGGG	CCGCAGTTAT	GCCCTATTAT
4101	CCGCGCCACA	TAGCAGAACT	TAAAAAGTGC	TCATCATTGG	AAAACGTTCT	TCGGGGCGAA	AACTCTCAAG	GATCTTACCG	CTGTTGAGAT	CCAGTTCGAT
	GGCGCGGTGT	ATCGTCTTGA	AATTTTCACG	AGTAGTAACC	TTTTGCAAGA	AGCCCCGCTT	TTGAGAGTTC	CTAGAATGGC	GACAACCTCTA	GGTCAAGCTA
4201	GTAACCCACT	CGTGCACCCA	ACTGATCTTC	AGCATCTTTT	ACTTTCACCA	GCGTTTCTGG	GTGAGCAAAA	ACAGGAAGGC	AAAATGCCGC	AAAAAAGGGA
	CATTGGGTGA	GCACGTGGGT	TGACTAGAAG	TCGTAGAAAA	TGAAAGTGGT	CGCAAAGACC	CACTCGTTTT	TGTCCTTCCG	TTTTACGGCG	TTTTTCCCT
4301	ATAAGGGCGA	CACGAAAATG	TTGAATACTC	ATACTCTTCC	TTTTTCAATA	TTATTGAAGC	ATTTATCAGG	GTTATTGTCT	CATGAGCGGA	TACATATTTG
	TATTCCTGCT	GTGCCTTTAC	AACTTATGAG	TATGAGAAGG	AAAAAGTTAT	AATAACTTCG	TAAATAGTCC	CAATAACAGA	GTACTCGCCT	ATGTATAAAC
4401	AATGTATTTA	GAAAAATAAA	CAAATAGGGG	TTCCGCGCAC	ATTTCCCCGA	AAAGTGCCAC	CTGACGTCTA	AGAAACCATT	ATTATCATGA	CATTAACCTA
	TTACATAAAT	CTTTTTATTT	GTTTATCCCC	AAGGCGCGTG	TAAAGGGGCT	TTTACGGTG	GACTGCAGAT	TCTTTGGTAA	TAATAGTACT	GTAATTGGAT
4501	TAAAAATAGG	CGTATCACGA	GGCCCTTTCG	TCTCGCGCGT	TTCGGTGATG	ACGGTGAAAA	CCTCTGACAC	ATGCAGCTCC	CGGAGACGGT	CACAGCTTGT
	ATTTTTATCC	GCATAGTGCT	CCGGGAAAAG	AGAGCGCGCA	AAGCCACTAC	TGCCACTTTT	GGAGACTGTG	TACGTCGAGG	GCCTCTGCCA	GTGTCGAACA
4601	CTGTAAGCGG	ATGCCGGGAG	CAGACAAGCC	CGTCAGGGCG	CGTCAGCGGG	TGTTGGCGGG	TGTCGGGGCT	GGCTTAACTA	TGCGGCATCA	GAGCAGATTG
	GACATTCGCC	TACGGCCCTC	GTCGTTCGG	GCAGTCCCGC	GCAGTCGCC	ACAACCGCCC	ACAGCCCCGA	CCGAATTGAT	ACGCCGTAGT	CTCGTCTAAC
4701	TACTGAGAGT	G								
	ATGACTCTCA	C								