

	Scal												
1	AGTACTTTGA	TCCAACCCCT	CCGCTGCTAT	AGTGCAGTCG	GCTTCTGACG	TTTCTGACG	TTTCTGACG	CCGCTTCTG	AAAACGCAT	GTCGCACAAG	TCCTAAGTTA		
	TCATGAAACT	AGGTTGGGGA	GGCGACGATA	TCACGTCAGC	CGAAGACTGC	AAGTCACGTC	GGCAGAAGAC	TTTTGCTGTA	CAGCGTGTTC	AGGATTCAAT			
101	CGCGACAGGC	TGCCGCCCTG	CCCTTTTCT	GGCGTTTTCT	TGTCGCGTGT	TTTAGTCGCA	TAAAGTAGAA	TACTTGCGAC	TAGAACCGBA	GACATTACGC			
	GCGCTGTCCG	ACGGCGGGAC	GGGAAAAGGA	CCGCAAAAGA	ACAGCGACA	AAATCAGCGT	ATTTTCATCTT	ATGAACGCTG	ATCTTGCCCT	CTGTAATGCG			
201	CATGAACAAG	AGCGCCGCCG	CTGGCTGCT	GGGCTATGCC	CGCGTCAGCA	CCGACGACCA	GGACTTGACC	AACCAACGGG	CCGAACGCA	CGCGCCGGC			
	GTACTTGTTT	TCGCGGCGGC	GACCGGACGA	CCCATAACGG	GCGCAGTCGT	GGCTGCTGGT	CCTGAACTGG	TTGGTTGCC	GGCTTGACGT	GCGCCGGCCG			
301	TGCACCAAGC	TGTTTTCCGA	GAAGATCACC	GGCACCAGGC	GCGACCGCCC	GGAGTGGCC	AGGATGCTTG	ACCACCTACG	CCCTGGCGAC	GTTGTGACAG			
	ACGTGGTTCG	ACAAAAGGCT	CTTCTAGTGG	CCGTGGTCCG	CCGTGGCGGG	CCTCGACCGG	TCCTACGAAC	TGGTGGATGC	GGGACCCTG	CAACACTGTC			
401	TGACCAGGCT	AGACCGCCTG	GCCCGCAGCA	CCCGCGACCT	ACTGGACATT	GCCGAGCGCA	TCCAGGAGGC	CGGCGCGGGC	CTGCGTAGCC	TGGCAGAGCC			
	ACTGGTCCGA	TCTGGCGGAC	CGGGCGTCTG	GGGCGCTGGA	TGACCTGTAA	CGGCTCGCGT	AGGTCTCTCG	GCCGCGCCCG	GACGCATCGG	ACCGTCTCGG			
501	GTGGGCCGAC	ACCACCACGC	CGGCCGGCCG	CATGGTGTGG	ACCGTGTTCG	CGGCATTGCG	CGAGTTCGAG	CGTTCCCTAA	TCATCGACCG	CACCCGGAGC			
	CACCCGCTG	TGGTGGTGCG	GCCGGCCGGC	GTACCACAAC	TGGCACAAAGC	GGCCGTAACG	GCTCAAGCTC	GCAAGGGATT	AGTAGCTGGC	GTGGGCCTCG			
601	GGGCGGAGG	CCGCCAAGGC	CCGAGGCGTG	AAGTTTGGCC	CCCGCCCTAC	CCTCACCCCG	GCACAGATCG	CGCACGCCCG	CGAGCTGATC	GACCAAGGAA			
	CCCGCGTCC	GGCGGTTCCG	GGCTCCGAC	TTCAAACCGG	GGCGGGATG	GGAGTGGGCC	CGTGTCTAGC	GCGTGGGGC	GCTCGACTAG	CTGGTCTTTC			
701	GCCGCACCGT	GAAAGAGGCG	GCTGCACGTC	TTGGCGTGCA	TCGCTCGACC	CTGTACCGCG	CACCTGAGCG	CAGCGAGGAA	GTGACGCCCA	CCGAGGCCAG			
	CGGCGTGGCA	CTTTCTCCGC	CGACGTGACG	AACCGCACGT	AGCGAGCTGG	GACATGGCGC	GTGAACTCGC	GTCGCTCCTT	CACCTGCGGT	GGCTCCGGTC			
801	GCGGCGCGGT	GCCTTCCGTG	AGGACGCATT	GACCGAGGCC	GACGCCCTGG	CGGCCGCCGA	GAATGAACGC	CAAGAGGAAAC	AAGCATGAAA	CCGCACCAGG			
	CGCCGCGCCA	CGGAAGGCAC	TCCTGCGTAA	CTGGCTCCGG	CTGCGGGACC	GCCGCGCGGT	CTTACTTGCG	GTTCTCCTTG	TTCGTACTTT	GGCGTGGTCC			
901	ACGGCCAGGA	CGAACCGTTT	TTCATTACCG	AAGAGATCGA	GGCGGAGATG	ATCGCGGCCG	GGTACGTGTT	CGAGCCGCC	GCGCAGTCT	CAACCGTGCG			
	TGCCGCTCCT	ATCTGGCAA	AAGTAATGGC	TTCTTAGTCT	CCGCCTCTAC	TAGCCGCGGC	CCATGCACAA	GCTCGGCCGG	CGCGTGACA	GTTGGCAGC			
1001	GCTGCATGAA	GCTTGGCCG	GTTTGTCTGA	TGCCAAGCTG	GCGGCCGTCG	CGCCGAGCTT	GGCCGTGAA	GAAACCGAGC	GCCGCTCT	AAAAGGTGA			
	CGACGTACTT	TAGGACCGGC	CAAACAGACT	ACGGTTCGAC	CGCCGGACCG	GCCGGTCGAA	CCGGCGACTT	CTTTGGCTCG	CGGCGGAGA	TTTTTCCACT			
1101	TGTGTATTTG	AGTAAAACAG	CTTGCGTCAT	GCGGTGCGTG	CGTATATGAT	GCGATGAGTA	AATAAACAAA	TACGCAAGGG	GAACGCATGA	AGGTTATCGC			
	ACACATAAAC	TCATTTTGTC	GAACGCAGTA	CGCCAGCGAC	GCATATACTA	CGCTACTCAT	TTATTTGTTT	ATGCGTTCC	CTTGCCTACT	TCCAATAGCG			
1201	TGTACTTAAC	CAGAAAGGCG	GGTCAGGCAA	GACGACCATC	GCAACCCATC	TAGCCCAGCG	CCTGCAACTC	GCCGGGGCCG	ATGTTCTGTT	AGTCGATTCC			
	ACATGAATTG	GTCTTTCCGC	CCAGTCCGTT	CTGCTGGTAG	CGTTGGGTAG	ATCGGGCCG	GGACGTTGAG	CGGCCCGGC	TACAAGACAA	TCAGTAAAG			
1301	GATCCCAGG	CGAGTGCCG	CGATTGGGCG	GCCGTGCGGG	AAGATCAACC	GCTAACCCGT	GTCGGCATCG	ACCGCCCGAC	GATTGACCGC	GACGTGAAG			
	CTAGGGTCC	GCTACCGGGC	GCTAACCCGC	CGGCACGGCC	TTCTAGTTGG	GATTAGGCAA	CAGCGTAGC	TGGCGGGCTG	TAACTGGCG	CTGCACTTCC			
1401	CCATCGGCCG	GCGCGACTTC	GTAGTGATCG	ACGGAGCGCC	CCAGGCGCG	GACTTGGCTG	TGTCCGCGAT	CAAGGCAGCC	GACTTCTGTC	TGATTCCGGT			
	GGTAGCCGGC	CGCGCTGAAG	CATCACTAGC	TGCCTCGCGG	GGTCCGCGC	CTGAACCGAC	ACAGGCGTA	GTTCCGTCGG	CTGAAGCAG	ACTAAGGCCA			
			NdeI										
1501	GCAGCCAAGC	CCTTACGACA	TATGGGCCAC	CGCCGACCTG	GTGGAGCTGG	TTAAGCAGCG	CATTGAGGTC	ACGGATGGAA	GGCTACAAGC	GGCCTTTGTC			
	CGTCGGTTCG	GGAATGCTGT	ATACCCGGTG	GCGGCTGGAC	CACCTCGACC	AATTCGTGCG	GTAACCTCAG	TGCCTACCTT	CCGATGTTG	CCGGAACAG			
1601	GTGTCGCGGG	CGATCAAAGG	CACGCGCATC	GGCGGTGAGG	TTGCGGAGGC	GCTGGCCGGG	TACGAACATA	CCATTCTTGA	GTCCCGTATC	ACGACGCGG			
	CACAGCGCCC	GCTAGTTTCC	GTGCGGTAG	CCGCGACTCC	AACGGCTCCG	CGACCGGCC	ATGCTCGACG	GGTAAGAACT	CAGGGCATAG	TGCGTCGCG			
1701	TGAGCTACCC	AGGCACTGCC	GCCGCGGCA	CAACCGTTCT	TGAATCAGAA	CCCGAGGGCG	ACGCTGCCCG	CGAGGTCCAG	GCGCTGGCCG	CTGAAATTA			
	ACTCGATGGG	TCCGTGACGG	CGGCGGCCGT	GTTGGCAAGA	ACTTAGTCTT	GGGCTCCCGC	TGCGACGGGC	GCTCCAGGTC	CGCGACCGGC	GACTTTAAT			
1801	ATCAAACTC	ATTTGAGTTA	ATGAGGTA	GAGAAAATGA	GCAAAAGCAC	AAACACGCTA	AGTGCCGCCC	GTCCGAGCGC	ACGCAGCAGC	AAGGCTGCA			
	TAGTTTTGAG	TAAACTCAAT	TACTCCATTT	CTCTTTTACT	CGTTTTCTG	TTTGTGCGAT	TCACGGCCGG	CAGGCTCGCG	TGCGTCTGCG	TTCCGACGTT			
1901	CGTTGGCCAG	CTGGCAGAC	ACGCCAGCCA	TGAAGCGGTT	CAACTTTCAG	TTGCCGGCGG	AGGATCACAC	CAAGCTGAAG	ATGTACGCGG	TACGCCAAGG			
	GCAACCGGTC	GACCCGTCTG	TGCGTCCGTT	ACTTCCGCCA	TTTGAAGTCT	AACGGCCGCG	TCTTAGTGTG	GTTCCGACTT	TACATGCCGC	ATGCGGTTCC			
2001	CAAGACCATT	ACCGAGCTGC	TATCTGAATA	CATCGCGCAG	CTACCAGAGT	AAATGAGCAA	ATGAATAAAT	GAGTAGATGA	ATTTTACCGG	CTAAAGGAGG			
	GTTCTGGTAA	TGGCTCGACG	ATAGACTTAT	GTAGCGCGTC	GATGGTCTCA	TTTACTCGTT	TACTTATTTA	CTCATCTACT	TAAAATCGCC	GATTTCTTCC			
2101	CGGCATGGAA	AATCAAGAAC	AACCAGGCAC	CGACGCCGTC	GAATGCCCA	TGTGTGGAGG	AACGGGCGGT	TGGCCAGGCG	TAAGCGGCTG	GGTGTCTG			
	GCCGTACCTT	TTAGTTCTTG	TTGGTCCGTC	GCTGCGGCAC	CTTACGGGGT	ACACACCTCC	TTGCCGCCA	ACCGGTCCGC	ATTCCGCGAC	CCAACAGACG			
2201	CGGCCCTGCA	ATGGCACTGG	AACCCCAAG	CCCAGGAAT	CGCGTGACG	GTCGCAAAC	ATCCGGCCCG	GTACAAATCG	GCGCGGCGCT	GGGTGATGAC			
	GCCGGGACGT	TACCGTGACC	TTGGGGGTTT	GGGCTCCTTA	GCCGACTGC	CAGCGTTTGG	TAGGCCGGG	CATGTTTAGC	GCGCGCGCA	CCCACTACTG			

2301	CTGGTGGAGA	AGTTGAAGGC	CGCGCAGGCC	GCCCAGCGGC	AACGCATCGA	GGCAGAAGCA	CGCCCCGGTG	AATCGTGGCA	AGCGGCCGCT	GATCGAATCC
	GACCACCTCT	TCAACTTCCG	GCGCGTCCGG	CGGGTCGCCG	TTGCGTAGCT	CCGTCTTCGT	GCGGGGCCAC	TTAGCACCGT	TCGCCGGCGA	CTAGCTTAGG
2401	GCAAAGAATC	CCGGCAACCG	CCGGCAGCCG	GTGCGCCGTC	GATTAGGAAG	CCGCCCAAGG	GCGACGAGCA	ACCAGATTTT	TTCGTTCCGA	TGCTCTATGA
	CGTTTCTTAG	GGCCGTTGGC	GGCCGTCGGC	CACGCGGCAG	CTAATCCTTC	GGCGGGTTCC	CGCTGCTCGT	TGGTCTAAAA	AAGCAAGGCT	ACGAGATACT
2501	CGTGGGCACC	CGCGATAGTC	GCAGCATCAT	GGACGTGGCC	GTTTTCCGTC	TGTGGAAGCG	TGACCGACGA	GCTGGCGAGG	TGATCCGCTA	CGAGCTTCCA
	GCACCCGTGG	GCGCTATCAG	CGTCGTAGTA	CCTGCACCGG	CAAAAGGCAG	ACAGCTTCGC	ACTGGCTGCT	CGACCCGCTC	ACTAGGGGAT	GCTCGAAGGT
2601	GACGGGCACG	TAGAGGTTTC	CGCAGGGCCG	GCCGGCATGG	CCAGTGTGTG	GGATTACGAC	CTGGTACTGA	TGGCGGTTTC	CCATCTAAC	GAATCCATGA
	CTGCCGTGC	ATCTCCAAAG	GCGTCCGGC	CGGCCGTACC	GGTCACACAC	CCTAATGCTG	GACCATGACT	ACCGCCAAAG	GGTAGATTGG	CTTAGGTACT
2701	ACCGATACCG	GGAAGGGAAG	GGAGACAAGC	CCGGCCGCGT	GTTCCGTCCA	CACGTTGCGG	ACGTACTCAA	GTTCTGCCGG	CGAGCCGATG	GCGGAAAGCA
	TGGCTATGGC	CCTTCCCTTC	CCTCTGTTCG	GGCCGGCGCA	CAAGGCAGGT	GTGCAACGCC	TGCATGAGTT	CAAGACGGCC	GCTCGGCTAC	CGCCTTTCGT
2801	GAAAGACGAC	CTGGTAGAAA	CCTGCATTCG	GTTAAACACC	ACGCACGTTG	CCATGCAGCG	TACGAAGAAG	GCCAAGAACG	GCCGCTGGT	GACGGTATCC
	CTTTCTGCTG	GACCATCTTT	GGACGTAAGC	CAATTTGTGG	TGCGTGCAAC	GGTACGTCCG	ATGCTTCTTC	CGGTTCTTGC	CGGCGGACCA	CTGCCATAGG
2901	GAGGGTGAAG	CCTTGATTAG	CCGCTACAAG	ATCGTAAAGA	GCGAAACCGG	GCGGCCGGAG	TACATCGAGA	TCGAGCTAGC	TGATTGGATG	TACCGCGAGA
	CTCCACTTC	GGAATAATC	GGCGATGTT	TAGCATTTCT	CGCTTTGGCC	CGCCGGCTC	ATGTAGTCT	AGCTCGATCG	ACTAACCTAC	ATGGCGTCT
						ClaI				
3001	TCACAGAAGG	CAAGAACCCG	GACGTGCTGA	CGGTTACACC	CGATTACTTT	TTGATCGATC	CCGGCATCGG	CCGTTTTCTC	TACCGCCTGG	CACGCCGCGC
	AGTGTCTTCC	GTTCTTGGGC	CTGCACGACT	GCCAAGTGGG	GCTAATGAAA	AAGTAGCTAG	GGCCGTAGCC	GGCAAAAGAG	ATGGCGGACC	GTGCGGCGCG
3101	CGCAGGCAAG	GCAGAAGCCA	GATGGTTGTT	CAAGACGATC	TACGAACGCA	GTGGCAGCGC	CGGAGAGTTC	AAGAAGTTCT	GTTTCACCGT	GCGCAAGCTG
	GCGTCCGTTC	CGTCTTCGGT	CTACCAACAA	GTTCTGCTAG	ATGCTTGCGT	CACCGTCGCG	GCCTCTCAAG	TTCTTCAAGA	CAAAGTGCCA	CGCGTTCGAC
3201	ATCGGGTCAA	ATGACCTGCC	GGAGTACGAT	TTGAAGGAGG	AGGCGGGGCA	GGCTGGCCCG	ATCCTAGTCA	TGCGCTACCG	CAACCTGATC	GAGGGCGAAG
	TAGCCAGTTC	TACTGGACGG	CCTCATGCTA	AACTTCTTCC	TCCGCCCGCT	CCGACCGGGC	TAGGATCAGT	ACGCGATGGC	GTTGGACTAG	CTCCCGTTC
3301	CATCCGCGCG	TTCCTAATGT	ACGGAGCAGA	TGCTAGGGCA	AATTGCCCTA	GCAGGGGAAA	AAGTTCGAAA	AGGTCTCTTT	CCTGTGGATA	GCACGTACAT
	GTAGGCGGCC	AAGGATTACA	TGCCTCGTCT	ACGATCCCGT	TTAACGGGAT	CGTCCCCTTT	TTCCAGCTTT	TCCAGAGAAA	GGACACCTAT	CGTGCATGTA
3401	TGGGAACCCA	AAGCCGTACA	TTGGGAACCG	GAACCCGTAC	ATTGGGAACC	CAAAGCCGTA	CATTGGGAAC	CGGTACACACA	TGTAAGTGAC	TGATATAAAA
	ACCCTTGGGT	FTCGGCATGT	AACCCTGGC	CTTGGGCATG	TAACCCTTGG	GTTTCGGCAT	GTAACCCTTG	GCCAGTGTGT	ACATTCCTG	ACTATATTTT
3501	GAGAAAAAAG	GCGATTTTTT	CGCCTAAAAC	TCTTTAAAAC	TTATTTAAAAC	TCTTTAAAAC	CGCCTGGCCT	GTGCATAACT	GTCTGGCCAG	CGCACAGCCG
	CTCTTTTTTC	CGTAAAAAAG	GCGGATTTTG	AGAAATTTTG	AATAATTTTG	AGAATTTTGG	GCGGACCGGA	CACGTATTGA	CAGACCGGTC	GCGTGTCCGG
3601	AAGAGCTGCA	AAAAGCGCCT	ACCCTTCGGT	CGCTGCGCTC	CCTACGCCCC	GCCGCTTCGC	GTGCGCTAT	CGCGGCCGCT	GGCCGCTCAA	AAATGGCTGG
	TTCTCGACGT	TTTTTCGCGA	TGGGAAGCCA	GCGACGCGAG	TGGGACGGGG	CAGCCGGATA	GCGCCGGGCA	CGCGCGAGTT	TTTACCGACC	
3701	CCTACGGCCA	GGCAATCTAC	CAGGGCGCGG	ACAAGCCGCG	CCGTGCGCAC	TCGACCGCCG	GCGCCACAT	CAAGGCACCC	TGCCTCGCGC	GTTTCGGTGA
	GGATGCGGGT	CCGTTAGATG	GTCCCGCGCC	TGTTCCGGCG	GGCAGCGGTG	AGCTGGCGGC	CGCGGGTGTG	GTTCCGTGGG	ACGGAGCGCG	CAAAGCCACT
3801	TGACGGTGAA	AACCTCTGAC	ACATGCAGCT	CCCAGGAGCG	GTCACAGCTT	GCTGTGAAGC	GGATGCCGGG	AGCAGACAAG	CCCGTCAGGG	CGCGTCAGCG
	ACTGCCACTT	TTGGAGACTG	TGTACGTGCA	GGGCCTCTGC	CAGTGTGCAA	CAGACATTCG	CCTACGGCCC	TCGTCTGTTC	GGGCAGTCCC	GCGCAGTCGC
3901	GGTGTGGGCG	GGTGTGGGGG	CGCAGCCATG	ACCCAGTCAC	GTAGCGATAG	CGGAGTGTAT	ACTGGCTTAA	CTATGCGGGA	TCAGAGCAGA	TTGTACTGAG
	CCACAACCCG	CCACAGCCCC	GCGTCCGTAC	TGGGTCAGTG	CATCGCTATC	GCCTCACATA	TGACCGAATT	GATACGCCGT	AGTCTCGTCT	AACATGACTC
		NdeI								
4001	AGTGCACCAT	ATGCGGTGTG	AAATACCGCA	CAGATGCGTA	AGGAGAAAAT	ACCGCATCAG	GCGCTCTTCC	GCTTCCTCGC	TCACTGACTC	GCTGCGCTCG
	TCACGTGGTA	TACGCCACAC	TTTATGGCGT	GTCTACGCAT	TCCTCTTTTA	TGGCGTAGTC	CGCGAGAAGG	CGAAGGAGCG	AGTGACTGAG	CGACCGGAGC
4101	GTCGTTCCGC	TGCGGGCAGC	GGTATCAGCT	CACTCAAAGG	CGGTAATACG	GTTATCCACA	GAATCAGGGG	ATAACGCAGG	AAAGAACATG	TGAGCAAAAG
	CAGCAAGCCG	ACGCCGCTCG	CCATAGTCGA	GTGAGTTTCC	GCCATTATGC	CAATAGGTGT	CTTAGTCCCC	TATTGCGTCC	TTTCTTGTA	ACTCGTTTTT
4201	GCCAGCAAAA	GGCCAGGAAC	CGTAAAAAAG	CCGCGTTGCT	GGCGTTTTTC	CATAGGCTCC	GCCCCCTGTA	CGAGCATCAC	AAAAATCGAC	GCTCAAGTCA
	CGGTCCGTTT	CCGGTCTTTG	GCATTTTTTC	GGCGCAACGA	CCGCAAAAAG	GATATCCGAG	CGGGGGGACT	GCTCGTAGTG	TTTTTAGCTG	CGAGTTCAGT
4301	GAGGTGCGCA	AACCCGACAG	GACTATAAAG	ATACCAGGCG	TTTCCCCTTG	GAAGCTCCCT	CGTGGCTCT	CCTGTTCCGA	CCCTGCCGCT	TACCGGATAC
	CTCCACCGCT	TTGGGCTGTC	CTGATATTTT	TATGGTCCGC	AAAGGGGGAC	CTTCGAGGGA	GCACGCGAGA	GGACAAGGCT	GGGACGGCGA	ATGGCCTATG
4401	CTGTCCGCCT	TTCTCCCTTC	GGGAAGCGTG	GCGCTTTCTC	ATAGCTCACG	CTGTAGGTAT	CTCAGTTCGG	TGTAGGTCGT	TCGCTCCAAG	CTGGGCTGTG
	GACAGGCGGA	AAGAGGGAAG	CCCTTCGCAC	CGCGAAAGAG	TATCGAGTGC	GACATCCATA	GAGTCAAGCC	ACATCCAGCA	AGCGAGGTTT	GACCCGACAC
4501	TGCACGAACC	CCCCGTTTCC	CCCGACCGCT	GCGCCTTATC	CGGTAATAT	CGTCTTGAGT	CCAACCCGGT	AAGACACGAC	TTATCGCCAC	TGGCAGCAGC
	ACGTGCTTGG	GGGGCAAGTC	GGGCTGGCGA	CGCGGAATAG	GCCATTGATA	GCAGAACTCA	GTTTGGGCGA	TTCTGTGCTG	AATAGCGGTG	ACCGTCTGTC

4601	CACTGGTAAAC GTGACCAATTG	AGGATTAGCA TCCTAATCGT	GAGCGAGGTA CTCGCTCCAT	TGTAGGCGGT ACATCCGCCA	GCTACAGAGT CGATGTCTCA	TCTTGAAGTG AGAACTTCAC	GTGGCCTAAC CACCGGATTG	TACGGCTACA ATGCCGATGT	CTAGAAGGAC GATCTTCCTG	AGTATTTGGT TCATAAACCA
4701	ATCTGCCTC TAGACGCGAG	TGCTGAAGCC ACGACTTCGG	AGTTACCTTC TCAATGGAAG	GGAAAAAGAG CCTTTTTCTC	TTGGTAGCTC AACCATCGAG	TTGATCCGGC AACTAGGCCG	AAACAAACCA TTTGTTTGGT	CCGCTGGTAG GGCGACCATC	CGGTGTTTTT GCCACCAAAA	TTTGTTTGCA AAACAAACGT
4801	AGCAGCAGAT TCGTCGTCTA	TACGCGCAGA ATGCGCGTCT	AAAAAAGGAT TTTTTCTCTA	CTCAAGAAGA GAGTTCCTTCT	TCCTTTGATC AGGAAACTAG	TTTTCTACGG AAAAGATGCC	GGTCTGACGC CCAGACTGCG	TCAGTGGAAC AGTCACCTTG	GAAACTCAC CTTTTGTAGT	GTTAAGGGAT CAATTCCCTA
4901	TTTGGTCATG AAACCGTAC	CATGATATAT GTACTATATA	CTCCCAATTT GAGGGTTAAA	GTGTAGGGCT CACATCCCGA	TATTAATGCAC ATAATACGTG	GCTTAAAAAT CGAATTTTTA	AATAAAAGCA TTATTTTCGT	GACTTGACCT CTGAACCTGA	GATAGTTTGG CTATCAAAC	CTGTGAGCAA GACACTCGTT
HpaI										
5001	TTATGTGCTT AATACACGAA	AGTGCATCTA TCACGTAGAT	ATCGCTTGAG TAGCGAACTC	TTAACGCCGG AATTGCGGCC	CGAAGCGGCG GCTTCGCCGC	TCGGCTTGAA AGCCGAACCT	CGAATTTCTA GCTTAAAGAT	GCTAGACATT CGATCTGTAA	ATTTGCCGAC TAAACGGCTG	TACCTTGGTG ATGGAACCAC
5101	ATCTCGCTT TAGAGCGGAA	TCACGTAGTG AGTGCATCAC	GACAAATCT CTGTTTAAAG	TCCAACCTGAT AGGTTGACTA	CTGCGCGCGA GACGCGCGCT	GGCCAAGCGA CCGGTTCGCT	TCTTCTTCTT AGAAGAAGAA	GTCCAAGATA CAGGTTCTAT	AGCCTGTCTA TCGGACAGAT	GCTTCAAGTA CGAAGTTCAT
5201	TGACGGGCTG ACTGCCCGA	ATACTGGGCG TATGACCCGG	GGCAGGCGCT CGTCCGCGA	CCATTGCCCA GGTAACGGGT	GTCGGGACGG AGCCGTCGG	ACATCCTTCG TGAAGCGCGA	GCGCGATTTT CGCGTAAAA	GCCGGTACT CGGCCAATGA	GCGCTGTACC TTCACATGG	AAATGCGGGA GACACTCGTT
5301	CAACGTAAGC GTTGCATTCG	ACTACATTTT TGATGTAAAG	GCTCATGCC CGAGTAGCGG	AGCCCAGTCG TCGGGTCAGC	GGCGGCGAGT CCGCCGCTCA	TCCATAGCGT AGGTATCGCA	TAAGTTTCA ATTCCAAAGT	TTTAGCGCCT AAATCGCGGA	CAAATAGATC GTTTATCTAG	CTGTTGAGGA GACAAGTCCT
PvuI										
5401	ACCGGATCAA TGGCCTAGTT	AGAGTTCCTC TCTCAAGGAG	CGCCGCTGGA GCGGCGACCT	CCTACCAAGG GGATGGTTCC	CAACGCTATG GTTGCGATAC	TTCTCTTGCT AAGAGAACGA	TTTGTGAGCA AAACAGTCGT	AGATAGCCAG TCTATCGGTC	ATCAATGTCG TAGTTACAGC	ATCGTGGCTG TAGCACCGAC
5501	GCTCGAAGAT CGAGCTTCTA	ACCTGCAAGA TGGACGTTCT	ATGTCAATTG TACAGTAAAG	GCTGCCATTC CGACGGTAAG	TCCAAATTCG AGGTTTAAAG	AGTTCGCGCT TCAAGCGCGA	TAGCTGGATA ATCGACCTAT	ACGCCACGGA TGCGGTGCCT	ATGATGTCGT TACTACAGCA	CGTGCACAAC TTCACGTTTG
5601	AATGGTGACT TTACCACTGA	TCTACAGCGC AGATGTCGCG	GGAGAACTC CCTCTTAGAG	GCTCTCTCCA CGAGAGAGGT	GGGGAAGCCG TTCAAAGGTT	AAGTTTCCAA TTCCAGCAAC	AAGGTCGTTG TAGTTTCGAG	ATCAAAGCTC CGCGGCAACA	GCCGCGTTGT AAGTAGTTCG	TTCATCAAGC GACACTCGTT
5701	CTTACGGTCA GAATGCCAGT	CCGTAACCAG GGCATTGGTC	CAAAACAATA GTTTAGTTAT	TCACTGTGTG AGTGACACAC	GCTTCAGGCC CGAAGTCCGG	GCCATCCACT CGGTAGGTGA	GCGGAGCCGT CGCCTCGGCA	ACAAATGTAC TGTTTACATG	GGCCAGCAAC CCGGTCTGTG	GTCGGTTGCA CAGCCAAGCT
5801	GATGGGCTC CTACCGCGA	GATGACGCCA CTACTGCGGT	ACTACCTCTG TGATGGAGAC	ATAGTTGAGT TATCAACTCA	CGTACTTTCG GCTATGAAGC	GCGATCACCG CGCTAGTGGC	CCTCCCCCAT GAAGGGGTA	GATGTTTTAAC CTACAAATTG	TTTTTTTTTAG AAACAAAATC	GGCGTACGCC CCGCTGACGG
5901	CTGCTGGTGA GACGACGCAT	ACATCGTTGC TGTAGCAACG	TGCTCCATAA ACGAGGTATT	CATCAAAACAT GTAGTTTGTG	CGACCAACGG GCTGGGTGCC	CGTAACGCGC GCATTGCGCG	TTGCTGTTTG AACGACGAAC	GATGCCCGAG CTACGGGCTC	GCATAGACTG CGTATCTGAC	TACCCCAAAA ATGGGGTTTT
6001	AAACATGTCA TTTGTACAGT	TAACAAGAAG ATTGTTCTTC	CCATGAAAAC GGTACTTTTG	CGCCACTGCG GCGGTGACGC	CCGTTACCAC GGCAATGGTG	CGCTGCGTTC GCGACGCAAG	GGTCAAGGTT CCAGTCCAA	CTGGACCAGT GACCTGGTCA	TGCGTGACGG ACGCCTGCC	CAGTTACGCT GTCAATGCGA
6101	ACTTGCATTA TGAACGTAAT	CAGCTTACGA GTCGAATGCT	ACCGAACGAG TGGCTTGCTC	GCTTATGTCC CGAATACAGG	ACTGGGTTTCG TGACCCAAGC	TGCCCGAATT ACGGGCTTAA	GATCACAGGC CTAGTGTCCG	AGCAACGCTC TCGTTGCGAG	TGTCATCGTT ACAGTAGCAA	ACAATCAACA TGTTAGTTGT
6201	TGCTACCCTC ACGATGGGAG	CGCGAGATCA GCGCTCTAGT	TCCGTGTTTC AGGCACAAG	AAACCCGGCA TTTGGGCCGT	GCTTAGTTGC CGAATCAACG	CGTCTTCCG GCAAGAAGGC	AAATAGCATCG TTATCGTAGC	GTAACATGAG CATTGTACTC	CAAAGTCTG GTTTTAGACG	CGCCTTACAA GCGGAATGTT
6301	CGGCTCTCCC GCCGAGAGGG	GCTGACGCCG CGACTGCGGC	TCCCGACTG AGGGCTGAC	ATGGGCTGCC TACCCGACGG	TGTATCGAGT ACATAGCTCA	GGTGATTTTG CCACTAAAAC	TGCCGAGCTG ACGGCTCGAC	CCGGTCCGGG GGCCAGCCCC	AGCTGTTGGC TCGACAACCG	TGGCTGGTGG ACCGACCACC
XhoI										
EcoRI										
6401	CAGGATATAT GTCCTATATA	TGTGGTGTA ACACCACATT	ACAAATTGAC TGTTAACTG	GCTTAGACAA CGAATCTGTT	CCTAATAACA GAATTAATGT	CATTGCGGAC GTAACGCCTG	GTTTTTAAATG CAAAAATFAC	TACTGAATTA ATGACTTAAT	ACGCCGAATT TGCGGCTTAA	GAATTCCTCG CTAAGGAGC
XbaI BamHI XhoI SmaI										
6501	AGTACGTAGG TCATGCATCC	ATCCATTTAA TAGGTAAATT	ATTCTAGAGG TAAGATCTCC	CGCGCCGCGG GCGCGGCGCC	CCGCTCCTGC GGCGAGGACG	TGAGCCTCGA ACTCGGAGCT	CATGTTGTCG GTACAACAGC	CAAAATTCGC GTTTTAAGCG	CCTGGACCCG GGACCTGGGC	CCCAACGATT GGGTTGCTAA
6601	TGTCGTCACT ACAGCAGTGA	GTCAAGGTTT CAGTTCAAA	GACCTGCACT CTGGACGTGA	TCATTTGGGG AGTAAACCCC	CCCACATACA GGGTGTATGT	CCAAAAAAT GGTTTTTTTA	GCTGCATAAT CGACGTATTA	TCTCGGGGCA AGAGCCCCGT	GCAAGTCGGT CGTTCAGCCA	TACCCGGCCG ATGGGCCGGC

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6701	CCGTGCTGGA GGCACGACCT	CCGGGTTGAA GGCCCAACTT	TGGTGCCCGT ACCACGGGCA	AACTTTCGGT TTGAAAGCCA	AGAGCGGACG TCTCGCCTGC	GCCAATACTC CGGTTATGAG	AACTTCAAGG TTGAAAGTTC	AATCTCACCC TTAGAGTGGG	ATGCGCGCCG TACGCGCGGC	CGGGGAACC CGCCCTTGG
6801	GGAGTTCCTT CCTCAAGGGA	TCAGTGAGCG AGTCACTCGC	TTATTAGTTC AATAATCAAG	GCCGCTCGGT CGGCGAGCCA	GTGTCGTAGA CACAGCATCT	TACTAGCCCC ATGATCGGGG	TGGGGCACTT ACCCCGTGAA	TTGAAATTTG AACTTTAAAC	AATAAGATT TTATTCTAAA	ATGTAATCAG TACATTAGTC
6901	TCTTTTAGGT AGAAAATCCA	TTGACCGGTT AACTGGCCAA	CTGCCGCTTT GACGGCGAAA	TTTTAAAATT AAAATTTTAA	GGATTGTGTA CCTAAACATT	TAATAAAACG ATTATTTTGC	CAATTGTTTG GTAAACAAAC	TTATTGTGGC AATAACACCG	GCTCTATCAT CGAGATAGTA	AGATGTCGCT TCTACAGCGA
7001	ATAAACCTAT TATTTGATA	TCAGCACAAT AGTCGTGTTA	ATATTGTTTT TATAACAAA	CATTTTAATA GTAAAATTAT	TTGTACATAT AACATGTATA	AAGTAGTAGG TTCATCATCC	GTACAATCAG CATGTTAGTC	TAAATTGAAC ATTTAACTTG	GGAGAATATT CCTCTTATA	ATTCATAAAA TAAGTATTTT
7101	ATACGATAGT TATGCTATCA	AACGGGTGAT TTGCCACTA	ATATTCATTA TATAAGTAAT	GAATGAACCG CTTACTTGCC	AAACCGCGG TTTGCCCGC	TAAGGATCTG ATTCTAGAC	AGCTACACAT TCGATGTGTA	GCTCAGGTTT CGAGTCCAA	TTTACACGT AAATGTTGCA	GCACAACAGA CGTGTGTCT
							XbaI		SmaI	
									XmaI	
						SpeI		BamHI		BglII
7201	ATTGAAAGCA TAACTTTCGT	AATATCATGC TTATAGTACG	GATCATAGGC CTAGTATCCG	GTCTCGCATA CAGAGCGTAT	TCTCATTAAA AGAGTAATTT	GCAGGACTCT CGTCCTGAGA	AGGGACTAGT TCCCTGATCA	TCTAGACTAG AGATCTGATC	GTGGATCCCG CACCTAGGGC	GGTCAGATCT CCAGTCTAGA
7301	CGGTGACGGG GCCACTGCC	CAGGACCGGA GTCCTGGCCT	CGGGGCGGTA GCCCGGCCAT	CCGGCAGGCT GGCCGTCCGA	GAAGTCCAGC CTTCAGGTCG	TGCCAGAAAC ACGGTCTTTG	CCACGTCAATG GGTGCAGTAC	CCAGTTCCCG GGTCAAGGGC	TGCTTGAAGC ACGAAC TTCG	CGGCCGCCCG GCCGGCGGGC
7401	CAGCATGCCG GTCGTACGGC	CGGGGGGCAT GCCCCCGTA	ATCCGAGCGC TAGGCTCGCG	CTCGTGCATG GAGCACGTAC	CGCACGCTCG GCGTGCCGAGC	GGTCGTTGGG CCAGCAACCC	CAGCCCGATG GTCGGGTAC	ACAGCGACCA TGTCGCTGGT	CGCTCTTGAA GCGAGAACTT	GCCCTGTGCC CGGGACACGG
7501	TCCAGGGACT AGGTCCCTGA	TCAGCAGGTG AGTCGTCCAC	GGTGTAGAGC CCACATCTCG	GTGGAGCCCA CACCTCGGGT	GTCCCGTCCG CAGGGCAGGC	CTGGTGGCGG GACCACCGCC	GGGGAGACGT CCCCTCTGCA	ACACGGTCTGA TGTGCCAGCT	CTCGGCCGTC GAGCCGGCAG	CAGTCTGAGG GTCAGCATCC
7601	CGTTGCGTGC GCAACGCACG	CTTCCAGGGG GAAGGTCCCC	CCC GCTAGG GGGCGCATCC	CGATGCCGGC GCTACGGCCG	GACCTCGCCG CTGGAGCGGC	TCCACCTCGG AGGTGGAGCC	CGACGAGCCA GCTGCTCGGT	GGGATAGCGC CCCTATCGCG	TCCCGCAGAC AGGGCGTCTG	GGACGAGGTC CCTGCTCCAG
7701	GTCCGTCAC CAGGCAGGTG	TCCTGCGGTT AGGACGCCAA	CCTGCGGCTC GGACGCCGAG	GGTACGGAAG CCATGCCTTC	TTGACCGTGC AATGGCACG	TTGTCTCGAT AACAGAGCTA	GTAGTGGTTG CATCACCAAC	ACGATGGTGC TGCTACCACG	AGACCGCCGG TCTGGCGGCC	CATGTCCGCC GTACAGGGCG
7801	TCGGTGGCAC AGCCACCGTG	GGCGGATGTC CCGCCTACAG	GGCCGGGCGT CCG GCCGCA	CGT TCTGGC GCAAGACCCG	TCATAGCTCG AGTATCGAGC	AGATCTGAGT TCTAGACTCA	CCGGACGTTG GGCCTGCAAC	GTAGATTGCA CATCTAACGT	AATATAATGG TTATATFACC	TTTGGCGATT AAACCGCTAA
7901	ATCCTTGAGG TAGGAACTCC	CCACACCTTT GGTGTGGAAA	AAATAGATCA TTTATCTAGT	ATGAATGGGC TACTTACCCG	AAGTATGAC TTCATAACTG	TTGCGATAAT AACGCTATTA	CCTTTAACTT GGAAATTGAA	TCTGCCTACC AGACGGATGG	ATCAATGTGG TAGTTACACC	ATGAGTTGTC TACTCAACAG
8001	GGTAAAAAGG CCATTTTCC	ATCTTACAGG TAGAATGTCC	CCAAATTCGC GGTTTAAAGC	TCTTAGCCGT AGAATCGGCA	ACAATATTAC TGTTATAATG	TCACCGGTGC AGTGGCCACG	GATGCCCCCC CTACGGGGGG	ATCGTAGGTTG TAGCATCCAC	AAGGTGGAAA TTCCACCTTT	TTAATGATCC AATTACTAGG
8101	ATCTTGAGAC TAGAACTCTG	CACAGGCCCA GTGTCCGGGT	CAACAGCTAC GTTGTCGATG	CAGTTTCTC GTCAAAGGAG	AAGGTCCAC TTCCAGGTG	CAAAAACGTA GTTTTTGCAT	AGCGTTTACG TCGCGAATGC	TACATGGTGC ATGTACCAGC	ATAAGAAAAG TATTC TTTT	GCAATTTGTA CGTTAAACAT
8201	GATGTTAACA CTACAATTGT	TCCAACGTCG AGGTTGCAGC	CTTTCAGCCC GAAAGTCGGG	GGTGGCGCGC CCACCGCGCG	CGATATCCTC GCTATAGGAG	TCTTAAGGTA AGAATTCCAT	GCGAGCTCTT CGCTCGAGAA	AATTAATAGG TTAATTATCC	GATAACAGGG CTATTGTCCC	TAATTAAC TA ATTAATTGAT
8301	TAACGGTCCCT ATTGCCAGGA	AAGGTAGCGA TTCCATCGCT	TGGCAAACAG ACCGTTTGTC	CTATTATGGG GATAAATACC	TATTATGGGT ATAAATCCCA	GGTCTTTTAT CCAAGAAATA	GCGGACTCTG CGCCTGTGAC	ACGGCTTTAT TGCCGAAATA	GCCTGCAGGT CGGACGTCCA	CGCGAGCGAT GCGCTCGCTA

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	PvuI	KpnI	XmaI SmaI	Sall	StuI	HindIII			PmeI		
8401	CGCGGTACCG	CGCGGTACCG	CCCGGGCGTC	GACAGGCCTA	AGCTTAGCTT	GAGCTTGGAT	CAGATTGTCG	TTTCCCGCCT	TCAGTTTAAA	CTATCAGTGT	TTGACAGGAT
	GCGCCATGGC	GCGCCATGGC	GGGCCCAG	CTGTCCGGAT	TCGAATCGAA	CTCGAACCTA	GTCTAACAGC	AAAGGGCGGA	AGTCAAATTT	GATAGTCACA	AACTGTCCTA
8501	ATATTGGCGG	GTAAACCTAA	GAGAAAAGAG	CGTTTATTAG	AATAACGGAT	ATTTAAAAGG	GCGTGAAAAG	GTTTATCCGT	TCGTCCATTT	GTATGTGCAT	
	TATAACCGCC	CATTTGGATT	CTCTTTTCTC	GCAAATAATC	TTATTGCCTA	TAAATTTTCC	CGCACTTTC	CAAATAGGCA	AGCAGGTAAA	CATACACGTA	
8601	GCCAACCACA	GGGTCCCCT	CGGGATCAA								
	CGGTTGGTGT	CCCAAGGGGA	GCCCTAGTT								