

	Scal																					
1	AGTACTTTGA	TCCAACCCCT	CCGCTGCTAT	AGTGCAGTCG	GCTTCTGACG	TTAGTGCAG	CCGTCTTCTG	AAAACGCAT	GTCGCACAAG	TCCTAAGTTA												
	TCATGAAACT	AGGTTGGGGA	GGCGACGATA	TCACGTCAGC	CGAAGACTGC	AAGTCACGTC	GGCAGAAGAC	TTTTGCTGTA	CAGCGTGTTC	AGGATTCAAT												
101	CGCGACAGGC	TGCCGCCCTG	CCCTTTTCTT	GGCGTTTTTCT	TGTCGCGTGT	TTTAGTCGCA	TAAAGTAGAA	TACTTGCGAC	TAGAACCGBA	GACATTACGC												
	GCGCTGTCCG	ACGGCGGGAC	GGGAAAAGGA	CCGCAAAAAG	ACAGCGACA	AAATCAGCGT	ATTTTCATCTT	ATGAACGCTG	ATCTTGGCCT	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	GGCACAGGC	GCGACCGCCC	GGAGTGGCC	AGGATGCTTG	ACCACCTACG	CCCTGGCGAC	GTTGTGACAG												
	ACGTGGTTTC	ACAAAAGGCT	CTTCTAGTGG	CCGTGGTCCG	CCGTGGCGGG	CCTCGACCGG	TCCTACGAAC	TGGTGGATGC	GGGACCGCTG	CAACACTGTC												
401	TGACCAGGCT	AGACCGCCTG	GCCCCAGCA	CCCCGACCT	ACTGGACATT	GCCGAGCGCA	TCCAGGAGGC	CGGCGCGGGC	CTGCGTAGCC	TGGCAGAGCC												
	ACTGGTCCGA	TCTGGCGGAC	CGGGCGTCTG	GGGCGCTGGA	TGACCTGTAA	CGGCTCGCGT	AGGTCTCCG	GCCGCGCCCG	GACGCATCGG	ACCGTCTCGG												
501	GTGGGCCGAC	ACCACCACGC	CGGCCGGCCG	CATGGTGTG	ACCGTGTTCG	CCGGCATTGC	CGAGTTCGAG	CGTTCCCTAA	TCATCGACCG	CACCCGGAGC												
	CACCCGCTG	TGGTGGTGCG	GCCGGCCGGC	GTACCACAAC	TGGCACAAAG	GGCCGTAACG	GCTCAAGCTC	GCAAGGGATT	AGTAGCTGGC	GTGGGCCTCG												
601	GGGCGGAGG	CCGCCAAGGC	CCGAGGCGTG	AAGTTTGGCC	CCCGCCCTAC	CCTCACCCCG	GCACAGATCG	CGCACGCCCG	CGAGCTGATC	GACCAGGAAG												
	CCCGCGCTCC	GGCGGTTCCG	GGCTCCGCAC	TTCAAACCGG	GGGCGGATG	GGAGTGGGCC	CGTGTCTAGC	CGGTGCGGGC	GCTCGACTAG	CTGGCTTTC												
701	GCCGCACCGT	GAAAGAGGCG	GCTGCACTGC	TTGGCGTGCA	TCGCTCGACC	CTGTACCGCG	CACCTTGACG	CAGCGAGGAA	GTGACGCCCA	CCGAGGCCAG												
	CGGCGTGGCA	CTTTCTCCGC	CGACGTGACG	AACCGCACGT	AGCGAGCTGG	GACATGGCGC	GTGAACTCGC	GTCGCTCCTT	CACCTGCGGT	GGCTCCGGTC												
801	GCGGCGCGGT	GCCTTCCGTG	AGGACGCATT	GACCGAGGCC	GACGCCCCTG	CGGCCGCCGA	GAATGAACGC	CAAGAGGAAAC	AAGCATGAAA	CCGCACCAGG												
	CGCCGCGCCA	CGGAAGGCAC	TCCTGCCTAA	CTGGCTCCGG	CTGCGGGACC	GCCGGCGGCT	CTTACTTGGC	GTTCTCCTTG	TTCGTACTTT	GGCGTGGTCC												
901	ACGGCCAGGA	CGAACCGTTT	TTCATTACC	AAGAGATCGA	GGCGGAGATG	ATCGCGGCCG	GGTACGTTG	CGAGCCGCC	GCGCAGTCT	CAACCGTGCC												
	TGCCGTCCTT	GCTTGGCAAA	AAGTAATGGC	TTCTTAGTCT	CCGCTCTAC	TAGCCCGCCG	CCATGCACA	GCTCGCGGG	CGCTGCAGA	GTTGGCAGC												
1001	GCTGCATGAA	ATCCTGGCCG	GTTTGTGTA	TGCCAAGCTG	GCGGCTGGC	GCCGCGACTT	GGCCGCTGAA	GAAACCGAGC	GCCGCGTCT	AAAAAGGTGA												
	CGACGTACTT	TAGGACCGGC	CAAACAGACT	ACGGTTTCGAC	CGCCGGACCG	GCCGGTCGAA	CCGGCGACTT	CTTTGGCTCG	CGGCGGCAGA	TTTTTCCACT												
1101	TGTGTATTTG	AGTAAAACAG	CTTGCGTCAT	GCGGTGCGTG	CGTATATGAT	GCGATGAGTA	AATAAACAAA	TACGCAAGGG	GAACGCATGA	AGGTTATCGC												
	ACACATAAAC	TCATTTTGTG	GAACGCAGTA	CGCCAGCGAC	GCATATACTA	CGCTACTCAT	TTATTTGTTT	ATGCGTTCCC	CTTGCGTACT	TCCAATAGCG												
1201	TGTACTTAAC	CAGAAAGGCG	GGTCAGGCAA	GACGACCATC	GCAACCCATC	TAGCCCAGCG	CCTGCAACTC	GCCGGGGCCG	ATGTTCTGTT	AGTFCGATTCC												
	ACATGAATTG	GTCTTTCCGC	CCAGTCCGTT	CTGCTGGTAG	CGTTGGGTAG	ATCGGGCGCG	GGACGTTGAG	CGGCCCGGC	TACAAGACAA	TCAGTAAAG												
1301	GATCCCAGG	CGAGTGCCTG	CGATTGGGCG	GCCGTGCGGG	AAGATCAACC	GCTAACCGTT	GTCGGCATCG	ACCGCCCGAC	GATTGACCG	GACGTGAAG												
	CTAGGCGTCC	CGTACCGGGC	GCTAACCCGC	CGGCACGCC	TTCTAGTTGG	GATTGGCAA	CAGCGTAGC	TGGCGGGCTG	TGCGTGGCG	CTGCACTTCC												
1401	CCATCGGCCG	GCGCGACTTC	GTAGTGATCG	ACGGAGCGCC	CCAGGCGCG	GACTTGGCTG	TGTCCGCGAT	CAAGGCAGCC	GACTTGGTGC	TGATTCCGGT												
	GGTAGCCGGC	CGCGCTGAAG	CATCATTAGC	TGCCTCGCGG	GGTCCGCGC	CTGAACCGAC	ACAGGCGTA	GTTCCGTCCG	CTGAAGCAG	ACTAAGGCCA												
1501	GCAGCCAAGC	CCTTACGACA	TATGGGCCAC	CGCCGACCTG	GTGGAGCTGG	TTAAGCAGCG	CATTGAGTCC	ACGGATGAA	GGCTACAAGC	GGCCTTTGTC												
	CGTCCGGTTC	GGAATGCTGT	ATACCCGGTG	GCGGCTGGAC	CACCTCGACC	AATTCTGTCC	GTAACCTCAG	TGCCTACCTT	CCGATGTTCG	CCGGAACAG												
1601	GTGTCGCGGG	CGATCAAAGG	CACGCGCATC	GGCGGTGAGG	TTGCCGAGGC	GCTGGCCGGG	TACGAGTCTG	CCATTCTTGA	GTCCCGTATC	ACGCAGCGC												
	CACAGCCGCC	GCTAGTTTCC	GTGCGCGTAG	CCGCCACTCC	AACGGTCCG	CGACCGGCC	ATGTCGACG	GGTAAGAACT	CAGGGCATAG	TGCGTCCGCG												
1701	TGAGCTACCC	AGGCACTGCC	GCCGCCGGCA	CAACCGTTCT	TGAATCAGAA	CCCGAGGGCG	ACGCTGCCCG	CGAGGTCCAG	GCGCTGGCCG	CTGAAATTAA												
	ACTCGATGGG	TCCGTGACGG	CGGCGGCCGT	GTTGGCAAGA	ACTTAGTCTT	GGGCTCCCGC	TGCGACGGGC	GCTCCAGGTC	CGCGACCGGC	GACTTTAATT												
1801	ATCAAACTC	ATTTGAGTTA	ATGAGGTA	GAGAAAATGA	GCAAAAGCAC	AAACACGTA	AGTGCCGCC	GTCCGAGCGC	ACGCAGCAGC	AAGGCTGCAA												
	TAGTTTGTAG	TAAACTCAAT	TACTCCATTT	CTCTTTTACT	CGTTTTCTGT	TTTGTGCGAT	TCACGGCCGG	CAGGCTCGCG	TGCGTCTGCG	TTCCGACGTT												
1901	CGTTGGCCAG	CCTGGCAGAC	ACGCCAGCCA	TGAAGCGGGT	CAACTTTCAG	TTGGCCGGCG	AGGATCACAC	CAAGCTGAAG	ATGTACGGCG	TACGCCAAGG												
	GCAACCGTTC	GGACCGTCTG	TGCGGTGGGT	ACTTCAAAGT	ACTTCAAAGT	AACGGCCCGC	TCCTAGTGTG	TACATGGCC	TACATGGCC	ATGCGGTTCC												
2001	CAAGACCATT	ACCGAGCTGC	TATCTGAATA	CATCGCGCAG	CTACCAGAGT	AAATGAGCAA	ATGAATAAAT	GAGTAGATGA	ATTTTACCGG	CTAAAGGAGG												
	GTTCTGGTAA	TGGCTCGACG	ATAGACTTAT	GTAGCGCGTC	GATGGTCTCA	TTTACTCGTT	TACTTATTTA	CTCATCTACT	TAAAATCGCC	GATTTCTCTC												
2101	CGGCATGGAA	AATCAAGAAC	AACCAGGCAC	CGACGCGGTG	GAATGCCCA	TGTGTGGAGG	AACGGGCGGT	TGGCCAGGGC	TAAGCGGCTG	GGTGTCTGCG												
	GCCGTACTTT	TGAGTTCTTG	TTGGTCCGTG	GCTGCGGCAC	CTTACGGGGT	ACACACCTCC	TTGCCCGCCA	ACCGGTCCGC	ATTCCGCGAC	CCAACAGACG												
2201	CGGCCCTGCA	ATGGCACTGG	AACCCCAAG	CCCAGGAAT	CGGCGTACG	GTCGCAAACC	ATCCGGCCCG	GTACAAATCG	GCGCGCGCT	GGGTGATGAC												
	GCCGGACGCT	TACCGTGACC	TTGGGGTTC	GGGCTCCTTA	GCCGACTGC	CAGCGTTTGG	TAGGCCGGGC	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	ACTAGGGCAT	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	GGAACTAATC	GGCGATGTTT	TAGCATTTCT	CGCTTTGGCC	CGCCGGCTC	ATGTAGTCTT	AGCTCGATCG	ACTAACCTAC	ATGGCGTCT
						Cial				
3001	TCACAGAAGG	CAAGAACCCG	GACGTGCTGA	CGGTTACACC	CGATTACTTT	TTGATCGATC	CCGGCATCGG	CCGTTTTCTC	TACCGCCTGG	CACGCCGCGC
	AGTGTCTTCC	GTTCTTGGGC	CTGCACGACT	GCCAAGTGGG	GCTAATGAAA	AACTAGCTAG	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	TCCGCCCCGT	CCGACCGGGC	TAGGATCAGT	ACGCGATGGC	GTTGGACTAG	CTCCCGTTC
3301	CATCCGCGCG	TTCCTAATGT	ACGGAGCAGA	TGCTAGGGCA	AATTGCCCTA	GCAGGGGAAA	AAGGTCGAAA	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	AACCCFTGGC	CTTGGGCATG	TAACCFTTGG	GTTTCGGCAT	GTAACCCTTG	GCCAGTGTGT	ACATTCCTG	ACTATATTTT
3501	GAGAAAAAAG	GCGATTTTTT	CGCCTAAAAC	TCTTTAAAAC	TTATTTAAAAC	TCTTTAAAACC	CGCCTGGCCT	GTGCATAACT	GTCTGGCCAG	CGCACAGCCG
	CTCTTTTTTT	CGCTAAAAAG	GCGGATTTTG	AGAAATTTTG	AATAATTTTG	AGAATTTTGG	GCGGACCGGA	CACGTATTGA	CAGACCGGTC	GCGTGTCCGG
3601	AAGAGCTGCA	AAAAGCGCCT	ACCCTTCGGT	CGTGCCTCTC	CCTACGCCCC	GCCGCTTCGC	GTCCGGCTAT	CGCGGCCGCT	GGCCGCTCAA	AAATGGCTGG
	TTCTCGACGT	TTTTTCGCGGA	TGGGAAGCCA	GCGACGCGAG	TGGATCGGGG	CAGCCGAGGC	CAGCCGGATA	GCGCCGGCGA	CGGCGAGTTC	TTTACCAGAC
3701	CCTACGCGCA	GGCAATCTAC	CAGGGCGCGG	ACAAGCCGCG	CCGTCCGCCAC	TCGACCCGCG	GCGCCACAT	CAAGGCACCC	TGCCTCGCGC	GTTTCGGTGA
	GGATGCCGGT	CCGTTAGATG	GTCCCGCGCC	TGTTCCGGCG	GGCAGCGGTG	AGCTGGCGGC	CGCGGGTGTG	GTTCCGTGGG	ACGGAGCGCG	CAAAGCCACT
3801	TGACGGTGAA	AACCTCTGAC	ACATGCAGCT	CCCGGAGACG	GTCACAGCTT	GTCTGTAAGC	GGATGCCGGG	AGCAGACAAG	CCCGTCAGGG	CGCGTCAGCG
	ACTGCCACTT	TTGGAGACTG	TGTACGTCTG	GGGCTCTG	CAGTGTCTGAA	CAGACATTCG	CCTACGGCCC	TCGTCTGTTC	GGGCAGTCCC	GCGCAGTCCG
						AccI				
3901	GGTGTGGCG	GGTGTCCGGG	CGCAGCCATG	ACCCAGTCAC	GTAGCGATAG	CGGAGTGAT	ACTGGCTTAA	CTATGCGGCA	TCAGAGCAGA	TTGTACTGAG
	CCACAACCGC	CCACAGCCCC	GCGTCCGTAC	TGGGTCAAGT	CATCGCTATC	GCCTCACATA	TGACCGAATT	GATACGCCGT	AGTCTCGTCT	AACATGACTC
4001	AGTGCACCAT	ATGCGGTGTG	AAATACCGCA	CAGATGCGTA	AGGAGAAAAT	ACCGCATCAG	GCGCTCTTCC	GCTTCCCTCG	TCACTGACTC	GCTGCGCTCG
	TCACGTGGTA	TACGCCACAC	TTTATGGCGT	GTCTACGCAT	TCCTCTTTTA	TGGCGTAGTC	CGCGAGAAGG	CGAAGGAGCG	AGTGACTGAG	CGACGCGAGC
4101	GTCGTTCCGG	TGCGGGCAGC	GGTATCAGCT	CACTCAAAGG	CGGTAATACG	GTTATCCACA	GAATCAGGGG	ATAACGCAGG	AAAGAACATG	TGAGCAAAAG
	CAGCAAGCCG	ACGCCGCTCG	CCATAGTCGA	GTGAGTTTCC	GCCATTATGC	CAATAGGTGT	CTTAGTCCCC	TATTGCGTCC	TTTCTTGATC	ACTCGTTTTT
4201	GCCAGCAAAA	GGCCAGGAAC	CGTAAAAAAG	CCCGTTGGT	GGCGTTTTTC	CATAGGCTCC	GCCCCCTGTA	CGAGCATCAC	AAAAATCGAC	GCTCAAGTCA
	CGGTCCGTTT	CCGGTCTTTG	GCATTTTTTC	GGCGCAACGA	CCGCAAAAAG	GATATCCGAG	CGGGGGGACT	GCTCGTAGTG	TTTTTAGCTG	GCTAGTTCAGT
4301	GAGGTGGCGA	AACCCGACAG	GACTATAAAG	ATACCAGGCG	TTTCCCCTTG	GAAGCTCCCT	CGTGCGCTCT	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	CGGTAACAT	CGTCTTGAGT	CCAACCCGGT	AAGACACGAC	TTATCGCCAC	TGGCAGCAGC
	ACGTGCTTGG	GGGGCAAGTC	GGGCTGGCGA	CGCGGAATAG	GCCATTGATA	GCAGAACTCA	GTTTGGGCGA	TTCTGTGCTG	AATAGCGGTG	ACCGTCCGTC

4601	CACTGGTAAC GTGACCATTG	AGGATTAGCA TCCTAATCGT	GAGCGAGGTA CTCGCTCCAT	TGTAGGCGGT ACATCCGCCA	GCTACAGAGT CGATGTCTCA	TCTTGAAGTG AGAACTTCAC	GTGGCCTAAC CACCGGATTG	TACGGCTACA ATGCCGATGT	CTAGAAGGAC GATCTTCTCG	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 CTTTTGAAGT	GTTAAGGGAT CAATTCCCTA
4901	TTTGGTCATG AAACCAGTAC	CATGATATAT GTACTATATA	CTCCCAATTT GAGGGTTAAA	GTGTAGGGCT CACATCCCGA	TATTATGCAC ATAATACGTG	GCTTAAAAAT CGAATTTTTA	AATAAAAGCA TTATTTTCGT	GACTTGACCT CTGAACTGGA	GATAGTTTGG CTATCAAAC	CTGTGAGCAA GACACTCGTT
HpaI										
5001	TTATGTGCTT AATACACGAA	AGTGCATCTA TCACGTAGAT	ATCGCTTGAG TAGCGAACTC	TTAACGCCGG AATTGCGGCC	CGAAGCGGCG GCTTCGCCGC	TCGGCTTGAA AGCCGAACTT	CGAATTTCTA GCTTAAAGAT	GCTAGACATT CGATCTGTAA	ATTTGCCGAC TAAACGGCTG	TACCTTGGTG ATGGAACCAC
5101	ATCTCGCTT TAGAGCGGAA	TCACGTAGTG AGTGCATCAC	GACAAATCT CTGTTTAAAG	TCCAAGTATG AGGTTGACTA	CTGCGCGCGA GACGCGCGCT	GGCCAAGCGA CCGGTTCGCT	TCTTCTTCTT AGAAGAAGAA	GTCCAAGATA CAGGTTCTAT	AGCCTGTCTA TCGGACAGAT	GCTTCAAGTA CGAAGTTCAT
5201	TGACGGGCTG ACTGCCGAC	ATACTGGGCG TATGACCCGG	GGCAGGCGCT CCGTCGCGA	CCATTGCCCA GGTAACGGGT	GTCGGGACGC GAGGAGTCGC	ACATCCTTCG TGTAGGAAGC	GCGCGATTTT CGCGTAAAA	GCCGGTACT CGGCAATGA	GCGCTGACC GCGCAGTGG	AAATGCGGGA TTTACGCCCT
5301	CAACGTAAGC GTTGCATTCG	ACTACATTTT TGATGTAAAG	GCTCATGCC CGAGTAGCGG	AGCCCAGTCG TCGGGTCAGC	GGCGGCGAGT CCGCCGCTCA	TCCATAGCGT AGGTATCGCA	TAAGTTCAT ATTCCAAAGT	TTTAGCGCCT AAATCGCGGA	CAAATAGATC GTTTATCTAG	CTGTTGAGGA GACAAGTCCT
5401	ACCGGATCAA TGGCCTAGTT	AGAGTTCCTC TCTCAAGGAG	CGCCGCTGGA GCGGCGACCT	CCTACCAAGG GGATGGTTCC	CAACGCTATG GTTGCGATAC	TTCTCTTGCT AAGAGAACGA	TTTGTGAGCA AAACAGTCGT	AGATAGCCAG TCTATCGGTC	ATCAATGTCT TAGTTACAGC	ATCGTGGCTG TAGCACCGAC
5501	GCTCGAAGAT CGAGCTTCTA	ACCTGCAAGA TGGACGTTCT	ATGTCAATGC TACAGTAACG	GCTGCCATTC CGACGGTAAG	TCCAAATTCG AGGTTTAAAC	AGTTCGCGCT TCAAGCAGCA	TAGCTGGATA ATCGACTFAT	ACGCCACGGA TGCCTGTCCT	ATGATGTCTG TACTACAGCA	CGTGCACAAC GCACGTGTTG
5601	AATGGTACT TTACCACTGA	TCTACAGCGC AGATGTCGCG	GGAGAACTC CCTCTTAGAG	GCTCTCTCCA CGAGAGAGGT	GAGGAAGCCG TTCAAAGGTT	AAGTTTCAA TTCCAGCAAC	AAGTTCGTTG TAGTTTCGAG	ATCAAAGCTC CGGCGCAACA	GCGCAGTGT AAGTAGTTCG	TTTACGAGC GTCGGTTCGA
5701	CTTACGGTCA GAATGCCAGT	CCGTAACCAG GGCATTGGTC	CAAATCAATA GTTTAGTTAT	TCACTGTGTG AGTGACACAC	GCTTCAGGCC CGAAGTCCGG	GCCATCCACT CGGTAGGTGA	GCGGAGCCGT CGCCTCGCA	ACAAATGTAC TGTTTACATG	GGCCAGCAAC CCGGTCGTTG	GTCGGTTCGA CAGCCAAGCT
5801	GATGGCCTC CTACCGCAG	GATGACGCCA CTACTGCGGT	ACTACCTCTG TGATGGAGAC	ATAGTTGAGT TATCAACTCA	CGATACTTCG GCTATGAAGC	GCGATCACCG CGTAGTGGC	CTTCCCCCAT GAAGGGGGTA	GATGTTTTAAC CTACAAATTC	TTTGTTTTAG AAACAAAATC	GGCGACTGCC CCGCTGACGG
5901	CTGCTGCGTA GACGACGCAT	ACATCGTTGC TGTAGCAACG	TGCTCCATAA ACGAGGTATT	CATCAAACAT GTAGTTTGTG	CGACCCACGG GCTGGGTGCC	CGTAACGCGC GATTGCGCG	TTGCTGCTTG AACGACGAAC	TGCGCCGAG CTACGGGCTC	GCATAGACTG GATGGGCTC	TACCCAAAA ATGGGGTTTT
6001	AAACATGTCA TTTGTACAGT	TAACAAGAAG ATTGTTCTTC	CCATGAAAAC GGTACTTTTG	CGCCACTGCG GCGGTGACGC	CCGTTACCAC GGCAATGGTG	CGCTGCGTTC GCGACGCAAG	GGTCAAGGTT CCAGTCCAA	CTGGACCAGT GACCTGGTCA	TGCGTGACGG ACGCATGCC	CAGTTACGCT GTCAATGCGA
6101	ACTTGCATTA TGAACGTAAT	CAGCTTACGA GTCGAATGCT	ACCGAACGAG TGGCTTGCTC	GCTTATGTCC CGAATACAGG	ACTGGGTTTCG TGACCAAGC	TGCCCGAATT ACGGGCTTAA	GATCACAGGC CTAGTGTCCG	AGCAACGCTC TCGTTGCGAG	TGTCATCGTT ACAGTAGCAA	ACAATCAACA TGTTAGTTGT
6201	TGCTACCCTC ACGATGGGAG	CGCGAGATCA GCGCTCTAGT	TCCGTGTTTC AGGCACAAAG	AAACCCGGCA TTTGGGCCGT	GCTTAGTTGC CGAATCAACG	CGTTCCTCCG GCAAGAAGGC	AATAGCATCG TTATCGTAGC	GTAACATGAG CATTGTACTC	CAAAGTCTGC GTTTCAGACG	CGCCTTACAA GCGGAATGTT
6301	CGGCTCTCCC GCCGAGAGGG	GCTGACGCCG CGACTGCGGC	TCCCGACTG AGGGCTGAC	ATGGGCTGCC TACCCGACGG	TGTATCGAGT ACATAGCTCA	GGTGATTTTG CCTACTAAAAC	TGCCGAGCTG ACGGCTCGAC	CCGGTCGGGG GGCCAGCCCC	AGCTGTTGGC TCGACAACCG	TGGCTGGTGG ACCGACCACC
XhoI										
EcoRI										
6401	CAGGATATAT GTCCTATATA	TGTGGTGTA ACACCACATT	ACAAATGAC TGTTTAACTG	GCTTAGACAA CGAATCTGTT	CTTAATAACA GAATTATTGT	CATTGCGGAC GTAACGCCTG	GTTTTTAAATG CAAAAATTAC	TACTGAATTA ATGACTTAAT	ACGCCGAATT TGCGGCTTAA	GAATTCCTCG CTTAAGGAGC
SacI										
XhoI										
BamHI										
Ascl										
6501	AGTACGTAGG TCATGCATCC	ATCCATTTAA TAGGTAAATT	ATTCTAGAGG TAAGATCTCC	CGCGCCGCGG GCGCGGCGCC	CCGCTCCTGC GGCGAGGACG	TGAGCCTCGA ACTCGGAGCT	CATGTTGTCG GTACAACAGC	CAAAATTCGC GTTTTAAGCG	CCTGGACCCG GGACCTGGGC	CCAACGATT GGGTTGCTAA
6601	TGTCGTCACT ACAGCAGTGA	GTCAAGGTTT CAGTTCCAAA	GACCTGCACT CTGGACGCTGA	TCATTTGGGG AGTAAACCCC	CCCACATACA GGGTGTATGT	CCAAAAAAT GGTTTTTTTA	GCTGCATAAT CGACGTATTA	TCTCGGGGCA AGAGCCCCGT	GCAAGTCGGT CGTTCAGCCA	TACCCGGCCG ATGGGCCGGC

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	GGATTTGTAA CCTAAACATT	TAATAAAACG ATTATTTTGC	CAATTGTTTG GTTAACAAAC	TTATTGTGGC AATAACACCG	GCTCTATCAT CGAGATAGTA	AGATGTCGCT TCTACAGCGA
7001	ATAAACCTAT TATTTGATA	TCAGCACAAT AGTCGTGTTA	ATATTGTTTT TATAACAAA	CATTTTAATA GTAAAATTAT	TTGTACATAT AACATGATA	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
7201	ATTGAAAGCA TAACTTTCGT	AATATCATGC TTATAGTACG	GATCATAGGC CTAGTATCCG	GTCTCGCATA CAGAGCGTAT	TCTCATTAAA AGAGTATTTT	GCAGGACTCT CGTCCTGAGA	AGGGACTAGT TCCCTGATCA	TCTAGATCTA AGATCTAGAT	GACTAGGTGG CTGATCCACC	ATCCCTATTC TAGGGATAAG
7301	CTTTGCCCTC GAAACGGGAG	GGACGAGTGC CCTGCTCACG	TGGGGCGTCG ACCCCGAGC	GTTTCCACTA CAAAGGTGAT	TCGGCGAGTA AGCCGCTCAT	CTTCTACACA GAAGATGTGT	GCCATCGGTC CGGTAGCCAG	CAGACGGCCG GTCTGCCGGC	CGCTTCTGCG GCGAAGACGC	GGGATTTGT CCGCTAAACA
7401	GTACGCCGA CATGCGGGCT	CAGTCCCGC GTCAGGGCCG	TCCGGATCGG AGGCCTAGCC	ACGATTGCGT TGCTAACGCA	CGCATCGACC GCGTAGCTGG	CTGCGCCCAA GACGCGGTT	GCTGCATCAT CGACGTAGTA	CGAAATTGCC GCTTTAACGG	GTCAACCAAG CAGTTGGTTC	CTCTGATAGA GAGACTATCT
7501	GTTGGTCAAG CAACCAAGTTC	ACCAATGCGG TGGTTACGCC	AGCATATACG TCGTATATGC	CCCGGAGCCG GGGCCTCGGC	CGGCGATCCT GCCGCTAGGA	GCAAGCTCCG CGTTCGAGGC	GATGCCTCCG CTACGGAGGC	CTCGAAGTAG GAGCTTCATC	CGCGTCTGCT GCGCAGACGA	GCTCCATACA CGAGGTATGT
7601	AGCCAACCAC TCGGTTGGTG	GGCCTCCAGA CCGGAGGCTC	AGAAGATGTT TCTTCTACAA	GGCGACCTCG CCGCTGGAGC	TATTTGGGAA ATAACCCTTA	CCCCGAACAT GGGGCTTGTA	CGCCTCGCTC CGGAGCCGAG	CAGTCAATGA GTCAGTTACT	CCGTGTAT GGCGACATA	GCGGCCATTG CGCCGGTAAC
7701	TCCGTCAGGA AGGCAGTCCT	CATTGTTGGA GTAACAACCT	GCCGAAATCC CGGCTTTAGG	GCGTGCACGA CGCACGTGCT	GGTGCCGGAC CCACGGCCTG	TTCGGGGCAG AAGCCCCGTC	TCCTCGGCCC AGGAGCCGGG	AAAGCATCAG TTTCGTAGTC	CTCATCGAGA GAGTAGCTCT	GCCTGCGCGA CGGACGCGCT
7801	CGGACGCACT GCCTGCGTGA	GACGGTGTG CTGCCACAGC	TCCATCACAG AGGTAGTGTC	TTTGCCAGTG AAACGGTCAC	ATACACATGG TATGTGTACC	GGATCAGCAA CCTAGTCGTT	TCGCGCATAT AGCGCTATA	GAAATCACGC CTTTAGTGCG	CATGTAGTGT GTACATCACA	ATTGACCGAT TAACTGGCTA
7901	TCCTTGCGGT AGGAACGCCA	CCGAATGGGC GGCTTACCCG	CGAACCCGCT GCTTGGGCGA	CGTCTGGCTA GCAGACCGAT	AGATCGGCCG TCTAGCCGGC	CAGCGATCGC GTCGCTAGCG	ATCCATGGCC TAGGTACCGG	TCCGCGACCG AGGCGCTGGC	GCTGCAGAAC CGACGTCTTG	AGCGGGCAGT TCGCCCGTCA
8001	TCGGTTTCAG AGCCAAAGTC	GCAGGTCTTG CGTCCAGAAC	CAACGTGACA GTTGCACTGT	CCCTGTGCAC GGGACACGTG	GGCGGGAGAT CCGCCCTCTA	GCAATAGGTC CGTTATCCAG	AGGCTCTCGC TCCGAGAGCG	TGAATTCCCC ACTTAAGGGG	AATGTCAAGC TTACAGTTCG	ACTTCCGGAA TGAAGGCCTT
8101	TCGGGAGCGC AGCCCTCGCG	GGCCGATGCA CCGGCTACGT	AAGTGCAGAT TTCACGGCTA	AAACATAACG TTTGTATTGC	ATCTTTGTAG TAGAAACATC	AAACCATCGG TTTGGTAGCC	CGCAGCTATT GCGTCGATAA	TACCCGAGG ATGGGCGTCC	ACATATCCAC TGTATAGGTG	GCCCTCCTAC CGGGAGGATG
8201	ATCGAAGCTG TAGCTTCGAC	AAAGCACGAG TTTCGTGCTC	ATTCTTCGCC TAAGAAGCGG	CTCCGAGAGC GAGGCTCTCG	TGCATCAGGT ACGTAGTCCA	CGGAGACGCT GCCTCTGCGA	GTCGAACTTT CAGCTTGAAA	TCGATCAGAA AGCTAGTCTT	ACTTCTCGAC TGAAGAGCTG	AGACGTCCGG TCTGCAGCGC
8301	GTGAGTTCAG CACTCAAGTC	GCTTTTTTCAT CGAAAAAGTA	AAGCTTGAGC TTCGAACTCG	TCGAGATCTG AGCTCTAGAC	AGTCCGGATT TCAGGCCTAA	GGTAGATTGC CCATCTAACG	AAATATAATG TTTATATTAC	GTTTGGCGAT CAAACCGCTA	TATCCTTGAG ATAGGAACTC	GCCACACCTT CGGTGTGGAA
8401	TAAATAGATC ATTTATCTAG	AATGAATGGG TFACTTACCC	CAAGTATTGA GTTCATAACT	CTTGCGATAA GAACGCTATT	TCCTTTAACT AGGAAATTGA	TTCTGCCTAC AAGACGGATG	CATCAATGTG GTAGTTACAC	GATGAGTTGT CTACTCAACA	CGGTAAAAAG GCCATTTTTC	GATCTTACAG CTAGAATGTC
8501	GCCAAATTCG CGGTTTAAAG	CTCTTAGCCG GAGAATCGGC	TACAATATTA ATGTTTATAAT	CTCACCGGTG GAGTGGCCAC	CGATGCCCCC GCTACGGGGG	CATCGTAGGT GTAGCATCCA	GAAGTGGGAA CTTCCACCTT	ATTAATGATC TAATTACTAG	CATCTTGAGA GTAGAACTCT	CCACAGGCCC GGTGTCCGGG

pE3185

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8601  ACAACAGCTA  CCAGTTTCCT  CAAGGGTCCA  CCAAAAACGT  AAGCGCTTAC  GTACATGGTC  GATAAGAAAA  GGCAATTTGT  AGATGTTAAC  ATCCAACGTC
      TGTGTGCGAT  GGTCAAAGGA  GTTCCAGGT  GGTTTTTGCA  TTCGCGAATG  CATGTACCAG  CTATTCITTT  CCGTTAAACA  TCTACAATTG  TAGGTTGCAG
.....
      EcoRV
8701  GCTTTCAGCC  CGGTGGCGCG  CCGATATCCT  CTCTTAAGGT  AGCGAGCTCT  TAATTAATAG  GGATAACAGG  GTAATTAACT  ATAACGGTCC  TAAGGTAGCG
      CGAAAGTCGG  GCCACCGCGC  GGCTATAGGA  GAGAATTCCA  TCGCTCGAGA  ATTAATTATC  CCTATTGTCC  CATTAATTGA  TATTGCCAGG  ATTCCATCGC
.....
      Ascl  Sacl
8801  ATGGCAAACA  GCTATTATGG  GTATTATGGG  TGGTTCTTTA  TCGGGACACT  GACGGCTTTA  TGCCTGCAGG  TCGCGAGCGA  TCGCGGTACC  GCCCGGGCGT
      TACCGTTTGT  CGATAATACC  CATAATACCC  ACCAAGAAAT  ACGCCTGTGA  CTGCCGAAAT  ACGGACGTCC  AGCGCTCGCT  AGCGCATGG  CGGGCCCGCA
.....
      PstI  KpnI  XmaI  SmaI  Sall  AccI
      Sall
8901  CGACAGGCCT  AAGCTTAGCT  TGAGCTTGGG  TCAGATTGTC  GTTCCCGCC  TTCAGTTTAA  ACTATCAGTG  TTTGACAGGA  TATATTGGCG  GGTAACCTA
      GCTGTCCGGA  TTCGAATCGA  ACTCGAACCT  AGTCTAACAG  CAAAGGCGG  AAGTCAAATT  TGATAGTCAC  AAAGTGTCCCT  ATATAACCGC  CCATTTGGAT
.....
      Accl  Stul  HindIII  PmeI
9001  AGAGAAAAGA  GCGTTTATTA  GAATAACGGA  TATTTAAAAG  GCGTGAAAA  GGTTTATCCG  TTCGTCCATT  TGTATGTGCA  TGCCAACCAC  AGGGTTCCCC
      TCTCTTTTCT  CGCAAATAAT  CTTATTGCCT  ATAAATTTTC  CCGCACTTTT  CCAAATAGGC  AAGCAGGTAA  ACATACACGT  ACGGTTGGTG  TCCCAAGGGG
.....
9101  TCGGGATCAA
      AGCCCTAGTT
.....

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