

10	20	30	40	50	60	70	80	90
gagctcatcg	atcTCGACAT	TGATTATTGA	CTAGTTATTA	ATAGTAATCA	ATTACGGGGT	CATTAGTTC	TAGCCCATAT	ATGGAGTTCC
100	110	120	130	140	150	160	170	180
GCGTTACATA	ACTTACGGTA	AATGGCCCCG	CTGGCTGACC	GCCCAACGAC	CCCCGCCCAT	TGACGTCAAT	AATGACGTAT	GTTCCCATAG
190	200	210	220	230	240	250	260	270
TAACGCCAAT	AGGGACTTTC	CATTGACGTC	AATGGGTGGA	CTATTACGG	TAAACTGCC	ACTTGGCAGT	ACATCAAGTG	TATCATATGC
280	290	300	310	320	330	340	350	360
CAAGTACGCC	CCCTATTGAC	GTCAATGACG	GTAAATGGCC	CGCCTGGCAT	TATGCCAGT	ACATGACCTT	ATGGGACTTT	CCTACTTGGC
370	380	390	400	410	420	430	440	450
AGTACATCTA	CGTATTAGTC	ATCGCTATTA	CCATGGGTCG	AGGTGAGCCC	CACGTTCTGC	TTCACTCTCC	CCATCTCCCC	CCCCTCCCCA
460	470	480	490	500	510	520	530	540
CCCCCAATT	TGTATTTATT	TATTTTTTAA	TTATTTTGTG	CAGCGATGGG	GGCGGGGGGG	GGGGGGGGCG	GCGCCAGGCG	GGGCGGGGCG
550	560	570	580	590	600	610	620	630
GGGCGAGGGG	CGGGGCGGGG	CGAGGCGGAG	AGGTGCGGCG	GCAGCCAATC	AGAGCGGGCG	GCTCCGAAAG	TTTCCTTTTA	TGGCGAGGCG
640	650	660	670	680	690	700	710	720
GCGGCGGCGG	CGGCCCTATA	AAAAGCGAAG	CGCGCGGCGG	GCGGGAGTCG	CTGCGTTGCC	TTCGCCCCGT	GCCCCGCTC	GCGCCGCTC
730	740	750	760	770	780	790	800	810
GCGCCGCGCG	CCCCGGCTCT	GACTGACCGC	GTTACTCCCA	CAGGTGAGCG	GGCGGGACGG	CCCTTCTCCT	CCGGGTGTGA	ATTAGCGCTT
820	830	840	850	860	870	880	890	900
GGTTTAATGA	CGGCTCGTTC	CTTTTCTGTG	GCTGCGTGAA	AGCCTTAAAG	GGCTCCGGGA	GGGCCCTTTG	TGCGGGGGGG	AGCGGCTCGG
910	920	930	940	950	960	970	980	990
GGGGTGCGTG	CGTGTGTGTG	TGCGTGGGGA	GCGCCCGGTG	CGGCCCGCGC	TGCCCGGCGG	CTGTGAGCGC	TGCGGGGCGG	GCGCGGGGCT
1000	1010	1020	1030	1040	1050	1060	1070	1080
TTGTGCGCTC	CGCGTGTGCG	CGAGGGGAGC	GCGGCCGGGG	GCGGTGCCCC	GCGGTGCGGG	GGGGCTGCGA	GGGGAACAAA	GGCTGCGTGC
1090	1100	1110	1120	1130	1140	1150	1160	1170
GGGGTGTGTG	CGTGGGGGGG	TGAGCAGGGG	GTGTGGGCGC	GCGGTGCGGG	CTGTAACCCC	CCCCTGCACC	CCCCTCCCC	AGTTGCTGAG
1180	1190	1200	1210	1220	1230	1240	1250	1260
CACGGCCCGG	CTTCGGGTGC	GGGGCTCCGT	GCGGGGCGTG	GCGCGGGGCT	CGCCGTGCCG	GCGGGGGGGT	GGCGGCAGGT	GGGGGTGCCG
1270	1280	1290	1300	1310	1320	1330	1340	1350
GGCGGGGCGG	GGCCGCCTCG	GGCCGGGGAG	GGCTCGGGGG	AGGGGCGCGG	CGGCCCCGGA	GCGCCGGCGG	CTGTCGAGGC	GCGGCGAGCC
1360	1370	1380	1390	1400	1410	1420	1430	1440
GCAGCCATTG	CCTTTTATGG	TAATCGTGCG	AGAGGGCGCA	GGGACTTCTT	TTGTCCAAA	TCTGGCGGAG	CCGAAATCTG	GGAGGCGCCG
1450	1460	1470	1480	1490	1500	1510	1520	1530
CCGCACCCCC	TCTAGCGGGC	GCGGGCGAAG	CGGTGCGGCG	CCGGCAGGAA	GGAAATGGGC	GGGGAGGGCC	TTCGTGCGTC	GCCGCGCCGC
1540	1550	1560	1570	1580	1590	1600	1610	1620
CGTCCCCTTC	TCCATCTCCA	GCCTCGGGGC	TGCCGCAAGG	GGACGGTTCG	CTTCGGGGGG	GACGGGGGCA	GGCGGGGTTT	GGCTTCTGGC
1630	1640	1650	1660	1670	1680	1690	1700	1710
GTGTGACCGG	CGGCTctagC	CTCTGCTAAC	CATGTTTATG	CCTTCTTCTT	TTTCTTACAG	CTCCTGGGCA	ACGTGCTGGT	TGTTGTGCTG
1720	1730	1740	1750	1760	1770	1780	1790	1800
	XbaI		EG_					
TCTCATCATT	TTGGCAAAtc	tagagccgcc	ATGGTgagCA	AGGGCGAGGA	GCTGTTcacc	GGGGTGGTGC	CCATCCTGGT	CGAGCTGGAC
1810	1820	1830	1840	1850	1860	1870	1880	1890
EG_								
GGCGACGTAA	ACGGCCACAA	GTTcAGCGTG	TCCGGCGAGG	GCGAGGGCGA	TGCCACCTAC	GGCAAGCTGA	CCCTGAAGTT	CATCTGCACC
1900	1910	1920	1930	1940	1950	1960	1970	1980
EG_								
ACCGGCAAGC	TGCCCGTGCC	CTGGCCcACC	CTCGTGACCA	CCCTGACCTA	CGGCGTGCAG	TGCTTCAGCC	GCTACCCCGA	CCACATGAAG
1990	2000	2010	2020	2030	2040	2050	2060	2070
EG_								
CAGCACGACT	TCTTCAAGTC	CGCCATGCCC	GAAGGCTACG	TCCAGGAGCG	CACCATCTTC	TTCAAGGACG	ACGGCAACTA	CAAGACCCGC
2080	2090	2100	2110	2120	2130	2140	2150	2160
EG_								
GCCGAGGTGA	AGTTCGAGGG	CGACACCCTG	GTGAACCGCA	TCGAGCTGAA	GGGCATCGAC	TTCAAGGAGG	ACGGCAACAT	CCTGGGGCAC
2170	2180	2190	2200	2210	2220	2230	2240	2250
EG_								
AAGCTGGAGT	ACAACTACAA	CAGCCACAAC	GTCTATATCA	TGGCCGACAA	GCAGAAGAAC	GGCATCAAGG	TGAACTTCAA	GATCCGCCAC
2260	2270	2280	2290	2300	2310	2320	2330	2340
EG_								
AACATCGAGG	ACGGCAGCGT	GCAGCTCGCC	GACCACTACC	AGCAGAACAC	CCCCATCGGC	GACGGCCCCG	TGCTGCTGCC	CGACAACCAC
2350	2360	2370	2380	2390	2400	2410	2420	2430
BamHI	PstI	EcoRI	_FP					
tgaggatccg	ctagcctgca	ggtcgacgaa	ttcgatatcg	GCAAGCTGAC	CCTGAAGTTC	ATCTGCACCA	CCGGCAAGCT	GCCCGTGCCC
	NheI	SalI	EcoRV					
2440	2450	2460	2470	2480	2490	2500	2510	2520
_FP								
TGGCCcACCC	TCGTGACCAC	CCTGACCTAC	GGCGTGCAGT	GCTTcAGCCG	CTACCCCGAC	CACATGAAGC	AGCAGGACTT	CTTCAAGTCC
2530	2540	2550	2560	2570	2580	2590	2600	2610
_FP								
GCCATGCCCC	AAGGCTACGT	CCAGGAGCGC	ACCATCTTCT	TCAAGGACGA	CGGCAACTAC	AAGACCCCGG	CCGAGGTGAA	GTTCGAGGGC
2620	2630	2640	2650	2660	2670	2680	2690	2700
_FP								
GACACCCTGG	TGAACCGCAT	CGAGCTGAAG	GGCATCGACT	TCAAGGAGGA	CGGCAACATC	CTGGGGCACA	AGCTGGAGTA	CAACTACAAC
2710	2720	2730	2740	2750	2760	2770	2780	2790
_FP								
AGCCACAACG	TCTATATCAT	GGCCGACAAG	CAGAAGAACG	GCATCAAGGT	GAACTTCAAG	ATCCGCCACA	ACATCGAGGA	CGGCAGCGTG
2800	2810	2820	2830	2840	2850	2860	2870	2880
_FP								
CAGCTCGCCG	ACCACTACCA	GCAGAACACC	CCCATCGGCG	ACGGCCCCGT	GCTGCTGCC	GACAACCCT	ACCTGAGCAC	CCAGTCCGCC

	2890	2900	2910	2920	2930	2940	2950	2960	2970
_FP	CTGAGCAAAG ACCCCAACGA GAAGCGCGAT CACATGGTCC TGCTGGAGTT CGTGACCGCC GCCGGGATCA CTCTCGGCAT GGACGAGCTG								
	2980	2990	3000	3010	3020	3030	3040	3050	3060
_FP	TACAAGTAAc tcgagACTCC TCAGGTGCAG GCTGCCTATC AGAAGGTGGT GGCTGGTGTG GCCAATGCC TGGCTCACAA ATACCACTGA								
	3070	3080	3090	3100	3110	3120	3130	3140	3150
	GATCTTTTTC CCTCTGCCAA AAATTATGGG GACATCATGA AGCCCCTTGA GCATCTGACT TCTGGCTAAT AAAGGAAATT TATTTTCATT								
	3160	3170	3180	3190	3200	3210	3220	3230	3240
	GCAATAGTGT GTTGAATTT TTTGTGTCTC TCACTCGGAA GGACATATGG GAGGGCAAAT CATTAAAAAC ATCAGAATGA GTATTTGGTT								
	3250	3260	3270	3280	3290	3300	3310	3320	3330
	TAGAGTTTGG CAACATATGC CCATATGCTG GCTGCCATGA ACAAAGGTTG GCTATAAAGA GGTCATCAGT ATATGAAACA GCCCCTTGCT								
	3340	3350	3360	3370	3380	3390	3400	3410	3420
	GTCCATTCCT TATCCATAG AAAAGCCTTG ACTTGAGGTT AGATTTTTTT TATATTTTGT TTTGTGTTAT TTTTTTCTTT AACATCCCTA								
	3430	3440	3450	3460	3470	3480	3490	3500	3510
	AAATTTTCTT TACATGTTTT ACTAGCCAGA TTTTTCCTCC TCTCCTGACT ACTCCCAGTC ATAGCTGTCC CTCTTCTCTT ATGAAGATCC								
	3520	3530	3540	3550	3560	3570	3580	3590	3600
	CTCGACttaa ttaaggtacc caattcgccc tatagtgagt cgtattacgc gcgctcactg gccgtcgttt tacaacgtcg tgactgggaa								
	3610	3620	3630	3640	3650	3660	3670	3680	3690
	aaccctggcg ttaccaact taatcgcctt gcagcacatc cccctttcgc cagctggcgt aatagcgaag aggcccgcac cgatcgcctt								
	3700	3710	3720	3730	3740	3750	3760	3770	3780
	tcccaacagt tgcgcagcct gaatggcgaa tgggacgcgc cctgtagcgg cgcattaagc gcggcgggtg tgggtggttac gcgcagcgtg								
	3790	3800	3810	3820	3830	3840	3850	3860	3870
	accgctacac ttgccagcgc cctagcgcctt gctcctttcg ctttcttccc ttcctttctc gccacgttcg ccggettctc ccgtcaagct								
	3880	3890	3900	3910	3920	3930	3940	3950	3960
	ctaaatcggg ggctcccttt agggttccga ttttagtctt tacggcacct cgaccccaaa aaacttgatt aggggatggg ttcacgtagt								
	3970	3980	3990	4000	4010	4020	4030	4040	4050
	gggccatcgc cctgatagac ggtttttcgc cctttgacgt tggagtccac gttctttaat agtggactct tgttccaaac tggaaacaac								
	4060	4070	4080	4090	4100	4110	4120	4130	4140
	ctcaacccta tctcgttcta ttcttttgat ttataaggga ttttgccgat ttccggcctt tggttaaaaa atgagctgat ttaacaaaaa								
	4150	4160	4170	4180	4190	4200	4210	4220	4230
	tttaacgcga attttaacaa aatattaacg cttacaattt aggtggcact ttcgggggaa atgtgcgcgg aaccctattt tgtttatttt								
	4240	4250	4260	4270	4280	4290	4300	4310	4320
	tctaaatca ttcaaatatg tatccgctca tgagacaata accctgataa atgcttcaat aatattgaaa aaggaagagt atgagttatc								
	4330	4340	4350	4360	4370	4380	4390	4400	4410
	aacatttcg tgctgcctt attccctttt ttgcgccatt ttgccttctt gtttttgctc acccagaaac gctggtgaaa gtaaagatg								
	4420	4430	4440	4450	4460	4470	4480	4490	4500
	ctgaagatca gttgggtgca cgagtgggtt acatcgaact ggatctcaac agcggtaaga tccttgagag ttttcgcccc gaagaacggt								
	4510	4520	4530	4540	4550	4560	4570	4580	4590
	ttccaatgat gagcactttt aaagttctgc tatgtggcgc ggtattatcc cgtattgacg ccgggcaaga gcaactcggg cgcgcatac								
	4600	4610	4620	4630	4640	4650	4660	4670	4680
	actattctca gaatgacttg gttgagtact caccagtcac agaaaagcat cttacggatg gcatgacagt aagagaatta tgcagtgtg								
	4690	4700	4710	4720	4730	4740	4750	4760	4770
	ccataacat gatgataaac actgcggcca acttacttct gacaacgatc ggaggaccga aggagctaac cgcttttttg cacaacatgg								
	4780	4790	4800	4810	4820	4830	4840	4850	4860
	gggatcatgt aactcgcctt gatcgttggg aaccggagct gaatgaagcc ataccaaaac acgagcgtga caccacgatg cctgtagcaa								
	4870	4880	4890	4900	4910	4920	4930	4940	4950
	tggcaacaac gttgcgcaaa ctattaactg gcgaactact tactctagct tcccggcaac aattaataga ctggatggag gcggataaag								
	4960	4970	4980	4990	5000	5010	5020	5030	5040
	ttgcaggacc acttctgcgc tcggcccttc cggctggctg gtttattgct gataaatctg gagccggtga gcgtgggtct cgcggtatca								
	5050	5060	5070	5080	5090	5100	5110	5120	5130
	ttgcagcact ggggccagat ggtaagccct cccgtatcgt agttatctac acgacgggga gtcaggcaac tatggatgaa cgaatatgac								
	5140	5150	5160	5170	5180	5190	5200	5210	5220
	agatcgtgga gataggtgcc tcaactgatta agcattggta actgtcagac caagtttact catatatact ttagattgat ttaaaacttc								
	5230	5240	5250	5260	5270	5280	5290	5300	5310
	atthtttaatt taaaaggatc taggtgaaga tcctttttga taatctcatg accaaaatcc cttaacgtga gttttcgttc cactgagcgt								
	5320	5330	5340	5350	5360	5370	5380	5390	5400
	cagaccccg agaaaagatc aaaggatcct cttgagatcc tttttttctg cgcgtaatct gctgcttgca aacaaaaaaa ccaccgctac								
	5410	5420	5430	5440	5450	5460	5470	5480	5490
	cagcgttggt ttgtttgccg gatcaagagc taccaactct ttttcgaag gtaactggct tcagcagagc gcagatacca aatactgtcc								
	5500	5510	5520	5530	5540	5550	5560	5570	5580
	ttctagtgta gccgtagtta ggccaccact tcaagaactc tgtagcaccg cctacatacc tcgctctgct aatcctgtta ccagtggctg								
	5590	5600	5610	5620	5630	5640	5650	5660	5670
	ctgccagtgg cgataagtcg tgtcttaccg ggttggactc aagacgatag ttaccggata aggcgcagcg gtcgggctga acggggggtt								
	5680	5690	5700	5710	5720	5730	5740	5750	5760
	cgtgcacaca gcccagcttg gagcgaacga cctacaccga actgagatac ctacagcgtg agctatgaga aagcgcacg cttcccgaag								
	5770	5780	5790	5800	5810	5820	5830	5840	5850
	ggagaaaggc ggacaggtat ccggttaagc gcagggtcgg aacaggagag cgcacgaggg agcttccagg gggaaacgcc tggatctttt								
	5860	5870	5880	5890	5900	5910	5920	5930	5940
	atagtcctgt cgggtttcgc cacctctgac ttgagcgtcg atttttgtga tgctcgtcag gggggcggag cctatggaaa aacgccagca								
	5950	5960	5970	5980	5990	6000	6010	6020	6030
	acggcggcctt tttacggttc ctggcctttt gctggccttt tgctcacatg ttctttctct cgtttatccc tgattctgtg gataaccgta								
	6040	6050	6060	6070	6080	6090	6100	6110	6120
	ttaccgcctt tgagtgagct gataccgctc gccgcagccg aacgaccgag cgcagcaggt cagtgagcga ggaagcggaa gagcgcctca								
	6130	6140	6150	6160	6170	6180	6190	6200	6210
	tacgcaaac gcctctccc gcgcttggc cgattcatta atgcagctgg cacgacaggt ttcccactg gaaagcgggc agtgagcgca								
	6220	6230	6240	6250	6260	6270	6280	6290	6300
	acgcaattaa tgtgagttag ctcaactcatt aggcaccca ggctttacac tttatgcttc cggctcgtat gttgtgtgga attgtgagcg								
	6310	6320	6330	6340	6350	6360	6370	6380	6390
	gataacaatt tcacacagga aacagctatg accatgatta cgccaagcgc gcaattaacc ctactaaag ggaacaaaag ctg								