



Absent Sites	0	AarI,AatII,AbSI,Agel,AleI,Apal,AscI,AsiSI,AvrII,BaeI,BaeI',BbvCI,BclI,BlpI,BmgBI,Bpu10I,BsmBI,BssHII,BstXI,BstZ17I,BtgI,CspCI,CspCI',EagI,FalI,Fall',FseI,FspAI,MauBI,MreI,NcoI,NdeI,NotI,NruI,Nsil,PmeI,PmlI,PspOMI,PspXI,PstI,RsrII,SacII,SanDI,SbfI,SexAI,SfiI,SgrDI,SnaBI,SpeI,SrfI,StuI,Swal,Tth111I,XhoI,ZraI
Acc65I	1	(8) 9 (5666)
AccI	1	(2822) 2823 (2852)
AfeI	1	(2947) 2948 (2727)
AfIII	1	(121) 122 (5553)
AhdI	1	(3964) 3965 (1710)
AjuI	1	(1042) 1043 (4632)
AjuI'	1	(1010) 1011 (4664)
Alol	1	(5184) 5185 (490)
Alol'	1	(5152) 5153 (522)
ArsI	1	(1341) 1342 (4333)
ArsI'	1	(1309) 1310 (4365)
BamHI	1	(2815) 2816 (2859)
BarI	1	(1970) 1971 (3704)
BarI'	1	(2002) 2003 (3672)
BbeI	1	(189) 190 (5485)
BglII	1	(74) 75 (5600)
BmtI	1	(32) 33 (5642)
BsaBI	1	(2583) 2584 (3091)
BsaI	1	(4025) 4026 (1649)
BsgI	1	(2352) 2353 (3322)
BsiWI	1	(307) 308 (5367)
BspMI	1	(1551) 1552 (4123)
BsrGI	1	(643) 644 (5031)
BstAPI	1	(111) 112 (5563)
BstEII	1	(760) 761 (4914)
Bsu36I	1	(766) 767 (4908)
Clal	1	(1518) 1519 (4156)
DrallI	1	(5116) 5117 (558)
EcoICRI	1	(16) 17 (5658)
EcoNI	1	(1770) 1771 (3904)
EcoO109I	1	(1332) 1333 (4342)
EcoRI	1	(740) 741 (4934)
EcoRV	1	(1491) 1492 (4183)
HindIII	1	(124) 125 (5550)
KasI	1	(185) 186 (5489)
KpnI	1	(12) 13 (5662)
MluI	1	(22) 23 (5652)
MscI	1	(1659) 1660 (4015)
NarI	1	(186) 187 (5488)
NheI	1	(28) 29 (5646)
NmeAIII	1	(4113) 4114 (1561)
PacI	1	(1477) 1478 (4197)
PasI	1	(49) 50 (5625)
PciI	1	(3071) 3072 (2603)
PfIMI	1	(2120) 2121 (3554)
PfoI	1	(260) 261 (5414)
PpuMI	1	(1332) 1333 (4342)
PshAI	1	(2886) 2887 (2788)
Psrl	1	(291) 292 (5383)

Psrl'	1	(323) 324 (5351)
Pvull	1	(108) 109 (5566)
Sacl	1	(18) 19 (5656)
Sall	1	(2821) 2822 (2853)
Scal	1	(4444) 4445 (1230)
Sfol	1	(187) 188 (5487)
SgrAI	1	(1581) 1582 (4093)
Smal	1	(3) 4 (5671)
SphI	1	(816) 817 (4858)
StyI	1	(2268) 2269 (3406)
XbaI	1	(200) 201 (5474)
XcmI	1	(888) 889 (4786)
XmaI	1	(1) 2 (5673)
XmnI	1	(4563) 4564 (1111)



2X (NF-kB) BG-Luc pGL2basic

5' TTACTACACTCGGATATTTGATATGTGGATTTTCGAGTCGTCTTAATGTATAGATTTGAAGAAGAGCTGTTTTTACGATCCCTTCAGGATTACAAAATCA  
 1000  
 3' AATGATGTGAGCCTATAAACTATACACCTAAAGCTCAGCAGAATTACATATCTAAACTTCTTCTCGACAAAAATGCTAGGGAAGTCTTAATGTTTTAAGT  
 Luciferase

Ajul' Ajul

5' AAGTGCCTTGTCTAGTACCAACCCTATTTTCATTCTTCGCCAAAAGCACTCTGATTGACAAATACGATTTATCTAATTTACACGAAATTGCTTCTGGGGGC  
 1100  
 3' TTCACGCAACGATCATGGTTGGGATAAAAGTAAGAAGCGGTTTTTCGTGAGACTAACTGTTTTATGCTAAATAGATTAAATGTGCTTTAACGGAAGACCCCG  
 Luciferase

5' GCACCTCTTTTCGAAAGAAGTCGGGGAAGCGGTTGCAAAACGCTTCCATCTTCCAGGGATACGACAAGGATATGGGCTCACTGAGACTACATCAGCTATTC  
 1200  
 3' CGTGGAGAAAAGCTTTCTCAGCCCTTCGCCAACGTTTTGCGAAGGTAGAAGGTCCCTATGCTGTTCTATACCCGAGTGACTCTGATGTAGTCGATAAG  
 Luciferase

5' TGATTACACCCGAGGGGATGATAAACCGGGCGCGGTTCGTAAGTTGTTCCATTTTTTGAAGCGAAGGTTGTGGATCTGGATACCGGGAAAACGCTGGG  
 1300  
 3' ACTAATGTGGCTCCCTACTATTTGGCCCGCCAGCCATTTCAACAAGTAAAAAAGTTCGCTTCCAACACCTAGACCTATGGCCCTTTTGCAGACC  
 Luciferase

ArsI' EcoO109I PpuMI Arsl

5' CGTTAATCAGAGAGGCGAATTATGTGTCAGAGGACCTATGATTATGTCCGTTATGTAACAATCCGGAAGCGACCAACGCCTTGATTGACAAGGATGGA  
 1400  
 3' GCAATTAGTCTCTCCGCTTAATACACAGTCTCCTGGATACTAATACAGGCCAATACATTTGTTAGGCCCTTCGCTGGTTGCGGAACTAAGTGTCTCTACCT  
 Luciferase

Pacl EcoRV

5' TGGTACATTTCTGGAGACATAGCTTACTGGGACGAAGACGAACACTTCTTCATAGTTGACCGCTTGAAGTCTTTAATTAATAACAAAGGATATCAGGTGG  
 1500  
 3' ACCGATGTAAGACCTCTGTATCGAATGACCCTGCTTCTGCTTGTGAAGAAGTATCAACTGGCGAAGTTCAGAAATTAATTTATGTTTCTTATAGTCCACC  
 Luciferase

Clal BspMI SgrAI

5' CCCCCGCTGAATTGGAATCGATATTGTTACAACACCCCAACATCTTCGACGCGGGCGTGGCAGGCTTCCCAGCATGACGCCGTTGAAGTTCACCGCCG  
 1600  
 3' GGGGCGACTTAACCTTAGCTATAACAATGTTGTGGGGTTGTAGAAGCTGCGCCCGCACCGTCCAGAAGGGCTGCTACTGCGGCCACTTGAAGGGCGGGC  
 Luciferase

MscI

5' CGTTGTTGTTTTGGAGCACGGAAAGACGATGACGGAAAAAGAGATCGTGGATTACGTGGCCAGTCAAGTAACAACCGCGAAAAAGTTGCGCGGAGGAGTT  
 1700  
 3' GCAACAACAAAACCTCGTGCCTTTCTGCTACTGCTTTTTCTCTAGCACCTAATGCACCGGTCAGTTCATTGTTGGCGCTTTTTCAACGCGCTCTCTCAA  
 Luciferase

EcoNI

5' GTGTTTGTGGACGAAGTACCGAAAGGCTTACCAGAAAACCTCGACGCAAGAAAAATCAGAGAGATCCTCATAAAGGCCAAGAAGGGCGGAAAAGTCCAAAT  
 1800  
 3' CACAAACACCTGCTTCATGGCTTTCCAGAATGGCCTTTTGGAGCTGCGTCTTTTTTAGTCTCTCTAGGAGTATTTCCGGTCTTCCCGCTTTTCAGGTTTA  
 Luciferase

5' TGTA AAAATGTA ACTGTATT CAGCGATGACGAAAT TCTTAGCTATTGTA AACTGCGATGAGTGGCAGGGCGGGCGTAATTTTTTAAAGGCAGTTATTGG  
 1900  
 3' ACATTTTACATTGACATAAGTCGCTACTGCTTTAAGAATCGATAACATTATGACGCTACTCACCGTCCCGCCCGCATTAAAAAATTCGGTCAATAACC  
 Lu...se





2X (NF-kB) BG-Luc pGL2basic

5' GCAAAAAAGCGGTTAGCTCCTTCGGTCTCCGATCGTTGTGTCAGAAAGTAAGTTGGCCGAGTGTATCACTCATGTTATGGCAGCACTGCATAATTCTCT  
 4400  
 3' CGTTTTTTCGCAATCGAGGAAGCCAGGAGGCTAGCAACAGTCTTCATTCAACCGGCGTCACAATAGTGAGTACCAATACCGTCTGACGTATTAAGAGA  
 beta-lactamase

5' TACTGTCATGCCATCCGTAAGATGCTTTTCTGTGACTGGTGTGACTCAACCAAGTCATTCTGAGAATAGTGTATGCGGCGACCGAGTTGCTCTTGCCCG  
 4500  
 3' ATGACAGTACGGTAGGCATTCTACGAAAAGACACTGACCACTCATGAGTTGGTTCAGTAAGACTCTTATCACATACGCCCTGGTCAACGAGAACGGGC  
 beta-lactamase

5' GCGTCAATACGGGATAATACCGCGCCACATAGCAGAACTTTAAAAGTGCATCATTTGAAAAACGTTCTTCGGGGCGAAAACTCTCAAGGATCTTACCGC  
 4600  
 3' CGCAGTTATGCCCTATTATGGCGCGGTATCGTCTTGAATTTTACAGTAGTAACCTTTTGAAGAAGCCCGCTTTTGAGAGTTCTAGAAATGGCG  
 beta-lactamase

5' TGTTGAGATCCAGTTCGATGTAACCCACTCGTGCACCCAACTGATCTTCAGCATCTTTACTTTTACCAGCGTTTCTGGGTGAGCAAAAACAGGAAGGCA  
 4700  
 3' ACAACTCTAGGTCAAGCTACATTGGGTGAGCACGTGGGTGACTAGAAAGTGTGAGAAAATGAAAGTGGTTCGAAAGACCCACTCGTTTTTGTCTTCCGT  
 beta-lactamase

5' AAATGCCGCAAAAAGGGAATAAGGGCGACACGAAATGTGAATACTCATACTCTTCCTTTTCAATATTATGAAGCATTATCAGGGTTATTGTCTC  
 4800  
 3' TTTACGGCTTTTTTCCCTTATTCGCCGTGTGCCTTTACAACCTTATGAGTATGAGAAGGAAAAAGTTATAATAACTTCGTAAATAGTCCCAATAACAGAG  
 beta-lactamase

5' ATGACGGGATACATATTGAATGTATTAGAAAAATAACAAATAGGGGTTCGCGCACATTTCCCGAAAAGTGCCACCTGACGCGCCCTGTAGCGGCG  
 4900  
 3' TACTCGCCTATGTATAAACTTACATAAATCTTTTATTGTTTATCCCAAGGCGGTGTAAAGGGGCTTTTACGGTGGACTGCGCGGGACATCGCCGC  
 5' CATTAAAGCGCGGGGGTGTGGTGGTTACGCGCAGCGTACCGCTACACTTGCAGCGCCCTAGCGCCGCTCCTTTCGCTTTCTTCCCTTCTTCTCGC  
 5000  
 3' GTAATTTCGCGCCGCCACACCACCAATGCGCGTGCACCTGGCGATGTGAACGGTTCGCGGGATCGCGGCGAGGAAAGCGAAAGAAGGAAGGAAAGAGCG  
 5' CACGTTTCGCGGCTTTCCCGTCAAGCTCTAAATCGGGGGCTCCCTTTAGGGTTCGATTTAGTGCTTTACGGCACCTCGACCCAAAAAACTTGATTAG  
 5100  
 3' GTGCAAGCGGCCGAAAGGGGAGTTCGAGATTTAGCCCCGAGGGAAATCCCAAGGCTAAATCACGAAATGCCGTGGAGCTGGGGTTTTTTGAACTAATC  
 Drall Alol' Alol

5' GGTGATGGTTCACGTAGTGGGCCATCGCCCTGATAGACGGTTTTTTCGCCCTTTGACGTTGGAGTCCACGTTCTTTAATAGTGGACTCTTGTTCAAACTG  
 5200  
 3' CCACTACCAAGTGCATCACCCGGTAGCGGGACTATCTGCCAAAAAGCGGAAACTGCAACCTCAGGTGCAAGAAATTATCACCTGAGAACAAGGTTTGAC  
 5' GAACAACACTCAACCTATCTCGGTCTATCTTTTGTATTATAAGGGATTTTGCAGATTTCCGCTATTGGTTAAAAAATGAGCTGATTTAACAATAAATT  
 5300  
 3' CTTGTTGTGAGTTGGGATAGACCCAGATAAGAAAACTAAATATTCCCTAAAACGGCTAAAGCCGATTAACCAATTTTTTACTCGACTAAATGTTTTTAA  
 5' TAACGCGAATTTTAAACAAAATATTAACGTTTACAATTTCCCATTCGCCATTGAGGCTGCGCAACTGTTGGGAAGGGCGATCGGTGCGGGCTCTTCGCTA  
 5400  
 3' ATTGCGCTTAAATTTTATAATTGCAAAATGTTAAAGGGTAAGCGGTAAGTCCGACGCGTTGACAACCCCTTCCCGCTAGCCACGCGCCGAGAAGCGAT  
 5' TTACGCCAGCCCAAGTACCATGATAAGTAAGTAATATTAAGGTACGTGGAGGTTTTTACTTGTCTTAAAAAACCTCCCACACCTCCCCCTGAACCTGAAA  
 5500  
 3' AATGCGGTTCGGTTTCGATGGTACTATTCAATCATTATAATTCATGCACCTCCAAAATGAACGAAATTTTTTGGAGGGTGTGGAGGGGACTTGGACTTT  
 5' CATAAAATGAATGCAATGTTGTTGTTAACTGTTTATTGACGCTTATAATGGTTACAAATAAAGCAATAGCATCACAAATTTCAAAATAAAGCATTTT  
 5600  
 3' GTATTTTACTTACGTTAAACAACAACAATGAACAAATAACGTGCAATATTACCAATGTTTATTTCGTTATCGTAGTGTTTAAAGTGTTTATTTCGTAAAA  
 5' TTTCACTGCATTCTAGTTGTGGTTTGTCCAAACTCATCAATGTATCTTATGGTACTGTAACCTGAGCTAACATAA  
 5674  
 3' AAAGTGACGTAAGATCAACACCAACAGGTTTGGAGTAGTTACATAGAATACCATGACATTGACTCGATTGTATT