pOP3MP

```
ATGAATGGACTGAATGATATCTTTGAAGCGCAGAAAATTGAATGGCATGAATCCGGATCT
    90        100       110       120       130       140
M  N  G  L  N  D  I  F  E  A  Q  K  I  E  W  H  E  S  G  S

                       SpeI
                       >=====
CATCACCATCACCATCACCATCACACTAGTATGAAAATCGAAGAAGGTAAACTGGTAATC
    150       160       170       180       190       200
H  H  H  H  H  H  H  H  T  S  M  K  I  E  E  G  K  L  V  I

TGGATTAACGGCGATAAAGGCTATAACGGTCTCGCTGAAGTCGGTAAGAAATTCGAGAAA
    210       220       230       240       250       260
W  I  N  G  D  K  G  Y  N  G  L  A  E  V  G  K  K  F  E  K

GATACCGGAATTAAAGTCACCGTTGAGCATCCGGATAAACTGGAAGAGAAATTCCCACAG
    270       280       290       300       310       320
D  T  G  I  K  V  T  V  E  H  P  D  K  L  E  E  K  F  P  Q

GTTGCGGCAACTGGCGATGGCCCTGACATTATCTTCTGGGCACACGACCGCTTTGGTGGC
    330       340       350       360       370       380
V  A  A  T  G  D  G  P  D  I  I  F  W  A  H  D  R  F  G  G

TACGCTCAATCTGGCCTGTTGGCTGAAATCACCCCGGACAAAGCGTTCCAGGACAAGCTG
    390       400       410       420       430       440
Y  A  Q  S  G  L  L  A  E  I  T  P  D  K  A  F  Q  D  K  L

TATCCGTTTACCTGGGATGCCGTACGTTACAACGGCAAGCTGATTGCTTACCCGATCGCT
    450       460       470       480       490       500
Y  P  F  T  W  D  A  V  R  Y  N  G  K  L  I  A  Y  P  I  A

                             BglII
                             >=====
GTTGAAGCGTTATCGCTGATTTATAACAAAGATCTGCTGCCGAACCCGCCAAAAACCTGG
    510       520       530       540       550       560
V  E  A  L  S  L  I  Y  N  K  D  L  L  P  N  P  P  K  T  W

GAAGAGATCCCGGCGCTGGATAAAGAACTGAAAGCGAAAGGTAAGAGCGCGCTGATGTTC
    570       580       590       600       610       620
E  E  I  P  A  L  D  K  E  L  K  A  K  G  K  S  A  L  M  F

AACCTGCAAGAACCGTACTTCACCTGGCCGCTGATTGCTGCTGACGGGGGTTATGCGTTC
    630       640       650       660       670       680
N  L  Q  E  P  Y  F  T  W  P  L  I  A  A  D  G  G  Y  A  F

AAGTATGAAAACGGCAAGTACGACATTAAAGACGTGGGCGTGGATAACGCTGGCGCGAAA
    690       700       710       720       730       740
K  Y  E  N  G  K  Y  D  I  K  D  V  G  V  D  N  A  G  A  K

GCGGGTCTGACCTTCCTGGTTGACCTGATTAAAAACAAACACATGAATGCAGACACCGAT
    750       760       770       780       790       800
A  G  L  T  F  L  V  D  L  I  K  N  K  H  M  N  A  D  T  D

TACTCCATCGCAGAAGCTGCCTTTAATAAAGGCGAAACAGCGATGACCATCAACGGCCCG
    810       820       830       840       850       860
Y  S  I  A  E  A  A  F  N  K  G  E  T  A  M  T  I  N  G  P

TGGGCATGGTCCAACATCGACACCAGCAAAGTGAATTATGGTGTAACGGTACTGCCGACC
    870       880       890       900       910       920
W  A  W  S  N  I  D  T  S  K  V  N  Y  G  V  T  V  L  P  T

TTCAAGGGTCAACCATCCAAACCGTTCGTTGGCGTGCTGAGCGCAGGTATTGACGCCGCC
    930       940       950       960       970       980
F  K  G  Q  P  S  K  P  F  V  G  V  L  S  A  G  I  D  A  A

AGTCCGAACAAAGAGCTGGCAAAAGAGTTCCTCGAAAACTATCTGCTGACTGATGAAGGT
    990       1000      1010      1020      1030      1040
S  P  N  K  E  L  A  K  E  F  L  E  N  Y  L  L  T  D  E  G

CTGGAAGCGGTTAATAAAGACAAACCGCTGGGTGCCGTAGCGCTGAAGTCTTACGAGGAA
    1050      1060      1070      1080      1090      1100
L  E  A  V  N  K  D  K  P  L  G  A  V  A  L  K  S  Y  E  E
```

```
E  L  A  K  D  P  R  I  A  A  T  M  E  N  A  Q  K  G  E  I

ATGCCGAACATCCCGCAGATGTCCGCTTTCTGGTATGCCGTGCGTACTGCGGTGATCAAC
    1170      1180      1190      1200      1210      1220
M  P  N  I  P  Q  M  S  A  F  W  Y  A  V  R  T  A  V  I  N

GCCGCCAGCGGTCGTCAGACTGTCGATGAAGCCCTGAAAGACGCGCAGACTAATTCGAGC
    1230      1240      1250      1260      1270      1280
A  A  S  G  R  Q  T  V  D  E  A  L  K  D  A  Q  T  N  S  S

                                                       BamHI
                                                       >=====
   AgeI               SalI                   ApaI       NcoI
   >=====             >=====                 ====>=     >=
TCGACCGGTAGTGGCACCAGTGGGTCGACACTGGAAGTTCTGTTTCAGGGCCCAGGATCC
    1290      1300      1310      1320      1330      1340
S  T  G  S  G  T  S  G  S  T  L  E  V  L  F  Q  G  P  G  S

   EcoRI         AvrII
   >=====        >=====
NcoI     NotI          XhoI    HindIII
====     =>======      >=====  >=====
ATGGAATTCGCGGCCGCCCTAGGCTCGAGCTAAGCTTG
    1350      1360      1370      1380
M  E  F  A  A  A  L  G  S  S  *  –  *
```

# Enzymes that cut	Frequency	Isoschizomers
AgeI	1	
ApaI	1	
AvrII	1	
BamHI	1	
BglII	1	
EcoRI	1	
HindIII	1	
NcoI	1	
NotI	1	
SalI	1	
SpeI	1	
XhoI	1	