pOP5MP

```
                                        SpeI
                                        >=====
ATGAATGGATCTCATCACCATCACCATCACCATCACACTAGTATGAAAATCGAAGAAGGT
    90        100       110       120       130       140
M  N  G  S  H  H  H  H  H  H  H  H  T  S  M  K  I  E  E  G

AAACTGGTAATCTGGATTAACGGCGATAAAGGCTATAACGGTCTCGCTGAAGTCGGTAAG
    150       160       170       180       190       200
K  L  V  I  W  I  N  G  D  K  G  Y  N  G  L  A  E  V  G  K

AAATTCGAGAAAGATACCGGAATTAAAGTCACCGTTGAGCATCCGGATAAACTGGAAGAG
    210       220       230       240       250       260
K  F  E  K  D  T  G  I  K  V  T  V  E  H  P  D  K  L  E  E

AAATTCCCACAGGTTGCGGCAACTGGCGATGGCCCTGACATTATCTTCTGGGCACACGAC
    270       280       290       300       310       320
K  F  P  Q  V  A  A  T  G  D  G  P  D  I  I  F  W  A  H  D

CGCTTTGGTGGCTACGCTCAATCTGGCCTGTTGGCTGAAATCACCCCGGACAAAGCGTTC
    330       340       350       360       370       380
R  F  G  G  Y  A  Q  S  G  L  L  A  E  I  T  P  D  K  A  F

CAGGACAAGCTGTATCCGTTTACCTGGGATGCCGTACGTTACAACGGCAAGCTGATTGCT
    390       400       410       420       430       440
Q  D  K  L  Y  P  F  T  W  D  A  V  R  Y  N  G  K  L  I  A

                                           BglII
                                           >=====
TACCCGATCGCTGTTGAAGCGTTATCGCTGATTTATAACAAAGATCTGCTGCCGAACCCG
    450       460       470       480       490       500
Y  P  I  A  V  E  A  L  S  L  I  Y  N  K  D  L  L  P  N  P

CCAAAAACCTGGGAAGAGATCCCGGCGCTGGATAAAGAACTGAAAGCGAAAGGTAAGAGC
    510       520       530       540       550       560
P  K  T  W  E  E  I  P  A  L  D  K  E  L  K  A  K  G  K  S

GCGCTGATGTTCAACCTGCAAGAACCGTACTTCACCTGGCCGCTGATTGCTGCTGACGGG
    570       580       590       600       610       620
A  L  M  F  N  L  Q  E  P  Y  F  T  W  P  L  I  A  A  D  G

GGTTATGCGTTCAAGTATGAAAACGGCAAGTACGACATTAAAGACGTGGGCGTGGATAAC
    630       640       650       660       670       680
G  Y  A  F  K  Y  E  N  G  K  Y  D  I  K  D  V  G  V  D  N

GCTGGCGCGAAAGCGGGTCTGACCTTCCTGGTTGACCTGATTAAAAACAAACACATGAAT
    690       700       710       720       730       740
A  G  A  K  A  G  L  T  F  L  V  D  L  I  K  N  K  H  M  N

GCAGACACCGATTACTCCATCGCAGAAGCTGCCTTTAATAAAGGCGAAACAGCGATGACC
    750       760       770       780       790       800
A  D  T  D  Y  S  I  A  E  A  A  F  N  K  G  E  T  A  M  T

ATCAACGGCCCGTGGGCATGGTCCAACATCGACACCAGCAAAGTGAATTATGGTGTAACG
    810       820       830       840       850       860
I  N  G  P  W  A  W  S  N  I  D  T  S  K  V  N  Y  G  V  T

GTACTGCCGACCTTCAAGGGTCAACCATCCAAACCGTTCGTTGGCGTGCTGAGCGCAGGT
    870       880       890       900       910       920
V  L  P  T  F  K  G  Q  P  S  K  P  F  V  G  V  L  S  A  G

ATTGACGCCGCCAGTCCGAACAAAGAGCTGGCAAAAGAGTTCCTCGAAAACTATCTGCTG
    930       940       950       960       970       980
I  D  A  A  S  P  N  K  E  L  A  K  E  F  L  E  N  Y  L  L

ACTGATGAAGGTCTGGAAGCGGTTAATAAAGACAAACCGCTGGGTGCCGTAGCGCTGAAG
    990       1000      1010      1020      1030      1040
T  D  E  G  L  E  A  V  N  K  D  K  P  L  G  A  V  A  L  K

TCTTACGAGGAAGAGTTGGCGAAAGATCCACGTATTGCCGCCACAATGGAAAACGCCCAG
    1050      1060      1070      1080      1090      1100
S  Y  E  E  E  L  A  K  D  P  R  I  A  A  T  M  E  N  A  Q
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K  G  E  I  M  P  N  I  P  Q  M  S  A  F  W  Y  A  V  R  T

GCGGTGATCAACGCCGCCAGCGGTCGTCAGACTGTCGATGAAGCCCTGAAAGACGCGCAG
    1170      1180      1190      1200      1210      1220
A  V  I  N  A  A  S  G  R  Q  T  V  D  E  A  L  K  D  A  Q

               AgeI               SalI                    ApaI
               >=====             >=====                  =
ACTAATTCGAGCTCGACCGGTAGTGGCACCAGTGGGTCGACACTGGAAGTTCTGTTTCAG
    1230      1240      1250      1260      1270      1280
T  N  S  S  S  T  G  S  G  T  S  G  S  T  L  E  V  L  F  Q

      BamHI    EcoRI         AvrII
      >=====   >=====        >=====
ApaI      NcoI       NotI          XhoI
===>=     >=====     =>======      >=====
GGCCCAGGATCCATGGAATTCGCGGCCGCCCTAGGCTCGAGCGGACTGAATGACATTTTC
    1290      1300      1310      1320      1330      1340
G  P  G  S  M  E  F  A  A  A  L  G  S  S  G  L  N  D  I  F

                                HindIII
                                >=====
GAAGCACAGAAGATCGAATGGCATGAAGCCTAAGCTTG
    1350      1360      1370      1380
E  A  Q  K  I  E  W  H  E  A  *  –  *
```

# 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	