**== Enzymes that DO NOT MAP to this sequence:**

 AarI AbsI AgeI AjuI AjuI AloI AloI ApaI AscI AvrII BaeI BaeI BarI BarI BplI CspCI CspCI EcoNI FalI FseI FspAI MauBI MluI NotI PacI PasI SfiI SgrAI SgrDI SnaBI SwaI XbaI XcmI

 **== Total Number of Hits per Enzyme:**

 AatII 7 BseYI 3 KroI 2 RsrII 1 AclI 3 BsgI 3 MfeI 2 SacI 1 AflII 3 BsmI 6 NaeI 2 SacII 1 AlwNI 2 BspHI 5 NarI 3 SalI 2 ApaLI 2 BspMI 2 NcoI 1 SapI 2 ArsI 1 BsrBI 7 NdeI 2 ScaI 1 ArsI 1 BsrDI 4 NheI 1 SexAI 1 BamHI 2 BstEII 2 NmeAIII 6 SmaI 2 BbvCI 2 BstXI 1 NruI 2 SpeI 2 BcgI 7 BtgZI 4 PflMI 2 SphI 1 BcgI 7 BtsI 4 PfoI 3 SspI 5 BciVI 3 ClaI 1 PmeI 1 StuI 1 BclI 4 DraIII 1 PshAI 1 TaqII 5 BglI 5 DrdI 1 PsiI 4 Tth111I 1 BglII 2 EciI 4 PspXI 1 XhoI 1 Bpu10I 3 EcoRI 1 PsrI 1 XmnI 4 BsaBI 3 EcoRV 1 PsrI 1 BsaXI 1 HindIII 1 PstI 1 BsaXI 1 HpaI 1 PvuI 3 BseRI 3 KpnI 1 PvuII 2

== Linear Map of Sequence:

 BglII

 \

 1 agatctaaaaaagcaccgactcggtgccactttttcaagttgataacggactagccttat 60

 tctagattttttcgtggctgagccacggtgaaaaagttcaactattgcctgatcggaata

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SapI SacI SapI

 \ \ \

 61 tttaacttgctatttctagctctaaaacggaagagctcgctcttccgaagtattgaggaa 120

 aaattgaacgataaagatcgagattttgccttctcgagcgagaaggcttcataactcctt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BclI BsaBI PsiI

 \ \ \

 121 aacatacctatataaatgatcaacatcaggaaagagcagttgagaattataagaattggc 180

 ttgtatggatatatttactagttgtagtcctttctcgtcaactcttaatattcttaaccg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AflII AflII

 \ \

 181 aaatggtcttaagaaccctctgcttaagattttcaaaatttcctttagaatcaaagtgtc 240

 tttaccagaattcttgggagacgaattctaaaagttttaaaggaaatcttagtttcacag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 241 ctattgttcgtttgttgaaaacacagttcgatttattgactataataaattgatagtttt 300

 gataacaagcaaacaacttttgtgtcaagctaaataactgatattatttaactatcaaaa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 301 aaatatagaggcacgactaagagagtttggttttgttttggttagggaccaaaaaaagta 360

 tttatatctccgtgctgattctctcaaaccaaaacaaaaccaatccctggtttttttcat

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 361 tacataacgaataaaaaaggatttaagtgcaaatggtaaaaaagtgtcgagtttttcttg 420

 atgtattgcttattttttcctaaattcacgtttaccattttttcacagctcaaaaagaac

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NmeAIII

 BcgI

 ArsI BsmI ArsI BcgI

 \ \\ \ \ \

 421 agttgattgtgctgtaatgagactctgcattcggcatttgactcggcttttcctactcgt 480

 tcaactaacacgacattactctgagacgtaagccgtaaactgagccgaaaaggatgagca

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BglII

 \

 481 gccgtatttcaggctgcaagtcgaacagatctcgctgcctgttatgtggcccacaaacca 540

 cggcataaagtccgacgttcagcttgtctagagcgacggacaatacaccgggtgtttggt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 541 agacacgttttatggccattaaagctggctgatcgtcgccaaacaccaaatacataatga 600

 tctgtgcaaaataccggtaatttcgaccgactagcagcggtttgtggtttatgtattact

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 601 atatgtacacattcgagaaagaagcgatcaaagaagcgtcttcgggcggagtaggagaat 660

 tatacatgtgtaagctctttcttcgctagtttcttcgcagaagcccgcctcatcctctta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsmI

 EciI BseRI

 \ \ \

 661 gcggaggagaaggagaacgagctgatctagtatctctccacaatccaatgccaactgacc 720

 cgcctcctcttcctcttgctcgactagatcatagagaggtgttaggttacggttgactgg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BtgZI PflMI PvuI

 \ \ \

 721 aactggccatattcggagcaatttgaagccaatttccatcgcctggcgatcgctccattc 780

 ttgaccggtataagcctcgttaaacttcggttaaaggtagcggaccgctagcgaggtaag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SmaI

 \

 781 ttggctatatgtttttcaccgttacccggggccattttcaaagactcgtcggcaagataa 840

 aaccgatatacaaaaagtggcaatgggccccggtaaaagtttctgagcagccgttctatt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 Bpu10I

 BbvCI

 BsmI NruI

 \ \ \

 841 gattgtgtcactcgctgtctctcttcatttgtcgaagaatgctgaggaatttcgcgatga 900

 ctaacacagtgagcgacagagagaagtaaacagcttcttacgactccttaaagcgctact

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AatII BtgZI

 \ \

 901 cgtcggcgagtattttgaagaatgagaataatttgtatttatacgaaaatcagttagtgg 960

 gcagccgctcataaaacttcttactcttattaaacataaatatgcttttagtcaatcacc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 961 aattttctacaaaaacatgttatctatagataattttgttgcaaaatatgttgactatga 1020

 ttaaaagatgtttttgtacaatagatatctattaaaacaacgttttatacaactgatact

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PsiI

 \

 1021 caaagattgtatgtatatacctttaatgtattctcattttcttatgtatttataatggca 1080

 gtttctaacatacatatatggaaattacataagagtaaaagaatacataaatattaccgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsrDI BcgI

 \ \

 1081 atgatgatactgatgatattttaagatgatgccagaccacaggctgatttctgcgtcttt 1140

 tactactatgactactataaaattctactacggtctggtgtccgactaaagacgcagaaa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BtsI BcgI XmnI

 \ \ \

 1141 tgccgaacgcagtgcatgtgcggttgttgttttttggaatagtttcaattttcggactgt 1200

 acggcttgcgtcacgtacacgccaacaacaaaaaaccttatcaaagttaaaagcctgaca

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1201 ccgctttgatttcagtttcttggcttattcaaaaagcaaagtaaagccaaaaaagcgaga 1260

 ggcgaaactaaagtcaaagaaccgaataagtttttcgtttcatttcggttttttcgctct

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1261 tggcaataccaaatgcggcaaaacggtagtggaaggaaaggggtgcggggcagcggaagg 1320

 accgttatggtttacgccgttttgccatcaccttcctttccccacgccccgtcgccttcc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BseYI AatII

 \ \

 1321 aagggtggggcggggcgtggcggggtctgtggctgggcgcgacgtcaccgacgttggagc 1380

 ttcccaccccgccccgcaccgccccagacaccgacccgcgctgcagtggctgcaacctcg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1381 cactcctttgaccatgtgtgcgtgtgtgtattattcgtgtctcgccactcgccggttgtt 1440

 gtgaggaaactggtacacacgcacacacataataagcacagagcggtgagcggccaacaa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SphI

 \

 1441 tttttctttttatctcgctctctctagcgccatctcgtacgcatgctcaacgcaccgcat 1500

 aaaaagaaaaatagagcgagagagatcgcggtagagcatgcgtacgagttgcgtggcgta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1501 gttgccgtgtcctttatgcgtcattttggctcgaaataggcaattatttaaacaaagatt 1560

 caacggcacaggaaatacgcagtaaaaccgagctttatccgttaataaatttgtttctaa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1561 agtcaacgaaaacgctaaaataaataagtctacaatatggttacttattgccatgtgtgt 1620

 tcagttgcttttgcgattttatttattcagatgttataccaatgaataacggtacacaca

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsgI

 \

 1621 gcagccaacgatagcaacaaaagcaacaacacagtggctttccctctttcactttttgtt 1680

 cgtcggttgctatcgttgttttcgttgttgtgtcaccgaaagggagaaagtgaaaaacaa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1681 tgcaagcgcgtgcgagcaagacggcacgaccggcaaacgcaattacgctgacaaagagca 1740

 acgttcgcgcacgctcgttctgccgtgctggccgtttgcgttaatgcgactgtttctcgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NarI BsmI MfeI

 \ \ \

 1741 gacgaagttttggccgaaaaacatcaaggcgcctgatacgaatgcatttgcaataacaat 1800

 ctgcttcaaaaccggctttttgtagttccgcggactatgcttacgtaaacgttattgtta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SspI

 \

 1801 tgcgatatttaatattgtttatgaagctgtttgacttcaaaacacacaaaaaaaaaaata 1860

 acgctataaattataacaaatacttcgacaaactgaagttttgtgtgtttttttttttat

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1861 aaacaaattatttgaaagagaattaggaatcggacagcttatcgttacgggctaacagca 1920

 tttgtttaataaactttctcttaatccttagcctgtcgaatagcaatgcccgattgtcgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AatII AlwNI

 \ \

 1921 caccgagacgaaatagcttacctgacgtcacagcctctggaagaactgccgccaagcaga 1980

 gtggctctgctttatcgaatggactgcagtgtcggagaccttcttgacggcggttcgtct

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 1981 gagagagagaaaaagagggagagcagcttagaccgcatgtgcttgtgtgtgaggcgtctc 2040

 ctctctctctttttctccctctcgtcgaatctggcgtacacgaacacacactccgcagag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsgI ClaI

 \ \

 2041 tctcttcgtctcctgtttgcgcaaacgcatagactgcactgagaaaatcgattacctatt 2100

 agagaagcagaggacaaacgcgtttgcgtatctgacgtgactcttttagctaatggataa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SspI BsaBI

 \ \

 2101 ttttatgaatgaatatttgcactattactattcaaaactattaagatagcaatcacattc 2160

 aaaatacttacttataaacgtgataatgataagttttgataattctatcgttagtgtaag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BclI

 Bpu10I BtgZI

 \ \\

 2161 aatagccaaatactataccacctgagcgatgcaacgaaatgatcaatttgagcaaaaatg 2220

 ttatcggtttatgatatggtggactcgctacgttgctttactagttaaactcgtttttac

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 XmnI BcgI

 \ \

 2221 ctgcatatttaggacggcatcattatagaaatgcttcttgctgtgtacttttctctcgtc 2280

 gacgtataaatcctgccgtagtaatatctttacgaagaacgacacatgaaaagagagcag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PvuII BcgI AflII SpeI

 \ \ \ \

 2281 tggcagctgtttcgccgttattgttaaaaccggcttaagttaggtgtgttttctacgact 2340

 accgtcgacaaagcggcaataacaattttggccgaattcaatccacacaaaagatgctga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 2341 agtgatgcccctactagaagatgtgtgttgcacaaatgtccctgaataaccaatttgaag 2400

 tcactacggggatgatcttctacacacaacgtgtttacagggacttattggttaaacttc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsgI SspI

 \ \

 2401 tgcagatagcagtaaacgtaagctaatatgaatattatttaactgtaatgttttaatatc 2460

 acgtctatcgtcatttgcattcgattatacttataataaattgacattacaaaattatag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NdeI

 \

 2461 gctggacattactaataaacccactataaacacatgtacatatgtatgttttggcataca 2520

 cgacctgtaatgattatttgggtgatatttgtgtacatgtatacatacaaaaccgtatgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 2521 atgagtagttggggaaaaaatgtgtaaaagcaccgtgaccatcacagcataaagataacc 2580

 tactcatcaaccccttttttacacattttcgtggcactggtagtgtcgtatttctattgg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PvuII

 \

 2581 agctgaagtatcgaatatgagtaacccccaaattgaatcacatgccgcaactgataggac 2640

 tcgacttcatagcttatactcattgggggtttaacttagtgtacggcgttgactatcctg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NcoI

 \

 2641 ccatggaagtacactcttcatggcgatatacaagacacacacaagcacgaacacccagtt 2700

 ggtaccttcatgtgagaagtaccgctatatgttctgtgtgtgttcgtgcttgtgggtcaa

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PsrI

 \

 2701 gcggaggaaattctccgtaaatgaaaacccaatcggcgaacaattcatacccatatatgg 2760

 cgcctcctttaagaggcatttacttttgggttagccgcttgttaagtatgggtatatacc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsrDI

 PsrI BsrBI

 \ \ \

 2761 taaaagttttgaacgcgacttgagagcggagagcattgcggctgataaggttttagcgct 2820

 attttcaaaacttgcgctgaactctcgcctctcgtaacgccgactattccaaaatcgcga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PsiI

 \

 2821 aagcgggctttataaaacgggctgcgggaccagttttcatatcactaccgtttgagttct 2880

 ttcgcccgaaatattttgcccgacgccctggtcaaaagtatagtgatggcaaactcaaga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BseRI

 BciVI BsrBI

 \\ \

 2881 tgtgctgtgtggatactcctcccgacacaaagccgctccatcagccagcagtcgtctaat 2940

 acacgacacacctatgaggagggctgtgtttcggcgaggtagtcggtcgtcagcagatta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SpeI fwd primer

 KpnI BstXI BstEII

 \ \ \ \

 2941 ccagagaccccggatcggggtacctactagtccagtgtggtggaattggaggcggttacc 3000

 ggtctctggggcctagccccatggatgatcaggtcacaccaccttaacctccgccaatgg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PfoI

 AatII BamHI

 \ \

 3001 catacgatgttcctgactatgcgggctatccctatgacgtcccggactatgcaggatcct 3060

 gtatgctacaaggactgatacgcccgatagggatactgcagggcctgatacgtcctagga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BclI

 BspHI

 NdeI EcoRV

 \ \ \ \ dhfr

 3061 atccatatgacgttccagattacgctgatatcatgatcagtctgattgcggcgttagcgg 3120

 taggtatactgcaaggtctaatgcgactatagtactagtcagactaacgccgcaatcgcc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PflMI BspMI

 \ \

 3121 tagattacgttatcggcatggaaaacgccatgccgtggaacctgcctgccgatctcgcct 3180

 atctaatgcaatagccgtaccttttgcggtacggcaccttggacggacggctagagcgga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PmeI TaqII

 \ \

 3181 ggtttaaacgcaacaccttaaataaacccgtgattatgggccgccatacctgggaatcaa 3240

 ccaaatttgcgttgtggaatttatttgggcactaatacccggcggtatggacccttagtt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 Bpu10I

 SspI BbvCI

 \ \

 3241 tcggtcgtccgttgccaggacgcaaaaatattatcctcagcagtcaaccgagtacggacg 3300

 agccagcaggcaacggtcctgcgtttttataataggagtcgtcagttggctcatgcctgc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PvuI BtgZI BglI

 \ \ \

 3301 atcgcgtaacgtgggtgaagtcggtggatgaagccatcgcggcgtgtggtgacgtaccag 3360

 tagcgcattgcacccacttcagccacctacttcggtagcgccgcacaccactgcatggtc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 3361 aaatcatggtgattggcggcggtcgcgttattgaacagttcttgccaaaagcgcaaaaac 3420

 tttagtaccactaaccgccgccagcgcaataacttgtcaagaacggttttcgcgtttttg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PfoI

 \

 3421 tgtatctgacgcatatcgacgcagaagtggaaggcgacacccatttcccggattacgagc 3480

 acatagactgcgtatagctgcgtcttcaccttccgctgtgggtaaagggcctaatgctcg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BcgI EcoRI BcgI

 \ \ \

 3481 cggatgactgggaatcggtattcagcgaattccacgatgctgatgcgcagaactctcaca 3540

 gcctactgacccttagccataagtcgcttaaggtgctacgactacgcgtcttgagagtgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsrBI HindIII

 \ \ T2A

 3541 gctattgctttgagattctggagcggcgaaagcttgagggcagaggaagtcttctaacat 3600

 cgataacgaaactctaagacctcgccgctttcgaactcccgtctccttcagaagattgta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NheI

 BseRI

 \ \ puro

 3601 gcggtgacgtggaggagaatcccggccctgctagcggtagcggcagcggtagcatgaccg 3660

 cgccactgcacctcctcttagggccgggacgatcgccatcgccgtcgccatcgtactggc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AatII

 TaqII Tth111I SmaI

 \ \ \ \

 3661 agtacaagcccacggtgcgcctcgccacccgcgacgacgtcccccgggccgtacgcaccc 3720

 tcatgttcgggtgccacgcggagcggtgggcgctgctgcagggggcccggcatgcgtggg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SalI RsrII

 \ \

 3721 tcgccgccgcgttcgccgactaccccgccacgcgccacaccgtcgacccggaccgccaca 3780

 agcggcggcgcaagcggctgatggggcggtgcgcggtgtggcagctgggcctggcggtgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BstEII

 BsrBI

 \ \

 3781 tcgagcgggtcaccgagctgcaagaactcttcctcacgcgcgtcgggctcgacatcggca 3840

 agctcgcccagtggctcgacgttcttgagaaggagtgcgcgcagcccgagctgtagccgt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SacII

 NarI BglI

 \ \ \

 3841 aggtgtgggtcgcggacgacggcgccgcggtggcggtctggaccacgccggagagcgtcg 3900

 tccacacccagcgcctgctgccgcggcgccaccgccagacctggtgcggcctctcgcagc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsrBI

 NmeAIII

 \ \

 3901 aagcgggggcggtgttcgccgagatcggcccgcgcatggccgagttgagcggttcccggc 3960

 ttcgcccccgccacaagcggctctagccgggcgcgtaccggctcaactcgccaagggccg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsaXI

 NmeAIII StuI NarI BglI

 \ \ \ \ \

 3961 tggccgcgcagcaacagatggaaggcctcctggcgccgcaccggcccaaggagcccgcgt 4020

 accggcgcgtcgttgtctaccttccggaggaccgcggcgtggccgggttcctcgggcgca

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsaXI BcgI

 \ \

 4021 ggttcctggccaccgtcggcgtctcgcccgaccaccagggcaagggtctgggcagcgccg 4080

 ccaaggaccggtggcagccgcagagcgggctggtggtcccgttcccagacccgtcgcggc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PfoI

 BcgI NmeAIII

 \ \\

 4081 tcgtgctccccggagtggaggcggccgagcgcgccggggtgcccgccttcctggagacct 4140

 agcacgaggggcctcacctccgccggctcgcgcggccccacgggcggaaggacctctgga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NmeAIII BsrBI AatII

 \ \ \

 4141 ccgcgccccgcaacctccccttctacgagcggctcggcttcaccgtcaccgccgacgtcg 4200

 ggcgcggggcgttggaggggaagatgctcgccgagccgaagtggcagtggcggctgcagc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SexAI XhoI

 DraIII PspXI BamHI

 \ \ puro \ \

 4201 aggtgcccgaaggaccgcgcacctggtgcatgacccgcaagcccggtgcctgactcgagg 4260

 tccacgggcttcctggcgcgtggaccacgtactgggcgttcgggccacggactgagctcc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsmI

 \

 4261 gatccagacatgataagatacattgatgagtttggacaaaccacaactagaatgcagtga 4320

 ctaggtctgtactattctatgtaactactcaaacctgtttggtgttgatcttacgtcact

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BtsI PsiI

 \ \

 4321 aaaaaatgctttatttgtgaaatttgtgatgctattgctttatttgtaaccattataagc 4380

 ttttttacgaaataaacactttaaacactacgataacgaaataaacattggtaatattcg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BsmI

 HpaI MfeI

 \ \ \

 4381 tgcaataaacaagttaacaacaacaattgcattcattttatgtttcaggttcagggggag 4440

 acgttatttgttcaattgttgttgttaacgtaagtaaaatacaaagtccaagtccccctc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BclI

 BsaBI

 \\

 4441 gtgtgggaggttttttaaagcaagtaaaacctctacaaatgtggtatggctgattatgat 4500

 cacaccctccaaaaaatttcgttcattttggagatgtttacaccataccgactaatacta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 reverse primer

 SalI TaqII BcgI

 \ \ \

 4501 cagtcgaccgatgcccttgagagccttcaacccagtcagctccttccggtgggcgcgggg 4560

 gtcagctggctacgggaactctcggaagttgggtcagtcgaggaaggccacccgcgcccc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 PshAI BcgI

 \ \

 4561 catgactatcgtcgccgcacttatgactgtcttctttatcatgcaactcgtaggacaggt 4620

 gtactgatagcagcggcgtgaatactgacagaagaaatagtacgttgagcatcctgtcca

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NaeI

 KroI

 \ \

 4621 gccggcagcgctctgggtcattttcggcgaggaccgctttcgctggagcgcgacgatgat 4680

 cggccgtcgcgagacccagtaaaagccgctcctggcgaaagcgacctcgcgctgctacta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 4681 cggcctgtcgcttgcggtattcggaatcttgcacgccctcgctcaagccttcgtcactgg 4740

 gccggacagcgaacgccataagccttagaacgtgcgggagcgagttcggaagcagtgacc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 NaeI

 AclI KroI BglI

 \ \ \ \

 4741 tcccgccaccaaacgtttcggcgagaagcaggccattatcgccggcatggcggccgacgc 4800

 agggcggtggtttgcaaagccgctcttcgtccggtaatagcggccgtaccgccggctgcg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BseYI NruI

 \ \

 4801 gctgggctacgtcttgctggcgttcgcgacgcgaggctggatggccttccccattatgat 4860

 cgacccgatgcagaacgaccgcaagcgctgcgctccgacctaccggaaggggtaatacta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BspMI

 \

 4861 tcttctcgcttccggcggcatcgggatgcccgcgttgcaggccatgctgtccaggcaggt 4920

 agaagagcgaaggccgccgtagccctacgggcgcaacgtccggtacgacaggtccgtcca

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 4921 agatgacgaccatcagggacagcttcaaggatcgctcgcggctcttaccagccagcaaaa 4980

 tctactgctggtagtccctgtcgaagttcctagcgagcgccgagaatggtcggtcgtttt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 EciI

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 4981 ggccaggaaccgtaaaaaggccgcgttgctggcgtttttccataggctccgcccccctga 5040

 ccggtccttggcatttttccggcgcaacgaccgcaaaaaggtatccgaggcggggggact

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 DrdI

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 5041 cgagcatcacaaaaatcgacgctcaagtcagaggtggcgaaacccgacaggactataaag 5100

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 BciVI

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 tatggtccgcaaagggggaccttcgagggagcacgcgagaggacaaggctgggacggcga

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 EciI

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BseYI ApaLI

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 5221 ctgtaggtatctcagttcggtgtaggtcgttcgctccaagctgggctgtgtgcacgaacc 5280

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AlwNI

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 5341 aagacacgacttatcgccactggcagcagccactggtaacaggattagcagagcgaggta 5400

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 tcataaaccatagacgcgagacgacttcggtcaatggaagcctttttctcaaccatcgag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BspHI

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BglI EciI NmeAIII

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 5941 tttatcagcaataaaccagccagccggaagggccgagcgcagaagtggtcctgcaacttt 6000

 aaatagtcgttatttggtcggtcggccttcccggctcgcgtcttcaccaggacgttgaaa

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AclI BsrDI PstI

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 TaqII PvuI

 \ \

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 caacacgttttttcgccaatcgaggaagccaggaggctagcaacagtcttcattcaaccg

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BtsI BtsI

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 6241 cgcagtgttatcactcatggttatggcagcactgcataattctcttactgtcatgccatc 6300

 gcgtcacaatagtgagtaccaataccgtcgtgacgtattaagagaatgacagtacggtag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 ScaI BcgI

 \ \

 6301 cgtaagatgcttttctgtgactggtgagtactcaaccaagtcattctgagaatagtgtat 6360

 gcattctacgaaaagacactgaccactcatgagttggttcagtaagactcttatcacata

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 TaqII BcgI

 \ \

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 cgccgctggctcaacgagaacgggccgcagttgtgccctattatggcgcggtgtatcgtc

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 AclI

 XmnI

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 6421 aactttaaaagtgctcatcattggaaaacgttcttcggggcgaaaactctcaaggatctt 6480

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 ApaLI

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 6481 accgctgttgagatccagttcgatgtaacccactcgtgcacccaactgatcttcagcatc 6540

 tggcgacaactctaggtcaagctacattgggtgagcacgtgggttgactagaagtcgtag

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 6541 ttttactttcaccagcgtttctgggtgagcaaaaacaggaaggcaaaatgccgcaaaaaa 6600

 aaaatgaaagtggtcgcaaagacccactcgtttttgtccttccgttttacggcgtttttt

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 SspI

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 6601 gggaataagggcgacacggaaatgttgaatactcatactcttcctttttcaatattattg 6660

 cccttattcccgctgtgcctttacaacttatgagtatgagaaggaaaaagttataataac

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BciVI

 BspHI BsrBI

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 AatII

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 BspHI

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 XmnI BspHI

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 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

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 tagttgagacttagtttagaaacgtctacgtggatgaagagtaaaggtgacagtgtagta

 ^ \* ^ \* ^ \* ^ \* ^ \* ^ \*

 6961 ttttcc 7020

 aaaagg

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