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 GCAACTCGTG GCGGCGGCGTTCCTTACCACGTACGTTCTCTACCGCGGGTTGTCTAGGGGGCCGGTGCCCCGGAC

4575

CCACCATACCCACGCCGAAACAAGCGCTCATGAGCCCGAAGTGCGGAGCCCGATCTTCCCCATCGGTGATGTCGG
 GGTGGTATGGGTGCGGCTTTGTTTCGCGAGTACTCGGGCTTCACCGCTCGGGCTAGAAGGGGTAGCCACTACAGCC

4650

CGATATAGGCGCCAGCAACCGCACCTGTGGCGCCGGTGATGCCGGCCACGATGCGTCCGGCGTAGAGGATCGAGA
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4725

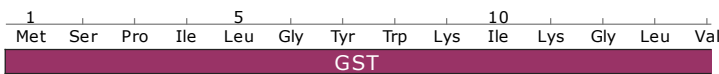
TCGATCTCGATCCC GCGAAATTAATACGACTCACTATAGGGGAATTGTGAGCGGATAACAATTC CCTCTAGAAA
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4800



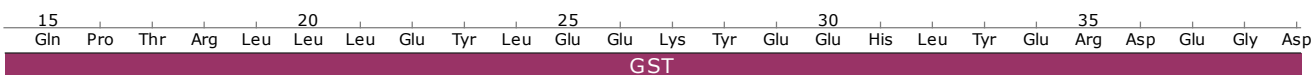
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 ATTA AAAACA AATTGAAATTCCTCCTCTATATGTATACAGGGGATATGATCCAATAACCTTTTAATTC CCGGAACA

4875



GCAACCCACTCGACTTCTTTTGAATATCTTGAAGAAAAATATGAAGAGCATTGTATGAGCGCGATGAAGGTGA
 CGTTGGGTGAGCTGAAGAAAACCTTATAGA AACTTCTTTTATACTTCTCGTAAACATACTCGCGCTACTTCCACT

4950



TAAATGGCGAAACAAAAAGTTTGAATTGGGTTTGGAGTTTCCCAATCTTCCTTATTATATTGATGGTGATGTTAA
ATTTACCGCTTTGTTTTTCAAACCTTAACCCAAACCTCAAAGGGTTAGAAGGAATAATAAATACTACCACTACAATT

5025

40 Lys Trp Arg Asn Lys Lys Phe Glu Leu Gly Leu Glu Phe Pro Asn 55 Leu Pro Tyr Tyr Ile 60 Asp Gly Asp Val Lys
GST

ATTAACACAGTCTATGGCCATCATACGTTATATAGCTGACAAGCACAACATGTTGGGTGGTTGTCCAAAAGAGCG
TAATTGTGTCAGATACCGGTAGTATGCAATATATCGACTGTTTCGTGTTGTACAACCCACCAACAGGTTTTCTCGC

5100

65 Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn Met Leu Gly Gly Cys Pro Lys Glu Arg
GST

TGCAGAGATTTCAATGCTTGAAGGAGCGGTTTTGGATATTAGATACGGTGTTCGAGAATTGCATATAGTAAAGA
ACGTCTCTAAAGTTACGAACCTCCTCGCCAAAACCTATAATCTATGCCACAAAGCTCTTAACGTATATCATTCT

5175

90 Ala Glu Ile Ser Met Leu Glu Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser Lys Asp
GST

CTTTGAAACTCTCAAAGTTGATTTTCTTAGCAAGCTACCTGAAATGCTGAAAATGTTGGAAGATCGTTTATGTCA
GAAACTTTGAGAGTTTCAAATAAAGAATCGTTCGATGGACTTTACGACTTTTACAAGCTTCTAGCAAATACAGT

5250

115 Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu Met Leu Lys Met Phe Glu Asp Arg Leu Cys His
GST

TAAAACATATTTAAATGGTGATCATGTAACCCATCCTGACTTCATGTTGTATGACGCTCTTGATGTTGTTTTATA
ATTTTGTATAAATTTACCACTAGTACATTGGGTAGGACTGAAGTACAACATACTGCGAGAACTACAACAAAATAT

5325

140 Lys Thr Tyr Leu Asn Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp Val Val Leu Tyr
GST

CATGGACCCAATGTGCCTGGATGCGTTCCCAAATAGTTTGTTTTAAAAAACGTATTGAAGCTATCCACAAAT
GTACCTGGGTTACACGGACCTACGCAAGGGTTTTAATCAAACAAAATTTTTTGCATAACTTCGATAGGGTGTTTA

5400

165 Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile
GST

TGATAAGTACTTGAAATCCAGCAAGTATATAGCATGGCCTTTGCAGGGCTGGCAAGCCACGTTTGGTGGTGGCGA
ACTATTCATGAACTTTAGGTCGTTTCATATATCGTACCGGAAACGTCCCGACCGTTTCGGTGCAAACCACCACCGCT

5475

190 Asp Lys Tyr Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala Thr Phe Gly Gly Gly Asp
GST

CCATCCTCCAAAATCGGATGGTTCAACTAGTGGTTCTGGTCATCACCATCACCATCACTCCGCGGGTCTGGTGCC 5550
 GGTAGGAGGTTTTAGCCTACCAAGTTGATCACCAAGACCAGTAGTGGTAGTGGTAGTGAGGCGCCAGACCACGG

215 His Pro Pro Lys Ser Asp Gly Ser Thr Ser Gly Ser Gly His His His His His His Ser Ala Gly Leu Val Pro
 GST (in frame with GST) GxHis thrombin site

ACGCGGTAGTACTGCAATTGGTATGAAAGAAACCGCTGCTGCTAAATTCGAACGCCAGCACATGGACAGCCCAGA 5625
 TGGCCATCATGACGTTAACCATACTTTCTTTGGCGACGACGATTTAAGCTTGCGGGTCGTGTACCTGTGCGGGTCT

5 Arg Gly Ser Thr Ala Ile Gly Met Lys Glu Thr Ala Ala Lys Phe Glu Arg Gln His Met Asp Ser Pro Asp
 thrombin site S-Tag

TCTGGGTACCGGTGGTGGCTCCGGTGATGACGACGACAAGAGTCCCATGGGATATCGGGGATCCGAATTCTGTAC 5700
 AGACCCATGGCCACCACCGAGGCCACTACTGCTGCTGTTCTCAGGGTACCCTATAGCCCTAGGCTTAAGACATG

Leu Gly Thr Gly Gly Gly Ser Gly Asp Asp Asp Asp Lys Ser Pro Met Gly Tyr Arg Gly Ser Glu Phe Cys Thr
 (in frame with S-Tag) enterokinase site (in frame with enterokinase site)
 MCS

PshAI NcoI EcoRV BamHI EcoRI

AGGCCCTTGGCGCGCCTGCAGGCGAGCTCCGTCGACAAGCTTGCGGCCGCACTCGAGCACCACCACCACCACC 5775
 TCCGGAACCGCGCGGACGTCCGCTCGAGGCAGCTGTTTGAACGCCGGCGTGAGCTCGTGGTGGTGGTGGTGG

Gly Leu Gly Ala Pro Ala Gly Glu Leu Arg Arg Gln Ala Cys Gly Arg Thr Arg Ala Pro Pro Pro Pro Pro Pro
 (in frame with enterokinase site)

AscI PstI SacI SalI HindIII NotI XhoI

MCS 8xHis

ACCACTAATTGATTAATACCTAGGCTGCTAAACAAAGCCCGAAAGGAAGCTGAGTTGGCTGCTGCCACCGCTGAG 5850
 TGGTGATTAACCTAATTATGGATCCGACGATTTGTTTCGGGCTTTTCTTCTCGACTCAACCGACGACGGTGGCGACTC

Pro Leu Ile Asp *

His His *
 8xHis

CAATAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGCTGAAAGGAGGAACCTATATCC 5925
 GTTATTGATCGTATTGGGGAACCCCGGAGATTTGCCCGAAGTCCCAAAAAACGACTTTCCTCCTTGATATAGG

T7 terminator

GGAT 3'
 ... 5929
 CCTA 5'