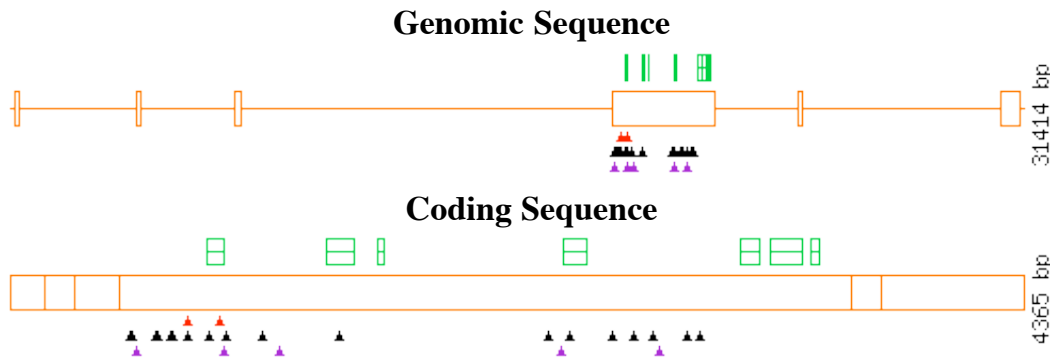


nhs1

IPB001686, IPB003888, IPB012502, IPB007696, IPB003023, IPB003141, IPB009448, IPB002077, IPB003024, and IPB012955



For help interpreting these results, view the [PARSENP Introduction](#) page.

#	View On Sequence	Nucleotide Change	Effect	Restriction Enzyme Differences from REBASE		PSSM Difference	SIFT Score	Description	Zygotity
				Gained in Variant	Lost from Reference				
1	G C	T18699A	I173N	MseI				3096	Homo
2	G C	C18707A	Q176K	XmnI	Tsp4CI			7390	Homo
3	G C	T18721A	L180=	MaeI				8501	Homo
4	G C	C18809T	P210S	BccI , FokI				2947	Homo
5	G C	T18816G	V212G	Hpy178III , SauI				4975	Homo
6	G C	T18870G	I230S	AluI , BbvI , CviJI , Fnu4HI , TseI	SfaNI			7150	Homo
7	G C	C18876T	T232I	BccI	BbvCI , Bpu10I , MnlI			6693	Homo
8	G C	G18940T	M253I	CviRI , MfeI , TspEI	BsrDI , HgiCI , NlaIV			1622	Homo
9	G C	C18947T	Q256*		Tsp4CI			8407	Homo
10	G C	T19038C	F286S	Hpy178III	Hpy188I	33.5	0.00	5113	Homo

11	G C	T19086A	L302*		TspEI			6741	Homo
12	G C	T19102G	T307=	BceII	CviRI , NspBII , PstI , SfeI			8432	Homo
13	G C	G19114T	M311I		MnlI , NlaIII			2942	Homo
14	G C	T19263C	L361P	TspGWI				5106	Homo
15	G C	C19339T	Y386=					6794	Homo
16	G C	C19339T	Y386=					8498	Homo
17	G C	T19599G	L473R	ClaI , TaqI		5.8	0.22	4848	Homo
18	G C	T20498C	S773P		MnlI			7989	Homo
19	G C	T20501A	F774I	BccI	TspDTI			6159	Homo
20	G C	T20548C	P789=	BseSI , SduI				4264	Homo
21	G C	T20588C	S803P		BseRI , MnlI	2.7	0.00	7670	Homo
22	G C	C20777A	P866T	BsaXI , MseI				6855	Homo
23	G C	T20862A	V894E	Ksp632I , MboII				6647	Homo
24	G C	T20951A	S924T	MmeI	BccI , FokI			8089	Homo
25	G C	C20971T	P930=	MnlI				2198	Homo
26	A G C	G21094T	M971I		Cac8I , NlaIII ,			1355	Homo
	B G C	C21095A	P972T		NspI , SphI				
27	G C	G21147T	R989L		MaeII			6675	Homo

[Download Tab-Separated table](#)

[View Variants on 3D Structure](#)

No [protein homology model](#) was submitted. You may add one using any or all of the fields below.

Blocks Families:

Blocks File: no file selected

Sequence Alignment: no file selected

-OR-

Genomic Sequence

```

cagagtcatgtggttggctgctttaacaatttgtctgtgattataaatgtccattgtgggaaataaataat      0
                                                                                       72
                                                                                       V   S   N   L   D   E   E   K   K   W   T      11
tagaaatgttgatctgttttcttttagct gta tct aat ctg gat gag gag aaa aag tgg acc      133
                                                                                       V   H   Y   T   A   P   W   H   Q   Q   E   N   V   F   L   P   G   S      29
gtg cac tac act gcc cca tgg cac cag cag gag aac gtc ttt ctg cca ggc tcc      187
                                                                                       R   P   A   C   V   E   D   L   H   R   Q   A   K   V   N   L   K   T      47
aga ccg gcc tgt gtg gaa gat ctt cac cgt cag gcc aaa gtg aac ctg aaa aca      241
                                                                                       A   L   R   E
gct ctc aga g gtacgagatacactatttaatttccattcaccggaaaacgagaactataaagttcac      309
                                                                                       ctaaataataaataactataaaaactataaatacacttaaacaaagacatgttcaccaagttgacatggaag      51
                                                                                       381
                                                                                       aactatthttggctccccaaaagttcttaaaacagttctgttttttttagcatgaagagaattttaataatc      51
                                                                                       453
                                                                                       tttagaagaacttttcattgtacagaatcttctgtttctttgatggttctttactgaatgatcataggctat      51
                                                                                       525
                                                                                       aggcttaatthtttaaatattgaattctttaagcctcagtgtaaaagggttgctatacatcagaatca      51
                                                                                       597
                                                                                       gcctcaaacctgcttcagttctcatgacatcagcattgctctgggaacaaacacatcaagcagcaggtgaat      51
                                                                                       669
                                                                                       gtgcctatgatgtcacttcacactggacacctgtgaaacagcctggtgggtgacatccagagccgggtcattag      51
                                                                                       741
                                                                                       cagtgcagttcagagccatacacatcagtgttcagttagcagattctggcctgaatgtaattgtaatttga      51
                                                                                       813
                                                                                       gactgatctagctgtacaggtggctgatgtgtagcctthtttaattatacatgcacaggtgtgtagctcatct      51
                                                                                       885
    
```

tacaataatggcgcactttgggctttcagaagacaggaagaaaggtagagctgtatcatcaaacacatttacc	51 957
ttaagcagtttataattctcagtcggttgttacgtctgctgttttctggcaggctctttgattgggtgaaa	51 1029
gctttcttagtgtttatacactttctctgccaagacaacaacactaagcacacatgtggatcagaggaact	51 1101
tgcgaggtgtctttaacatTTTTTTTTTgagaagtttaaagctgttgtaaacaggcttgtccctttaaggtc	51 1173
ttaactgacaaataagtgttgacggaaactgtgaaggattagcaaacaaaataaacagtggttctggagaat	51 1245
taaatgaagacattttaactgttgttgatttttacgcactttctggatttgtcacttatgtttattgctctt	51 1317
gggcaataatatagtttgttctgtgtgatgtttaagctggagcgggccaatTTTTTtagttaaatgtttadc	51 1389
tgtttcagtttaatagccagaggcagatataatctgtttatttttagcattttaaccagccagacacagcagt	51 1461
tgtgtgaatctgtcttttcagggttcccacagggcatggaatttctgctatttgatgaaatTTTtaaaggta	51 1533
tattaagaagtcaggtaatttttagatttttcatggaatatgaaatattttatttgtcactttactttacaa	51 1605
gaccctTTTTTatgtaatttctctacaccatatttatgttgcattttctcacttgTTTTTatgcttattcta	51 1677
TTTTcagttgaattttattcatttcacaaccatcaactgaatgtcaaataatagtcacagactctacctctt	51 1749
aattacacatgtcaacataaaaatacactaccgggtcaaaagtttagggtgagttTTTTTatttgtttattttt	51 1821
ttaattaattttatttaacaatttaaatgaatttattctgtttatcaaggtggcatttattaaatgtgaaa	51 1893

aatgtcaaattattaaatacttattcattaatatattttattacttattgtatgtactttcaaattaat	51 1965
tattactccagtcattattgcttctgttacaattaccattaataataacaataataagtcggagacacagtg	51 2037
ggtgagtagcacgatcagtcctcagcaagaaggtattggcagttttgtgtggagtttgcattgtggttgcac	51 2109
tcgggttttccccacagtccaaaaataagcaatataggtgaattgggtatgtatgagattgagtgatgcatg	51 2181
ggtatttggtggaaggacatccgctgcgtaaaacatatgctggataagttggtggttcattccactgtggcg	51 2253
accctgattaataaagggaccaagccgaaaagaaaatgaatgaatgaatgaacgaataacaataaatta	51 2325
atattagagtgatttctcaaggataatgtgactctgaagactggagtaatgaagctgaaaattccccttcaa	51 2397
aattactggagtgaatgagtgatgaattaatttataaaactacatttgaacagctattttatagtccaataacatt	51 2469
tcacaatttcttgatgaaatgaatgcagccttgggtgggcaaaaaattctactgaccccaagcttttgaccgg	51 2541
tagtgtagacattttagaagctttggtttcaaaacaaccacttcaaagtttgggtattgaaaataaacaacaaa	51 2613
aaataatatatatatatatatataaaactttgtaaaactactatcatgtgagagggagcagttcacagc	51 2685
catgcaaacagtgcttacctctgatttttggtcatttggtcattggttctcataaaagcattttaatatt	51 2757
atgcaaagaaaaaaagtggaactatttctctgtttatcataggtgattggaagtttagcttttttagtcagtgg	51 2829
tagtttgggaaacctgtcagctgtttaatagagtgatcacacagctgcagtgagtgatcataaaaaataaaa	51 2901

gtcaggaacaaggaagacttgcaacagatgaatgtgtgtttgtcagagaaaaactgcttgatccagatga	51 2973
ctgaagagattgtgggatgtgtgccaaggggatggagctgccatctgcaacagttcctttagaaagccagga	51 3045
aacatgatacacacacacatacagagtgatgctgatctgtttaatattgttctacatactattgttttgtgt	51 3117
ggttactgtaaaataaaataaaaaaacagtggatcatcaaacatttcttaacatcaccaggcctgtagcgat	51 3189
atctatgttttgccttatgatataattgcacaaaatataattgcaataaacaatattattgtcattttaagac	51 3261
catttcatgccactcattatataatgccagaatgatgatataatagcatctcaatgcctgtgcactcttcca	51 3333
aaaaacacataatatttaatttaattatagtatattagaacaatttattaactgggcattggaatcagaatg	51 3405
tgaaaaggcatatcctaataaatgataatacatattaacaatttgtgtataataatgatatctgctaccag	51 3477
atctattttcagttgtcatacacccacatgaaaatatactatagtaatttatagtaaatactattgtgtttt	51 3549
ttaaccatactgacacagacaccttcaatagagatagagatgttgctcagctaaaatgttactagaattgct	51 3621
ttttttaagtacgggcaatataatattgcatcactagaaataattgacgttatgttcatgtgttggtgcgacta	51 3693
gtcgacatattgattattgtgacagtcctaacaatcacattttcatgaagacctgaaaactgtagtttgtat	51 3765
ctctgaccactagaggagctaaacactaaataaacactgactgtgcttttatacttgagctcatatttgca	51 3837
agttattaaaaactttctttcagacttgcgctgatgtgtcttctctttttcacacag aa tgt gat aaa	51 3904
L R K D G F R S S Q Y Y S Q G P T F	72

ctg agg aag gat ggc ttc cgt agc tcg cag tac tac tca cag ggg ccc act ttc 3958

S G S S S S Q H E D E D L E G D D A 90
 tct ggc tcc tca agc tcc caa cat gag gac gag gac ctt gaa ggc gat gac gct 4012

D K K 93
 gac aaa aag gtaggcctttttaacaaaacttcagtgactgtagtagcttaattagcattttctggtgta 4081

93
 gtgttattgatttgatactgatttaatagtatgtaataatattagtatgatctacagctatgagaggggaat 4153

93
 atagactacttttagcattctagttgttttaggtgactggatttattaggcattgggtttgagtgggtgta 4225

93
 atatttgttttaatttataaataatctgatgacatttcttccaaacttagttacagggcagacaaagtgtgta 4297

93
 cgcatttgatttatgcaaattggtgttttggtgtatatttccatagccattagtttctgttttagcttt 4369

93
 aaaaagtgaggagtgagggaaactaaaggtgctgtatctgtaacacttgttttattcaggataactatttat 4441

93
 ttctgaattaaattgttccttatttttattccaataatttgcagttttgtgatcaagaaattagaaacatga 4513

93
 tttttttccaataactgggttgcagctggatcggatctgctgctgtagaacatatgctggaatagttggcag 4585

93
 tttattccggtgtggcgaccctgattaataagggactatttgaaggaaaataaatgaataattttttattt 4657

93
 ttttagtacagacttgtaataataagacagtgttttagttattgttgaaataatgatctttcataaaatcag 4729

93
 tacagagtgcttgctattagaccaaacatataaccttaacggttaacggttgtggggcatcctgtaggatta 4801

93
 ggcttccctctgctggagagaaatgttcctgtaggtgcattctgggtactgaatcacagcctcccacatgcg 4873

93
 cctctgtggagtccagcatctctgctggcttcggttaatgttgtcagccatgtgtggccacattatgagtctg 4945

aaccccaggagactcctactctaataaactattactcacaatgtggtggaagcaacagcttttcttgca	93 5017
tattgagactgctttctgcaaagctgctgttagcatatgagcattgaagctgggttgaaaggaaagggtt	93 5089
tatgctgaatggattcaggacagtcataaaactaaaagtttcaggaagaaatgctgcgggtttgttatagc	93 5161
acgcggtcttgcctcgttctttcttgtttctttatgcctactcctcacactgcgttcaggggccctaaaag	93 5233
gtcagaccctgtaaaagcaaagattcagggatgcttttgtccctctaccgccccagccctccctaagggat	93 5305
cccatgcccttttaaccccccttagcactctagactctcattcccagaccactgggtacaacactggactgg	93 5377
ctggatactttggcttctatttcatgttttcatgtttttaaagatgttatttcttaaaccacacatcaata	93 5449
agcatgtatatttactttggttgatgatcattctcataaaaatggaccttatcctaaaatattcttgtaaaa	93 5521
agccaattttatgctgtaaaaatgcatattttaataagctctaattaattttaaataactttttatttagaaa	93 5593
atcttttaggtccgataaaaatcaactttttatcttcttctatattatcttttcggcttagtccctttat	93 5665
atcaggagtcgccacatcagaataaatcgccaacttatccagcatatgttttaccagcggatgcccttcta	93 5737
gctgcaaccaacactgggaaaaaccatacactcttgcatcacactcttacactatcgtcaatttagatt	93 5809
accaatctatctatactgcatgtctttttactgtgggaaactgaagcatccagaggaaaccacgcgaac	93 5881
aaggaagaatatgcaaaactccacacagaaatgccaactgaccagcgaccttctttctgtgaggtgatcgt	93 5953

gctactcactgtgccaccatgtctcagacttactggtattattatttggtaatagtaatagaagcaataatga	93 6025
ctggagtaattatttaatttgaaactatatacaataagtaataaataaatatttaataaataagtatttaac	93 6097
cactgcgccaccgtggtgccctatttatttatttatttatttcaatcattattacatctatatatcaat	93 6169
ctaatttgtatttattggattgtttactgagatTTTTgcaaaattggttattatgatttatttgaattatat	93 6241
atttaaataatatttattagaattattagattattatcaataatatagctattcaacaataacaacctctc	93 6313
ttatatagttgtttaattgtagaattaggcactttaaaaagtgtgagttattctcactctttattatgcaat	93 6385
aaaagtcactgaggcatgaaggtaattaacgttaacatagtaaacaagaccttaggcagctgtgacttgatt	93 6457
atttgactattggttagtgacctggatggataaataaatgtattgtggtgatttaactacagttggtttgttt	93 6529
gtgaggctgagggaggcccaggtggtgaattgaaacttcagatggtccacttgtaactctgctgccaacgcc	93 6601
gttcccatttcagaagcacaatgCGTgaacagagttttaacgcctcactagttttcccctcgtctctgttcc	93 6673
tgctctctattctttctctcagacttttcagtttgttatgtgtgtgCGcttttctaggaagtgtgagagtg	93 6745
tggtttgatggtcagttgcccatgaaactgctttgtatactcctggagcgccaataagtcggcgtatacaac	93 6817
ccttaaaccctttggctaaatcaaaagagaagctctggattcttaacatcctgctcgtctcaaaaaaaaaattac	93 6889
ttttaattttgtttttcctgttcacttatcttgacaagccccctagtcatgaaactcactgtggtttctcc	93 6961

S T A S S G E E E K D S C Q M	108
tctttttccag tcc aca gca tct tca gga gag gaa gag aaa gac tcc tgc caa atg	7017
R A Q S P A Q V E G V E V D G Q M S	126
aga gcg caa agt ccg gca cag gtg gaa gga gtc gag gtt gat gga caa atg tcg	7071
S S K A S V L P T P E E K M R Q Q A	144
agc tcc aaa gcc tca gtc ctg ccc act cca gag gag aag atg agg caa cag gca	7125
Q A V L T D I V P I N V T A	158
cag gcc gtt ctc aca gat att gtc ccc att aat gtc acg g gtgagaagttaaactttt	7183
	158
agataaaaaataccaaatccggtgttggtctcttagtgaattccttatgtttgtcaggatagaattcatttagt	7255
	158
ttgtctttttaaaggaacactccgctcattataactctccttgacttatatagatgagttttaccattaaag	7327
	158
agtttattagaccattagcatctatgacatttatcaatattttttgcaagatgctaattgattcaatgatcta	7399
	158
cgccaggggtcaccaatctcgttcatggtggtccggtgcctgcaggtttttagctcaaacttgccttaacac	7471
	158
acctgccttgggtgtttcaagtatacctagcaacttgattagcttgttcatgtgtgtttgattaggggtgaag	7543
	158
ctaaaatctgcaggacaccggactttcatgaacaagttatccctgatctgcgctaagctaaaagtgctcatg	7615
	158
ccagatccagattggctgaatggattcaacaatgataactgtttaaccacaggaaattgtaaaatgagccta	7687
	158
ttttcaaaaaaagttgttaatttaagacagtggtgaccaaacttgttcctggagggccggtgtcctgcaga	7759
	158
ttttcgctccaaccataatcaaacacacctgaacaagctaataagtttttactaggtataacttgaaacacc	7831
	158
caggtgtgttgaggcaagttggaggtaaaccctgcagggacaccggccctccaggaccgagattggtgaccc	7903
	158

ctgatttaagaggatctctcatcaaaatccttggttaaactgtatttaattcataattccacatagcttattc	7975
	158
ctaactactaacatgtgatgactgcatgcgtgaatactacatacaactaattctgaatttaaaccctcatct	8047
	158
aatatgaatgtgtatgaatgtattaacacttctcatgttaacatttctgccattttcatgtttttgacattt	8119
	158
aagatttatccgttgcatacatgtacacaagatttctgtccagcacagctctggcctacaacatagtgctttt	8191
	158
cttaaacataataagctcgggtatattcaatcctttccaaaatgataaaaactcactgtgactcaggaagaag	8263
	158
ctctgttcgactttaaagcacacacaaataaacaccaactctaatcagctctgtcagctctgtgacttag	8335
	158
tcagacttcccagagtgctgaggcttagtcaacagtgcccagctcttcggagttcccttgcttttgcagtgct	8407
	158
acagcacaagctgtttttgtagataaactaatggttctattagatttcaactgttcatagagacttaaagca	8479
	158
atctatntagattttgaatttcccgttctatgacagataaggacaggctctgtacatacatataaaaaataag	8551
	158
atatacagttgaagtcagaattatcagccccctgtttatTTTTTcccccaatttctgtttaacggagagat	8623
	158
TTTTTcaacacataatagttttaataactcatttctaataactgatcgattttatcttttccaatgtgaca	8695
	158
ataaataatatttgactagatatttttcaagacacttctatacagcttaaagtgacatttaaaggcttaact	8767
	158
aggttaattaggttaactaggcaagttagggttaattgggcaagttattgtataacgatggtttctgttag	8839
	158
cacagtggttctcaaactgtggtacgtgtaccactagtgggtacgcaggcttcccttctagccgtacgcaaagg	8911
	158
aatgaaatatgtcatgtacatgctacacacatttaaataatttatcaacaattatgtaaataatatgccatat	8983

atgacatatagcctatatatttctgaggtaatctgctacgtttttttaactgtgcagggttgtagctgcttta	158 9055
ctgggcctactacgcaactgtatttcaatactgcacattttaggtggtacttgatgaaaaagtttgagaac	158 9127
cactgctgtagactactcaaaaaataacattttgcttaaaggggctaataattttgaccttaaattagtg	158 9199
ttaaaaaataaaaacatggttttattctagtcaaaaataaaacaaaaaagactttctccagaagaaaaaatat	158 9271
tatgagacatactgcgaaaatttccttgctctgttaaacgtcatttgggaaatatgaaaaagaataaaaatc	158 9343
aaacgggggctaataattctgacttcaactgtatgaaattgtctcaaagggctcatttacacctaggataaa	158 9415
tacacattatcatatatctgatagcaagtgtacaactaacaatgagtgagatataaatatttgggaacttgt	158 9487
ccactttcaagctttttcggggattgaaatgcatttgatcagatggctttttagagtaaaccttcatgtag	158 9559
tagaatgcctttaacctttgactgcccctctaccaaagcattgaccatgtttttactgttttaataatga	158 9631
ctgttaaagtcatttaataataacagtttttaataacggcttacacacacaggaaacaatcatcctgttac	158 9703
acttgattttggttttattgcaaaaaataaaaacaagaagcatgttaaatagagaatctgaaatattttttg	158 9775
gcatactttgggaaaaaaaggtgatttagtattcaaaaatgtttaatttaaatcacatattaacaatttgat	158 9847
agaggttaatattttagaaattatgggatgtggtgaaagaaatgcattgaatgtgttaactagcgacattag	158 9919
aagttaagaaatgcaatccaaacatttttatcttggttgggttagttacagggttaaaaagctaaaaacgttc	158 9991

gaggttactaaagtaacccttctttccccgaggaggggaacggaagcactataagtggatttgattgtaaaa	158 10063
tccacgcattgggaggttcggttcagaagctactcgtctgaaagagtattgaacggccaattaagaatgaa	158 10135
ttggcagcgcgaagcctgcgaggtgagcggcataagcaatcaactgagtatataagctcacctggcgccagc	158 10207
agacgctatcctttttaagctgaagagactttcaacagctaagggacagtcattatggcgacggagtatagt	158 10279
gcttccgttcccctcctcggggaacgaagggttactttagtaacctcgaacgttccccttcggggggaactt	158 10351
cagcactataagtggatttgattgtaaaaatccacgcattgggagcccattgaaagcgccataatgactgcac	158 10423
cttaccaacacccccgatgaggagatagtcaagcaagcgtgacgcaccacatcatggggggcgcggtcctc	158 10495
caacgtgtccctggccctaatttatcctacttcaacagaagttttacggatttatatatatTTTTTgggaag	158 10567
tcgtgagcatctagataattctaggaatacgcagctacgttggaagcgtgcaatcccgatagggaggacg	158 10639
ctgcggaggccatccgttaccgaaggggggatagatggcagaatttacatatggactagccctaaaaggggg	158 10711
agtacgcatagcaaaagagtggttagcggggaggggaagacacgggtccgccaggggggggacttaaccgtg	158 10783
gcggaataagcatatgggatcgcctagtggggatcacttatagcaggcacctttacccaaaacgcgggctga	158 10855
ccagcgggcagacctacaacgtagtgggcccagcaagtgactcctccgctgagtcagtgctgggggcccacgga	158 10927
ggaatctgcagggctcacctgacggggaactttactgacagataaaaaggcgcacgtatctccgtgtaggg	158 10999

aaaatggcgcagcaagcgtgtttcaacaccctaccgaattgtttcctcaatcaccaagggttacctaatacc	158 11071
cttgaggaaaccggctccactcgcagattgtaaaccttgcaaagtgtgttggtgttaccagcccgcagct	158 11143
ctacagatgtctgttagaggggcccgcgtgcccgcgctcgagaggatgcgaagctccgagtgaggagtgcgca	158 11215
cgcgctctcgggggacgcggctcatctcggctctgatagtgaaagaaaggcatccacaatctagtggaact	158 11287
tatttcggtacggcacttccctgctgccgaccgctataacagacgaagagctgctcagatgatctaaactct	158 11359
gagtgcggtccggataatacgcaaaacgcgaactggacaataagaagggtgggtctgcctcctccgagggc	158 11431
agcgcttgcaaggctcactacctcgtattaaaacggagtggttaggaacctgggacatatcgcggggcgggt	158 11503
ctcaggacgtgagagaagccagcccaattacaggcacgagtcacaatcggagggttacctaagtcttcctcgc	158 11575
gtctaaaaatctcttcaaagatcggcgaggggtgccaggtggtgccctgtccctgagagagtaggtgctctct	158 11647
cgaagggactgccaggggagggctatcgcgagggagagctctgacatccagggtccggttgagccagaggggc	158 11719
gcaaccagcaacctgttcctcgtcctccctgaccttgcacagtaactgcgcgagcaggctcactgggggaaa	158 11791
cgcgtatttgcgctgccccgaggccagctgtaagccagtgcatcatccaaaacaactggcaatgagcgatc	158 11863
tcgggggaagcaacagatcgatctgggcttccccgaatcgcgcccatatcagctgaacagactcgggggtgga	158 11935
gtctccattctccaggacgcaaagctgccgtgagagcgcacatcggctgcacggttgagcttgccctgaatatga	158 12007
	158

atggcgtgcagcgatttcagccgcggatgactccagaggagcagacggcggcgagctgagacatgcggcga	12079
	158
gagcgcataccccctatacggctgatatacgccaccgccgcgtactgtccgtcctgaccagcacgtgttgc	12151
	158
cgctccagcaccggaaaaaacggtggagagcggaggaactgccaacagctccaggcgatatgccaatgca	12223
	158
actgggtacctttccacaggtccgcagccgcatgcccgcaacgcacagccccagcccgtgttggaaagcgt	12295
	158
ctgctgaaacgacaacaagactggacgcctgttctagagacaccaggcctgtaggaacgaggggtcgctcc	12367
	158
aagggtgagggcgggcgacacagcgcagtaacagagactcgggtgtgcgcacgcgtgccatgcgcgtctgg	12439
	158
ggactcgatcgtgaagccagtgctgaagtggctcatatagaataatccgagcggcatgaagcggctgcgga	12511
	158
tgccatatgccccaggagcctctgaaatagtttcagtgggaccactattttactgtcgagctctctcagaca	12583
	158
gtacagcatcagctgagcgcgctctccggagaggcgcgctgccatggtgaccgagtccagctccagcccag	12655
	158
agaagagatcctctgcacggggcgagtttgctcttttctcggttgacctgaaacccccacaggtggaagtg	12727
	158
ccagagcactttgtctctgtgcataatcaactgctccgagagagggcaaaaatcagccagtcgtaaagaaat	12799
	158
tgagtatgcagatgcccgcgagccgaaggggactgaggcaccctccgcgggcttggtgaggaccgcggag	12871
	158
acagagagagcccgaaggggagggttttgtattgccaaagctcgaccttcaaacgcaaaccgcagaaactgtc	12943
	158
ggtgggcaggaagagtggagacatggaaatacgcgtccatcaggtctaatactgcagaccaaccagaggac	13015
	158
gaacgcaccggaggatgcgcttctgcgtgagcattctgaacggcagcttctgcaggcagcggttcaaaacgc	13087

gcagatctaggattggccgtgacccaccgctctttttgggcacgatgaagcgtgggctgtaaaacccgctct	158 13159
ccatctcggctggagggagcggctcgattgcatccttcgccaggaggacagcaatctcctctcgcaagacag	158 13231
gggcggacagggggctgaccctggtgaatacacacccgtgacttggggggccgttttcggaactgaatcgca	158 13303
tagccgagtctgattgtgcgtatgagccaccgcaagagctggcccgcgctaaccaggcaggcagagctctc	158 13375
gctaattgactcatcgcctacaatcgcctgacgtaccagcagtggggcagcgcggagtgggtgtgctgatccgg	158 13447
gaagctcgcgggtcccacggaaaagctggaggtgagatatttgctctcactccaaacccgagctccggaggg	158 13519
gaggctcgaggggtgggagaaaggagaccgtcctcccagcgcctcgtgagccactggcgaaacgcaccgaatc	158 13591
tgcaagctagaaagcatagcgtcccagactggcagatttcgggctgtcacatatggggaagtgaaaagtgcc	158 13663
ctttcataatgttttcatggcagtaaaaagtgccgttgaaatggggccccgccctccagcggggaaagagc	158 13735
aagttccctcttctccagatggcctgtcccaggggcgcttcgcggtccggtgccggacttagcggcgttctg	158 13807
ggcaggggggctgcctgcttccgaggtgcccagcgcactcgcttcgccggaggcgtgtgcgggggcggagca	158 13879
gctctcgtaggcgggcgccttcggcgaggagcaggtatgaatggcacggcgggaggcgggctacggaccg	158 13951
ccgataagacatcaccaccaactgctctctcaccgccttgaattcctgggtgaattcacagacagtgtcgc	158 14023
cgaacctggctggggatattggggaagtcaagaaagcggactttgtcgactttgcatatcagccaggggtg	158 14095

gacatcgtcctccccaacgcacacgcagcggactcagtagtccgaagagctaagtctggcggcggtgcgaagc	158 14167
tcgtaagcctgggttggaccaccctcgtgcagctcggccagcgcctgcgcttggtagcgctggtaggtggc	158 14239
tatcgcattgcaaggcgaagcagcctggcccgcagctatgtaagctctagctccgagggaggtagataactt	158 14311
acaggctttggatgggagacgagggcgacccccgccaagaagaggcgccgcggtattaccgccatcgcgca	158 14383
ctcaacctgaggaatcgccacataccccctggctgtttaccgtcaagagtggtagggtaggaacacgc	158 14455
agcagcagcagaaaaagtgtttacaagaccgctgagcctactgtgcacctccgggaagaagggaacgcc	158 14527
cctctagtcggtccggccgagctgggggataaaccatctccaaccacggccgaagcagccgggaaag	158 14599
cacggctaacaatgtccgtttcaggatccgtagtgacagcgtcaccagcccgaagggggcgagcgggtctgg	158 14671
atcatcatcggacaatgaaagcccaccctccgatgccgcggtggacatctggtctccggtgtcatcgggcgt	158 14743
aagggtaccatctgttagacggatcgcttccccgcccgaagcttggatggagcgttagaggagcgggag	158 14815
gtctgcgggcccgtgggacgattatctctcgtgaaaccctcagatctgcccagtgcccgctgcagag	158 14887
caggggacaactggggtgggttcgccctttgcaaaggcttaccgcgatcttgtgcaacagtcattggcatcgca	158 14959
atgacgacatgaactgcccgcgagcagcgcattaacatgctggacccccagacatgtaacgcagtgcccgcg	158 15031
cccatcatccgaggacaggtaccaccgcattccagaaacgcacagtcgggagcgcctcctgataaggacgtg	158 15103

ctgcacgactgtggttgcctttctgtgaagtttgcaactttatacgcaccgctctggaggaccggacccaaa	158 15175
gaacgccaggcaagggagaaaccagctcgaccgtctgccactgCGTGTACACACTCTGGACCGGGAGAAATG	158 15247
ctctcgttcgctcagaatcgctggtcacagcaggaggaaccctcatcgactcgatcagaaagtctctgaagc	158 15319
gaaaaagatagcgtctgctggcgccaggTgagcttataactcagttgattgcttatgccgctcacctgcgc	158 15391
aggcttgcgctgccaattcattcttaattggcccgttcaatactctttcagacgagtagcttctgaaccgaa	158 15463
cctccaatgCGTGGATTTTACAATCAAATCCACTTATAGTGTGAAGTCCCCCGAAGGGGAACATTAGC	158 15535
tactccaatgcacttatctaattggaattatgggatgTGTGTGAAAAGCATATCGAAACAAAGCATTAAA	158 15607
aatcctcagagttcagacagattatgatctaaatacacatctttttcattcgcttgctatcccactcactca	158 15679
taagctacataatatggggttgacttgggcattatattgagtgatcctgtgaaagtaatgtggacagaaaa	158 15751
agtatgcaaaaaataattggaacgtaatactaggtggaatcaaggcctgagacatttacactacgagaacg	158 15823
tagtatcatttagccttaaattcagagaaagattgacattattttaaaaaaaaaaagtttttttttctcgtg	158 15895
gctgatgtagaaaatccatccatgagcccctttatacttagaatattattaaatcaagatgggcttttcaat	158 15967
tgctgtttcttgaacttcaagtcttgaacttgttacatctttctacacacacctaacaatgaatgaagataaa	158 16039
tgTGTATTTTTGTCTTCCATCTTAACCTTACTTGCTTATGCAGAAATGTGTGTGGCTTTGCATGAAAGTTTAA	158 16111
	158

gaacagatccgatctgtgtcatatacagagcaaaaaaatggaattgggtctcatttaactggcagtgtagacg	158 17263
atagccttagaatgattctaagctatgacttcctagtagacaatacagaagatatttaaaatcactgtctcaa	158 17335
aactctaatcccaaatacatctcttgatttattaatcatcacagaatctcttgtagacctaataatgggtattttg	158 17407
agctactgctttttttcctgtgcatgcttactctcgacactctttgttatgtaatctcagcatccaacagct	158 17479
gcatccagcagcattccatttcccaccgctccccctgggtcatgggtccctgattctatttagtttgcttctg	158 17551
ttagtatatgtgagtgctcaaatttgagccattggtgaagatggcatgccacattttgctttgtagccata	158 17623
tgaagccactgcataatcccctatccagattcctcttgcaaaacacttcatattttatcaggaatagaacag	158 17695
atgggggaagggagaggtaaagtagatgttgtagaagaataaagtgttgccctgtagtttttatgagcta	158 17767
gtaaatcagcagatttaataaaaccattttcaacactagcatactattaaatactatatctgtttgcat	158 17839
ttgccagattatgaggattgtggagcattctgcctcactctttgtttctgctatttgtagatatgcttttaa	158 17911
tgaactcttctttatcagaacagatgggtgtgggggcgaaatagtatcaagctctttaagatgctctgctg	158 17983
aaagcactgcacaatagatctgcattaagtgccattctgttgtttatctatgcgggggtaagggctaacttc	158 18055
atacaccagtgatcatatctctaggtctaaaactaaagccggtctgatggaaatgcttttaagacaagtatct	158 18127
gtctgggtggttagaatggtatgattactcttgtagtaatttattcaaacagtgagcatgacattaagaag	158 18199

ctgcaaggttgactctgctgtgtgtgtgaaatggtaacaggaggccaaatgcattaacagcctgtggtttt	158
	18271
caactaaactctagaaaaagtgtttgcatgcatatatgaagaaaccataaagatgtgtggtttggtttggga	158
	18343
gtatgtttagtagtactgttagcatctgcctgtcccctttcaggcttcttagaaccttgatttaaatgcagacat	158
	18415
tctcattgacactccggaatggacaacatatttaacaccagagttatcaaccttaattaaagtttccagaag	158
	18487
tcatcaacataccatatgtggatacagctaataatcagctctcagtagagagggttaaatctgattg	158
	18559
gcagctgatgtagaaaaggggaccgaggggaaggaagcagaaaaacaagcagctgtagtatttgtcataactg	158
	18631
A K G R G G E L R P Q	169
tctcttctgttttttctctgcag cg gct aaa ggg cgt gga gga gag ctt cga cca cag	18688
S M F I P G Q Y S T L G R V M N G N	187
tcc atg ttt atc cct gga cag tat tca aca ctt ggg cga gtc atg aat ggg aat	18742
aI173N[1] aQ176K[2] aL180=[3]	
S T L R Q S V T K D S G C Q T E A V	205
tca act ctg cgt caa tct gta aca aaa gat tct ggc tgc cag act gag gcg gtg	18796
K I V P P S V R R I R A Q K G Q G I	223
aaa atc gtc cca ccc tca gta agg aga ata cgg gct cag aag ggt caa gga att	18850
tP210S[4]	
gV212G[5]	
A A Q M A G I S T S A T N I S S V S	241
gct gct cag atg gct ggc atc tcc acc tca gcc aca aac atc tct tct gtt tct	18904
gI230S[6]	
tT232I[7]	
D G S S T G G S I V A M A P Q F G N	259
gat ggg agc tcc act gga ggt tcg att gtt gca atg gca cca cag ttc ggc aat	18958
tM253I[8] tQ256*[9]	
D I Q R F H S L P R G A R V S L N A	277
gat atc caa cgc ttt cac agc ttg cca cgg ggt gca cgg gtc tct cta aat gca	19012

IPB002077C (9.6e-05) IC 3.14

E P I Y S S T P F R K E D S C A K A 295
 gag ccc att tac agt agc acc cct ttc aga aag gaa gac tcc tgt gca aaa gca 19066
 cF286S[10]

P K O I G K L O V D N T A V H M R N 313
 cct aag cag att gga aaa tta caa gta gac aat act gca gtg cac atg agg aat 19120
 aL302*[11] gT307=[12] tM311I[13]

A P R V C T Q A R P K S Q E V R G S 331
 gcc ccc agg gtg tgt act caa gcc cgc cca aaa tct cag gag gtg cga gga tct 19174

Q R E W G S V S G P A C V V S P H A 349
 caa agg gag tgg ggt tct gtc tcg ggt cca gcc tgt gta gtt tct cca cat gca 19228

A Y S T S L I P N A T L S C S A E V 367
 gcc tac tca acc tcc ctt ata cct aat gct act ctg tca tgt tct gct gag gtt 19282
 cL361P[14]

F A L H S K S S P G Q S P L S G S P 385
 ttt gct ctt cac agc aaa tca agt cct ggc cag agc cca ctt tct ggg tca cca 19336

Y T K A R P L S M V S V V N S G S T 403
 tac act aaa gct aga cct ctt agc atg gtc tca gtt gtc aac agt ggg agt aca 19390
 tY386=[15]
 tY386=[16]

S S V G T G S H T P D A G M K D T C 421
 agt agt gtg ggc aca gga tct cac acc cca gat gca ggc atg aaa gat acc tgc 19444

S E T G Q S D S S L H S H S T I A A 439
 agt gag act ggc caa tct gat agc agt ttg cac agc cac agt acc att gcc gca 19498

IPB003888J (3.2e-05) IC 3.32

G T L S S D E Q W I Y D T P D N A L 457
 gga aca ttg tct tca gat gag cag tgg att tac gat act cct gat aat gcc ttg 19552

P R R T M T S S C S T P I N H L Y S 475
 ccc aga agg aca atg act tcc agc tgc tca aca ccc ata aat cat cta tat agt 19606
 gL473R[17]

S L E R S S K G T D S S S L Y S M D 493
 agc ctt gaa cgc tcc tca aaa ggc aca gac tct agt tca ctg tac tct atg gac 19660

N D G Y Y T S M H L D S G L R S R S 511

aat gat ggc tac tac act tcc atg cat ctg gat tca ggc ctt agg tca aga agc 19714

IPB007696A (6.0e-05) IC 1.45

H G S G H G H G I G G R A V R H S M 529
 cat ggt agc ggc cat ggt cat ggc ata gga gga aga gca gta aga cac agt atg 19768

Y E C L G E O E D R N S L C S D H S 547
 tac gag tgc ttg ggt gag caa gag gat cga aat agc ttg tgc agc gac cac tcg 19822

L S R S I S L R K P K K P P L P P A 565
 cta tct cgt tcc att tct cta cgc aag cct aag aaa cca ccc ctt cca cct gca 19876

R T D S L R R K P G K N S S P S A N 583
 cgc aca gac tct cta cgg aga aag cct ggg aaa aac agc tct ccc tct gcc aat 19930

I G Q S N I R N G S L L N E S L I A 601
 att ggg cag tca aat att agg aat ggt tct ctt ctc aat gaa tca ttg att gcc 19984

T L Q Q S L Q N G L K G K G S S T S 619
 act ctc caa cag tca ctt cag aat ggg ctt aaa ggc aaa gga tcc tcc acg tca 20038

P S H S P C S D Y E D P W M L R P R 637
 cca tct cat agc cct tgt agt gac tat gag gac ccc tgg atg ctt cgt cca agg 20092

S Q S S I S A S S S G V S A T G M A 655
 agc cag agc agc atc agt gca agt agt agt ggt gta tca gct aca gga atg gct 20146

H V Y S I C P V T P S H S D T S S L 673
 cat gta tac tcc atc tgt ccc gtc aca cca tct cat agt gac aca agt agc ctc 20200

R S D Y A D S W G Y Y M E Y P R P S 691
 cgt tct gat tac gcc gac tcc tgg ggc tac tac atg gaa tac cct cgt cca tct 20254

G D Q T Q S P C T N S H S A G Q V S 709
 gga gat cag aca cag tca cca tgt acc aat tca cac tct gct gga caa gtg tct 20308

E M A N G R G P L N G N Q A N L P A 727
 gag atg gca aat gga aga ggc cct ctc aat ggt aac cag gct aat ctt cct gct 20362

V Q E G S D M S A K P R T G T S S P 745
 gtt cag gaa gga agt gac atg tct gct aag ccc agg aca ggc acc tct tca ccg 20416

D R V H R L T S P S S G Y S S Q S N 763
 gac agg gta cat cgg ttg act tct cca tca agt gga tac tca agt cag tca aac 20470

T P T A G T P V P S F M R C M S P S 781
 act cca act gct ggt act ccc gtt ccc tcc ttc atg aga tgc atg tcc cca tca 20524
 cS773P[18]
 aF774I[19]

IPB007696C (9.6e-05) IC 2.55
 G K P K P R V P E R K S S L L S S V 799
 ggc aag ccc aaa cca aga gtg cct gaa aga aag tca tcc ttg ctt tca tct gta 20578
 cP789=[20]

S I S S S S T S L S S N T S D S N R 817
 tct ata tcc tcc tct tcc acc tct ctt tca tcc aac acc tct gat tct aat agg 20632
 cS803P[21]

S N I P P P P P L P A A P V V L V P 835
 agc aat att cca cct cct cct cct ctt cca gct gcc cct gtg gta ctt gta cct 20686

L N P P S F P P P L P P P S P V C T 853
 ctt aat cct cca tcc ttt cct cct ccc ctt cca ccc cca agc cct gtg tgc act 20740

E D Q K F P P P P P L P T T P H Q 871
 gaa gac cag aaa ttt cca cct ccg cca cct cct tta ccc aca act ccc cat cag 20794
 aP866T[22]

Q A S M N P L Q N N S S P E F P P P 889
 caa gca tcc atg aac cct ctt caa aac aat tcc tcc cct gaa ttt cca ccc cct 20848

P P P E V L T D P A C S G F N S S F 907
 cca cct cca gaa gtg ttg acc gac cct gcc tgt tca ggc ttt aat agt tcc ttc 20902
 aV894E[23]

S P P P P P P P P L P T Y S P S Q 925
 agc cct cca cca cct ccc cct cca cca cca ctg cct act tat tct cca tcc caa 20956
 aS924T[24]

N Q H L P H M T P Q T P S S A S L K 943
 aat caa cat tta ccc cac atg acg cca caa aca cct tct tct gcc tcc ttg aaa 21010
 tP930=[25]

E I K G C L K P V N L E G R P V L P 961
 gaa att aag ggc tgt ctt aaa cca gtg aac tta gaa gga aga cca gtg ttg cct 21064

Q S E E P N K V S M P L I T P F A L 979
 caa tct gag gaa cct aat aag gtt agc atg cct ttg att acc cca ttt gca ctg 21118
 tM971I[26A]

aP972T[26B]

Q S V Q L R P A K R P E N N E V S R 997
 cag agt gtg cag ctt cgg cca gca aaa cgt cca gaa aac aat gaa gtt agc agg 21172
 tR989L[27]

T D R P Q T P E K T H P T V P Q I S 1015
 aca gac aga ccc caa aca cca gaa aaa act cac ccc aca gtt cct cag att tct 21226

C I S P N V S L S S T E E K P S I Q 1033
 tgt ata tct cca aat gta agc ctt tca tct aca gag gaa aaa ccc tca atc cag 21280

IPB002077D (5.5e-05) IC 3.78
 H S Q D G L V E A Q T D Y S V K S N 1051
 cat agc cag gat ggc ctt gtt gaa gca caa act gac tat agt gta aaa tcc aat 21334

S D P T S F L T N G P I D L G E A T 1069
 tct gat cca aca tcc ttc ctt aca aat ggg ccc ata gat ctt ggt gag gcc aca 21388

D E V D G L K T F L S T Q V E K S L 1087
 gat gaa gta gat ggt tta aag act ttc ctc tca aca caa gtg gaa aag tca cta 21442

IPB003888L (9.7e-05) IC 3.13
 N S T P K K K P P M I S K K P K F S 1105
 aac tct aca ccc aag aaa aag cct cca atg att tcc aaa aag ccc aag ttt tct 21496

L T F S S V D H V R D F V S A E V L 1123
 ctt act ttc tcc tct gtg gat cat gta agg gat ttt gtg agt gct gaa gtt ctg 21550

D P I P V L E K E E E T T E K S S F 1141
 gac ccc ata cct gtg ctg gaa aaa gag gaa gag aca act gag aaa agt agc ttt 21604

IPB003024E (9.4e-06) IC 4.23
 D I S V P P V E I R D I S P T N G E 1159
 gac att tcc gta cct cct gta gag ata aga gac att tct ccc aca aat ggt gaa 21658

S O E F S Q S S G T T I L D V D K S 1177
 tct cag gag ttc tca caa tcc tct ggt acc act att ctt gat gta gac aag agc 21712

T S E A E D E E E R D D E D V T S S 1195
 acc tct gaa gca gag gat gag gaa gaa aga gat gac gaa gat gta acc agc agc 21766

T G S F S S K D D E N G 1207
 aca gga tcg ttc agt tct aaa gat gat gaa aat g gtgagttagatcccccttaattttac 21826

1207

tctgtgggaatggagatcatttattacactcaatgacacaaagtcatacaattttaaatacccaggcctttt	21898
	1207
taaagagtcacagacaatggttgatagcatgtgatcccaagggttaataaaaaattccagggagaaattaa	21970
	1207
ggaaaaagagaatgcacatttgcacttcagctcgcaattaaacagctgtgtaaagaaaaagaaaaacatgca	22042
	1207
ttaaaggcaaggcagggttttactcacctcactcacattcacaacccatctcaactgaaggctcctctttaaat	22114
	1207
ttagttcttctttacttttgcttggtctctacctttcccaaactcttttagtatattcagagaatgcacca	22186
	1207
cccccccctctcaccatctgtctccttgatttctgattctttcatccatcctcctttactgtttactcta	22258
	1207
tccttttcaccactctcttttatcattcttttttagttgtttcatgcacatgacaggaaattaagcaaatata	22330
	1207
taggtaaattaatgtgcacttaaaaaataaaataaataatataaaatgtattgagtacaccgcattttga	22402
	1207
aaattttcatcaatatttcagtgactataggtaatgtattttggtgcggttaacaaaacagatttaataaa	22474
	1207
cagatatatttattaaaatcatattttagccaccaaacatatttagaaattgaaagataatacaatataaat	22546
	1207
ttaagcaaatattgcaaaaaaataaatctacaaaatttcaacaaaattgtttgttttttttgttttgttt	22618
	1207
ttttgcttctgttgattttttcttcttgttttatttgattcaatatttttcaataacattttaaatttaggtg	22690
	1207
tactgtactagttttttgaccgttatcacattattttggttagataagctccatatttggttcagtattg	22762
	1207
actaatccaatgtatatgcacaaatataaaattgtatagcttttctattaaaaatgtacattttaaagatatg	22834
	1207
tgtgtgggggggtgtactgtatatatacagtcgaagtcagaattattagctccccttttaattttttttct	22906

tttttaaatatttcccaaattatgtttaacagcaaggaaattttcacagtatgtctgataatattttttctt	1207 22978
ttggagaaagttttattttgttctattttcggctagaataaaagcagtttttaattatttataaaaagattttaa	1207 23050
ggtcaaaattgtagcccttttaagctatatattttttctcgatattctacagaacaaatcagtcgttat	1207 23122
acaataacttaattacaaatacaataacctaattattctaacctgctagttatcctaattaaccccgttaag	1207 23194
cctttaaatgtcactttaagctgtatagaaatgtcttgaaaaatatctagtcaaataattattttactgtcatc	1207 23266
atgaaaaagataaaatcatataagttattagaaattagttatcaaaattattatgttttagaaatgtgttaaa	1207 23338
atctgctatccgttaaacagaaattggggcaaaaacataaacacgggggctaataattctgacttcatctgt	1207 23410
atatacacacacacagacacacacacacacacacaagcacacacacacaaatacacacatacacacacacac	1207 23482
atacaaacatacatacatacatacatacatacatacatacatacatacatacatacatacatacatac	1207 23554
atacatttaacactcagtagcaaatgtgcttcatcaccagtgtcacaatccacacactctccccctcacact	1207 23626
ttcagtcatagaatgggacagcattcccaagggagagagcgcggtttaaacgggacggggcggggggtggag	1207 23698
ctgacagcgctagaggaggagagaagtgagggaggggttaggaaagagagcgcgtaacgtgagatcacctca	1207 23770
acagctcaggcaagtgcagatgtgagaggagaggagagcagagcaactgaactctggaaagctggataccac	1207 23842
cacaacaatgtaagacaatattaacatgcagcttttcaccatcttcatgtgcgttttatttaaggggtgtg	1207 23914

tctattacgtatgcagcctctgccatagtcacgtgtaatgaacaggtttattttttatttttttgaagttct	1249 24949
tcagcacatcacaatttcattcgagaggatttggtttcctctgcttatgtgtgtgtgtgtgtgtgtgtgtgctc	1249 25021
ttccttctgctttggtctgcagcaatctcacacagatattagagcaaaagatatccttgaaatggaagacca	1249 25093
gtttaggagtgggtgtgtcagagcaccagatgctatatgtgctcagtaaatacctgccgtttgcccgggtgccac	1249 25165
tcttaaagcagggagatttagatgaatcaaataaaaaagccggcgcgatagctagattacagcctcagtgtg	1249 25237
tatagcgtttatctccagatttgacctattgtgtttgaaggacttcacactcggatatttgtaaatacagtat	1249 25309
ttgctcatgtttcaatgttttcaatatatatgtttctatatatgtacactaccgggtcaaaagtttgaggtc	1249 25381
agtaggatttttaaatgttttaaaataagcttatcctgctcaccaaggctgcatttatttcatcaaagatac	1249 25453
agtacaaattgtgaaatgttattgactataaaaataactgttcaaaagtagtttatcatttcaattaatagt	1249 25525
tcattccagtgattttaaagatcaattttcagctacattactcaagtcctcagagtgacatgatctttcaga	1249 25597
aatcactctaatatttattcattgtatccgcagagtccttaaatgtggtgtaagtcttaaatcttttttaac	1249 25669
aggctttaattttcctttgttcatgtattgcttcccaatctgaccattaacacacatacacacagacaatcc	1249 25741
cattctcaataaaaacgttttatttaaaaatagcatttttaactctttttaccattatgtttttccttacgg	1249 25813
gacatttgtttaaaaggttctctgtttactgctgaggatcctgatctgacctatttttgttatttttaaatat	1249 25885
	1249

tattatTTTattatataatgtattcaattactataaaTTTTgatagggcaagtgaaaatctattccaactg	25957
	1249
ggatattcgaaaaataaaatcctagctTTTtagccttgataagtctaaaatttcattTTTaaaggtcttaaaa	26029
	1249
gtcttaaatTTaacttggtgaaacctgcagaattataaatattattattattattcattcattTTattcattt	26101
	1249
tcttctcggcttagtccctTTattaatctgaggttgccaaagcaaaatgaaccaccaacttatccagcacat	26173
	1249
gttttacagcggatgccctaccagctgcaacctatctctgggaagcatccatacactcattcacactcatac	26245
	1249
actacggacaatttagtcaaccaattcacctTTactgcatgtctTTggactgtgggggaaactggagcacc	26317
	1249
tggaggaaaccacacaaaacgcggggagaacatgcaaactccacacagaaacgccaactggcccagctgagg	26389
	1249
ctccaaccagcgccttcttactgtgagggcagacagcactatctactgcgccaccacattgccattattatta	26461
	1249
ttattattattattattattattattattattattattaatggcataagtaataaaagcaataatgactgaagta	26533
	1249
atcatttaatttgacactacatacaataagaaagcagttatttaatatgtagtaaatatttgacaattcaa	26605
	1249
TTTTattTTattTTgtacatttaataagcagaaaaacatgaaaaactaaccctTTTgactagtagag	26677
	1249
tgtgtatgtatatatgTTTgTTTTatggatgcttaagcaagattatgTTaaaaaaatacaattgtataat	26749
	1249
gtaaaatgaaacactgtaatcaaaagtatgtggaaaaaatccttagcaggtttgacagagtagaaatcagc	26821
	1249
gtgcccagagagtactTTTgTTgaaagagTTTggaaaagtccatctTTTccagcatgacagcatctTTTtatatc	26893
	1249
tcagtatctagaacagtggtTTccaacgtgggggtcgtgaaacaatgagagggggtcgcttggtgatttcc	26965

ataaaagtaataaatggttattaacaattagaatgaccatattttatccataacctacagaagataaaagta	1249 27037
gtatttaatagttacataaaaaacaacataaaaaaggccaggtaatattaaattaacaaataaataatgatt	1249 27109
ataaaaatgatatggttgtagattggtgcattttttgtcaatatgctcatgtttatataggtactttta	1249 27181
gtgtgtgtgcaccaatgtgtgcaatgtttgtatgtttgtaaccacctctgagggtagtgagggtcgcaagtc	1249 27253
actggaatttttatgttgggggtcgtgagctgaaaagtttgggaacccctgttctagaacaagtgaagtagt	1249 27325
tcactgaatctgatatggaatctgatctagttggtgtacattatgtttaaaggctatattcaaacacaatat	1249 27397
tttagtatttaatttcgctgcctgagctatgtattcctagatgacgaatattctaggatgaatggtgggatt	1249 27469
ttgtaggattatgagtttgcataaaagaaaataaacatgtacaataacatggcagtccttcaactgtataaatg	1249 27541
agttaatatttggttaaaaaacgtagcccttcccaaacattaatatcttaaattgtttaatttttacacagcca	1249 27613
atagttcttttgtttgtcttgacgtgtttgtttgtaaaattcatatattaaacttagtcagaagatctttt	1249 27685
tacactttcacccttgcttcacatcccacatgctcattttcctatacactgtcattttctgcggttctcttcttc	1249 27757
ctcttctttggtcttccctgatctcttcttcttcttcttcttcttcttcttcttcttcttcttcttcttctt	1249 27829
tctccaacacacgaggtgcggtctggcaagtaattagccggttggcgtatattgtctcgtgatgatgctagcgt	1249 27901
gggattagctctataatctccaagcgcacatctcagtcacatgggatgaattttctgctccgtcctgcagataatcc	1249 27973

cgcgctccctaactctgcagcagttatgctatgctaataatgaatttgatttgatcctgggcacacatgctggcgt	1249 28045
tcattgacccgagcgcgccctgctggaggggtgaatgaacagtcttgtgtgttaaagtgatgctgggctggt	1249 28117
tgcccagtttgcttttggtgatcaagcttccattatgtctgcacttccataaagttgcagcgttgtagtat	1249 28189
tccttttagtttggttttaaaagactgattttgtcttaacaagccgctctactctccgctgctattttt	1249 28261
atcctgcattgttaagttattcctgctttccaattttgcaatgaagtttgggttgctgggggctagcgggg	1249 28333
tttaatgagaaaatgaaacagaaatcaatgaaggggagaagctcatcaagactgaaaaattcatcacaaaa	1249 28405
attgactctaatttattggagctgttcagcttcagttggagtttgattagttgtaaattgaggagtcttagt	1249 28477
taagcatttgtgcccggagtaaagtgtcagctctgtcaatagtctttaaagttatcttaaagacatttttt	1249 28549
atgctaaatgacctgatgatgttttggcctactgctaacaagaagctggaactaggcctgtgcgattatg	1249 28621
cccaatcagaatggatcaatcgaactatgtggaacaccacaataaaaaaaaaaacatacaggaaggcgcaa	1249 28693
agagtgggataatgtcgtctgctgcttcagaaggattaatagacaaattaatatcaagaaaaacaggacaa	1249 28765
cgataacatggcaatatttttgtttcaaagtctcagacaccaaataaaaaacaggtcatttttaagagctgtca	1249 28837
cagaattggtgccatggcttacagattactgaaattaaatcgcaatatcaatatctgtcaagaaaaatcgcaa	1249 28909
ttagacattttccaaaaatcgcacaccctagcttgaactaatattgcaaaaacaattttattgaccttagtt	1249 28981

aggggttgcgcatagttaaaaaattcgcaatcaaataacctatggtggatTTTTAAAAATGTACACAATAGTA	1249 29053
tgtattctagaactttatatattcattagggctgtaatatacaatatactgtgctcagcataaaagagtaca	1249 29125
tgaatattttcatttatttctcagtgaatataggcaatgtatttttGTGCAATTAACAAAACAGATTTATT	1249 29197
aaacagatatatttattcaaataatatttttagtctctgaacatcttcagaaattggaagataatacaattga	1249 29269
actcaagccaaatatcgcaaaaaaaaaaaaaaaaaaattgaaacctacaaaatttctacaaaatttttcaattt	1249 29341
TTTTGCTTGACTTTCACTTTTTTTTTAATTTGTATTTAATTTTTCTATAACATAAATTTGAGTGTACTAG	1249 29413
TTTTTGACCCTTATCATAAGCTATTTTGTAGATAAGCTCCAGATTTGTCTTCAGTACTGACTAATCTAAT	1249 29485
gtatatgcaaaaatataatattgtatagcttccctattaaaatatgaatttaaagagatattttgtgaggggt	1249 29557
atccttgtatatgctgagcactgtattgTTTTAGCATTGAGATGGCAGTAGAAATTATCAAATTTGTTAACA	1249 29629
aacaattaacaaatgcccccttccacatacagacccttacagaaaattaccatcaattttccggaaattca	1249 29701
gctgctagacacattcagctgctagatgtttagtcagataacatttctatgTTTATTATTAaaaaattatcga	1249 29773
taaaatacttatgataaaccactgtttgttccactggatTTTTGGAATGGATGTGTGAATGGTATTTTCTGGA	1249 29845
aaaaatctgcaacgtccttgcctatgtgaacagcgatattttgaatctaccggtaaagtcgTTACAGAAATT	1249 29917
ttccggatatttaccggctcactgtgtgaaaagcgctattgataaattgtatttaattaactctataatga	1249 29989
	1249

agactatagtcacacatttgaagcgaatcaaaaagggttttttaaaattgtcttatagttttcgaataatttta 30061

gtacaactttattgaaaactttcatgcaattcaactgttttctattgtatagtgttattttacatttgatta 1249 30133

ttcaatttttgtacatcaatactgtagactctccagaaaaccataaacactttccaacagagctataagtg 1249 30205

tcttgaaaattagattcatattgcaatatttactggcaaaaataaaataaggcaatgtagtttttttcca 1249 30277

atatcctgcagccctaataataacatttttttctagcttcaaacttttttttaataatagttgaatatggat 1249 30349

atgtttcctttatatttttatttaattggatgatgatcaaaaaatatatccagtcgcttattgttctggaga 1249 30421

ttccagcatagacaatattttatttaatatgtgtaattgcccgctcatgctttataaaagtgaattaatgct 1249 30493

tgccagaaatgtttattaaagggtggggaacgtattaataaatattaaccttattaatgtttaactcagcctt 1249 30565

acaaaaatatccattatatcttcataaaatcgaatgacttcttatataatgtgcatgtctattggtgatata 1249 30637

tgactttatatctcctttttcaaagctttaattgaacatcatttgccttcatctgcag g tcg aag aga S K R 1252 30705

K V L G R K E S E E D R S R G P L S 1270
 aaa gtc ctg ggg cgc aag gaa tca gaa gag gat cgc tcc cgg ggt cct cta tct 30759

P P V T P T A Q S P S L T S S L P R 1288
 cca ccg gtc acc ccg aca gca cag agc ccc agc ttg acc tcc tct ctg ccc cgg 30813

Q S G S I Q R S L R K S A T S S D T 1306
 caa tca ggc tcc atc cag cgc agc ctc cgc aaa tct gca acc agc agt gac acc 30867

F K A L L L K K G S R S E S S F R M 1324
 ttc aag gcc ctc ctg cta aag aaa ggc agt cgc tct gaa agc agt ttc cgc atg 30921

S A T E M L R S T D P R F Q R T R S 1342
 tct gca acc gag atg ctg cgc agc acc gac ccg cgc ttt caa cgc acc cgc tcc 30975

L D S S F D P A S P T S E S P C S S 1360
ctc gac tcc tcc ttt gat ccg gcg tct cca aca tcc gag agc ccc tgc tct tct 31029

P G R S K R V A D D W A R N D G M F 1378
cca ggc cga agc aag agg gtg gca gat gac tgg gcg cgc aat gat gga atg ttt 31083

S T S P S L I G P K Y G R S R T P P 1396
tca act tcg cca tct ttg ata ggc cca aaa tac gga cga tcc cga acg cca cca 31137

S A A S S K Y N A R C R I L S S P M 1414
tct gct gct agc agc aaa tac aac gcc cgc tgc cgc atc ctc agc agc ccc atg 31191

T V I C E R D G E L T D C E D P V S 1432
act gtc atc tgc gag agg gat gga gaa cta acc gac tgt gaa gac ccc gtt tct 31245

P S N T P L P I S Q D S N S T L C E 1450
ccg tca aac aca ccc ctt ccc atc tct cag gac tca aac agc act tta tgt gag 31299

Q S S S * 1455
cag agc agc agt tag aatcccaaagatttgctccttggcaaaggaataaggtcttctgggctctaga 31366

1455
ggtggactcagaagacttaaagagcgggtcttgccgcctgctaataccag 31414

Coding Sequence

V S N L D E E K K W T V H Y T A P W 18
gta tct aat ctg gat gag gag aaa aag tgg acc gtg cac tac act gcc cca tgg 54

H Q Q E N V F L P G S R P A C V E D 36
cac cag cag gag aac gtc ttt ctg cca ggc tcc aga ccg gcc tgt gtg gaa gat 108

L H R Q A K V N L K T A L R E | C D 53
ctt cac cgt cag gcc aaa gtg aac ctg aaa aca gct ctc aga g | aa tgt gat 159

K L R K D G F R S S Q Y Y S Q G P T 71
aaa ctg agg aag gat ggc ttc cgt agc tcg cag tac tac tca cag ggg ccc act 213

F S G S S S S Q H E D E D L E G D D 89
ttc tct ggc tcc tca agc tcc caa cat gag gac gag gac ctt gaa ggc gat gac 267

A D K K | S T A S S G E E E K D S C 106
gct gac aaa aag | tcc aca gca tct tca gga gag gaa gag aaa gac tcc tgc 318

Q M R A Q S P A Q V E G V E V D G Q 124
caa atg aga gcg caa agt ccg gca cag gtg gaa gga gtc gag gtt gat gga caa 372

M S S S K A S V L P T P E E K M R Q 142
atg tgc agc tcc aaa gcc tca gtc ctg ccc act cca gag gag aag atg agg caa 426

Q A Q A V L T D I V P I N V T A | A 159
cag gca cag gcc gtt ctc aca gat att gtc ccc att aat gtc acg g | cg gct 477

K G R G G E L R P Q S M F I P G Q Y 177
aaa ggg cgt gga gga gag ctt cga cca cag tcc atg ttt atc cct gga cag tat 531
aI173N[1] aQ176K[2]

S T L G R V M N G N S T L R Q S V T 195
tca aca ctt ggg cga gtc atg aat ggg aat tca act ctg cgt caa tct gta aca 585
aL180=[3]

K D S G C Q T E A V K I V P P S V R 213
aaa gat tct ggc tgc cag act gag gcg gtg aaa atc gtc cca ccc tca gta agg 639
tP210S[4]
gV212G[5]

R I R A Q K G Q G I A A Q M A G I S 231
aga ata cgg gct cag aag ggt caa gga att gct gct cag atg gct ggc atc tcc 693
gI230S[6]

T S A T N I S S V S D G S S T G G S 249
acc tca gcc aca aac atc tct tct gtt tct gat ggg agc tcc act gga ggt tgc 747
tT232I[7]

I V A M A P Q F G N D I Q R F H S L 267
att gtt gca atg gca cca cag ttc ggc aat gat atc caa cgc ttt cac agc ttg 801
tM253I[8] tQ256*[9]

P R G A R V S L N A E P I Y S S T P IPB002077C (9.6e-05) IC 3.14 285
cca cgg ggt gca cgg gtc tct cta aat gca gag ccc att tac agt agc acc cct 855

F R K E D S C A K A P K O I G K L O 303
ttc aga aag gaa gac tcc tgt gca aaa gca cct aag cag att gga aaa tta caa 909
cF286S[10] aL302*[11]

V D N T A V H M R N A P R V C T Q A 321
 gta gac aat act gca gtg cac atg agg aat gcc ccc agg gtg tgt act caa gcc 963
 gT307=[12] tM311I[13]

R P K S Q E V R G S Q R E W G S V S 339
 cgc cca aaa tct cag gag gtg cga gga tct caa agg gag tgg ggt tct gtc tcg 1017

G P A C V V S P H A A Y S T S L I P 357
 ggt cca gcc tgt gta gtt tct cca cat gca gcc tac tca acc tcc ctt ata cct 1071

N A T L S C S A E V F A L H S K S S 375
 aat gct act ctg tca tgt tct gct gag gtt ttt gct ctt cac agc aaa tca agt 1125
 cL361P[14]

P G Q S P L S G S P Y T K A R P L S 393
 cct ggc cag agc cca ctt tct ggg tca cca tac act aaa gct aga cct ctt agc 1179
 tY386=[15]
 tY386=[16]

M V S V V N S G S T S S V G T G S H 411
 atg gtc tca gtt gtc aac agt ggg agt aca agt agt gtg ggc aca gga tct cac 1233

T P D A G M K D T C S E T G Q S D S 429
 acc cca gat gca ggc atg aaa gat acc tgc agt gag act ggc caa tct gat agc 1287

S L H S H S T I A A G T L S S D E Q 447
 agt ttg cac agc cac agt acc att gcc gca gga aca ttg tct tca gat gag cag 1341

IPB003888J (3.2e-05) IC 3.32

W I Y D T P D N A L P R R T M T S S 465
 tgg att tac gat act cct gat aat gcc ttg ccc aga agg aca atg act tcc agc 1395

C S T P I N H L Y S S L E R S S K G 483
 tgc tca aca ccc ata aat cat cta tat agt agc ctt gaa cgc tcc tca aaa ggc 1449
 gL473R[17]

T D S S S L Y S M D N D G Y Y T S M 501
 aca gac tct agt tca ctg tac tct atg gac aat gat ggc tac tac act tcc atg 1503

H L D S G L R S R S H G S G H G H G 519
 cat ctg gat tca ggc ctt agg tca aga agc cat ggt agc ggc cat ggt cat ggc 1557

IPB007696A (6.0e-05) IC 1.45

I G G R A V R H S M Y E C L G E O E 537
 ata gga gga aga gca gta aga cac agt atg tac gag tgc ttg ggt gag caa gag 1611

D R N S L C S D H S L S R S I S L R	555
gat cga aat agc ttg tgc agc gac cac tcg cta tct cgt tcc att tct cta cgc	1665
K P K K P P L P P A R T D S L R R K	573
aag cct aag aaa cca ccc ctt cca cct gca cgc aca gac tct cta cgg aga aag	1719
P G K N S S P S A N I G Q S N I R N	591
cct ggg aaa aac agc tct ccc tct gcc aat att ggg cag tca aat att agg aat	1773
G S L L N E S L I A T L Q Q S L Q N	609
ggt tct ctt ctc aat gaa tca ttg att gcc act ctc caa cag tca ctt cag aat	1827
G L K G K G S S T S P S H S P C S D	627
ggg ctt aaa ggc aaa gga tcc tcc acg tca cca tct cat agc cct tgt agt gac	1881
Y E D P W M L R P R S Q S S I S A S	645
tat gag gac ccc tgg atg ctt cgt cca agg agc cag agc agc atc agt gca agt	1935
S S G V S A T G M A H V Y S I C P V	663
agt agt ggt gta tca gct aca gga atg gct cat gta tac tcc atc tgt ccc gtc	1989
T P S H S D T S S L R S D Y A D S W	681
aca cca tct cat agt gac aca agt agc ctc cgt tct gat tac gcc gac tcc tgg	2043
G Y Y M E Y P R P S G D Q T Q S P C	699
ggc tac tac atg gaa tac cct cgt cca tct gga gat cag aca cag tca cca tgt	2097
T N S H S A G Q V S E M A N G R G P	717
acc aat tca cac tct gct gga caa gtg tct gag atg gca aat gga aga ggc cct	2151
L N G N Q A N L P A V Q E G S D M S	735
ctc aat ggt aac cag gct aat ctt cct gct gtt cag gaa gga agt gac atg tct	2205
A K P R T G T S S P D R V H R L T S	753
gct aag ccc agg aca ggc acc tct tca ccg gac agg gta cat cgg ttg act tct	2259
P S S G Y S S Q S N T P T A G T P V	771
cca tca agt gga tac tca agt cag tca aac act cca act gct ggt act ccc gtt	2313
P S F M R C M S P S G K P K P R V P	789
ccc tcc ttc atg aga tgc atg tcc cca tca ggc aag ccc aaa cca aga gtg cct	2367
cS773P[18]	cP789=[20]
aF774I[19]	

IPB007696C (9.6e-05) IC 2.55

E R K S S L L S S V S I S S S T S 807
 gaa aga aag tca tcc ttg ctt tca tct gta tct ata tcc tcc tct tcc acc tct 2421
 cS803P[21]

L S S N T S D S N R S N I P P P P P 825
 ctt tca tcc aac acc tct gat tct aat agg agc aat att cca cct cct cct cct 2475

L P A A P V V L V P L N P P S F P P 843
 ctt cca gct gcc cct gtg gta ctt gta cct ctt aat cct cca tcc ttt cct cct 2529

P L P P P S P V C T E D Q K F P P P 861
 ccc ctt cca ccc cca agc cct gtg tgc act gaa gac cag aaa ttt cca cct ccg 2583

P P P L P T T P H Q Q A S M N P L Q 879
 cca cct cct tta ccc aca act ccc cat cag caa gca tcc atg aac cct ctt caa 2637
 aP866T[22]

N N S S P E F P P P P P P E V L T D 897
 aac aat tcc tcc cct gaa ttt cca ccc cct cca cct cca gaa gtg ttg acc gac 2691
 aV894E[23]

P A C S G F N S S F S P P P P P P P 915
 cct gcc tgt tca ggc ttt aat agt tcc ttc agc cct cca cca cct ccc cct cca 2745

P P L P T Y S P S Q N Q H L P H M T 933
 cca cca ctg cct act tat tct cca tcc caa aat caa cat tta ccc cac atg acg 2799
 aS924T[24] tP930=[25]

P Q T P S S A S L K E I K G C L K P 951
 cca caa aca cct tct tct gcc tcc ttg aaa gaa att aag ggc tgt ctt aaa cca 2853

V N L E G R P V L P Q S E E P N K V 969
 gtg aac tta gaa gga aga cca gtg ttg cct caa tct gag gaa cct aat aag gtt 2907

S M P L I T P F A L Q S V Q L R P A 987
 agc atg cct ttg att acc cca ttt gca ctg cag agt gtg cag ctt cgg cca gca 2961
 tM971I[26A]
 aP972T[26B]

K R P E N N E V S R T D R P Q T P E 1005
 aaa cgt cca gaa aac aat gaa gtt agc agg aca gac aga ccc caa aca cca gaa 3015
 tR989L[27]

K T H P T V P Q I S C I S P N V S L 1023

aaa act cac ccc aca gtt cct cag att tct tgt ata tct cca aat gta agc ctt 3069

S S T E E K P S I Q H S Q D G L V E 1041
tca tct aca gag gaa aaa ccc tca atc cag cat agc cag gat ggc ctt gtt gaa 3123

IPB002077D (5.5e-05) IC 3.78

A Q T D Y S V K S N S D P T S F L T 1059
gca caa act gac tat agt gta aaa tcc aat tct gat cca aca tcc ttc ctt aca 3177

N G P I D L G E A T D E V D G L K T 1077
aat ggg ccc ata gat ctt ggt gag gcc aca gat gaa gta gat ggt tta aag act 3231

IPB003888L (9.7e-05) IC 3.13

F L S T Q V E K S L N S T P K K K P 1095
ttc ctc tca aca caa gtg gaa aag tca cta aac tct aca ccc aag aaa aag cct 3285

P M I S K K P K F S L T F S S V D H 1113
cca atg att tcc aaa aag ccc aag ttt tct ctt act ttc tcc tct gtg gat cat 3339

V R D F V S A E V L D P I P V L E K 1131
gta agg gat ttt gtg agt gct gaa gtt ctg gac ccc ata cct gtg ctg gaa aaa 3393

E E E T T E K S S F D I S V P P V E 1149
gag gaa gag aca act gag aaa agt agc ttt gac att tcc gta cct cct gta gag 3447

IPB003024E (9.4e-06) IC 4.23

I R D I S P T N G E S O E F S Q S S 1167
ata aga gac att tct ccc aca aat ggt gaa tct cag gag ttc tca caa tcc tct 3501

G T T I L D V D K S T S E A E D E E 1185
ggt acc act att ctt gat gta gac aag agc acc tct gaa gca gag gat gag gaa 3555

E R D D E D V T S S T G S F S S K D 1203
gaa aga gat gac gaa gat gta acc agc agc aca gga tcg ttc agt tct aaa gat 3609

D E N G | D V F E S S T L D V A Q S 1220
gat gaa aat g | gt gat gtg ttt gaa tcc agc acg ttg gac gtg gct caa tca 3660

P S I N G D S C G D M V T P T R P R 1238
ccc agc atc aac ggt gac agc tgt ggg gac atg gtg acc ccc aca cgg ccc cgc 3714

T T E D L F A A I H R | S K R K V L 1255
acc aca gag gac ctg ttt gca gcc att cac ag | g tcg aag aga aaa gtc ctg 3765

G R K E S E E D R S R G P L S P P V 1273
ggg cgc aag gaa tca gaa gag gat cgc tcc cgg ggt cct cta tct cca ccg gtc 3819

T	P	T	A	Q	S	P	S	L	T	S	S	L	P	R	Q	S	G	1291
acc	ccg	aca	gca	cag	agc	ccc	agc	ttg	acc	tcc	tct	ctg	ccc	cgg	caa	tca	ggc	3873
S	I	Q	R	S	L	R	K	S	A	T	S	S	D	T	F	K	A	1309
tcc	atc	cag	cgc	agc	ctc	cgc	aaa	tct	gca	acc	agc	agt	gac	acc	ttc	aag	gcc	3927
L	L	L	K	K	G	S	R	S	E	S	S	F	R	M	S	A	T	1327
ctc	ctg	cta	aag	aaa	ggc	agt	cgc	tct	gaa	agc	agt	ttc	cgc	atg	tct	gca	acc	3981
E	M	L	R	S	T	D	P	R	F	Q	R	T	R	S	L	D	S	1345
gag	atg	ctg	cgc	agc	acc	gac	ccg	cgc	ttt	caa	cgc	acc	cgc	tcc	ctc	gac	tcc	4035
S	F	D	P	A	S	P	T	S	E	S	P	C	S	S	P	G	R	1363
tcc	ttt	gat	ccg	gcg	tct	cca	aca	tcc	gag	agc	ccc	tgc	tct	tct	cca	ggc	cga	4089
S	K	R	V	A	D	D	W	A	R	N	D	G	M	F	S	T	S	1381
agc	aag	agg	gtg	gca	gat	gac	tgg	gcg	cgc	aat	gat	gga	atg	ttt	tca	act	tcg	4143
P	S	L	I	G	P	K	Y	G	R	S	R	T	P	P	S	A	A	1399
cca	tct	ttg	ata	ggc	cca	aaa	tac	gga	cga	tcc	cga	acg	cca	cca	tct	gct	gct	4197
S	S	K	Y	N	A	R	C	R	I	L	S	S	P	M	T	V	I	1417
agc	agc	aaa	tac	aac	gcc	cgc	tgc	cgc	atc	ctc	agc	agc	ccc	atg	act	gtc	atc	4251
C	E	R	D	G	E	L	T	D	C	E	D	P	V	S	P	S	N	1435
tgc	gag	agg	gat	gga	gaa	cta	acc	gac	tgt	gaa	gac	ccc	gtt	tct	ccg	tca	aac	4305
T	P	L	P	I	S	Q	D	S	N	S	T	L	C	E	Q	S	S	1453
aca	ccc	ctt	ccc	atc	tct	cag	gac	tca	aac	agc	act	tta	tgt	gag	cag	agc	agc	4359
S	*																	1455
agt	tag																	4365