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STELIC INSTITUTE & CO.

<120> Glycochain related genes, and use thereof

<130> S10-A0703P

<150> JP 2007-336518

<151> 2007-12-27

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Asp Pro Ile Glu Leu Ser Pro Gln Gln Val Pro Gly Ile Lys Phe Ser 35 40 45			
Ile Arg Pro Gln Gln Pro Gln His Asp Ser His Leu Arg Ile Ser Thr 50 55 60			

Glu Lys Gly Thr Arg Asp Ser Pro Ser Gly Ser Pro Arg Gly Leu Gln
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 Leu Gln Ala Pro Asp Gln Pro Arg Pro His Pro Lys Ala Ala Gly Ser
 85 90 95
 Pro Leu Arg Leu Arg Gln Arg Arg Arg Leu Leu Ile Lys Lys Met
 100 105 110
 Pro Ala Ala Gly Thr Asn Gln Gly Asn Asn Ser Ser Glu Thr Phe Ile
 115 120 125
 Gln Pro Arg Pro Arg Thr Met Asp Ser Arg Trp Val Ser Leu His Gln
 130 135 140
 Thr Gln Gln Glu Arg Lys Arg Val Met Arg Glu Ala Cys Ala Lys Tyr
 145 150 155 160
 Arg Ala Ser Ser Ser Arg Arg Ala Val Thr Pro Arg His Val Ser Arg
 165 170 175
 Ile Phe Val Glu Asp Arg His Arg Val Leu Tyr Cys Glu Val Pro Lys
 180 185 190
 Ala Gly Cys Ser Asn Trp Lys Arg Val Leu Met Val Leu Ala Gly Leu
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 Ala Ser Ser Thr Ala Asp Ile Gln His Asn Thr Val His Tyr Gly Ser
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 Ala Leu Lys Arg Leu Asp Thr Phe Asp Arg Gln Gly Ile Val His Arg
 225 230 235 240
 Leu Ser Thr Tyr Thr Lys Met Leu Phe Val Arg Glu Pro Phe Glu Arg
 245 250 255
 Leu Val Ser Ala Phe Arg Asp Lys Phe Glu His Pro Asn Ser Tyr Tyr
 260 265 270
 His Pro Val Phe Gly Lys Ala Ile Leu Ala Arg Tyr Arg Ala Asn Ala
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 Ser Arg Glu Ala Leu Arg Thr Gly Ser Gly Val Gln Phe Pro Glu Phe
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 Val Gln Tyr Leu Leu Asp Val His Arg Pro Val Gly Met Asp Ile His
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 Trp Asp His Val Ser Arg Leu Cys Ser Pro Cys Leu Ile Asp Tyr Asp
 325 330 335
 Phe Val Gly Lys Phe Glu Ser Met Glu Asp Asp Ala Asn Phe Phe Leu
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Arg Leu Ile His Ala Pro Gly Asn Leu Thr Phe Pro Arg Phe Lys Asp
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Arg His Ser Glu Glu Ala Arg Thr Thr Ser Arg Ile Thr His Gln Tyr
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Phe Ala Gln Leu Ser Ser Leu Gln Arg Gln Arg Thr Tyr Asp Phe Tyr
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Tyr

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 Lys Lys Arg Asp Gln Lys Gly Val Ser Val Thr Thr Gly Lys Ile Gln
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aaa cag atc acg aat cag aac tct gag gtt cac atg cct gaa gat ctg 246
 Lys Gln Ile Thr Asn Gln Asn Ser Glu Val His Met Pro Glu Asp Leu
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 Lys Lys Lys Gly Gly Asp Leu Leu Asn Leu Gly Ser Pro Thr Arg Val
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tta agg aag atc agc cat tca caa agg gag aac gga gct tac aga tca 342
 Leu Arg Lys Ile Ser His Ser Gln Arg Glu Asn Gly Ala Tyr Arg Ser
 90 95 100

act gaa gca cat caa gga gct aaa att gaa gtt ttt cag aaa ccc atc 390
 Thr Glu Ala His Gln Gly Ala Lys Ile Glu Val Phe Gln Lys Pro Ile
 105 110 115

cag atg gac tgg cca ctg gtc act cag ccc tta aac aaa agt ttg gtc 438
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 120 125 130

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 Gln Gly Asn Lys Trp Lys Lys Ala Asp Ala Thr Gln Glu Lys Arg Arg

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gat aaa ttt gag cat ccc aat agt tac tac cat ccg gtg ttt gga aag Asp Lys Phe Glu His Pro Asn Ser Tyr Tyr His Pro Val Phe Gly Lys 265 270 275			870
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gct cac cgt cca gta gga atg gat att cac tgg gaa aga gtc agc aaa Ala His Arg Pro Val Gly Met Asp Ile His Trp Glu Arg Val Ser Lys 310 315 320 325			1014
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1369

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Thr Gly Lys Ile Glu Lys Lys Arg Asp Gln Lys Gly Val Ser Val Thr
35 40 45

Thr Gly Lys Ile Gln Lys Gln Ile Thr Asn Gln Asn Ser Glu Val His
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Met Pro Glu Asp Leu Lys Lys Lys Gly Gly Asp Leu Leu Asn Leu Gly
65 70 75 80

Ser Pro Thr Arg Val Leu Arg Lys Ile Ser His Ser Gln Arg Glu Asn
85 90 95

Gly Ala Tyr Arg Ser Thr Glu Ala His Gln Gly Ala Lys Ile Glu Val
100 105 110

Phe Gln Lys Pro Ile Gln Met Asp Trp Pro Leu Val Thr Gln Pro Leu
115 120 125

Asn Lys Ser Leu Val Gln Gly Asn Lys Trp Lys Lys Ala Asp Ala Thr
130 135 140

Gln Glu Lys Arg Arg Ser Phe Leu His Glu Phe Cys Lys Lys Tyr Gly
145 150 155 160

Arg Val Asn Asp Pro Lys Phe Asn Leu Phe His Ile Val Ser Arg Ile
165 170 175

Tyr Val Glu Asp Lys His Lys Ile Leu Tyr Cys Glu Val Pro Lys Ala
180 185 190

Gly Cys Ser Asn Trp Lys Arg Ile Leu Met Val Leu Asn Gly Leu Ala
195 200 205

Ser Ser Ala Tyr Asn Ile Ser His Asp Thr Val His Tyr Gly Lys His
210 215 220

Leu Lys Thr Leu Asp Ser Phe Asp Leu Lys Gly Val His Met Arg Leu
225 230 235 240

Asn Thr Tyr Thr Lys Ala Val Phe Val Arg Asp Pro Met Glu Arg Leu
245 250 255

Val Ser Ala Phe Arg Asp Lys Phe Glu His Pro Asn Ser Tyr Tyr His
260 265 270

Pro Val Phe Gly Lys Ala Ile Ile Lys Lys Tyr Arg Pro Asn Ala Ser
275 280 285

Ala Glu Ala Leu Asn Asn Gly Ser Gly Val Lys Phe Lys Glu Phe Ala
290 295 300

Tyr Tyr Leu Leu Asp Ala His Arg Pro Val Gly Met Asp Ile His Trp
305 310 315 320

Glu Arg Val Ser Lys Leu Cys Tyr Pro Cys Leu Ile Asn Tyr Asp Phe
325 330 335

Val Gly Lys Phe Glu Thr Leu Gly Glu Asp Ala Asn Tyr Phe Leu Gln
340 345 350

Leu Ile Gly Ala Pro Lys Glu Leu Thr Phe Pro Asn Phe Lys Asp Arg
355 360 365

His Ser Ser Asp Glu Arg Thr Asn Ala His Val Val Arg Gln Tyr Leu
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Lys Asp Leu Ser Thr Ala Glu Arg Gln Leu Ile Tyr Asp Phe Tyr His
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Met Lys Pro Ala Leu Leu Glu Val Met Arg Met Asn Arg Ile
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<400> 7

Met Lys Pro Ala Leu Leu Glu Val Met Arg Met Asn Arg Ile Cys Arg
 1 5 10 15

Met Val Leu Ala Thr Cys Phe Gly Ser Phe Ile Leu Val Ile Phe Tyr
 20 25 30

Phe Gln Ser Met Leu His Pro Val Met Arg Arg Asn Pro Phe Gly Val
 35 40 45

Asp Ile Cys Cys Arg Lys Gly Ser Arg Ser Pro Leu Gln Glu Leu Tyr
 50 55 60

Asn Pro Ile Gln Leu Glu Leu Ser Asn Thr Ala Ile Leu His Gln Met
 65 70 75 80

Arg Arg Asp Gln Val Thr Asp Thr Cys Arg Ala Asn Ser Ala Met Ser
 85 90 95

Arg Lys Arg Arg Val Leu Thr Pro Asn Asp Leu Lys His Leu Val Val
 100 105 110

Asp Glu Asp His Glu Leu Ile Tyr Cys Tyr Val Pro Lys Val Ala Cys
 115 120 125

Thr Asn Trp Lys Arg Leu Met Met Val Leu Ser Gly Arg Gly Lys Tyr
 130 135 140

Ser Asp Pro Met Glu Ile Pro Ala Asn Glu Ala His Val Ser Ala Asn
 145 150 155 160

Leu Lys Thr Leu Asn Gln Tyr Ser Ile Pro Glu Ile Asn His Arg Leu
 165 170 175

Lys Ser Tyr Met Lys Phe Leu Phe Val Arg Glu Pro Phe Glu Arg Leu
 180 185 190

Val Ser Ala Tyr Arg Asn Lys Phe Thr Gln Lys Tyr Asn Thr Ser Phe
 195 200 205

His Lys Arg Tyr Gly Thr Lys Ile Ile Arg Arg Gln Arg Lys Asn Ala
 210 215 220
 Thr Gln Glu Ala Leu Arg Lys Gly Asp Asp Val Lys Phe Glu Glu Phe
 225 230 235 240
 Val Ala Tyr Leu Ile Asp Pro His Thr Gln Arg Glu Glu Pro Phe Asn
 245 250 255
 Glu His Trp Gln Thr Val Tyr Ser Leu Cys His Pro Cys His Ile His
 260 265 270
 Tyr Asp Leu Val Gly Lys Tyr Glu Thr Leu Glu Glu Asp Ser Asn Tyr
 275 280 285
 Val Leu Gln Leu Ala Gly Val Ser Gly Tyr Leu Lys Phe Pro Thr Tyr
 290 295 300
 Ala Lys Ser Thr Arg Thr Thr Asp Glu Met Thr Thr Glu Phe Phe Gln
 305 310 315 320
 Asn Ile Ser Ala Glu His Gln Thr Gln Leu Tyr Glu Val Tyr Lys Leu
 325 330 335
 Asp Phe Leu Met Phe Asn Tyr Ser Val Pro Asn Tyr Leu Lys Leu Asp
 340 345 350

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 <213> Mus musculus

<220>
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 <222> (149)..(1408)

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 gggcgctagg tccgtctcct agggaccatg tcccagctgt gcacaaggct gaagtgaagg 120
 gccaggagtg ggcccagccc agggcagc atg acc aag ccg cgg ctc ttc cgg 172
 Met Thr Lys Pro Arg Leu Phe Arg
 1 5
 ctg tgg ctg gta cta ggg tcg gct ctc atg atc ctt ttg atc att gta 220
 Leu Trp Leu Val Leu Gly Ser Ala Leu Met Ile Leu Leu Ile Ile Val
 10 15 20
 tat tgg gac aac gtg gga acc gcc cac ttc tat ctg cac acg tct ctc 268
 Tyr Trp Asp Asn Val Gly Thr Ala His Phe Tyr Leu His Thr Ser Leu
 25 30 35 40
 tcc agg cca cac atc cta gaa ccc ctt ccc acc cag gga ttg gtg gag 316
 Ser Arg Pro His Ile Leu Glu Pro Leu Pro Thr Gln Gly Leu Val Glu
 45 50 55
 gag aac gtg ttc aca tct gac gtg gat gag ttt ttg gat act ctc ctt 364
 Glu Asn Val Phe Thr Ser Asp Val Asp Glu Phe Leu Asp Thr Leu Leu
 60 65 70

agt tct gac gcg aag cac aac gac ctt tcc agg aga aaa act gag cag	412
Ser Ser Asp Ala Lys His Asn Asp Leu Ser Arg Arg Lys Thr Glu Gln	
75 80 85	
ccc ccg gcg ccc gcc ccc agc aag cca gtc ttg agc cac atg gag gag	460
Pro Pro Ala Pro Ala Pro Ser Lys Pro Val Leu Ser His Met Glu Glu	
90 95 100	
aac gtg aga ggc tac gac tgg tcc act cat gat gcc cat cag aac cct	508
Asn Val Arg Gly Tyr Asp Trp Ser Thr His Asp Ala His Gln Asn Pro	
105 110 115 120	
gac cgg gac agg cag cag gcc gag agg agg agc ctg ctg aga gac ttc	556
Asp Arg Asp Arg Gln Gln Ala Glu Arg Arg Ser Leu Leu Arg Asp Phe	
125 130 135	
tgt gcc aac gcc agc ctg gca ttc ccc acc aag gac cgc tct ttt gac	604
Cys Ala Asn Ala Ser Leu Ala Phe Pro Thr Lys Asp Arg Ser Phe Asp	
140 145 150	
gac atc ccc aac tac gaa ctg aac cac ctg atc gtg gac gac cgc cac	652
Asp Ile Pro Asn Tyr Glu Leu Asn His Leu Ile Val Asp Asp Arg His	
155 160 165	
ggg gtc atc tac tgc tac gtg ccc aag gtg gcc tgc acc aac tgg aag	700
Gly Val Ile Tyr Cys Tyr Val Pro Lys Val Ala Cys Thr Asn Trp Lys	
170 175 180	
cga gtg atg atc gtg ctg agc gag agc ctg ctg gac cgg ggc agc ccc	748
Arg Val Met Ile Val Leu Ser Glu Ser Leu Leu Asp Arg Gly Ser Pro	
185 190 195 200	
tac cga gac ccc ctg gac atc ccc cgg gaa cac gtg cac aac acc agc	796
Tyr Arg Asp Pro Leu Asp Ile Pro Arg Glu His Val His Asn Thr Ser	
205 210 215	
acg cac ctc acc ttc aac aag ttc tgg cgc cgc tac gga aag ttc tcc	844
Thr His Leu Thr Phe Asn Lys Phe Trp Arg Arg Tyr Gly Lys Phe Ser	
220 225 230	
cgt cac ctc atg aag gtg aag ctg aag aag tac acc aag ttc ctg ttc	892
Arg His Leu Met Lys Val Lys Leu Lys Lys Tyr Thr Lys Phe Leu Phe	
235 240 245	
gtg cgc gac ccc ttt gtg cgc ctc atc tca gcc ttc cgc agc aag ttc	940
Val Arg Asp Pro Phe Val Arg Leu Ile Ser Ala Phe Arg Ser Lys Phe	
250 255 260	
gag ctg gag aac gaa gag ttt tac cgc aag ttc gcg gtg ccc atg ctc	988
Glu Leu Glu Asn Glu Glu Phe Tyr Arg Lys Phe Ala Val Pro Met Leu	
265 270 275 280	
cga ctg tac gcc aac cac acc agc ctg ccc gcc tcg gtg agt gag gct	1036
Arg Leu Tyr Ala Asn His Thr Ser Leu Pro Ala Ser Val Ser Glu Ala	
285 290 295	
ttc agc gcc ggg ctc aag gtc tcc ttc gcc aac ttc atc cag tac ctc	1084
Phe Ser Ala Gly Leu Lys Val Ser Phe Ala Asn Phe Ile Gln Tyr Leu	
300 305 310	
cta gac cca cac acg gag aag ctg gcg cct ttc aac gag cac tgg cga	1132
Leu Asp Pro His Thr Glu Lys Leu Ala Pro Phe Asn Glu His Trp Arg	
315 320 325	
cag gtg tac cgc ctc tgc cac ccg tgc cag ata gac tat gac ttc gtg	1180
Gln Val Tyr Arg Leu Cys His Pro Cys Gln Ile Asp Tyr Asp Phe Val	
330 335 340	
ggg aag ctg gag acg ctc gat gag gac gct gcc cag ctc ctg agg ttc	1228
Gly Lys Leu Glu Thr Asp Glu Asp Ala Ala Gln Leu Leu Arg Phe	
345 350 355 360	

ctc aag gta gac tcc cag ctc cac ttc ccc ccc agt tat cgg aac agg 1276
 Leu Lys Val Asp Ser Gln Leu His Phe Pro Pro Ser Tyr Arg Asn Arg 375
 365
 acg gcc agc agc tgg gag gaa gac tgg ttt gcc aac atc ccc ctg gca 1324
 Thr Ala Ser Ser Trp Glu Glu Asp Trp Phe Ala Asn Ile Pro Leu Ala 390
 380
 tgg agg caa cag ctc tat aaa ctc tac gag gcc gac ttt gtt ctc ttt 1372
 Trp Arg Gln Gln Leu Tyr Lys Leu Tyr Glu Ala Asp Phe Val Leu Phe 405
 395
 ggc tac ccc aag cca gaa aac ctg ctc agg gac tga gccccagaa 1418
 Gly Tyr Pro Lys Pro Glu Asn Leu Leu Arg Asp 415
 410
 gccctcacgc tgcccccaac aaattgaatg gctgtcccat gaggccgtcc tttgaggatg 1478
 ggaccctgtg gcctcctggg ttctctcctg gcttcctttg cttcctggtg tgacaggcag 1538
 aggattccac gcccccccct cgcattctgga gaccgtggta cagccaagac cgaagcacct 1598
 cactctccag agttttgctg tccccacccc cgcccttttg caatctggat ttgtttactc 1658
 cacagcctgt attcatggaa cactgtgtta aatactgttt tctaagatta atatatttca 1718
 gatatatatta atacgaaagt gggaggaagc tggagtaaag tgtggcgccc gcaaaaaaaaa 1778
 aaaaaaaaa 1785

<210> 9
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 <212> PRT
 <213> Mus musculus

<400> 9

Met Thr Lys Pro Arg Leu Phe Arg Leu Trp Leu Val Leu Gly Ser Ala
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Leu Met Ile Leu Leu Ile Ile Val Tyr Trp Asp Asn Val Gly Thr Ala
20 25 30

His Phe Tyr Leu His Thr Ser Leu Ser Arg Pro His Ile Leu Glu Pro
35 40 45

Leu Pro Thr Gln Gly Leu Val Glu Glu Asn Val Phe Thr Ser Asp Val
50 55 60

Asp Glu Phe Leu Asp Thr Leu Leu Ser Ser Asp Ala Lys His Asn Asp
65 70 75 80

Leu Ser Arg Arg Lys Thr Glu Gln Pro Pro Ala Pro Ala Pro Ser Lys
85 90 95

Pro Val Leu Ser His Met Glu Glu Asn Val Arg Gly Tyr Asp Trp Ser
100 105 110

Thr His Asp Ala His Gln Asn Pro Asp Arg Asp Arg Gln Gln Ala Glu
115 120 125

Arg Arg Ser Leu Leu Arg Asp Phe Cys Ala Asn Ala Ser Leu Ala Phe
 130 135 140
 Pro Thr Lys Asp Arg Ser Phe Asp Asp Ile Pro Asn Tyr Glu Leu Asn
 145 150 155 160
 His Leu Ile Val Asp Asp Arg His Gly Val Ile Tyr Cys Tyr Val Pro
 165 170 175
 Lys Val Ala Cys Thr Asn Trp Lys Arg Val Met Ile Val Leu Ser Glu
 180 185 190
 Ser Leu Leu Asp Arg Gly Ser Pro Tyr Arg Asp Pro Leu Asp Ile Pro
 195 200 205
 Arg Glu His Val His Asn Thr Ser Thr His Leu Thr Phe Asn Lys Phe
 210 215 220
 Trp Arg Arg Tyr Gly Lys Phe Ser Arg His Leu Met Lys Val Lys Leu
 225 230 235 240
 Lys Lys Tyr Thr Lys Phe Leu Phe Val Arg Asp Pro Phe Val Arg Leu
 245 250 255
 Ile Ser Ala Phe Arg Ser Lys Phe Glu Leu Glu Asn Glu Glu Phe Tyr
 260 265 270
 Arg Lys Phe Ala Val Pro Met Leu Arg Leu Tyr Ala Asn His Thr Ser
 275 280 285
 Leu Pro Ala Ser Val Ser Glu Ala Phe Ser Ala Gly Leu Lys Val Ser
 290 295 300
 Phe Ala Asn Phe Ile Gln Tyr Leu Leu Asp Pro His Thr Glu Lys Leu
 305 310 315 320
 Ala Pro Phe Asn Glu His Trp Arg Gln Val Tyr Arg Leu Cys His Pro
 325 330 335
 Cys Gln Ile Asp Tyr Asp Phe Val Gly Lys Leu Glu Thr Leu Asp Glu
 340 345 350
 Asp Ala Ala Gln Leu Leu Arg Phe Leu Lys Val Asp Ser Gln Leu His
 355 360 365
 Phe Pro Pro Ser Tyr Arg Asn Arg Thr Ala Ser Ser Trp Glu Glu Asp
 370 375 380
 Trp Phe Ala Asn Ile Pro Leu Ala Trp Arg Gln Gln Leu Tyr Lys Leu
 385 390 395 400
 Tyr Glu Ala Asp Phe Val Leu Phe Gly Tyr Pro Lys Pro Glu Asn Leu
 405 410 415

Leu Arg Asp

<210> 10
 <211> 1728
 <212> DNA
 <213> Mus musculus

<220>
 <221> CDS
 <222> (1)..(1116)

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 Met Thr Val Ala Cys His Ala Cys Gln Ala Gln His Gly Lys Thr Leu
 1 5 10 15
 ctg ttg cag gcg gcc ctt gcc ggt ggt ggc aag tct ggg tgc tgc act 96
 Leu Leu Gln Ala Ala Leu Ala Gly Gly Gly Lys Ser Gly Cys Cys Thr
 20 25 30
 cct gct cct gtg cgc cct gcg tcc cgg gta acc aca gga aag gat gcc 144
 Pro Ala Pro Val Arg Pro Ala Ser Arg Val Thr Thr Gly Lys Asp Ala
 35 40 45
 cag gac act gaa tgg cag ggc tcc cca aaa gcc ctt ttg ggg gtt ccg 192
 Gln Asp Thr Glu Trp Gln Gly Ser Pro Lys Ala Leu Leu Gly Val Pro
 50 55 60
 aca ttt gaa aat aaa gct ctg ggc tcc agc tgg ttc ggt gga gtg agg 240
 Thr Phe Glu Asn Lys Ala Leu Gly Ser Ser Trp Phe Gly Gly Val Arg
 65 70 75 80
 aag agt ccc cta cag ctg ttg cgt gac ctg gac cag ggt cca cgc tcc 288
 Lys Ser Pro Leu Gln Leu Leu Arg Asp Leu Asp Gln Gly Pro Arg Ser
 85 90 95
 gcg atg gcc gag gtg cac cag cag cgg cgt gag ctg ctg cgc cgg gcc 336
 Ala Met Ala Glu Val His Gln Gln Arg Arg Glu Leu Leu Arg Arg Ala
 100 105 110
 tgc agc cgc cac acg cga cgc caa cgc ctg ctg cag ccg gag gac ctg 384
 Cys Ser Arg His Thr Arg Arg Gln Arg Leu Leu Gln Pro Glu Asp Leu
 115 120 125
 cgt cac gtg ctg gtg gac gac gcg cac cgg ctg ctg tac tgc tac gtg 432
 Arg His Val Leu Val Asp Asp Ala His Arg Leu Tyr Cys Tyr Val
 130 135 140
 cct aag gtg gcc tgc acc aac tgg aag cgt gtg atg ctg gcg ttg cgc 480
 Pro Lys Val Ala Cys Thr Asn Trp Lys Arg Val Met Leu Ala Leu Arg
 145 150 155 160
 ggc cgt ggg gat cca agc gca atc cct gcg cac gag gcg cat gcg cct 528
 Gly Arg Gly Asp Pro Ser Ala Ile Pro Ala His Glu Ala His Ala Pro
 165 170 175
 ggc ctg ctg ccc tcg ctg gcc gac ttt gcg ccg gct gag gtc aac tgg 576
 Gly Leu Leu Pro Ser Leu Ala Asp Phe Ala Pro Ala Glu Val Asn Trp
 180 185 190
 cgg ctg cgc gac tac ctg acc ttt ctc ttc gtg cgg gag ccc ttc gag 624
 Arg Leu Arg Asp Tyr Leu Thr Phe Leu Phe Val Arg Glu Pro Phe Glu
 195 200 205
 cgc ctg gcg tca gcc tac cgc aac aag ctg gcg cgg cca cac agc gcg 672
 Arg Leu Ala Ser Ala Tyr Arg Asn Lys Leu Ala Arg Pro His Ser Ala
 210 215 220

gcc ttc cag cgg cgc tat ggc aca cgc atc gtg cgt cgc cta cga cca Ala Phe Gln Arg Arg Tyr Gly Thr Arg Ile Val Arg Arg Leu Arg Pro 225 230 235 240	720
cac gcg cag ccc gat gcg ctg gcc cgc ggc cac gac gtg cgc ttc gcc His Ala Gln Pro Asp Ala Leu Ala Arg Gly His Asp Val Arg Phe Ala 245 250 255	768
gag ttc ctg gcc tac ctg ctc gac ccg cgc acg cgc cgt cat gag ccc Glu Phe Leu Ala Tyr Leu Leu Asp Pro Arg Thr Arg Arg His Glu Pro 260 265 270	816
ttc aac gaa cac tgg gag cgc gca cac gcg ctg tgc cat ccg tgc cta Phe Asn Glu His Trp Glu Arg Ala His Ala Leu Cys His Pro Cys Leu 275 280 285	864
gtg cgc tat gat gta gtg ggc aag ttt gag acg ata gca gat gat gct Val Arg Tyr Asp Val Val Gly Lys Phe Glu Thr Ile Ala Asp Asp Ala 290 295 300	912
gcc ttc gtg ctg gac ctg gtg ggt gag cct ggg cta cgt ttc cct gct Ala Phe Val Leu Asp Leu Val Gly Glu Pro Gly Leu Arg Phe Pro Ala 305 310 315 320	960
cca ccg ctg agg cca gag aag gac ctt acg cgt gag cag gcc cgg cgc Pro Pro Leu Arg Pro Glu Lys Asp Leu Thr Arg Glu Gln Ala Arg Arg 325 330 335	1008
ctt ttc cag gac atc agc ccc ttc tac cag cgt cgc ctc ttt aac ctc Leu Phe Gln Asp Ile Ser Pro Phe Tyr Gln Arg Arg Leu Phe Asn Leu 340 345 350	1056
tat aag atg gac ttt ctg ctc ttc aat tac tct gcc cct tcc tac ctg Tyr Lys Met Asp Phe Leu Leu Phe Asn Tyr Ser Ala Pro Ser Tyr Leu 355 360 365	1104
cga ctg caa taa ggggtgttggg tgcaatagag ccagtggctg ctgtgaccag Arg Leu Gln 370	1156
gaggccacca ggaggctctgg aacgaacctg gttgtgtgga ttggagacct tatccagtgg	1216
gcctgaccaa gagtctggcc actggtcaca ctcatccga ctgggtaggg tacaggttgc	1276
tttaggtgac cataaccttg tcaggccggt tctgctgtta gtttgatgtg tgtctcttcc	1336
tcccactctg cagatgtcag gcttcttcct aggactccag gtttgtagtt ctttggtttg	1396
gtttgagagg ccatttctca gtcttgtctg tgtagaacct gtccgtggca tgggtgctaca	1456
agacagaatg tcatggcttg gttcagtgtg gcctaagggtc ttgtcagcat ttactgctta	1516
ggagttaaca tgagctgcct gccaccccgag cagtcacagg atggtgagca ctaccactcc	1576
acatctacct ggctgatcta cctttgatct cagccttgca agaggctgga tcttcccctg	1636
tgtcagcaaa ggccaagatg caatactgtg gcagcttttc cagctcactt ttattttttt	1696
tgttggtttt ttaaataaat atgttttggt ac	1728

<210> 11
 <211> 371
 <212> PRT
 <213> Mus musculus

<400> 11

Met Thr val Ala Cys His Ala Cys Gln Ala Gln His Gly Lys Thr Leu
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Leu Leu Gln Ala Ala Leu Ala Gly Gly Gly Lys Ser Gly Cys Cys Thr
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 Pro Ala Pro Val Arg Pro Ala Ser Arg Val Thr Thr Gly Lys Asp Ala
 35 40 45
 Gln Asp Thr Glu Trp Gln Gly Ser Pro Lys Ala Leu Leu Gly Val Pro
 50 55 60
 Thr Phe Glu Asn Lys Ala Leu Gly Ser Ser Trp Phe Gly Gly Val Arg
 65 70 75 80
 Lys Ser Pro Leu Gln Leu Leu Arg Asp Leu Asp Gln Gly Pro Arg Ser
 85 90 95
 Ala Met Ala Glu Val His Gln Gln Arg Arg Glu Leu Leu Arg Arg Ala
 100 105 110
 Cys Ser Arg His Thr Arg Arg Gln Arg Leu Leu Gln Pro Glu Asp Leu
 115 120 125
 Arg His Val Leu Val Asp Asp Ala His Arg Leu Leu Tyr Cys Tyr Val
 130 135 140
 Pro Lys Val Ala Cys Thr Asn Trp Lys Arg Val Met Leu Ala Leu Arg
 145 150 155 160
 Gly Arg Gly Asp Pro Ser Ala Ile Pro Ala His Glu Ala His Ala Pro
 165 170 175
 Gly Leu Leu Pro Ser Leu Ala Asp Phe Ala Pro Ala Glu Val Asn Trp
 180 185 190
 Arg Leu Arg Asp Tyr Leu Thr Phe Leu Phe Val Arg Glu Pro Phe Glu
 195 200 205
 Arg Leu Ala Ser Ala Tyr Arg Asn Lys Leu Ala Arg Pro His Ser Ala
 210 215 220
 Ala Phe Gln Arg Arg Tyr Gly Thr Arg Ile Val Arg Arg Leu Arg Pro
 225 230 235 240
 His Ala Gln Pro Asp Ala Leu Ala Arg Gly His Asp Val Arg Phe Ala
 245 250 255
 Glu Phe Leu Ala Tyr Leu Leu Asp Pro Arg Thr Arg Arg His Glu Pro
 260 265 270
 Phe Asn Glu His Trp Glu Arg Ala His Ala Leu Cys His Pro Cys Leu
 275 280 285
 Val Arg Tyr Asp Val Val Gly Lys Phe Glu Thr Ile Ala Asp Asp Ala

290 295 300

Ala Phe Val Leu Asp Leu Val Gly Glu Pro Gly Leu Arg Phe Pro Ala
 305 310 315 320

Pro Pro Leu Arg Pro Glu Lys Asp Leu Thr Arg Glu Gln Ala Arg Arg
 325 330 335

Leu Phe Gln Asp Ile Ser Pro Phe Tyr Gln Arg Arg Leu Phe Asn Leu
 340 345 350

Tyr Lys Met Asp Phe Leu Leu Phe Asn Tyr Ser Ala Pro Ser Tyr Leu
 355 360 365

Arg Leu Gln
 370

<210> 12
 <211> 2073
 <212> DNA
 <213> Mus musculus

<220>
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 <222> (129)..(1259)

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 gcagcacc atg ttt ccc cgc cct ctg acc cca ctg gct gcc ccg aaa agc 170
 Met Phe Pro Arg Pro Leu Thr Pro Leu Ala Ala Pro Lys Ser
 1 5 10
 gcg gag acc ctg ggc cgc acg cca agg cgg gcc cca ttg ggc cgg gcc 218
 Ala Glu Thr Leu Gly Arg Thr Pro Arg Arg Ala Pro Leu Gly Arg Ala
 15 20 25 30
 cgg gct ggg ctc ggg ggg ccg ccc ctg ctg ctg ccg tcc atg ctg atg 266
 Arg Ala Gly Leu Gly Gly Pro Pro Leu Leu Leu Pro Ser Met Leu Met
 35 40 45
 ttc gct gta atc gtg gcc tcc agc gga ctg ctg ctc atg atc gag cga 314
 Phe Ala Val Ile Val Ala Ser Ser Gly Leu Leu Leu Met Ile Glu Arg
 50 55 60
 ggc atc cta tcg gag atg aaa ccc ctt ccc ctg cac cct ccc agc cac 362
 Gly Ile Leu Ser Glu Met Lys Pro Leu Pro Leu His Pro Pro Ser His
 65 70 75
 aaa ggc gcg gcc tgg agc ggg aca gat cct aag cct aga ggc cta tcc 410
 Lys Gly Ala Ala Trp Ser Gly Thr Asp Pro Lys Pro Arg Gly Leu Ser
 80 85 90
 ttg gat gct ggg gac tcg gac ttg caa gtg agg gag gac atc cga aac 458
 Leu Asp Ala Gly Asp Ser Asp Leu Gln Val Arg Glu Asp Ile Arg Asn
 95 100 105 110
 cgg acc ttg agg gcc gtg tgc gga caa cca ggc atg ccc cgg gac ccc 506
 Arg Thr Leu Arg Ala Val Cys Gly Gln Pro Gly Met Pro Arg Asp Pro
 115 120 125
 tgg gac ttg ccg gtg gga cag cgg cgc acc ctg ctg cgc cac att ctc 554

Trp	Asp	Leu	Pro	Val	Gly	Gln	Arg	Arg	Thr	Leu	Leu	Arg	His	Ile	Leu		
			130					135					140				
gta	agt	gac	cgc	tac	cgc	ttc	ctc	tac	tgc	tat	gtc	ccc	aaa	gtg	gcc	602	
Val	Ser	Asp	Arg	Tyr	Arg	Phe	Leu	Tyr	Cys	Tyr	Val	Pro	Lys	Val	Ala		
		145					150					155					
tgc	tct	aac	tgg	aaa	cgt	gtg	ctg	aag	gtg	ctg	gct	ggc	gtc	ctg	aac	650	
Cys	Ser	Asn	Trp	Lys	Arg	Val	Leu	Lys	Val	Leu	Ala	Gly	Val	Leu	Asn		
	160					165					170						
aac	gtg	gat	gtc	cgc	ctc	aag	atg	gac	cac	ccc	agt	gac	ttg	gtg	ttt	698	
Asn	Val	Asp	Val	Arg	Leu	Lys	Met	Asp	His	Pro	Ser	Asp	Leu	Val	Phe		
175					180					185					190		
ctg	gca	gac	ctg	cgg	cct	gag	gag	att	cgc	tac	cgt	ctg	cag	cac	tac	746	
Leu	Ala	Asp	Leu	Arg	Pro	Glu	Glu	Ile	Arg	Tyr	Arg	Leu	Gln	His	Tyr		
				195					200					205			
ttc	aag	ttc	ctg	ttt	gtg	cga	gac	ccc	ttg	gaa	cgc	ctc	ctg	tct	gct	794	
Phe	Lys	Phe	Leu	Phe	Val	Arg	Asp	Pro	Leu	Glu	Arg	Leu	Leu	Ser	Ala		
			210					215					220				
tac	cgt	aac	aag	ttt	gga	gag	atc	cga	gag	tac	cag	cag	cga	tat	ggg	842	
Tyr	Arg	Asn	Lys	Phe	Gly	Glu	Ile	Arg	Glu	Tyr	Gln	Gln	Arg	Tyr	Gly		
		225					230					235					
gcc	gaa	att	gtc	agg	cgc	tac	agg	gct	gga	gct	ggt	ccc	agc	cct	gca	890	
Ala	Glu	Ile	Val	Arg	Arg	Tyr	Arg	Ala	Gly	Ala	Gly	Pro	Ser	Pro	Ala		
	240					245					250						
ggg	gac	gat	gtc	acc	ttc	cca	gag	ttc	ctg	aga	tac	ctg	gtg	gat	gag	938	
Gly	Asp	Asp	Val	Thr	Phe	Pro	Glu	Phe	Leu	Arg	Tyr	Leu	Val	Asp	Glu		
255					260				265						270		
gat	cct	gaa	cat	atg	aat	gag	cat	tgg	atg	cct	gtg	tac	cac	ctg	tgc	986	
Asp	Pro	Glu	His	Met	Asn	Glu	His	Trp	Met	Pro	Val	Tyr	His	Leu	Cys		
				275					280					285			
caa	cca	tgt	gct	gtg	cac	tac	gac	ttc	gtg	ggt	tcc	tat	gag	agg	ctg	1034	
Gln	Pro	Cys	Ala	Val	His	Tyr	Asp	Phe	Val	Gly	Ser	Tyr	Glu	Arg	Leu		
			290					295					300				
gag	gct	gat	gcc	aac	cag	gtg	ctg	gag	tgg	gtg	cgg	gcc	cca	ccc	cat	1082	
Glu	Ala	Asp	Ala	Asn	Gln	Val	Leu	Glu	Trp	Val	Arg	Ala	Pro	Pro	His		
		305					310					315					
gtc	cgg	ttc	cca	gct	cgc	cag	gcc	tgg	tac	cgg	cca	gcc	agc	cca	gaa	1130	
Val	Arg	Phe	Pro	Ala	Arg	Gln	Ala	Trp	Tyr	Arg	Pro	Ala	Ser	Pro	Glu		
	320					325					330						
agt	ctg	cat	tac	cac	ttg	tgc	aat	gtt	cca	cgg	gcc	ctg	ctt	caa	gat	1178	
Ser	Leu	His	Tyr	His	Leu	Cys	Asn	Val	Pro	Arg	Ala	Leu	Leu	Gln	Asp		
335					340					345					350		
gtg	cta	cct	aag	tat	atc	ctg	gac	ttc	tcc	ctc	ttt	gct	tac	cca	ctg	1226	
Val	Leu	Pro	Lys	Tyr	Ile	Leu	Asp	Phe	Ser	Leu	Phe	Ala	Tyr	Pro	Leu		
				355					360					365			
ccc	aat	gtc	acc	aag	gaa	gcc	tgt	cac	caa	tga	cagtaggcca	gcaccttttg				1279	
Pro	Asn	Val	Thr	Lys	Glu	Ala	Cys	His	Gln								
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35 40 45

Val Ile Val Ala Ser Ser Gly Leu Leu Leu Met Ile Glu Arg Gly Ile
50 55 60

Leu Ser Glu Met Lys Pro Leu Pro Leu His Pro Pro Ser His Lys Gly
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Ala Ala Trp Ser Gly Thr Asp Pro Lys Pro Arg Gly Leu Ser Leu Asp
85 90 95

Ala Gly Asp Ser Asp Leu Gln Val Arg Glu Asp Ile Arg Asn Arg Thr
100 105 110

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130 135 140

Asp Arg Tyr Arg Phe Leu Tyr Cys Tyr Val Pro Lys Val Ala Cys Ser
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Asn Trp Lys Arg Val Leu Lys Val Leu Ala Gly Val Leu Asn Asn Val
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Asp Val Arg Leu Lys Met Asp His Pro Ser Asp Leu Val Phe Leu Ala
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 Asp Leu Arg Pro Glu Glu Ile Arg Tyr Arg Leu Gln His Tyr Phe Lys
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 Phe Leu Phe Val Arg Asp Pro Leu Glu Arg Leu Leu Ser Ala Tyr Arg
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 Asn Lys Phe Gly Glu Ile Arg Glu Tyr Gln Gln Arg Tyr Gly Ala Glu
 225 230 235 240
 Ile Val Arg Arg Tyr Arg Ala Gly Ala Gly Pro Ser Pro Ala Gly Asp
 245 250 255
 Asp Val Thr Phe Pro Glu Phe Leu Arg Tyr Leu Val Asp Glu Asp Pro
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 Cys Ala Val His Tyr Asp Phe Val Gly Ser Tyr Glu Arg Leu Glu Ala
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 Phe Pro Ala Arg Gln Ala Trp Tyr Arg Pro Ala Ser Pro Glu Ser Leu
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 His Tyr His Leu Cys Asn Val Pro Arg Ala Leu Leu Gln Asp Val Leu
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Asp Leu Val His Ser Leu Lys Ile Arg Gly Arg Tyr Val Leu Phe Leu	
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Asp Ala Asn Ser Thr Asp Pro Ala Leu Leu Leu Ser Glu Asn Ala Ser	
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240	245	250			
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agg ttg gat cta cga gtc att cag ctg gtg cgc gac ccc cgg gcc gtg Arg Leu Asp Leu Arg Val Ile Gln Leu Val Arg Asp Pro Arg Ala Val	285	290	295	300	1395
ctg gct tca cgc ata gtg gcc ttt gcg ggc aag tat gag aac tgg aag Leu Ala Ser Arg Ile Val Ala Phe Ala Gly Lys Tyr Glu Asn Trp Lys	305	310	315	1443	
aag tgg ctg tcc gag ggg cag gac cag ctg agc gag gat gag gtg cag Lys Trp Leu Ser Glu Gly Gln Asp Gln Leu Ser Glu Asp Glu Val Gln	320	325	330	1491	
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ctg gca cag gtg gta cag gct gcc tgt ggc ccg acc atg cac ctc ttt Leu Ala Gln Val Val Gln Ala Ala Cys Gly Pro Thr Met His Leu Phe	430	435	440	1827	
ggc tac aag ttg gcc agg gat gcc gcc tca ctc acc aac cgc tcc atc Gly Tyr Lys Leu Ala Arg Asp Ala Ala Ser Leu Thr Asn Arg Ser Ile	445	450	455	460	1875
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<213> Mus musculus

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Ser Asp Lys Leu Lys Gln Ile Pro His Phe Val Ala Asp Ala Asn Ser
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Thr Asp Pro Ala Leu Leu Leu Ser Glu Asn Ala Ser Leu Leu Ser Leu
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Ser Glu Leu Asp Ser Thr Phe Ser His Leu Arg Ser Arg Leu His Asn
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Leu Ser Leu Gln Leu Gly Val Glu Pro Ala Met Glu Ser Gln Glu Ala
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Gly Ala Glu Lys Pro Ser Gln Gln Ala Gly Ala Gly Thr Arg Arg His
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Val Leu Leu Met Ala Thr Thr Arg Thr Gly Ser Ser Phe Val Gly Glu
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Phe Phe Asn Gln Gln Gly Asn Ile Phe Tyr Leu Phe Glu Pro Leu Trp
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His Ile Glu Arg Thr Val Phe Phe Gln Gln Arg Gly Ala Ser Ala Ala
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Gly Ser Ala Leu Val Tyr Arg Asp Val Leu Lys Gln Leu Leu Cys
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Asp Leu Tyr Val Leu Glu Pro Phe Ile Ser Pro Pro Pro Glu Asp His
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Leu Thr Gln Phe Leu Phe Arg Arg Gly Ser Ser Arg Ser Leu Cys Glu
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Asp Pro Val Cys Thr Pro Phe Val Lys Lys Val Phe Glu Lys Tyr His
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Cys Arg Asn Arg Arg Cys Gly Pro Leu Asn Val Thr Leu Ala Gly Glu
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Ala Cys Arg Arg Lys Asp His Val Ala Leu Lys Ala Val Arg Ile Arg
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Gln Leu Glu Phe Leu Gln Pro Leu Val Glu Asp Pro Arg Leu Asp Leu
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 Arg Asn Cys Pro Gly Leu Gln Arg Ser Leu Gly Val Trp Ser Leu Glu
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cag gtg ctg cgc acg cgc cag agg ggc gac cac ttc cac cgg gtg ctg Gln Val Leu Arg Thr Arg Gln Arg Gly Asp His Phe His Arg Val Leu 300 305 310			1085
ctg gcg cat gga gtg gat gcc cgt ccg gga ggc cag gcc cgg gct ctg Leu Ala His Gly Val Asp Ala Arg Pro Gly Gly Gln Ala Arg Ala Leu 315 320 325			1133
ccc tcg gcg cca cgc gct gat ttc ttc tta acc agc gcg ctt gag gtg Pro Ser Ala Pro Arg Ala Asp Phe Phe Leu Thr Ser Ala Leu Glu Val 330 335 340 345			1181
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gcc	tgg	ctg	agg	cgt	cgc	tac	ctg	cgg	ctg	cgt	tat	gag	gac	ctg	gtg	1277
Ala	Trp	Leu	Arg	Arg	Arg	Tyr	Leu	Arg	Leu	Arg	Tyr	Glu	Asp	Leu	Val	
			365					370					375			
tgg	cag	ccc	caa	gcc	cag	ctg	cgc	cgc	ctg	ctg	cgc	ttc	tct	ggg	ttg	1325
Trp	Gln	Pro	Gln	Ala	Gln	Leu	Arg	Arg	Leu	Leu	Arg	Phe	Ser	Gly	Leu	
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cgg	aca	ctc	gcc	gcg	ctt	gat	gcc	ttc	gca	ttc	aat	atg	acg	cgg	ggc	1373
Arg	Thr	Leu	Ala	Ala	Leu	Asp	Ala	Phe	Ala	Phe	Asn	Met	Thr	Arg	Gly	
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Ser	Ala	Tyr	Gly	Ala	Asp	Arg	Pro	Phe	His	Leu	Ser	Ala	Arg	Asp	Ala	
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Arg	Gln	Val	Glu	Thr	Ala	Cys	Ala	Pro	Ala	Met	Arg	Leu	Leu	Ala	Tyr	
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Pro	Arg	Ser	Gly	Asp	Glu	Arg	Asp	Arg	Lys	Thr	Val	Arg	Glu	Gly	Glu	
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aca	cca	ctg	gag	acc	aag	gcc	aat	tgg	gct	gtg	taa	taccctgac				1611
Thr	Pro	Leu	Glu	Thr	Lys	Ala	Asn	Trp	Ala	Val						
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 Ser Pro Gly Ser Pro Gly Asn Leu Ser Ala Val Gly Glu Ala Val Thr
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 Gln Glu Lys Gln His Ile Tyr Val His Ala Thr Trp Arg Thr Gly Ser
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 Ser Phe Leu Gly Glu Leu Phe Asn Gln His Pro Asp Val Phe Tyr Leu
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 Tyr Asp Pro Met Trp His Leu Trp Gln Ala Leu Tyr Pro Gly Asp Ala
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 Glu Ser Leu Gln Gly Ala Leu Arg Asp Met Leu Arg Ser Leu Phe Arg
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 Cys Asp Phe Ser Val Leu Arg Leu Tyr Ala Gln Pro Gly Asp Pro Gly
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 Glu Arg Ala Pro Asp Ser Ala Asn Leu Thr Thr Ala Met Leu Phe Arg
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 Trp Arg Thr Asn Lys Val Ile Cys Ser Pro Pro Leu Cys Pro Ala Ala
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 Ser Thr Cys Pro Pro Val Ser Leu Arg Ala Leu Glu Ala Glu Cys Arg
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 Lys Tyr Pro Val Val Val Ile Lys Asp Val Arg Leu Leu Asp Leu Gly
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 Arg Gln Gly Leu Leu Arg Glu Ser Ile Gln Val Leu Arg Thr Arg Gln
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 Arg Pro Gly Gly Gln Ala Arg Ala Leu Pro Ser Ala Pro Arg Ala Asp
 325 330 335

Phe Phe Leu Thr Ser Ala Leu Glu Val Ile Cys Glu Ala Trp Leu Arg
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 405 410 415
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 Met Arg His Cys Ile Asn Cys
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caa Gln	ggg Gly 25	ggc Gly	ccc Pro	cat His	cac His	ggt Gly 30	cac His	cag Gln	gcg Ala	tgc Cys	ccc Pro 35	acg Thr	tgc Cys	aaa Lys	gga Gly	630
gaa Glu 40	aac Asn	aaa Lys	att Ile	ctg Leu	ttt Phe 45	cgt Arg	gtg Val	gac Asp	agt Ser	aag Lys 50	cag Gln	atg Met	aac Asn	ttg Leu	ctt Leu 55	678
gct Ala	ggt Val	ctc Leu	gaa Glu	gtg Val 60	agg Arg	act Thr	gaa Glu	ggg Gly 65	aac Asn	gaa Glu	aac Asn	tgg Trp	ggt Gly 70	ggg Gly 70	ttt Phe	726
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ttt Phe 185	tca Ser	gtc Val	atc Ile	ccc Pro	aac Asn	aaa Lys 190	ttc Phe	ctt Leu	cca Pro	aac Asn	agt Ser 195	aag Lys	agc Ser	ccc Pro	tgt Cys	1110
tgg Trp 200	tac Tyr	gag Glu	gag Glu	ttc Phe	tgc Ser 205	ggg Gly	cag Gln	aac Asn	acc Thr	acc Thr 210	gac Asp	ccc Pro	tac Tyr	ctc Leu	acc Thr 215	1158
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tgc Cys	ggg Gly 265	acc Thr	aca Thr	gac Asp	ctc Leu	tat Tyr 270	gac Asp	cgc Arg	ctg Leu	cgg Arg	ctg Leu 275	cac His	cct Pro	gag Glu	gtc Val	1350
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gat tat ctg gac ctc ttt gac ctg gcc gca cac cag atc cat caa gga	Asp Tyr Leu Asp Leu Phe Asp Leu Ala Ala His Gln Ile His Gln Gly	315	320	325	1494		
ctg cag gcc agc tct gca aag gag cag agc aag atg aat aca atc att	Leu Gln Ala Ser Ser Ala Lys Glu Gln Ser Lys Met Asn Thr Ile Ile	330	335	340	1542		
atc ggg gag gcc agt gcc tcc acg atg tgg gat aat aat gcc tgg acg	Ile Gly Glu Ala Ser Ala Ser Thr Met Trp Asp Asn Asn Ala Trp Thr	345	350	355	1590		
ttc ttc tac gac aac agc acg gat ggc gag cca ccg ttt ctg acg cag	Phe Phe Tyr Asp Asn Ser Thr Asp Gly Glu Pro Pro Phe Leu Thr Gln	360	365	370	1638		
gac ttc atc cac gcc ttt cag cca aat gcc aga ctg att gtc atg ctc	Asp Phe Ile His Ala Phe Gln Pro Asn Ala Arg Leu Ile Val Met Leu	380	385	390	1686		
agg gac cct gtg gag agg ttg tac tca gac tat ctc tac ttt gca agt	Arg Asp Pro Val Glu Arg Leu Tyr Ser Asp Tyr Leu Tyr Phe Ala Ser	395	400	405	1734		
tcg aat aaa tcc gcg gac gac ttc cat gag aaa gtg aca gaa gca ctg	Ser Asn Lys Ser Ala Asp Asp Phe His Glu Lys Val Thr Glu Ala Leu	410	415	420	1782		
cag ctg ttt gaa aat tgc atg ctt gat tat tca ctg cgc gcc tgc gtc	Gln Leu Phe Glu Asn Cys Met Leu Asp Tyr Ser Leu Arg Ala Cys Val	425	430	435	1830		
tac aac aac acc ctc aac aac gcc atg cct gtg agg ctc cag gtt ggg	Tyr Asn Asn Thr Leu Asn Asn Ala Met Pro Val Arg Leu Gln Val Gly	440	445	450	1878		
ctc tat gct gtg tac ctt ctg gac tgg ctc agc gtt ttt gac aag caa	Leu Tyr Ala Val Tyr Leu Leu Asp Trp Leu Ser Val Phe Asp Lys Gln	460	465	470	1926		
cag ttt ctc att ctt cgc ctg gaa gat cat gca tcc aac gtc aag tac	Gln Phe Leu Ile Leu Arg Leu Glu Asp His Ala Ser Asn Val Lys Tyr	475	480	485	1974		
acc atg cac aag gtc ttc cag ttt ctg aac cta ggg ccc tta agt gag	Thr Met His Lys Val Phe Gln Phe Leu Asn Leu Gly Pro Leu Ser Glu	490	495	500	2022		
aag cag gag gct ttg atg acc aag agc ccc gca tcc aat gca cgg cgt	Lys Gln Glu Ala Leu Met Thr Lys Ser Pro Ala Ser Asn Ala Arg Arg	505	510	515	2070		
ccc gag gac cgg aac ctg ggg ccc atg tgg ccc atc aca cag aag att	Pro Glu Asp Arg Asn Leu Gly Pro Met Trp Pro Ile Thr Gln Lys Ile	520	525	530	2118		
ctg cgg gat ttc tac agg ccc ttc aac gct agg ctg gcg cag gtc ctc	Leu Arg Asp Phe Tyr Arg Pro Phe Asn Ala Arg Leu Ala Gln Val Leu	540	545	550	2166		
gcg gat gag gcg ttt gcg tgg aag acg acg tga gagctgaatt gttgctgcac	Ala Asp Glu Ala Phe Ala Trp Lys Thr Thr	555	560		2219		
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Ser Lys Gln Met Asn Leu Leu Ala Val Leu Glu Val Arg Thr Glu Gly
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Asn Glu Asn Trp Gly Gly Phe Leu Arg Phe Lys Lys Gly Lys Arg Cys
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Ser Leu Val Phe Gly Leu Ile Ile Met Thr Leu Val Met Ala Ser Tyr
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Ile Leu Ser Gly Ala His Gln Glu Leu Leu Ile Ser Ser Pro Phe His
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Tyr Gly Gly Phe Pro Ser Asn Pro Ser Leu Met Asp Ser Glu Asn Pro
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Tyr Met Lys Asp Tyr Pro Ser Ile Lys Leu Ile Ile Asn Ser Ile Thr
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Thr Arg Ile Glu Phe Thr Thr Arg Gln Leu Pro Asp Leu Glu Asp Leu
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Lys Lys Gln Glu Leu His Met Phe Ser Val Ile Pro Asn Lys Phe Leu
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Pro Asn Ser Lys Ser Pro Cys Trp Tyr Glu Glu Phe Ser Gly Gln Asn
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 Leu Ser Val Phe Asp Lys Gln Gln Phe Leu Ile Leu Arg Leu Glu Asp
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 His Ala Ser Asn Val Lys Tyr Thr Met His Lys Val Phe Gln Phe Leu
 485 490 495

Asn Leu Gly Pro Leu Ser Glu Lys Gln Glu Ala Leu Met Thr Lys Ser
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Pro Ala Ser Asn Ala Arg Arg Pro Glu Asp Arg Asn Leu Gly Pro Met
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Trp Pro Ile Thr Gln Lys Ile Leu Arg Asp Phe Tyr Arg Pro Phe Asn
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Thr

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<213> Mus musculus

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agcgcaggggt gctgaccccc aacgacctga agcacctggt ggtggatgag gaccacgaac 360
tcacttactg ctatgtgccc aaggtagcgt gcaccaactg gaagaggctc atgatgggtcc 420
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gtgcctaagg	tggcctgcac	caactggaag	cgtgtgatgc	tggcgttgcg	cggccgtggg	540
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ttcgagccac	tgtggcacat	cgagcgcacc	gtgttcttcc	agcagcgagg	cgccagcgcg	540
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tggacagcca	cagcgagcag	gacaagggca	ggaactgccc	cggcctgcag	cgcagcttgg	180

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gctggcggac caacaaggta atctgctcgc cgctctgtg ccccgccgcg ccccgggcac 660
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