

SEQUENCE LISTING

<110> sphingotec GmbH

<120> Selenoprotein P in heart failure

<130> S75273W0

<160> 15

<170> PatentIn version 3.5

<210> 1

<211> 381

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(381)

<223> Xaa or single letter X represents Selenocystein (U) in originally disclosed sequence

<400> 1

Met Trp Arg Ser Leu Gly Leu Ala Leu Ala Leu Cys Leu Leu Pro Ser
1 5 10 15

Gly Gly Thr Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro
20 25 30

Ala Trp Ser Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser
35 40 45

Val Thr Val Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu
50 55 60

Gln Ala Ser Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly
65 70 75 80

Tyr Ser Asn Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser
85 90 95

Arg Leu Lys Tyr Thr His Leu Lys Asn Lys Val Ser Glu His Ile Pro
100 105 110

Val Tyr Gln Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn
115 120 125

Gly Ser Lys Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val
130 135 140

Tyr His Leu Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu
145 150 155 160

Glu Ala Ile Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser
165 170 175

Leu Thr Thr Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala
180 185 190

Thr Val Asp Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu
195 200 205

His His His Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser
210 215 220

Glu Asn Gln Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro
225 230 235 240

Pro Gly Leu His His His His Lys His Lys Gly Gln His Arg Gln Gly
245 250 255

His Pro Glu Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu
260 265 270

Gln Lys Lys Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys
275 280 285

Leu Pro Thr Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys
290 295 300

Arg His Leu Ile Phe Glu Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys
305 310 315 320

Lys Glu Asn Leu Pro Ser Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu
325 330 335

Glu Asn Ile Thr Glu Ser Cys Gln Xaa Arg Leu Pro Pro Ala Ala Xaa
340 345 350

Gln Ile Ser Gln Gln Leu Ile Pro Thr Glu Ala Ser Ala Ser Xaa Arg
355 360 365

Xaa Lys Asn Gln Ala Lys Lys Xaa Glu Xaa Pro Ser Asn
370 375 380

<210> 2
<211> 362
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(362)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 2

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys Arg His Leu
275 280 285

Ile Phe Glu Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys Lys Glu Asn
290 295 300

Leu Pro Ser Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu Glu Asn Ile
305 310 315 320

Thr Glu Ser Cys Gln Xaa Arg Leu Pro Pro Ala Ala Xaa Gln Ile Ser
325 330 335

Gln Gln Leu Ile Pro Thr Glu Ala Ser Ala Ser Xaa Arg Xaa Lys Asn
340 345 350

Gln Ala Lys Lys Xaa Glu Xaa Pro Ser Asn
355 360

<210> 3
<211> 327
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(327)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 3

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys Arg His Leu
275 280 285

Ile Phe Glu Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys Lys Glu Asn
290 295 300

Leu Pro Ser Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu Glu Asn Ile
305 310 315 320

Thr Glu Ser Cys Gln Xaa Arg
325

<210> 4
<211> 279
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(279)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 4

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg
275

<210> 5

<211> 280

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(280)

<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 5

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser
275 280

<210> 6
<211> 281

<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(281)
<223> Xaa or single letter X represents Selenocystein (U) in originally disclosed sequence

<400> 6

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa
275 280

<210> 7
<211> 282
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(282)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 7

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys
275 280

<210> 8
<211> 283
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(283)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 8

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys
275 280

<210> 9
<211> 284
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(284)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 9

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His
275 280

<210> 10
<211> 285
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE

<222> (1)..(285)

<223> Xaa or single letter X represents Selenocystein (U) in originally disclosed sequence

<400> 10

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys
275 280 285

<210> 11
<211> 286
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(286)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 11

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys Arg
275 280 285

<210> 12

<211> 287

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(287)

<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 12

Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro Ala Trp Ser
1 5 10 15

Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser Val Thr Val
20 25 30

Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu Gln Ala Ser
35 40 45

Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly Tyr Ser Asn
50 55 60

Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser Arg Leu Lys
65 70 75 80

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

Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn Gly Ser Lys
100 105 110

Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val Tyr His Leu
115 120 125

Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu Glu Ala Ile
130 135 140

Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser Leu Thr Thr
145 150 155 160

Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala Thr Val Asp
165 170 175

Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu His His His
180 185 190

Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser Glu Asn Gln
195 200 205

Gln Pro Gly Ala Pro Asn Ala Pro Thr His Pro Ala Pro Pro Gly Leu
210 215 220

His His His His Lys His Lys Gly Gln His Arg Gln Gly His Pro Glu
225 230 235 240

Asn Arg Asp Met Pro Ala Ser Glu Asp Leu Gln Asp Leu Gln Lys Lys
245 250 255

Leu Cys Arg Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr
260 265 270

Asp Ser Glu Leu Ala Pro Arg Ser Xaa Cys Cys His Cys Arg His
275 280 285

<210> 13
<211> 235
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(235)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 13

Met Trp Arg Ser Leu Gly Leu Ala Leu Ala Leu Cys Leu Leu Pro Ser
1 5 10 15

Gly Gly Thr Glu Ser Gln Asp Gln Ser Ser Leu Cys Lys Gln Pro Pro
20 25 30

Ala Trp Ser Ile Arg Asp Gln Asp Pro Met Leu Asn Ser Asn Gly Ser
35 40 45

Val Thr Val Val Ala Leu Leu Gln Ala Ser Xaa Tyr Leu Cys Ile Leu
50 55 60

Gln Ala Ser Lys Leu Glu Asp Leu Arg Val Lys Leu Lys Lys Glu Gly
65 70 75 80

Tyr Ser Asn Ile Ser Tyr Ile Val Val Asn His Gln Gly Ile Ser Ser
85 90 95

Arg Leu Lys Tyr Thr His Leu Lys Asn Lys Val Ser Glu His Ile Pro
100 105 110

Val Tyr Gln Gln Glu Glu Asn Gln Thr Asp Val Trp Thr Leu Leu Asn
115 120 125

Gly Ser Lys Asp Asp Phe Leu Ile Tyr Asp Arg Cys Gly Arg Leu Val
130 135 140

Tyr His Leu Gly Leu Pro Phe Ser Phe Leu Thr Phe Pro Tyr Val Glu
145 150 155 160

Glu Ala Ile Lys Ile Ala Tyr Cys Glu Lys Lys Cys Gly Asn Cys Ser
165 170 175

Leu Thr Thr Leu Lys Asp Glu Asp Phe Cys Lys Arg Val Ser Leu Ala
180 185 190

Thr Val Asp Lys Thr Val Glu Thr Pro Ser Pro His Tyr His His Glu
195 200 205

His His His Asn His Gly His Gln His Leu Gly Ser Ser Glu Leu Ser
210 215 220

Glu Asn Gln Gln Pro Gly Ala Pro Asn Ala Pro
225 230 235

<210> 14
<211> 103
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (1)..(103)
<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 14

Lys Arg Cys Ile Asn Gln Leu Leu Cys Lys Leu Pro Thr Asp Ser Glu
1 5 10 15

Leu Ala Pro Arg Ser Xaa Cys Cys His Cys Arg His Leu Ile Phe Glu
20 25 30

Lys Thr Gly Ser Ala Ile Thr Xaa Gln Cys Lys Glu Asn Leu Pro Ser
35 40 45

Leu Cys Ser Xaa Gln Gly Leu Arg Ala Glu Glu Asn Ile Thr Glu Ser
50 55 60

Cys Gln Xaa Arg Leu Pro Pro Ala Ala Xaa Gln Ile Ser Gln Gln Leu
65 70 75 80

Ile Pro Thr Glu Ala Ser Ala Ser Xaa Arg Xaa Lys Asn Gln Ala Lys
85 90 95

Lys Xaa Glu Xaa Pro Ser Asn
100

<210> 15

<211> 70

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (1)..(70)

<223> Xaa or single letter X represents Selenocystein (U) in originally
disclosed sequence

<400> 15

Thr Gly Ser Ala Ile Thr Xaa Gln Cys Lys Glu Asn Leu Pro Ser Leu
1 5 10 15

Cys Ser Xaa Gln Gly Leu Arg Ala Glu Glu Asn Ile Thr Glu Ser Cys
20 25 30

Gln Xaa Arg Leu Pro Pro Ala Ala Xaa Gln Ile Ser Gln Gln Leu Ile
35 40 45

Pro Thr Glu Ala Ser Ala Ser Xaa Arg Xaa Lys Asn Gln Ala Lys Lys
50 55 60

Xaa Glu Xaa Pro Ser Asn
65 70