

SEQUENCE LISTING

<110> SphingoTec GmbH
 <120> Selenoprotein P for prediction of a first cardiovascular event
 <130> S75172WO
 <150> EP17198129.3
 <151> 2017-10-24
 <150> EP18162206.9
 <151> 2018-03-16
 <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
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
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
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