

SEQUENCE LISTING

<110> MOLECULAR PARTNERS AG

<120> NOVEL DARPin BASED MULTI-SPECIFIC T-CELL ENGAGERS

<130> P031

<160> 124

<170> BiSSAP 1.3.6

<210> 1

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #1

<400> 1

```

Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp
1      5      10      15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20     25     30
Ser Gln Gly Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu
35     40     45
Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50     55     60
Asp Asp Lys Gly Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly His
65     70     75     80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85     90     95
Gln Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly
100    105    110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115    120

```

<210> 2

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #2

<400> 2

```

Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp

```

1		5		10		15
Glu	Val	Arg	Glu	Leu	Leu	Asn
	20		25		30	
Ser	Arg	Gly	Trp	Thr	Pro	Leu
	35		40		45	
Glu	Ile	Phe	Glu	Val	Leu	Leu
	50		55		60	
Asp	Asp	Lys	Gly	Val	Thr	Pro
65			70		75	
Leu	Glu	Ile	Val	Glu	Val	Leu
	85		90		95	
Gln	Asp	Ser	Trp	Gly	Thr	Thr
	100		105		110	
His	Glu	Asp	Ile	Ala	Glu	Val
	115		120			

<210> 3
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #3

<400> 3
Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asn
20 25 30
Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu
35 40 45
Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asn Asp Lys Arg Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly
100 105 110
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115 120

<210> 4
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>

<223> DARPin protein #4

<400> 4

```
Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Leu Asp
1           5           10           15
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asn
20           25           30
Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu
35           40           45
Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50           55           60
Thr Asn Lys Arg Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly His
65           70           75           80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85           90           95
Arg Asp Thr Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly
100          105          110
His Arg Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115           120
```

<210> 5

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #5

<400> 5

```
Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp
1           5           10           15
Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala Lys Asn
20           25           30
Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu
35           40           45
Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50           55           60
Asn Asp Lys Arg Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly His
65           70           75           80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85           90           95
Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly
100          105          110
His Gly Asp Ile Ala Glu Val Leu Gln Lys Leu Asn
115           120
```

<210> 6

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #6

<400> 6

```
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1      5      10      15
Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val Asn Ala Leu Asp
20     25     30
Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr Glu Gly His Leu
35     40     45
Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn Ala Ile
50     55     60
Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala Ala Ile Asp Gly
65     70     75     80
His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn
85     90     95
Ala Gln Asp Lys Phe Gly Lys Thr Ala Phe Asp Ile Ser Ile Asp Asn
100    105    110
Gly Asn Glu Asp Leu Ala Glu Ile Leu Gln Lys Ala Ala
115    120    125
```

<210> 7

<211> 421

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #7

<400> 7

```
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1      5      10      15
Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val Asn Ala Leu Asp
20     25     30
Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr Glu Gly His Leu
35     40     45
Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn Ala Ile
50     55     60
Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala Ala Ile Asp Gly
65     70     75     80
His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn
85     90     95
Ala Gln Asp Lys Phe Gly Lys Thr Ala Phe Asp Ile Ser Ile Asp Asn
100    105    110
Gly Asn Glu Asp Leu Ala Glu Ile Leu Gln Lys Ala Ala Gly Ser Pro
115    120    125
```

Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
130						135					140				
Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Asp	Lys	Leu	Leu	Leu	Ala	Ala	Thr
145					150					155					160
Ser	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp
				165					170						175
Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala
			180					185					190		
Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
	195						200					205			
Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro	Leu	His	Ala	Ala
	210					215					220				
Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly
225					230					235					240
Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr	Pro	Ala	Asp	Leu
				245					250						255
Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala
			260					265					270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
	275						280					285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu
	290					295					300				
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys
305					310					315					320
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ser	Gln	Gly	Trp	Thr	Pro	Leu
				325					330					335	
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu
			340					345					350		
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro
	355						360					365			
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val
				405					410					415	
Leu	Gln	Lys	Ala	Ala											
			420												

<210> 8
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #8

<400> 8
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp

1				5				10					15			
Glu	Val	Arg	Ile	Leu	Met	Ala	Asn	Gly	Ala	Asp	Val	Asn	Ala	Leu	Asp	
			20					25					30			
Trp	Leu	Gly	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Glu	Gly	His	Leu	
		35					40					45				
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn	Ala	Ile	
	50					55					60					
Asp	Asp	Asn	Asn	Gly	Phe	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Asp	Gly	
65				70						75				80		
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn	
				85					90					95		
Ala	Gln	Asp	Lys	Phe	Gly	Lys	Thr	Ala	Phe	Asp	Ile	Ser	Ile	Asp	Asn	
			100					105					110			
Gly	Asn	Glu	Asp	Leu	Ala	Glu	Ile	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	
		115					120						125			
Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	
	130					135						140				
Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Asp	Lys	Leu	Leu	Leu	Ala	Ala	Thr	
145				150						155					160	
Ser	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp	
			165					170						175		
Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala	
		180					185						190			
Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	
	195					200						205				
Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro	Leu	His	Ala	Ala	
	210				215						220					
Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	
225				230						235					240	
Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr	Pro	Ala	Asp	Leu	
			245					250						255		
Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	
		260					265						270			
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	
	275					280						285				
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	
	290				295						300					
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	
305				310						315					320	
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	
			325					330						335		
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	
		340					345						350			
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	
	355					360						365				
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	
	370				375						380					
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	
385				390						395					400	
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	

	405	410	415
Leu Gln Lys Ala Ala			
420			

<210> 9
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #9

<400> 9

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Ile	Leu	Met	Ala	Asn	Gly	Ala	Asp	Val	Asn	Ala	Leu	Asp
		20					25					30			
Trp	Leu	Gly	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Glu	Gly	His	Leu
		35				40						45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn	Ala	Ile
	50				55				60						
Asp	Asp	Asn	Asn	Gly	Phe	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Asp	Gly
65				70				75						80	
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn
			85				90						95		
Ala	Gln	Asp	Lys	Phe	Gly	Lys	Thr	Ala	Phe	Asp	Ile	Ser	Ile	Asp	Asn
		100					105					110			
Gly	Asn	Glu	Asp	Leu	Ala	Glu	Ile	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro
	115					120					125				
Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
	130					135					140				
Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Asp	Lys	Leu	Leu	Leu	Ala	Ala	Thr
145				150					155						160
Ser	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp
			165				170						175		
Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala
	180			185			190					195			
Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
	195			200			205					210			
Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro	Leu	His	Ala	Ala
	210			215			220								
Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly
225				230					235					240	
Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr	Pro	Ala	Asp	Leu
			245				250						255		
Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala
	260			265									270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
	275					280						285			

Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu
 290 295 300
 Glu Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys
 305 310 315 320
 Ala Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu
 325 330 335
 His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu
 340 345 350
 Lys Ala Gly Ala Asp Val Asn Ala Lys Asn Asp Lys Arg Val Thr Pro
 355 360 365
 Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu
 370 375 380
 Leu Lys Ala Gly Ala Asp Val Asn Ala Arg Asp Ser Trp Gly Thr Thr
 385 390 395 400
 Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Gln Asp Ile Ala Glu Val
 405 410 415
 Leu Gln Lys Ala Ala
 420

<210> 10
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #10

<400> 10
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val Asn Ala Leu Asp
 20 25 30
 Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr Glu Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn Ala Ile
 50 55 60
 Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala Ala Ile Asp Gly
 65 70 75 80
 His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn
 85 90 95
 Ala Gln Asp Lys Phe Gly Lys Thr Ala Phe Asp Ile Ser Ile Asp Asn
 100 105 110
 Gly Asn Glu Asp Leu Ala Glu Ile Leu Gln Lys Ala Ala Gly Ser Pro
 115 120 125
 Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Thr Pro Thr Pro
 130 135 140
 Thr Pro Thr Gly Ser Asp Leu Gly Asp Lys Leu Leu Leu Ala Ala Thr
 145 150 155 160
 Ser Gly Gln Asp Asp Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp

				165					170					175			
Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala		
			180					185					190				
Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala		
		195					200					205					
Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro	Leu	His	Ala	Ala		
	210				215						220						
Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly		
225				230					235						240		
Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr	Pro	Ala	Asp	Leu		
			245					250						255			
Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala		
		260						265					270				
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr		
	275						280					285					
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu		
	290					295					300						
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys		
305				310					315						320		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu		
			325					330						335			
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu		
		340						345				350					
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Thr	Asn	Lys	Arg	Val	Thr	Pro		
	355					360					365						
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu		
	370					375					380						
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Arg	Asp	Thr	Trp	Gly	Thr	Thr		
385				390					395					400			
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Arg	Asp	Ile	Ala	Glu	Val		
			405					410						415			
Leu	Gln	Lys	Ala	Ala													
		420															

<210> 11
 <211> 569
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #11

<400> 11
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45

Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
50						55					60				
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65					70					75					80
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85					90					95	
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
			100					105					110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
		115					120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
		130				135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145					150					155					160
Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Met	Ala	Asn	Gly	Ala	Asp	Val
				165					170					175	
Asn	Ala	Leu	Asp	Trp	Leu	Gly	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr
			180					185					190		
Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp
		195					200					205			
Val	Asn	Ala	Ile	Asp	Asp	Asn	Asn	Gly	Phe	Thr	Pro	Leu	His	Leu	Ala
		210				215					220				
Ala	Ile	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly
225					230					235					240
Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Phe	Gly	Lys	Thr	Ala	Phe	Asp	Ile
				245					250					255	
Ser	Ile	Asp	Asn	Gly	Asn	Glu	Asp	Leu	Ala	Glu	Ile	Leu	Gln	Lys	Ala
			260					265					270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
		275				280						285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Asp	Lys	Leu	Leu
		290				295					300				
Leu	Ala	Ala	Thr	Ser	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala
305					310					315					320
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu
				325					330					335	
His	Leu	Ala	Ala	Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
			340					345					350		
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro
		355					360					365			
Leu	His	Ala	Ala	Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
						375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val
				405					410					415	
Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr
			420					425					430		
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly
		435					440					445			

Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg
 450 455 460
 Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Ser Gln Gly
 465 470 475 480
 Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe
 485 490 495
 Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Asp Lys
 500 505 510
 Gly Val Thr Pro Leu His Leu Ala Ala Leu Gly His Leu Glu Ile
 515 520 525
 Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ser
 530 535 540
 Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp
 545 550 555 560
 Ile Ala Glu Val Leu Gln Lys Ala Ala
 565

<210> 12
 <211> 569
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #12

<400> 12
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45
 Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Asp Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
 100 105 110
 His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
 115 120 125
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
 130 135 140
 Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala
 145 150 155 160
 Gly Gln Asp Asp Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val
 165 170 175
 Asn Ala Leu Asp Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr

			180				185				190				
Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp
		195					200					205			
Val	Asn	Ala	Ile	Asp	Asp	Asn	Asn	Gly	Phe	Thr	Pro	Leu	His	Leu	Ala
	210					215					220				
Ala	Ile	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly
225					230					235					240
Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Phe	Gly	Lys	Thr	Ala	Phe	Asp	Ile
			245						250					255	
Ser	Ile	Asp	Asn	Gly	Asn	Glu	Asp	Leu	Ala	Glu	Ile	Leu	Gln	Lys	Ala
			260					265					270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
		275					280					285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Asp	Lys	Leu	Leu
	290					295					300				
Leu	Ala	Ala	Thr	Ser	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala
305					310					315					320
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu
			325						330					335	
His	Leu	Ala	Ala	Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
			340					345					350		
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro
	355						360					365			
Leu	His	Ala	Ala	Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val
			405						410					415	
Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr
		420						425					430		
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly
		435					440					445			
Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg
	450					455					460				
Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly
465					470					475					480
Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe
			485					490						495	
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys
			500					505					510		
Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile
		515					520					525			
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser
	530					535					540				
Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp
545					550					555					560
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala							
			565												

<210> 13
 <211> 569
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #13

<400> 13

```

Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1      5      10      15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20      25      30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
35      40      45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50      55      60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
65      70      75      80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85      90      95
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
100     105     110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
115     120     125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
130     135     140
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala
145     150     155     160
Gly Gln Asp Asp Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val
165     170     175
Asn Ala Leu Asp Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr
180     185     190
Glu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp
195     200     205
Val Asn Ala Ile Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala
210     215     220
Ala Ile Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly
225     230     235     240
Ala Asp Val Asn Ala Gln Asp Lys Phe Gly Lys Thr Ala Phe Asp Ile
245     250     255
Ser Ile Asp Asn Gly Asn Glu Asp Leu Ala Glu Ile Leu Gln Lys Ala
260     265     270
Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr
275     280     285
Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Asp Lys Leu Leu
290     295     300
Leu Ala Ala Thr Ser Gly Gln Asp Asp Glu Val Arg Ile Leu Leu Ala
305     310     315     320

```

Ala Gly Ala Asp Val Asn Ala Lys Asp Tyr Asp Gly Asp Thr Pro Leu
 325 330 335
 His Leu Ala Ala Asp Glu Gly His Leu Glu Ile Val Glu Val Leu Leu
 340 345 350
 Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Tyr Ser Gly Ser Thr Pro
 355 360 365
 Leu His Ala Ala Ala Tyr Gly His Leu Glu Ile Val Glu Val Leu
 370 375 380
 Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Val Phe Gly Tyr Thr
 385 390 395 400
 Pro Ala Asp Leu Ala Ala Tyr Val Gly His Glu Asp Ile Ala Glu Val
 405 410 415
 Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr
 420 425 430
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly
 435 440 445
 Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg
 450 455 460
 Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly
 465 470 475 480
 Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe
 485 490 495
 Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asn Asp Lys
 500 505 510
 Arg Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile
 515 520 525
 Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Arg Asp Ser
 530 535 540
 Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Gln Asp
 545 550 555 560
 Ile Ala Glu Val Leu Gln Lys Ala Ala
 565

<210> 14

<211> 569

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #14

<400> 14

Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45
 Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys

50	55	60
Asp Phe Ala Gly Lys Thr	Pro Leu His Leu Ala Ala Ala Asp Gly His	
65	70	75
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala		80
	85	90
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly		95
	100	105
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr		110
	115	120
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr		125
	130	135
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala		140
	145	150
Gly Gln Asp Asp Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val		155
	165	170
Asn Ala Leu Asp Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr		175
	180	185
Glu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp		190
	195	200
Val Asn Ala Ile Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala		205
	210	215
Ala Ile Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly		220
	225	230
Ala Asp Val Asn Ala Gln Asp Lys Phe Gly Lys Thr Ala Phe Asp Ile		235
	245	250
Ser Ile Asp Asn Gly Asn Glu Asp Leu Ala Glu Ile Leu Gln Lys Ala		255
	260	265
Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr		270
	275	280
Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Asp Lys Leu Leu		285
	290	295
Leu Ala Ala Thr Ser Gly Gln Asp Asp Glu Val Arg Ile Leu Leu Ala		300
	305	310
Ala Gly Ala Asp Val Asn Ala Lys Asp Tyr Asp Gly Asp Thr Pro Leu		315
	325	330
His Leu Ala Ala Asp Glu Gly His Leu Glu Ile Val Glu Val Leu Leu		335
	340	345
Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Tyr Ser Gly Ser Thr Pro		350
	355	360
Leu His Ala Ala Ala Ala Tyr Gly His Leu Glu Ile Val Glu Val Leu		365
	370	375
Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Val Phe Gly Tyr Thr		380
	385	390
Pro Ala Asp Leu Ala Ala Tyr Val Gly His Glu Asp Ile Ala Glu Val		395
	405	410
Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr		415
	420	425
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly		430
	435	440
Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Leu Asp Glu Val Arg		445

450		455		460
Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly				
465		470		480
Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe				
	485		490	495
Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Thr Asn Lys				
	500		505	510
Arg Val Thr Pro Leu His Leu Ala Ala Leu Gly His Leu Glu Ile				
	515		520	525
Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Arg Asp Thr				
	530		535	540
Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Arg Asp				
545		550		560
Ile Ala Glu Val Leu Gln Lys Ala Ala				
	565			

<210> 15
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #15

<400> 15
Asp Leu Gly Asp Lys Leu Leu Leu Ala Ala Thr Ser Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Tyr Asp Gly Asp Thr Pro Leu His Leu Ala Ala Asp Glu Gly His Leu
35 40 45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Tyr Ser Gly Ser Thr Pro Leu His Ala Ala Ala Tyr Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Gln Asp Val Phe Gly Tyr Thr Pro Ala Asp Leu Ala Ala Tyr Val Gly
100 105 110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115 120

<210> 16
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> N-terminal capping module

<400> 16

Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp
1				5					10					15	
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
			20					25					30		

<210> 17

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> N-terminal capping module

<400> 17

Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Leu	Asp
1				5					10					15	
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
			20					25					30		

<210> 18

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> N-terminal capping module

<400> 18

Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp
1				5					10					15	
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
			20					25					30		

<210> 19

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> N-terminal capping module

<400> 19

Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp
1				5					10					15	

Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala
20 25 30

<210> 20
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> N-terminal capping module

<400> 20
Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Leu Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
20 25 30

<210> 21
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> N-terminal capping module

<400> 21
Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Leu Asp
1 5 10 15
Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala
20 25 30

<210> 22
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> N-terminal capping module

<220>
<221> VARIANT
<222> 4
<223> Xaa can be any naturally occurring amino acid

<220>
<221> VARIANT
<222> 5

<223> Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 11

<223> Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 12

<223> Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 17

<223> Xaa can be any naturally occurring amino acid

Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 20

<223> Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 22

<223> Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 23

<223> Xaa can be any naturally occurring amino acid

<220>

<221> VARIANT

<222> 24

<223> Xaa can be any naturally occurring amino acid

<400> 22

Asp Leu Gly Xaa Xaa Leu Leu Gln Ala Ala Xaa Xaa Gly Gln Leu Asp

1

5

10

15

Xaa Val Arg Xaa Leu Xaa Xaa Xaa Gly Ala Asp Val Asn Ala

20

25

30

<210> 23

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> C-terminal capping module

<400> 23

Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly
1				5					10					15	
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala				
			20					25							

<210> 24

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> C-terminal capping module

<400> 24

Arg	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly
1				5					10					15	
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala				
			20					25							

<210> 25

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> C-terminal capping module

<400> 25

Arg	Asp	Thr	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly
1				5					10					15	
His	Arg	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala				
			20					25							

<210> 26

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> C-terminal capping module

<400> 26

Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
His Glu Asp Ile Ala Glu Val Leu Gln Lys Leu Ala			
20	25		

<210> 27
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> C-terminal capping module

<400> 27												
Gln Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly												
1	5	10	15									
His Glu Asp Ile Ala Glu Val Leu Gln Lys Leu Asn												
20	25											

<210> 28
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> C-terminal capping module

<400> 28												
Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly												
1	5	10	15									
His Gln Asp Ile Ala Glu Val Leu Gln Lys Leu Ala												
20	25											

<210> 29
 <211> 28
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> C-terminal capping module

<400> 29												
Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly												
1	5	10	15									
His Gln Asp Ile Ala Glu Val Leu Gln Lys Leu Asn												
20	25											

<210> 30

<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> C-terminal capping module

<400> 30
Arg Asp Thr Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly
1 5 10 15
His Arg Asp Ile Ala Glu Val Leu Gln Lys Leu Ala
 20 25

<210> 31
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> C-terminal capping module

<400> 31
Arg Asp Thr Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly
1 5 10 15
His Arg Asp Ile Ala Glu Val Leu Gln Lys Leu Asn
 20 25

<210> 32
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> C-terminal capping module

<220>
<221> VARIANT
<222> 1
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 3
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT

<222> 4
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 6
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 11
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 15
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 19
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 22
<223> Xaa is any naturally occurring amino acid

<220>
<221> VARIANT
<222> 26
<223> Xaa is any naturally occurring amino acid

<400> 32
Xaa Asp Xaa Xaa Gly Xaa Thr Pro Ala Asp Xaa Ala Ala Arg Xaa Gly
1 5 10 15
His Gln Xaa Ile Ala Xaa Val Leu Gln Xaa Ala Ala
20 25

<210> 33
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> His Tag

<400> 33
Met Arg Gly Ser His His His His His His

1 5 10

<210> 34
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Ankyrin repeat domain specific for human serum albumin

<400> 34
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
35 40 45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Asn Glu Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
100 105 110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115 120

<210> 35
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Ankyrin repeat domain specific for human serum albumin

<400> 35
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
35 40 45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala

				85					90					95			
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly		
			100					105					110				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala						
		115					120										

<210> 36
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Ankyrin repeat domain specific for human serum albumin

<400> 36																	
Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp		
1				5					10					15			
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp		
			20					25					30				
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu		
		35				40						45					
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys		
	50				55					60							
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Asp	Ala	Gly	His		
65					70				75					80			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
				85					90					95			
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly		
			100					105					110				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala						
		115					120										

<210> 37
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> PT linker

<400> 37																	
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr		
1				5				10						15			
Pro	Thr	Pro	Thr	Pro	Thr												
			20														

<210> 38
 <211> 222

<212> PRT
<213> Artificial Sequence

<220>
<223> scCD3??_Avi-Bio

<400> 38
Met Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr Gln Thr Pro Tyr
1 5 10 15
Lys Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr Cys Pro Gln Tyr
20 25 30
Pro Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys Asn Ile Gly Gly
35 40 45
Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp His Leu Ser Leu
50 55 60
Lys Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr Val Cys Tyr Pro
65 70 75 80
Arg Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu Tyr Leu Arg Ala
85 90 95
Arg Val Gly Ser Ala Asp Asp Ala Lys Lys Asp Ala Ala Lys Lys Asp
100 105 110
Asp Ala Lys Lys Asp Asp Ala Lys Lys Asp Gly Ser Gln Ser Ile Lys
115 120 125
Gly Asn His Leu Val Lys Val Tyr Asp Tyr Gln Glu Asp Gly Ser Val
130 135 140
Leu Leu Thr Cys Asp Ala Glu Ala Lys Asn Ile Thr Trp Phe Lys Asp
145 150 155 160
Gly Lys Met Ile Gly Phe Leu Thr Glu Asp Lys Lys Lys Trp Asn Leu
165 170 175
Gly Ser Asn Ala Lys Asp Pro Arg Gly Met Tyr Gln Cys Lys Gly Ser
180 185 190
Gln Asn Lys Ser Lys Pro Leu Gln Val Tyr Tyr Arg Met Gly Gly Gly
195 200 205
Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
210 215 220

<210> 39
<211> 272
<212> PRT
<213> Artificial Sequence

<220>
<223> DARPin protein #16

<400> 39
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp

			20					25				30			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
		35					40					45			
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50					55					60				
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65					70					75				80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85						90					95	
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
			100					105					110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
		115					120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala
145					150					155					160
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165					170						175	
Asn	Ala	Lys	Asp	Ser	Gln	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln
			180				185						190		
Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195					200						205			
Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
			245					250						255	
Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		

<210> 40

<211> 272

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin protein #17

<400> 40

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20						25				30			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
		35					40					45			

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

<210> 41

<211> 272

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #18

<400> 41

Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45
 Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His

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

<210> 42
 <211> 272
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #19

<400> 42
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
35 40 45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95

Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
			100					105					110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
		115					120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
		130				135						140			
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala
145					150				155						160
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165					170						175	
Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln
		180					185						190		
Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
		195				200						205			
Val	Asn	Ala	Lys	Thr	Asn	Lys	Arg	Val	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Arg	Asp	Thr	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
				245					250					255	
Ala	Lys	Tyr	Gly	His	Arg	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265						270	

<210> 43

<211> 417

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding domain of SEQ ID NO 1

<400> 43

atgagaggat cgcacaccca tcaccatcac ggctcagatc tgggtcaaaa gttattggag	60
gcagcttggg ctggacaaga tgacgaagta cgtgaattgt taaaagcggg agcagatgta	120
aacgcaaaaag atagtcaagg ttggactccg ttacacacag cagcgcaaac cggccacctg	180
gaaatttttcg aggtgttatt gaaggctgga gcagatgtga atgcaaaaga cgacaaaggg	240
gtgactccgc tgcacatggc agcggcggtt gggcacttgg aaatcgttga ggtccttctg	300
aaagcaggcg ctgatgtgaa tgcgcaagac tcctggggaa ccacaccagc ggacctggcg	360
gctaagtacg gccacgaaga tattgctgaa gttctgcaga aggcagcata atgatag	417

<210> 44
<211> 417
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleic acid encoding domain of SEQ ID NO 2

<400> 44
atgagaggat cgcacacca tcaccatcac ggctcagatc tgggtcaaaa gttgttggaa 60
gctgcctggg cgggacagga tgatgagggtg cgcgaattac ttaaggcggg agcagacgtg 120
aatgcgaaaa actctcgtgg ctggacacca ctgcacacgg ccgcgcaaac tggtcacctt 180
gaaattttcg aagtgttct gaaggcaggc gcagatgtaa acgccaagga tgacaaaggg 240
gtaacaccgc ttcatctggc tgctgcactg ggacatcttg agattgtcga agtactgctt 300
aaggcagggtg ctgacgtaaa cgctcaggat tcatggggga ccacaccggc ggacctggcg 360
gctaaatacg gacatgaaga tattgctgaa gttctgcaga aggcagcata atgatag 417

<210> 45
<211> 417
<212> DNA
<213> Artificial Sequence

<220>
<223> Nucleic acid encoding domain of SEQ ID NO 3

<400> 45
atgagaggat cgcacacca tcaccatcac ggctcagatc tgggtcaaaa gctgttggaa 60
gccgcgtggg cgggtcagga cgatgaagtc cgtgagctgc ttaaagcagg agccgacgtg 120
aacgcgaaga actcacgcgg gtggacgcca cttcacacgg ccgcgcagac aggtcacctt 180
gaaatctttg aggttcttct gaaggcagga gcagacgtta acgcaaaaaa cgacaagcgc 240
gtgactccgt tgcaccttgc cgcagctctg gggcatttgg agatcgttga ggtactgttg 300
aaagcgggag cagatgttaa tgctcgcgac agttggggga cgacaccagc agacctggcc 360
gcaaaatacg gacaccaaga cattgctgaa gttctgcaga aggcagcata atgatag 417

<210> 46
 <211> 417
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nucleic acid encoding domain of SEQ ID NO 4

<400> 46
 atgagaggat cgcacaccca tcaccatcac ggctcagatc tgggtcaaaa attgttagag 60
 gcagcctggg cgggacagtt agacgagggt cgtattcttt tgaaagctgg tgcggatgtg 120
 aacgcaaaga attctcgtgg atggactccg ttgcacaccg ccgcacagac tgggcacttg 180
 gaaatctttg aggttctgtt aaaagcaggg gcagatgtta acgctaaaac taataaacgt 240
 gtcaccccc ttcacctggc tgcggcttta ggccatttag aaatcgtgga agtattactt 300
 aaagccgggg ctgacgttaa cgcccgtgac acttggggga caaccctgc ggatctggcc 360
 gccaaatatg gtcaccgcga cattgctgaa gttctgcaga aggcagcata atgatag 417

<210> 47
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #20

<400> 47
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val Asn Ala Leu Asp
 20 25 30
 Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr Glu Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn Ala Ile
 50 55 60
 Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala Ala Ile Asp Gly
 65 70 75 80
 His Leu Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn
 85 90 95
 Ala Gln Asp Lys Phe Gly Lys Thr Ala Phe Asp Ile Ser Ile Asp Asn
 100 105 110
 Gly Asn Glu Asp Leu Ala Glu Ile Leu Gln Lys Ala Ala Gly Ser Pro

		115					120					125			
Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
	130						135					140			
Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Asp	Lys	Leu	Leu	Leu	Ala	Ala	Thr
145					150					155					160
Ser	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp
			165						170						175
Val	Asn	Ala	Lys	Asp	Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala
		180						185					190		
Asp	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
	195						200					205			
Asp	Val	Asn	Ala	Lys	Asp	Tyr	Ser	Gly	Ser	Thr	Pro	Leu	His	Ala	Ala
	210					215					220				
Ala	Ala	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly
225					230					235					240
Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Phe	Gly	Tyr	Thr	Pro	Ala	Asp	Leu
			245						250						255
Ala	Ala	Tyr	Val	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala
		260						265					270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
	275						280					285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu
	290					295					300				
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala
305					310					315					320
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu
			325						330					335	
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu
		340						345					350		
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro
	355						360					365			
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Gly	Asp	Ile	Ala	Glu	Val
			405						410					415	
Leu	Gln	Lys	Leu	Ala											
			420												

<210> 48
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #21

<400> 48

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1				5					10					15	
Glu	Val	Arg	Ile	Leu	Met	Ala	Asn	Gly	Ala	Asp	Val	Asn	Ala	Leu	Asp
			20					25					30		
Trp	Leu	Gly	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Glu	Gly	His	Leu
		35					40					45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn	Ala	Ile
	50					55					60				
Asp	Asp	Asn	Asn	Gly	Phe	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Asp	Gly
65				70						75				80	
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn
				85					90					95	
Ala	Gln	Asp	Lys	Phe	Gly	Lys	Thr	Ala	Phe	Asp	Ile	Ser	Ile	Asp	Asn
			100					105					110		
Gly	Asn	Glu	Asp	Leu	Ala	Glu	Ile	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro
	115					120						125			
Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
	130					135						140			
Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg
145				150						155					160
Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp
			165					170						175	
Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala
			180					185					190		
Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
	195					200						205			
Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala
	210				215						220				
Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly
225				230					235						240
Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu
			245						250					255	
Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala
			260					265					270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
	275					280						285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu
	290					295					300				
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala
305				310					315						320
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu
			325						330					335	
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu
		340						345					350		
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro
		355					360					365			
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Thr
385				390						395					400

Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Gly Asp Ile Ala Glu Val
405 410 415
Leu Gln Lys Leu Ala
420

<210> 49
<211> 420
<212> PRT
<213> Artificial Sequence

<220>
<223> DARPin® protein #22

<400> 49
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Lys Asp Gly Tyr Thr Pro Leu His Leu Ala Ala Arg Glu Gly His Leu
35 40 45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Lys Asp Gly Tyr Thr Pro Leu His Leu Ala Ala Arg Glu Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Gln Asp Lys Ser Gly Lys Thr Pro Ala Asp Leu Ala Ala Asp Ala Gly
100 105 110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
115 120 125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
130 135 140
Pro Thr Gly Ser Asp Leu Gly Asp Lys Leu Leu Leu Ala Ala Thr Ser
145 150 155 160
Gly Gln Asp Asp Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val
165 170 175
Asn Ala Lys Asp Tyr Asp Gly Asp Thr Pro Leu His Leu Ala Ala Asp
180 185 190
Glu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp
195 200 205
Val Asn Ala Lys Asp Tyr Ser Gly Ser Thr Pro Leu His Ala Ala Ala
210 215 220
Ala Tyr Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
225 230 235 240
Asp Val Asn Ala Gln Asp Val Phe Gly Tyr Thr Pro Ala Asp Leu Ala
245 250 255
Ala Tyr Val Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
260 265 270
Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr

		275				280				285					
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu
	290					295					300				
Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala
305				310						315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His
			325						330					335	
Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro	Leu
		355				360						365			
His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Thr	Pro
385				390						395					400
Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Gly	Asp	Ile	Ala	Glu	Val	Leu
			405						410					415	
Gln	Lys	Leu	Ala												
			420												

<210> 50
 <211> 272
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #23

<400> 50

Asp	Leu	Gly	Asp	Lys	Leu	Leu	Leu	Ala	Ala	Thr	Ser	Gly	Gln	Asp	Asp
1				5				10					15		
Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
			20					25					30		
Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala	Asp	Glu	Gly	His	Leu
	35					40						45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55						60				
Asp	Tyr	Ser	Gly	Ser	Thr	Pro	Leu	His	Ala	Ala	Ala	Ala	Tyr	Gly	His
65				70					75					80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90						95	
Gln	Asp	Val	Phe	Gly	Tyr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Tyr	Val	Gly
		100					105						110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115					120						125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala
145				150						155					160

Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
				165					170					175	
Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln
			180					185					190		
Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
		195					200					205			
Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
			245						250					255	
Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		

<210> 51

<211> 273

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #24

<400> 51

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5						10					15	
Glu	Val	Arg	Ile	Leu	Met	Ala	Asn	Gly	Ala	Asp	Val	Asn	Ala	Leu	Asp
			20					25					30		
Trp	Leu	Gly	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Glu	Gly	His	Leu
		35					40					45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn	Ala	Ile
	50					55					60				
Asp	Asp	Asn	Asn	Gly	Phe	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Asp	Gly
65				70					75					80	
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Asn	Gly	Ala	Asp	Val	Asn
			85						90				95		
Ala	Gln	Asp	Lys	Phe	Gly	Lys	Thr	Ala	Phe	Asp	Ile	Ser	Ile	Asp	Asn
			100					105					110		
Gly	Asn	Glu	Asp	Leu	Ala	Glu	Ile	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro
	115						120						125		
Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
	130					135					140				
Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp
145					150					155					160
Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp
			165						170					175	
Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala

			180					185					190				
Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala		
		195					200					205					
Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu	His	Leu	Ala		
	210					215					220						
Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly		
225					230					235					240		
Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu		
			245						250					255			
Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala		
			260					265						270			
Ala																	

<210> 52
 <211> 1308
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nucleic acid encoding protein of SEQ ID NO 7

<400> 52
 atgagaggat cgcacaccca tcaccatcac ggatccgacc tgggtaaaaa gctgcttgag 60
 gctgcccgtg caggtaaga tgacgaagtc cgcacacctta tggcaaatgg tgccgatgta 120
 aatgcactgg actggcttgg ccacacaccc cttcatctgg cagcctacga ggggcacttg 180
 gagattgtcg aagttttgtt aaaaaacggc gcggatgtaa acgcgattga tgacaacaac 240
 ggatttactc cacttcactt ggcggtatc gacggtcact tagaaattgt agagggtgtg 300
 ttgaagaacg gggcagacgt taatgcacaa gataagttcg gcaaacggc attcgatatc 360
 tccattgata atggtaatga agatttagct gaaatcctgc agaaggcagc aggctcgccg 420
 actccgaccc cgaccacccc aactccaaca ccgaccaccc cgaccctac cccaacagga 480
 tccgacctgg gtgacaaact gctgctggct gctacttctg gtcaggacga cgaagttcgt 540
 atcctgctgg ctgctggcgc cgacgttaat gctaaagact acgacggtga cactccgctg 600
 cacctggctg ctgacgaagg tcacctggaa atcgttgaag ttctgctgaa ggctggtgct 660
 gacgttaatg cttaaagacta ctctggttct actccgctgc acgctgctgc tgcttacggt 720
 cacctggaaa tcgttgaagt tctgctgaag gctgggtgctg acgttaacgc tcaggacgtt 780

ttcggttaca ctccggctga tctggctgct tacgttggtc acgaggatat cgctgaagtt	840
ctgcagaagg ctgcggggag tccaaccccg acgccaacca caccactcc tacgcctaca	900
actccaactc cgacgcctac cggatcagat ctgggtcaaa agttattgga ggcagcttgg	960
gctggacaag atgacgaagt acgtgaattg ttaaaagcgg gagcagatgt aaacgcaaaa	1020
gatagtcaag gttggactcc gttacacaca gcagcgcaaa ccggccacct ggaaattttc	1080
gaggtgttat tgaaggctgg agcagatgtg aatgcaaaag acgacaaagg ggtgactccg	1140
ctgcatctgg cagcggcggtt ggggcacttg gaaatcgttg aggtccttct gaaagcaggc	1200
gctgatgtga atgcgcaaga ctctggggga accacaccag cggacctggc ggctaagtac	1260
ggccacgaag atattgctga agttctgcag aaggcagcat aatgatag	1308

<210> 53

<211> 1308

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO 8

<400> 53

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaaaaa gctgcttgag	60
gctgcccgtg caggtaaga tgacgaagtc cgcaccta tggcaaatgg tgccgatgta	120
aatgcactgg actggcttgg ccacacaccc cttcatctgg cagcctacga ggggcacttg	180
gagattgtcg aagttttgtt aaaaaacggc gcggatgtaa acgcgattga tgacaacaac	240
ggatttactc cacttcactt ggcggctatc gacggtcact tagaaattgt agagggttg	300
ttgaagaacg gggcagacgt taatgcacaa gataagttcg gcaaaacggc attcgatatc	360
tccattgata atggtaatga agatttagct gaaatcctgc agaaggcagc aggctcgccg	420
actccgaccc cgaccacccc aactccaaca ccgaccaccc cgacccctac cccaacagga	480
tccgacctgg gtgacaaact gctgctggct gctacttctg gtcaggacga cgaagttcgt	540
atcctgctgg ctgctggcgc cgacgttaat gctaaagact acgacggtga cactccgctg	600
cacctggctg ctgacgaagg tcacctggaa atcgttgaag ttctgctgaa ggctggtgct	660

gacgttaatg ctaaagacta ctctggttct actccgctgc acgctgctgc tgcttacggt	720
cacctggaaa tcgttgaagt tctgctgaag gctgggtgctg acgttaacgc tcaggacggt	780
ttcgggttaca ctccggctga tctggctgct tacgttggtc acgaggatat cgctgaagtt	840
ctgcagaagg ctgcggggag tccaacccccg acgccaacca caccactcc tacgcctaca	900
actccaactc cgacgcctac cggatcagat ctgggtcaaa agttgttgga agctgcctgg	960
gcgggacagg atgatgaggt gcgcgaatta ctttaaggcgg gagcagacgt gaatgcgaaa	1020
aactctcgtg gctggacacc actgcacacg gccgcgcaaa ctggtcacct tgaaattttc	1080
gaagtgcctt tgaaggcagg cgcagatgta aacgccaagg atgacaaagg ggtaacaccg	1140
cttcatctgg ctgctgcact gggacatctt gagattgtcg aagtactgct taaggcaggt	1200
gctgacgtaa acgctcagga ttcattggggg accacaccgg cggacctggc ggctaaatac	1260
ggacatgaag atattgctga agttctgcag aaggcagcat aatgatag	1308

<210> 54

<211> 1308

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO 9

<400> 54

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaaaaa gctgcttgag	60
gctgcccgtg caggtcaaga tgacgaagtc cgcaccta tggcaaatgg tgccgatgta	120
aatgcactgg actggcttgg ccacacaccc cttcatctgg cagcctacga ggggcacttg	180
gagattgtcg aagttttgtt aaaaaacggc gcggatgtaa acgcgattga tgacaacaac	240
ggatttactc cacttcactt ggcggctatc gacggtcact tagaaattgt agaggtgttg	300
ttgaagaacg gggcagacgt taatgcacaa gataagttcg gcaaaacggc attcgatatc	360
tccattgata atggtaatga agatttagct gaaatcctgc agaaggcagc aggctcgccg	420
actccgaccc cgaccacccc aactccaaca ccgaccaccc cgaccctac cccaacagga	480

tccgacctgg gtgacaaaact gctgctggct gctacttctg gtcaggacga cgaagttcgt	540
atcctgctgg ctgctggcgc cgacgttaat gctaaagact acgacgggtga cactccgctg	600
cacctggctg ctgacgaagg tcacctggaa atcgttgaag ttctgctgaa ggctgggtgct	660
gacgttaatg ctaaagacta ctctggttct actccgctgc acgctgctgc tgcttacggt	720
cacctggaaa tcgttgaagt tctgctgaag gctgggtgctg acgttaacgc tcaggacgtt	780
ttcggttaca ctccggctga tctggctgct tacgttggtc acgaggatat cgctgaagtt	840
ctgcagaagg ctgcggggag tccaacccccg acgccaacca caccactcc tacgcctaca	900
actccaactc cgacgcctac cggatcagat ctgggtcaaa agctgttgga agccgcgtgg	960
gcgggtcagg acgatgaagt ccgtgagctg cttaaagcag gagccgacgt gaacgcgaag	1020
aactcacgcg ggtggacgcc acttcacacg gccgcgcaga caggtcacct tgaaatcttt	1080
gaggttcttc tgaaggcagg agcagacgtt aacgcaaaaa acgacaagcg cgtgactccg	1140
ttgcaccttg ccgcagctct ggggcatttg gagatcgttg aggtactgtt gaaagcggga	1200
gcagatgtta atgctcgcga cagttggggg acgacaccag cagacctggc cgcaaaatac	1260
ggacaccaag acattgctga agttctgcag aaggcagcat aatgatag	1308

<210> 55

<211> 1308

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO 10

<400> 55

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaaaaa gctgcttgag	60
gctgcccgtg caggtaaga tgacgaagtc cgcaccta tggcaaatgg tgccgatgta	120
aatgcactgg actggcttgg ccacacaccc cttcatctgg cagcctacga ggggcacttg	180
gagattgtcg aagttttgtt aaaaaacggc gcggatgtaa acgcgattga tgacaacaac	240
ggatttactc cacttcactt ggccggctatc gacggtcact tagaaattgt agagggtgttg	300
ttgaagaacg gggcagacgt taatgcacaa gataagttcg gcaaaacggc attcgatatc	360

tccattgata atggtaatga agatttagct gaaatcctgc agaaggcagc aggctcgccg 420
 actccgaccc cgaccacccc aactccaaca ccgaccaccc cgacccctac cccaacagga 480
 tccgacctgg gtgacaaact gctgctggct gctacttctg gtcaggacga cgaagttcgt 540
 atcctgctgg ctgctggcgc cgacgttaat gctaaagact acgacgggta cactccgctg 600
 cacctggctg ctgacgaagg tcacctggaa atcgttgaag ttctgctgaa ggctgggtgct 660
 gacgttaatg ctaaagacta ctctggttct actccgctgc acgctgctgc tgcttacggt 720
 cacctggaaa tcgttgaagt tctgctgaag gctgggtgctg acgttaacgc tcaggacggt 780
 ttcggttaca ctccggctga tctggctgct tacgttggtc acgaggatat cgctgaagtt 840
 ctgcagaagg ctgcggggag tccaaccccc acgccaacca caccactcc tacgcctaca 900
 actccaactc cgacgcctac cggatcagat ctgggtcaaa aattgttaga ggcagcctgg 960
 gcgggacagt tagacgaggt tcgtattctt ttgaaagctg gtgcggatgt gaacgcaaag 1020
 aattctcgtg gatggactcc gttgcacacc gccgcacaga ctgggcactt ggaaatcttt 1080
 gaggttctgt taaaagcagg ggcagatggt aacgctaaaa ctaataaacg tgtcaccccc 1140
 cttcacctgg ctgcggcttt aggccattta gaaatcgtgg aagtattact taaagccggg 1200
 gctgacgtta acgcccgtga cacttggggg acaaccctg cggatctggc cgccaaatat 1260
 ggtcaccgcg acattgctga agttctgcag aaggcagcat aatgatag 1308

<210> 56

<211> 272

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #25

<400> 56

Asp	Leu	Gly	Asp	Lys	Leu	Leu	Leu	Ala	Ala	Thr	Ser	Gly	Gln	Asp	Asp
1				5				10					15		
Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
			20					25					30		
Tyr	Asp	Gly	Asp	Thr	Pro	Leu	His	Leu	Ala	Ala	Asp	Glu	Gly	His	Leu
		35					40					45			

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

<210> 57
 <211> 273
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #26

<400> 57
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Ile Leu Met Ala Asn Gly Ala Asp Val Asn Ala Leu Asp
 20 25 30
 Trp Leu Gly His Thr Pro Leu His Leu Ala Ala Tyr Glu Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Asn Gly Ala Asp Val Asn Ala Ile
 50 55 60
 Asp Asp Asn Asn Gly Phe Thr Pro Leu His Leu Ala Ala Ile Asp Gly

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

Asn

<210> 58
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #27

<400> 58

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Leu	Glu	Gly	Gln	Leu	Asp
1				5				10						15	
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20					25						30		
Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu
	35					40						45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55			60							
Asp	Ser	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly	His
65				70				75						80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90						95	

Gln	Asp	Leu	Leu	Gly	Glu	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Glu	Gln	Gly			
			100					105					110					
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr			
		115					120					125						
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr			
		130				135						140						
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	Ala	Ala	Ser	Arg			
145					150				155						160			
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val			
			165					170						175				
Asn	Ala	Lys	Asp	Ile	Asp	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala			
		180						185					190					
Tyr	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala			
		195					200					205						
Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala			
	210					215					220							
Ala	Ile	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly			
225					230				235						240			
Ala	Asp	Val	Asn	Ala	Gln	Asp	Asp	Lys	Gly	Asp	Thr	Pro	Ala	Asp	Leu			
			245						250					255				
Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala			
		260						265					270					
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr			
		275					280					285						
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu			
	290					295					300							
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys			
305					310				315						320			
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu			
			325					330						335				
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu			
		340						345					350					
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro			
		355					360					365						
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu			
	370					375					380							
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr			
385					390				395						400			
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val			
			405					410						415				
Leu	Gln	Lys	Ala	Ala														
			420															

<210> 59

<211> 421

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPIn® protein #28

<400> 59

```
Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Leu Asp
1      5      10      15
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20     25     30
Ser Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Ser Ile Gly His Leu
35     40     45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50     55     60
Asp Asp His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His
65     70     75     80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85     90     95
Gln Asp Gln Glu Gly Thr Thr Pro Ala Asp Leu Ala Ala Val Gln Gly
100    105    110
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
115    120    125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
130    135    140
Pro Thr Gly Ser Asp Leu Gly Trp Lys Leu Leu Ala Ala Ser Arg
145    150    155    160
Gly Gln Asp Asp Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val
165    170    175
Asn Ala Lys Asp Ile Asp Glu Gly Tyr Thr Pro Leu His Ile Ala Ala
180    185    190
Tyr Tyr Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
195    200    205
Asp Val Asn Ala Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala
210    215    220
Ala Ile Ser Gly His Glu Asp Ile Ala Glu Val Leu Leu Lys Ala Gly
225    230    235    240
Ala Asp Val Asn Ala Gln Asp Asp Lys Gly Asp Thr Pro Ala Asp Leu
245    250    255
Ala Ala Asp Tyr Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala
260    265    270
Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr
275    280    285
Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu
290    295    300
Glu Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys
305    310    315    320
Ala Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu
325    330    335
His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu
340    345    350
Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Asp Lys Gly Val Thr Pro
355    360    365
Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu
```

370	375	380
Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ser Trp Gly Thr Thr		
385	390	400
Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile Ala Glu Val		
	405	410
Leu Gln Lys Ala Ala		415
	420	

<210> 60
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin protein #29

<400> 60

Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Leu Asp		
1	5	10
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp		
	20	30
Ser Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Ser Ile Gly His Leu		
	35	45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys		
	50	60
Asp Asp His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His		
65	70	80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala		
	85	95
Gln Asp Gln Glu Gly Thr Thr Pro Ala Asp Leu Ala Ala Val Gln Gly		
	100	110
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr		
	115	125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr		
	130	140
Pro Thr Gly Ser Asp Leu Gly Val Lys Leu Leu Ala Ala Ser Arg		
145	150	160
Gly Gln Leu Asp Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val		
	165	175
Asn Ala Lys Asp Ile Asp Glu Gly Tyr Thr Pro Leu His Ile Ala Ala		
	180	190
Tyr Tyr Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala		
	195	205
Asp Val Asn Ala Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala		
	210	220
Ala Ile Ser Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly		
225	230	240
Ala Asp Val Asn Ala Gln Asp Asp Lys Gly Asp Thr Pro Ala Asp Leu		
	245	255

Ala Ala Asp Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala
 260 265 270
 Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr
 275 280 285
 Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu
 290 295 300
 Glu Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys
 305 310 315 320
 Ala Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu
 325 330 335
 His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu
 340 345 350
 Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Asp Lys Gly Val Thr Pro
 355 360 365
 Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu
 370 375 380
 Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ser Trp Gly Thr Thr
 385 390 395 400
 Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile Ala Glu Val
 405 410 415
 Leu Gln Lys Ala Ala
 420

<210> 61
 <211> 568
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPIn® protein #30

<400> 61
 Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Leu Asp
 1 5 10 15
 Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Ser Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Ser Ile Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Asp His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Gln Glu Gly Thr Thr Pro Ala Asp Leu Ala Ala Val Gln Gly
 100 105 110
 His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
 115 120 125
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr

130		135		140
Pro Thr Gly Ser Asp	Leu Gly Lys Lys Leu	Leu Glu Ala Ala Leu Glu		
145	150	155		160
Gly Gln Asp Asp	Glu Val Arg Glu Leu	Leu Lys Ala Gly Ala Asp Val		
	165	170		175
Asn Ala Lys Asp	Gln Glu Gly Tyr Thr	Pro Leu His Leu Ala Ala Ala		
	180	185		190
Leu Gly His Leu	Glu Ile Val Glu Val	Leu Leu Lys Ala Gly Ala Asp		
	195	200		205
Val Asn Ala Lys	Asp Ser Ile Gly Arg Thr	Pro Leu His Leu Ala Ala Ala		
	210	215		220
Tyr Lys Gly His	Leu Glu Ile Val Glu Val	Leu Leu Lys Ala Gly Ala Ala		
	225	230		235
Asp Val Asn Ala	Gln Asp Leu Leu Gly Glu Thr	Pro Ala Asp Leu Ala Ala		
	245	250		255
Ala Glu Gln Gly	His Glu Asp Ile Ala Glu Val	Leu Gln Lys Ala Ala Ala		
	260	265		270
Gly Ser Pro Thr	Pro Thr Pro Thr Thr	Pro Thr Pro Thr Thr		
	275	280		285
Pro Thr Pro Thr	Pro Thr Gly Ser Asp	Leu Gly Val Lys Leu Leu Arg		
	290	295		300
Ala Ala Phe His	Gly Gln Asp Asp Glu Val	Arg Ile Leu Leu Ala Ala Ala		
	305	310		315
Gly Ala Asp Val	Asn Ala Lys Asp Thr	Asp Gly Glu Thr Pro Leu His		
	325	330		335
Tyr Ala Ala Gln	Phe Gly His Leu Glu Ile Val	Glu Val Leu Leu Lys Lys		
	340	345		350
Ala Gly Ala Asp	Val Asn Ala Lys Asp	Ala Tyr Gly Ala Thr Pro Leu		
	355	360		365
His Trp Ala Ala	Trp His Gly His Leu Glu Ile	Val Glu Val Leu Leu Leu		
	370	375		380
Lys Ala Gly Ala	Asp Val Asn Ala Gln Asp	Val Ser Gly Ala Thr Pro		
	385	390		395
Ala Asp Leu Ala	Ala Lys Val Gly His Glu Asp	Ile Ala Glu Val Leu Leu		
	405	410		415
Gln Lys Ala Ala	Gly Ser Pro Thr Pro Thr	Pro Thr Thr Pro Thr Pro		
	420	425		430
Thr Pro Thr Thr	Pro Thr Pro Thr Pro Thr	Gly Ser Asp Leu Gly Gln		
	435	440		445
Lys Leu Leu Glu	Ala Ala Trp Ala Gly Gln Asp	Asp Glu Val Arg Glu Glu		
	450	455		460
Leu Leu Lys Ala	Gly Ala Asp Val Asn Ala Lys	Asn Ser Arg Gly Trp Trp		
	465	470		475
Thr Pro Leu His	Thr Ala Ala Gln Thr Gly His	Leu Glu Ile Phe Glu Glu		
	485	490		495
Val Leu Leu Lys	Ala Gly Ala Asp Val Asn Ala Lys	Asp Asp Lys Gly Gly		
	500	505		510
Val Thr Pro Leu	His Leu Ala Ala Ala Leu Gly	His Leu Glu Ile Val Val		
	515	520		525
Glu Val Leu Leu	Lys Ala Gly Ala Asp Val Asn Ala	Gln Asp Ser Trp Trp		

530		535		540
Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile				
545		550		555
Ala Glu Val Leu Gln Lys Ala Ala				560
	565			

<210> 62
 <211> 568
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #31

<400> 62

Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Leu Asp				
1	5	10	15	
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp				
	20	25	30	
Ser Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Ser Ile Gly His Leu				
	35	40	45	
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys				
	50	55	60	
Asp Asp His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His				
65	70	75	80	
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala				
	85	90	95	
Gln Asp Gln Glu Gly Thr Thr Pro Ala Asp Leu Ala Ala Val Gln Gly				
	100	105	110	
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr				
	115	120	125	
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr				
	130	135	140	
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Leu Glu				
145	150	155	160	
Gly Gln Leu Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val				
	165	170	175	
Asn Ala Lys Asp Gln Glu Gly Tyr Thr Pro Leu His Leu Ala Ala Ala				
	180	185	190	
Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp				
	195	200	205	
Val Asn Ala Lys Asp Ser Ile Gly Arg Thr Pro Leu His Leu Ala Ala				
	210	215	220	
Tyr Lys Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala				
225	230	235	240	
Asp Val Asn Ala Gln Asp Leu Leu Gly Glu Thr Pro Ala Asp Leu Ala				
	245	250	255	
Ala Glu Gln Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala				
	260	265	270	

Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr			
		275						280					285					
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Arg			
		290				295					300							
Ala	Ala	Val	His	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala			
305					310					315					320			
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Thr	Asp	Gly	Glu	Thr	Pro	Leu	His			
				325					330					335				
Tyr	Ala	Ala	Gln	Phe	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys			
			340					345					350					
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ala	Tyr	Gly	Ala	Thr	Pro	Leu			
		355					360					365						
His	Trp	Ala	Ala	Trp	His	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu			
	370					375					380							
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Ser	Gly	Ala	Thr	Pro			
385					390					395					400			
Ala	Asp	Leu	Ala	Ala	Lys	Val	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu			
				405					410					415				
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro			
			420					425						430				
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln			
		435					440					445						
Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu			
	450					455				460								
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp			
465					470					475					480			
Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu			
				485					490					495				
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly			
			500					505					510					
Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val			
		515					520					525						
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp			
	530					535					540							
Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile			
545					550					555					560			
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala											
				565														

<210> 63

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus GS linker

<220>

<221> VARIANT

<222> 1..5
<223> Gly-Gly-Gly-Gly-Ser]_n, wherein n is 1, 2, 3, 4, 5, or 6

<400> 63
Gly Gly Gly Gly Ser
1 5

<210> 64
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> DARPin® protein #33

<400> 64
Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Leu Asp
1 5 10 15
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Ser Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Ser Ile Gly His Leu
35 40 45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Asp His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Gln Asp Gln Glu Gly Thr Thr Pro Ala Asp Leu Ala Ala Val Gln Gly
100 105 110
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115 120

<210> 65
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> DARPin® protein #34

<400> 65
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Leu Glu Gly Gln Leu Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Gln Glu Gly Tyr Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu
35 40 45

Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Ser Ile Gly Arg Thr Pro Leu His Leu Ala Ala Tyr Lys Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Leu Leu Gly Glu Thr Pro Ala Asp Leu Ala Ala Glu Gln Gly
 100 105 110
 His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 115 120

<210> 66
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #35

<400> 66
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Leu Glu Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Gln Glu Gly Tyr Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Ser Ile Gly Arg Thr Pro Leu His Leu Ala Ala Tyr Lys Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Leu Leu Gly Glu Thr Pro Ala Asp Leu Ala Ala Glu Gln Gly
 100 105 110
 His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 115 120

<210> 67
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #36

<400> 67
 Asp Leu Gly Val Lys Leu Leu Leu Ala Ala Ser Arg Gly Gln Leu Asp
 1 5 10 15

Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Ile Asp Glu Gly Tyr Thr Pro Leu His Ile Ala Ala Tyr Tyr Gly His
 35 40 45
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 50 55 60
 Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala Ala Ile Ser Gly
 65 70 75 80
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 85 90 95
 Ala Gln Asp Asp Lys Gly Asp Thr Pro Ala Asp Leu Ala Ala Asp Tyr
 100 105 110
 Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 115 120 125

<210> 68
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #37

<400> 68
 Asp Leu Gly Trp Lys Leu Leu Leu Ala Ala Ser Arg Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Ile Asp Glu Gly Tyr Thr Pro Leu His Ile Ala Ala Tyr Tyr Gly His
 35 40 45
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 50 55 60
 Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala Ala Ile Ser Gly
 65 70 75 80
 His Glu Asp Ile Ala Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 85 90 95
 Ala Gln Asp Asp Lys Gly Asp Thr Pro Ala Asp Leu Ala Ala Asp Tyr
 100 105 110
 Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 115 120 125

<210> 69
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #38

<400> 69

```
Asp Leu Gly Val Lys Leu Leu Arg Ala Ala Phe His Gly Gln Asp Asp
1           5           10           15
Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala Lys Asp
          20           25           30
Thr Asp Gly Glu Thr Pro Leu His Tyr Ala Ala Gln Phe Gly His Leu
          35           40           45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
          50           55           60
Asp Ala Tyr Gly Ala Thr Pro Leu His Trp Ala Ala Trp His Gly His
65           70           75           80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
          85           90           95
Gln Asp Val Ser Gly Ala Thr Pro Ala Asp Leu Ala Ala Lys Val Gly
          100          105          110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
          115          120
```

<210> 70

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #39

<400> 70

```
Asp Leu Gly Val Lys Leu Leu Arg Ala Ala Val His Gly Gln Leu Asp
1           5           10           15
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
          20           25           30
Thr Asp Gly Glu Thr Pro Leu His Tyr Ala Ala Gln Phe Gly His Leu
          35           40           45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
          50           55           60
Asp Ala Tyr Gly Ala Thr Pro Leu His Trp Ala Ala Trp His Gly His
65           70           75           80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
          85           90           95
Gln Asp Val Ser Gly Ala Thr Pro Ala Asp Leu Ala Ala Lys Val Gly
          100          105          110
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
          115          120
```

<210> 71

<211> 421

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #40

<400> 71

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20					25					30			
Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu
		35				40						45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55						60				
Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His
65				70					75					80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90						95	
Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly
		100					105						110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115				120							125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130				135						140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	Ala	Ala	Ser	Arg
145				150				155						160	
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165					170						175	
Asn	Ala	Lys	Asp	Ile	Asp	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala
		180					185						190		
Tyr	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
	195					200						205			
Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala
	210				215						220				
Ala	Ile	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly
225				230					235					240	
Ala	Asp	Val	Asn	Ala	Gln	Asp	Asp	Lys	Gly	Asp	Thr	Pro	Ala	Asp	Leu
			245					250						255	
Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala
		260					265						270		
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
	275					280						285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu
	290				295						300				
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys
305				310					315					320	
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu
			325					330						335	
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu
		340					345						350		

Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Asp Lys Gly Val Thr Pro
 355 360 365
 Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu
 370 375 380
 Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ser Trp Gly Thr Thr
 385 390 395 400
 Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile Ala Glu Val
 405 410 415
 Leu Gln Lys Ala Ala
 420

<210> 72
 <211> 420
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #41

<400> 72
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Leu Glu Gly Gln Leu Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Gln Glu Gly Tyr Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Ser Ile Gly Arg Thr Pro Leu His Leu Ala Ala Tyr Lys Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Leu Leu Gly Glu Thr Pro Ala Asp Leu Ala Ala Glu Gln Gly
 100 105 110
 His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
 115 120 125
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
 130 135 140
 Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala
 145 150 155 160
 Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val
 165 170 175
 Asn Ala Lys Asp Lys Asp Gly Tyr Thr Pro Leu His Leu Ala Ala Arg
 180 185 190
 Glu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp
 195 200 205
 Val Asn Ala Lys Asp Lys Asp Gly Tyr Thr Pro Leu His Leu Ala Ala
 210 215 220
 Arg Glu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala

225		230		235		240
Asp Val Asn Ala Gln Asp Lys Ser Gly Lys Thr Pro Ala Asp Leu Ala						
	245		250		255	
Ala Asp Ala Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala						
	260		265		270	
Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Thr Thr						
	275		280		285	
Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu Glu						
	290		295		300	
Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala						
305		310		315		320
Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu His						
	325		330		335	
Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu Lys						
	340		345		350	
Ala Gly Ala Asp Val Asn Ala Lys Asp Asp Lys Gly Val Thr Pro Leu						
	355		360		365	
His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu Leu						
	370		375		380	
Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ser Trp Gly Thr Thr Pro						
385		390		395		400
Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile Ala Glu Val Leu						
	405		410		415	
Gln Lys Ala Ala						
	420					

<210> 73
 <211> 421
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #42

<400> 73
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Lys Asp Gly Tyr Thr Pro Leu His Leu Ala Ala Arg Glu Gly His Leu
35 40 45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Lys Asp Gly Tyr Thr Pro Leu His Leu Ala Ala Arg Glu Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Gln Asp Lys Ser Gly Lys Thr Pro Ala Asp Leu Ala Ala Asp Ala Gly
100 105 110

<400> 74

Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln	Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp
1				5					10					15	
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
			20					25					30		
Ser	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ser	Ile	Gly	His	Leu
		35					40					45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50					55					60				
Asp	Asp	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Ser	Gly	His
65					70					75					80
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85					90					95	
Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly
			100					105					110		
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
		115					120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145					150					155					160
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
				165					170					175	
Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
			180				185						190		
Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
		195					200					205			
Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala
				245					250					255	
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Thr
		275					280					285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu
	290					295					300				
Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His
				325					330					335	
Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu
		355					360					365			
His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375						380			
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro

385		390		395		400									
Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu
			405						410					415	
Gln	Lys	Ala	Ala												
			420												

<210> 75
 <211> 568
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #44

<400> 75

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20					25					30			
Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu
	35					40					45				
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55					60					
Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His
65				70				75					80		
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90					95		
Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly
	100							105					110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115					120						125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145				150					155					160	
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165				170						175		
Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
	180					185						190			
Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195					200						205			
Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225				230					235					240	
Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala
			245					250						255	
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260				265						270		

Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr
 275 280 285
 Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Val Lys Leu Leu Arg
 290 295 300
 Ala Ala Val His Gly Gln Leu Asp Glu Val Arg Ile Leu Leu Lys Ala
 305 310 315 320
 Gly Ala Asp Val Asn Ala Lys Asp Thr Asp Gly Glu Thr Pro Leu His
 325 330 335
 Tyr Ala Ala Gln Phe Gly His Leu Glu Ile Val Glu Val Leu Leu Lys
 340 345 350
 Ala Gly Ala Asp Val Asn Ala Lys Asp Ala Tyr Gly Ala Thr Pro Leu
 355 360 365
 His Trp Ala Ala Trp His Gly His Leu Glu Ile Val Glu Val Leu Leu
 370 375 380
 Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Val Ser Gly Ala Thr Pro
 385 390 395 400
 Ala Asp Leu Ala Ala Lys Val Gly His Gln Asp Ile Ala Glu Val Leu
 405 410 415
 Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro
 420 425 430
 Thr Pro Thr Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Gln
 435 440 445
 Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp Asp Glu Val Arg Glu
 450 455 460
 Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asn Ser Arg Gly Trp
 465 470 475 480
 Thr Pro Leu His Thr Ala Ala Gln Thr Gly His Leu Glu Ile Phe Glu
 485 490 495
 Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Asp Lys Gly
 500 505 510
 Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val
 515 520 525
 Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ser Trp
 530 535 540
 Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile
 545 550 555 560
 Ala Glu Val Leu Gln Lys Ala Ala
 565

<210> 76

<211> 568

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPIn® protein #45

<400> 76

Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Leu Asp

1				5				10					15			
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
			20					25					30			
Ser	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ser	Ile	Gly	His	Leu	
		35					40					45				
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
		50				55					60					
Asp	Asp	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Ser	Gly	His	
65				70					75					80		
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
			85					90					95			
Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	
			100					105					110			
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	
		115					120					125				
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	
		130				135					140					
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	
145				150					155					160		
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	
			165					170						175		
Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	
		180				185						190				
Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	
		195				200					205					
Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	
		210				215					220					
Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	
225				230						235				240		
Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	
			245					250						255		
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	
			260					265					270			
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	
		275					280					285				
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	
		290				295					300					
Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	
305				310						315				320		
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	
			325					330					335			
Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	
			340					345					350			
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	
		355					360					365				
His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	
		370				375					380					
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	
385				390						395				400		
Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	

				405					410					415		
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	
			420					425					430			
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	
		435					440					445				
Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	
	450					455					460					
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	
465				470					475						480	
Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	
			485					490					495			
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	
			500					505					510			
Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	
		515					520					525				
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	
	530					535					540					
Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	
545					550					555					560	
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala									
				565												

<210> 77

<211> 568

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #46

<400> 77

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	
1			5					10					15			
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
		20					25					30				
Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	
	35					40					45					
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
	50				55				60							
Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	
65				70				75					80			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
			85				90						95			
Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly	
		100					105					110				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	
		115				120						125				
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	
	130					135					140					

Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Leu	Glu
145					150					155					160
Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
				165						170					175
Asn	Ala	Lys	Asp	Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala
			180					185						190	
Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
		195					200					205			
Val	Asn	Ala	Lys	Asp	Ser	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Tyr	Lys	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Leu	Leu	Gly	Glu	Thr	Pro	Ala	Asp	Leu	Ala
				245					250						255
Ala	Glu	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265						270	
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
		275					280					285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu
	290					295					300				
Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His
				325					330						335
Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu
		355					360					365			
His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro
385					390					395					400
Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu
				405					410						415
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
			420					425						430	
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln
		435					440					445			
Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu
	450					455					460				
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp
465					470					475					480
Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu
				485					490						495
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly
			500					505					510		
Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val
		515					520					525			
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp
	530					535					540				

Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp Ile
 545 550 555 560
 Ala Glu Val Leu Gln Lys Ala Ala
 565

<210> 78
 <211> 569
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #47

<400> 78
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45
 Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
 100 105 110
 His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
 115 120 125
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
 130 135 140
 Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Leu Glu
 145 150 155 160
 Gly Gln Leu Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val
 165 170 175
 Asn Ala Lys Asp Gln Glu Gly Tyr Thr Pro Leu His Leu Ala Ala Ala
 180 185 190
 Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp
 195 200 205
 Val Asn Ala Lys Asp Ser Ile Gly Arg Thr Pro Leu His Leu Ala Ala
 210 215 220
 Tyr Lys Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
 225 230 235 240
 Asp Val Asn Ala Gln Asp Leu Leu Gly Glu Thr Pro Ala Asp Leu Ala
 245 250 255
 Ala Glu Gln Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 260 265 270
 Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr

Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
			20					25					30		
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
		35					40					45			
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50					55					60				
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Asp	Gly	His	
65					70					75				80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85						90					95	
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
			100					105					110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
		115					120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145					150					155					160
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165						170					175	
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
			180					185					190		
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195						200					205			
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala
			245						250					255	
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
		275					280					285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu
	290					295					300				
Ala	Ala	Leu	Glu	Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His
			325						330					335	
Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ser	Ile	Gly	Arg	Thr	Pro	Leu
	355						360					365			
His	Leu	Ala	Ala	Tyr	Lys	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Leu	Leu	Gly	Glu	Thr	Pro
385					390					395					400
Ala	Asp	Leu	Ala	Ala	Glu	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu
			405						410					415	

Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro
 420 425 430
 Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Val
 435 440 445
 Lys Leu Leu Leu Ala Ala Ser Arg Gly Gln Leu Asp Glu Val Arg Ile
 450 455 460
 Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Ile Asp Glu Gly
 465 470 475 480
 Tyr Thr Pro Leu His Ile Ala Ala Tyr Tyr Gly His Leu Glu Ile Val
 485 490 495
 Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Arg Tyr
 500 505 510
 Gly Lys Thr Pro Leu His Leu Ala Ala Ile Ser Gly His Leu Glu Ile
 515 520 525
 Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Asp
 530 535 540
 Lys Gly Asp Thr Pro Ala Asp Leu Ala Ala Asp Tyr Gly His Gln Asp
 545 550 555 560
 Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro
 565 570 575
 Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Gly
 580 585 590
 Ser Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly Gln Asp
 595 600 605
 Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 610 615 620
 Asn Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala Gln Thr Gly His
 625 630 635 640
 Leu Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 645 650 655
 Lys Asp Asp Lys Gly Val Thr Pro Leu His Leu Ala Ala Ala Leu Gly
 660 665 670
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 675 680 685
 Ala Gln Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr
 690 695 700
 Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 705 710 715

<210> 80

<211> 569

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPIn® protein #49

<400> 80

Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Leu Glu Gly Gln Leu Asp

1				5					10					15			
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp		
			20					25					30				
Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu		
		35					40					45					
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys		
	50					55					60						
Asp	Ser	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly	His		
65				70					75					80			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
			85					90					95				
Gln	Asp	Leu	Leu	Gly	Glu	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Glu	Gln	Gly		
		100						105					110				
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr		
		115					120					125					
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr		
	130					135					140						
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	Ala	Ala	Ser	Arg		
145				150					155					160			
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val		
			165					170						175			
Asn	Ala	Lys	Asp	Ile	Asp	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala		
		180					185					190					
Tyr	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala		
	195					200					205						
Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala		
	210				215					220							
Ala	Ile	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly		
225				230					235					240			
Ala	Asp	Val	Asn	Ala	Gln	Asp	Asp	Lys	Gly	Asp	Thr	Pro	Ala	Asp	Leu		
			245					250					255				
Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala		
		260					265					270					
Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr		
	275					280					285						
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu		
	290				295					300							
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys		
305				310					315					320			
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu		
			325				330						335				
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu		
		340					345					350					
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro		
	355					360					365						
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu		
	370				375					380							
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr		
385				390					395					400			
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val		

				405					410					415		
Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	
			420						425					430		
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	
		435					440					445				
Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	
	450					455					460					
Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Tyr	Phe	Ser	
465				470						475					480	
His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu	Lys	Ile	Val	
			485						490					495		
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Phe	Ala	
			500					505					510			
Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His	Leu	Glu	Ile	
		515					520					525				
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ile	
	530					535					540					
Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	
545					550					555					560	
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala								
				565												

<210> 81
 <211> 569
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #50

<400> 81																
Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	
1				5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
		20					25					30				
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu	
	35					40					45					
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
	50				55					60						
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His	
65				70					75					80		
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
			85					90					95			
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly	
		100					105					110				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	
	115					120						125				
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	
	130					135					140					

Pro	Thr	Gly	Ser	Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln	Ala	Ala	Tyr	Asp
145					150				155						160
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
				165				170							175
Asn	Ala	Lys	Asp	Ser	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ser
			180					185						190	
Ile	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195						200					205			
Val	Asn	Ala	Lys	Asp	Asp	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215				220					
Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
				245					250						255
Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265						270	
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
		275					280					285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu
	290					295					300				
Ala	Ala	Ser	Arg	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Asp	Glu	Gly	Tyr	Thr	Pro	Leu
				325					330					335	
His	Ile	Ala	Ala	Tyr	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
			340					345					350		
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro
		355					360					365			
Leu	His	Leu	Ala	Ala	Ile	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Asp	Lys	Gly	Asp	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val
				405					410					415	
Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr
		420						425					430		
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly
		435				440						445			
Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg
	450					455					460				
Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly
465					470					475					480
Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe
				485					490					495	
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys
			500					505					510		
Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile
		515					520					525			
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser
	530					535					540				

Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala Lys Tyr Gly His Glu Asp
 545 550 555 560
 Ile Ala Glu Val Leu Gln Lys Ala Ala
 565

<210> 82
 <211> 717
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #51

<400> 82
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45
 Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
 100 105 110
 His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
 115 120 125
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
 130 135 140
 Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala
 145 150 155 160
 Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val
 165 170 175
 Asn Ala Lys Asp Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg
 180 185 190
 Asn Gly His Leu Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp
 195 200 205
 Val Asn Ala Lys Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala
 210 215 220
 Ala Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
 225 230 235 240
 Asp Val Asn Ala Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala
 245 250 255
 Ala Asp Ala Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 260 265 270
 Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr

		275				280				285					
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln
	290					295					300				
Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala
305				310						315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ser	Arg	Gly	Gln	Thr	Pro	Leu	His
			325						330					335	
Tyr	Ala	Ala	Ser	Ile	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	His	Gly	Trp	Thr	Pro	Leu
		355					360				365				
His	Leu	Ala	Ala	Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro
385				390						395					400
Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu
			405						410					415	
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
			420					425					430		
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val
		435					440					445			
Lys	Leu	Leu	Leu	Ala	Ala	Ser	Arg	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile
	450					455					460				
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Asp	Glu	Gly
465				470					475					480	
Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala	Tyr	Tyr	Gly	His	Leu	Glu	Ile	Val
			485					490					495		
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr
			500					505					510		
Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Ser	Gly	His	Leu	Glu	Ile
		515					520					525			
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Asp
	530					535					540				
Lys	Gly	Asp	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp
545					550					555					560
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro
			565						570					575	
Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly
		580						585					590		
Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp
		595					600					605			
Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	610					615					620				
Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His
625				630						635					640
Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			645						650					655	
Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly
		660						665					670		
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn

	675					680					685						
Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr		
	690					695					700						
Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala					
705					710					715							

<210> 83
 <211> 569
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #52

<400> 83

Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln	Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp		
1				5				10					15				
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp		
		20						25				30					
Ser	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ser	Ile	Gly	His	Leu		
	35					40					45						
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys		
	50				55					60							
Asp	Asp	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Ser	Gly	His		
65				70				75						80			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
			85					90					95				
Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly		
		100					105					110					
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr		
	115					120						125					
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr		
	130					135					140						
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	Ala	Ala	Ser	Arg		
145				150				155						160			
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val		
			165					170						175			
Asn	Ala	Lys	Asp	Ile	Asp	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala		
	180							185					190				
Tyr	Tyr	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala		
	195					200						205					
Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala		
	210				215						220						
Ala	Ile	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly		
225				230						235				240			
Ala	Asp	Val	Asn	Ala	Gln	Asp	Asp	Lys	Gly	Asp	Thr	Pro	Ala	Asp	Leu		
			245						250					255			
Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala		
	260						265						270				

Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
	275						280					285			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu
	290					295					300				
Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys
305					310					315					320
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu
			325					330						335	
His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu
		340					345					350			
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro
	355						360					365			
Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val
			405					410						415	
Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr
	420							425					430		
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly
	435					440					445				
Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg
	450				455					460					
Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Tyr	Phe	Ser
465				470						475					480
His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu	Lys	Ile	Val
			485					490						495	
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Phe	Ala
		500						505					510		
Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His	Leu	Glu	Ile
	515					520					525				
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ile
	530					535					540				
Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp
545					550					555					560
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala							
			565												

<210> 84
 <211> 716
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPIn® protein #53

<400> 84
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp

1				5				10					15			
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
			20					25					30			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu	
		35					40					45				
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
	50					55					60					
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His	
65				70					75						80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
			85					90						95		
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly	
			100					105					110			
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	
		115					120					125				
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	
	130					135					140					
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln	Ala	Ala	Tyr	Asp	
145				150					155						160	
Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	
			165					170						175		
Asn	Ala	Lys	Asp	Ser	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ser	
			180				185						190			
Ile	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	
	195					200					205					
Val	Asn	Ala	Lys	Asp	Asp	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	
	210					215					220					
Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	
225				230						235					240	
Asp	Val	Asn	Ala	Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	
			245					250						255		
Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	
			260					265					270			
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	
		275					280					285				
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	
	290					295					300					
Ala	Ala	Leu	Glu	Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	
305				310						315					320	
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His	
			325					330						335		
Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	
			340					345					350			
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ser	Ile	Gly	Arg	Thr	Pro	Leu	
		355					360					365				
His	Leu	Ala	Ala	Tyr	Lys	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	
	370					375					380					
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Leu	Leu	Gly	Glu	Thr	Pro	
385				390						395					400	
Ala	Asp	Leu	Ala	Ala	Glu	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	

				405				410					415			
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	
			420					425					430			
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	
		435					440					445				
Lys	Leu	Leu	Arg	Ala	Ala	Val	His	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	
	450					455					460					
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Thr	Asp	Gly	Glu	
465				470						475					480	
Thr	Pro	Leu	His	Tyr	Ala	Ala	Gln	Phe	Gly	His	Leu	Glu	Ile	Val	Glu	
			485					490						495		
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ala	Tyr	Gly	
			500					505					510			
Ala	Thr	Pro	Leu	His	Trp	Ala	Ala	Trp	His	Gly	His	Leu	Glu	Ile	Val	
		515					520					525				
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Ser	
	530					535					540					
Gly	Ala	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Val	Gly	His	Gln	Asp	Ile	
545					550					555					560	
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	
			565					570						575		
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	
		580						585				590				
Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	
	595					600					605					
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	
	610					615				620						
Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	
625					630					635					640	
Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
			645					650						655		
Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	
		660						665					670			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
	675						680					685				
Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	
	690					695				700						
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala					
705				710						715						

<210> 85

<211> 864

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #54

<400> 85

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1				5					10					15	
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
			20					25					30		
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
		35					40					45			
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50					55					60				
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65					70					75				80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85					90					95	
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
			100					105					110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115						120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145					150					155					160
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
				165				170						175	
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
			180					185					190		
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195						200					205			
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala
				245					250					255	
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
	275						280					285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln
	290					295					300				
Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ser	Arg	Gly	Gln	Thr	Pro	Leu	His
				325					330					335	
Tyr	Ala	Ala	Ser	Ile	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	His	Gly	Trp	Thr	Pro	Leu
		355					360					365			
His	Leu	Ala	Ala	Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro
385					390					395					400

80/139

Val	Asn	Ala	Lys	Asp	Asp	Lys	Gly	Val	Thr	Pro	Leu	His	Leu	Ala	Ala
				805					810					815	
Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
			820					825					830		
Asp	Val	Asn	Ala	Gln	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
		835					840					845			
Ala	Lys	Tyr	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
	850					855					860				

<210> 86
 <211> 716
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #55

<400> 86

Asp	Leu	Gly	Tyr	Lys	Leu	Leu	Gln	Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp
1				5					10					15	
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
			20					25					30		
Ser	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ser	Ile	Gly	His	Leu
		35					40					45			
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50					55					60				
Asp	Asp	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Ser	Gly	His
65					70					75				80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85					90					95	
Gln	Asp	Gln	Glu	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly
			100					105						110	
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115						120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Leu	Glu
145					150					155				160	
Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165						170					175	
Asn	Ala	Lys	Asp	Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala
		180					185						190		
Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195						200					205			
Val	Asn	Ala	Lys	Asp	Ser	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Tyr	Lys	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala

225					230					235				240
Asp	Val	Asn	Ala	Gln	Asp	Leu	Leu	Gly	Glu	Thr	Pro	Ala	Asp	Leu
				245					250					255
Ala	Glu	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala
			260					265					270	
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr
		275					280					285		
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu
	290					295				300				Arg
Ala	Ala	Val	His	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys
305					310					315				320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Thr	Asp	Gly	Glu	Thr	Pro	Leu
				325					330					335
Tyr	Ala	Ala	Gln	Phe	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
			340					345					350	
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ala	Tyr	Gly	Ala	Thr	Pro
		355					360					365		
His	Trp	Ala	Ala	Trp	His	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
	370					375					380			
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Ser	Gly	Ala	Thr
385					390					395				400
Ala	Asp	Leu	Ala	Ala	Lys	Val	Gly	His	Gln	Asp	Ile	Ala	Glu	Val
				405					410					415
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr
			420					425					430	
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly
		435					440					445		
Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg
	450					455				460				
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asn	Ser	Arg	Gly
465					470					475				480
Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	Gly	His	Leu	Glu	Ile	Phe
				485					490					495
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Asp	Lys
			500					505					510	
Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile
		515					520					525		
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ser
	530					535					540			
Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Lys	Tyr	Gly	His	Glu	Asp
545					550					555				560
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro
				565				570						575
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly
			580					585					590	
Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp
		595					600					605		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	610					615					620			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His

625		630		635		640									
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
		645		650		655									
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
		660		665		670									
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
		675		680		685									
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
	690				695				700						
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala				
705					710				715						

<210> 87

<211> 242

<212> PRT

<213> Artificial Sequence

<220>

<223> biotinylated extracellular domain of human CD33

<400> 87

Asp	Pro	Asn	Phe	Trp	Leu	Gln	Val	Gln	Glu	Ser	Val	Thr	Val	Gln	Glu
1			5					10						15	
Gly	Leu	Cys	Val	Leu	Val	Pro	Cys	Thr	Phe	Phe	His	Pro	Ile	Pro	Tyr
		20						25					30		
Tyr	Asp	Lys	Asn	Ser	Pro	Val	His	Gly	Tyr	Trp	Phe	Arg	Glu	Gly	Ala
		35					40					45			
Ile	Ile	Ser	Gly	Asp	Ser	Pro	Val	Ala	Thr	Asn	Lys	Leu	Asp	Gln	Glu
	50				55					60					
Val	Gln	Glu	Glu	Thr	Gln	Gly	Arg	Phe	Arg	Leu	Leu	Gly	Asp	Pro	Ser
65					70				75						80
Arg	Asn	Asn	Cys	Ser	Leu	Ser	Ile	Val	Asp	Ala	Arg	Arg	Arg	Asp	Asn
			85						90					95	
Gly	Ser	Tyr	Phe	Phe	Arg	Met	Glu	Arg	Gly	Ser	Thr	Lys	Tyr	Ser	Tyr
		100					105					110			
Lys	Ser	Pro	Gln	Leu	Ser	Val	His	Val	Thr	Asp	Leu	Thr	His	Arg	Pro
		115					120					125			
Lys	Ile	Leu	Ile	Pro	Gly	Thr	Leu	Glu	Pro	Gly	His	Ser	Lys	Asn	Leu
	130					135					140				
Thr	Cys	Ser	Val	Ser	Trp	Ala	Cys	Glu	Gln	Gly	Thr	Pro	Pro	Ile	Phe
145					150					155					160
Ser	Trp	Leu	Ser	Ala	Ala	Pro	Thr	Ser	Leu	Gly	Pro	Arg	Thr	Thr	His
			165						170					175	
Ser	Ser	Val	Leu	Ile	Ile	Thr	Pro	Arg	Pro	Gln	Asp	His	Gly	Thr	Asn
			180					185					190		
Leu	Thr	Cys	Gln	Val	Lys	Phe	Ala	Gly	Ala	Gly	Val	Thr	Thr	Glu	Arg
		195					200					205			
Thr	Ile	Gln	Leu	Asn	Val	Thr	Tyr	Val	Pro	Gln	Asn	Pro	Thr	Thr	Gly
	210					215					220				

Ile Phe Pro Gly Asp Gly Ser Gly Lys Gln Glu Thr Arg Ala Gly Val
 225 230 235 240
 Val His

<210> 88
 <211> 285
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> biotinylated extracellular domain of human CD123

<400> 88
 Thr Lys Glu Asp Pro Asn Pro Pro Ile Thr Asn Leu Arg Met Lys Ala
 1 5 10 15
 Lys Ala Gln Gln Leu Thr Trp Asp Leu Asn Arg Asn Val Thr Asp Ile
 20 25 30
 Glu Cys Val Lys Asp Ala Asp Tyr Ser Met Pro Ala Val Asn Asn Ser
 35 40 45
 Tyr Cys Gln Phe Gly Ala Ile Ser Leu Cys Glu Val Thr Asn Tyr Thr
 50 55 60
 Val Arg Val Ala Asn Pro Pro Phe Ser Thr Trp Ile Leu Phe Pro Glu
 65 70 75 80
 Asn Ser Gly Lys Pro Trp Ala Gly Ala Glu Asn Leu Thr Cys Trp Ile
 85 90 95
 His Asp Val Asp Phe Leu Ser Cys Ser Trp Ala Val Gly Pro Gly Ala
 100 105 110
 Pro Ala Asp Val Gln Tyr Asp Leu Tyr Leu Asn Val Ala Asn Arg Arg
 115 120 125
 Gln Gln Tyr Glu Cys Leu His Tyr Lys Thr Asp Ala Gln Gly Thr Arg
 130 135 140
 Ile Gly Cys Arg Phe Asp Asp Ile Ser Arg Leu Ser Ser Gly Ser Gln
 145 150 155 160
 Ser Ser His Ile Leu Val Arg Gly Arg Ser Ala Ala Phe Gly Ile Pro
 165 170 175
 Cys Thr Asp Lys Phe Val Val Phe Ser Gln Ile Glu Ile Leu Thr Pro
 180 185 190
 Pro Asn Met Thr Ala Lys Cys Asn Lys Thr His Ser Phe Met His Trp
 195 200 205
 Lys Met Arg Ser His Phe Asn Arg Lys Phe Arg Tyr Glu Leu Gln Ile
 210 215 220
 Gln Lys Arg Met Gln Pro Val Ile Thr Glu Gln Val Arg Asp Arg Thr
 225 230 235 240
 Ser Phe Gln Leu Leu Asn Pro Gly Thr Tyr Thr Val Gln Ile Arg Ala
 245 250 255
 Arg Glu Arg Val Tyr Glu Phe Leu Ser Ala Trp Ser Thr Pro Gln Arg
 260 265 270
 Phe Glu Cys Asp Gln Glu Glu Gly Ala Asn Thr Arg Ala

275

280

285

<210> 89

<211> 142

<212> PRT

<213> Artificial Sequence

<220>

<223> biotinylated extracellular domain of human CD70

<400> 89

```

Ser Leu Gly Trp Asp Val Ala Glu Leu Gln Leu Asn His Thr Gly Pro
1      5      10      15
Gln Gln Asp Pro Arg Leu Tyr Trp Gln Gly Gly Pro Ala Leu Gly Arg
20     25     30
Ser Phe Leu His Gly Pro Glu Leu Asp Lys Gly Gln Leu Arg Ile His
35     40     45
Arg Asp Gly Ile Tyr Met Val His Ile Gln Val Thr Leu Ala Ile Cys
50     55     60
Ser Ser Thr Thr Ala Ser Arg His His Pro Thr Thr Leu Ala Val Gly
65     70     75     80
Ile Cys Ser Pro Ala Ser Arg Ser Ile Ser Leu Leu Arg Leu Ser Phe
85     90     95
His Gln Gly Cys Thr Ile Ala Ser Gln Arg Leu Thr Pro Leu Ala Arg
100    105    110
Gly Asp Thr Leu Cys Thr Asn Leu Thr Gly Thr Leu Leu Pro Ser Arg
115    120    125
Asn Thr Asp Glu Thr Phe Phe Gly Val Gln Trp Val Arg Pro
130    135    140

```

<210> 90

<211> 1308

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding domain of SEQ ID NO 58

<400> 90

```

atgagaggat cgcacaccca tcaccatcac ggttccgacc tgggtaaaaa gctgttggag      60
gccgcgttag aggggtcaatt ggatgaagtt cgtgaactgt taaaagcggg cgccgatgta      120
aacgctaaaag accaggaggg gtacactcct ttgcatctgg cagcagctct tggatcatctg      180
gaaattgtcg aggtgctgtt aaaggcagga gcagatgtaa atgcaaagga ctctattgga      240
cgtaaccacac tgcacttggc tgcctacaaa ggtcacctgg aaattgtgga agtcttactg      300

```

aaagcggg	cg	ctgacgttaa	cgcccaagac	ctgctggggg	aaacgccagc	cgacctggcc	360
gccgagcagg	gacatcagga	tattgctgaa	gttctgcaaa	aggcagcagg	ctcgccgact		420
ccgacccccga	ccaccccaac	tccaacaccg	accacccccga	cccctacccc	aacaggatcc		480
gacctgggtg	ttaaactttt	gtagctgca	tctcgtggtc	aactggatga	ggtgcgtatt		540
ttgctgaaaag	cgggtgcaga	tgtaacgca	aaggacatcg	atgaaggata	tacgccatta		600
cacattgcag	catattatgg	tcatttagag	atcgtagagg	ttcttttgaa	ggcaggagcc		660
gatgttaacg	ccaaggaccg	ttatggaaaag	accccgttac	atttagccgc	aattagtggg		720
catcttgaaa	ttgtcgaagt	tttattaaaag	gctggggctg	atgtaaatgc	tcaggatgac		780
aagggcgaca	ctcccgca	tctggcggca	gactatgggc	accaggatat	tgctgaagtt		840
ctgcagaagg	ctgcggggag	tccaacccccg	acgccaacca	caccactcc	tacgcctaca		900
actccaactc	cgacgcctac	cggatcagat	ctgggtcaaa	agttgttga	agctgcctgg		960
gcgggacagg	atgatgaggt	gcgcgaatta	cttaaggcgg	gagcagacgt	gaatgcgaaa		1020
aactctcgtg	gctggacacc	actgcacacg	gccgcgcaaa	ctggtcacct	tgaaattttc		1080
gaagtgcctt	tgaaggcagg	cgcagatgta	aacgccaagg	atgacaaagg	ggtaacaccg		1140
cttcatctgg	ctgctgcact	gggacatctt	gagattgtcg	aagtactgct	taaggcaggt		1200
gctgacgtaa	acgctcagga	ttcatggggg	accacaccgg	cggacctggc	ggctaaatac		1260
ggacatgaag	atattgctga	agttcttcag	aaggcagcat	aatgatag			1308

<210> 91

<211> 1308

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding domain of SEQ ID NO 59

<400> 91

atgagaggat	cgcatcacca	tcaccatcac	ggatccgacc	tgggttataa	acttcttcaa	60
------------	------------	------------	------------	------------	------------	----

gcggcctatg	atgggcagct	tgatgaggta	cgcattttgt	taaaggccgg	cgcagatgtc	120
------------	------------	------------	------------	------------	------------	-----

aacgcgaaag atagtcgcgg acagacgccc cttcattacg ccgcatcaat cggccatctg	180
gaaattgtag aggtactgct taaagccggt gctgatgtaa acgctaagga cgaccacgga	240
tggacgccac ttcatcttgc cgcgtggagt ggacacttgg agattgtcga agtcttgta	300
aaagcgggcg ctgacgttaa cgcacaagac caggaaggta cgacgccagc agacttggct	360
gctgtccaag ggcaccagga cattgctgaa gttctgcaga aggcagcagg cagccctaca	420
cctacgccga ctacgcctac gccgactccg actaccccga ctccgacccc gaccggatca	480
gacctgggtt ggaaactgct gctggctgct tctcgtggtc aggacgacga agttcgtatc	540
ctgctggctg ctggcgccga cgtaaatgct aaagacatcg acgaaggta cactccgctg	600
cacatcgctg cttactacgg tcacctggaa atcggtgaag ttctgctgaa ggctgggtgct	660
gacgttaatg ctaaagaccg ttacggtaaa actccgctgc acctggctgc tatctctggt	720
cacgaggata tcgctgaagt tctgctgaag gctgggtgctg acgttaacgc tcaggacgac	780
aaaggtgaca ctccggctga tctggctgct gactacggtc acgaggatat cgctgaagtt	840
ctgcagaagg cagcaggttc cccgacccct acgccaacga ctccgacccc aactccaacg	900
acccctaccc cgaccccgac cggatcagac ctgggtcaaa agttgttgga agctgcctgg	960
gcgggacagg atgatgaggt gcgcgaatta cttaaggcgg gagcagacgt gaatgcgaaa	1020
aactctcgtg gctggacacc actgcacacg gccgcgcaaa ctggtcacct tgaaattttc	1080
gaagtgcctt tgaaggcagg cgcagatgta aacgccaagg atgacaaagg ggtaacaccg	1140
cttcatctgg ctgctgcact gggacatctt gagattgtcg aagtactgct taaggcaggt	1200
gctgacgtaa acgctcagga ttcatggggg accacaccgg cggacctggc ggctaaatac	1260
ggacatgaag atattgctga agttctgcag aaggcggcat aatgatag	1308

<210> 92

<211> 1308

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding domain of SEQ ID NO 60

<400> 92

atgagaggat cgcatcacca tcaccatcac ggatccgacc tgggttataa acttcttcaa	60
gcggcctatg atgggcagct tgatgaggta cgcattttgt taaaggccgg cgcagatgtc	120
aacgcgaaag atagtcgcgg acagacgccc cttcattacg ccgcatcaat cggccatctg	180
gaaattgtag aggtactgct taaagccggt gctgatgtaa acgctaagga cgaccacgga	240
tggacgccac ttcattctgc cgcgtggagt ggacacttgg agattgtcga agtcttgta	300
aaagcgggcg ctgacgttaa cgcacaagac caggaaggta cgacgccagc agacttggct	360
gctgtccaag ggcaccagga cattgctgaa gttctgcaga aggcagcagg cagccctaca	420
cctacgccga ctacgcctac gccgactccg actaccccga ctccgacccc gaccggatca	480
gacctgggtg ttaaactttt gttagctgca tctcgtggtc aactggatga ggtgcgtatt	540
ttgctgaaag cgggtgcaga tggttaacgca aaggacatcg atgaaggata tacgccatta	600
cacattgcag catattatgg tcatttagag atcgtagagg ttcttttgaa ggcaggagcc	660
gatgttaacg ccaaggaccg ttatggaaaag accccgttac atttagccgc aattagtggg	720
catcttgaaa ttgtcgaagt ttattataaag gctggggctg atgtaaatgc tcaggatgac	780
aagggcgaca ctcccgaga tctggcggca gactatgggc accaggatat tgctgaagtt	840
ctgcagaagg cagcaggttc cccgaccct acgccaacga ctccgacccc aactccaacg	900
acccctaccc cgaccccgac cggatcagac ctgggtcaaa agttgttgga agctgcctgg	960
gcgggacagg atgatgaggt gcgcgaatta ctttaaggcgg gagcagacgt gaatgcgaaa	1020
aactctcgtg gctggacacc actgcacacg gccgcgcaaa ctggtcacct tgaaattttc	1080
gaagtgcttc tgaaggcagg cgcagatgta aacgccaagg atgacaaagg ggtaacaccg	1140
cttcatctgg ctgctgcact gggacatctt gagattgtcg aagtactgct taaggcaggt	1200
gctgacgtaa acgctcagga ttcattggggg accacaccgg cggacctggc ggctaaatac	1260
ggacatgaag atattgctga agttctgcag aaggcggcat aatgatag	1308

<210> 93

<211> 1749

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding domain of SEQ ID NO 61

<400> 93

atgagaggat cgcatcacca tcaccatcac ggatccgacc tgggttataa acttcttcaa	60
gcggcctatg atgggcagct tgatgaggta cgcattttgt taaaggccgg cgcagatgtc	120
aacgcgaaaag atagtcgcgg acagacgccc cttcattacg ccgcatcaat cggccatctg	180
gaaattgtag aggtactgct taaagccggt gctgatgtaa acgctaagga cgaccacgga	240
tggacgccac ttcattctgc cgcgtggagt ggacacttgg agattgtcga agtcttggtta	300
aaagcgggcg ctgacgttaa cgcacaagac caggaaggta cgacgccagc agacttggct	360
gctgtccaag ggcaccagga cattgctgaa gttctgcaga aggcagcagg ctcgccgact	420
ccgacccccga ccacccaac tccaacaccg accacccccga cccctacccc aacaggatcc	480
gacctgggta agaagctgct ggaagctgct ctggaaggctc aggatgatga agttcgtgaa	540
ctgctgaaaag caggcgccga tgtaaatgca aaagatcaag agggctacac cccactgcat	600
ctggctgctg ctctgggtca cctggaaatt gttgaagtgc tgctgaaagc cgggtgcagat	660
gttaaatgcaa aagattctat cggcagaacc ccgctgcatac tggctgctta caagggtcac	720
ctggaaaattg ttgaagttct gctgaaaagcc ggtgcagatg ttaacgcaca ggatctgctg	780
ggcgaaaaccc ctgccgatct ggcagctgaa caaggctcatg aagatattgc agaagtgctg	840
cagaaggcag caggcagccc tacacctacg ccgactacgc ctacgccgac tccgactacc	900
ccgactccga ccccgaccgg atcagacctg ggtgttaaac tgctgcgtgc tgctttccat	960
ggtcaggacg acgaagttcg tatcctgctg gctgctggcg ctgacgttaa tgctaaagac	1020
actgacgggtg aaactccgct gcactacgct gctcagttcg gtcacctgga aatcgttgaa	1080
gttctgctga aggctgggtc tgacgttaat gctaaagacg cttacgggtc tactccgctg	1140
cactgggctg cttggcatgg tcacctggaa atcgttgaag ttctgctgaa ggctgggtgct	1200
gacgtcaacg ctcaggacgt ttctgggtgct actccggctg atctggctgc taaagttggt	1260
cacgaggata tcgctgaagt tctgcagaag gcagcagggt ccccgacccc tacgccaacg	1320

actccgaccc caactccaac gacccctacc ccgaccccgga ccggatcaga cctgggtcaa	1380
aagttgttgg aagctgcctg ggcgggacag gatgatgagg tgcgcgaatt acttaaggcg	1440
ggagcagacg tgaatgcgaa aaactctcgt ggctggacac cactgcacac ggccgcgcaa	1500
actggtcacc ttgaaatfff cgaagtgcct ctgaaggcag gcgcagatgt aaacgccaag	1560
gatgacaaaag gggtaacacc gcttcacatct gctgctgcac tgggacatct tgagattgtc	1620
gaagtactgc ttaaggcagg tgctgacgta aacgctcagg attcatgggg gaccacaccg	1680
gcggacctgg cggctaaata cggacatgaa gatattgctg aagttctgca gaaggcggca	1740
taatgatag	1749

<210> 94

<211> 1749

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding domain of SEQ ID NO 62

<400> 94

atgagaggat cgcacaccca tcaccatcac ggatccgacc tgggttataa acttcttcaa	60
gcggcctatg atgggcagct tgatgaggta cgcattttgt taaaggccgg cgcagatgtc	120
aacgcgaaaag atagtcgcgg acagacgccc cttcattacg ccgcatcaat cggccatctg	180
gaaattgtag aggtactgct taaagccggt gctgatgtaa acgctaagga cgaccacgga	240
tggacgccac ttcacattgc cgcgtggagt ggacacttgg agattgtcga agtcttgta	300
aaagcgggcg ctgacgttaa cgcacaagac caggaaggta cgacgccagc agacttggct	360
gctgtccaag ggcaccagga cattgctgaa gttctgcaga aggcagcagg cagccctaca	420
cctacgccga ctacgcctac gccgactccg actaccccgga ctccgacccc gaccggatca	480
gacctgggta aaaagctgtt ggaggccgcg ttagagggtc aattggatga agttcgtgaa	540
ctgttaaaaag cgggcgccga tgtaaacgct aaagaccagg aggggtacac tcctttgcat	600
ctggcagcag ctcttgggtca tctggaaatt gtcgagggtc tggttaaaggc aggagcagat	660
gtaaatgcaa aggactctat tggacgtaca ccactgcact tggctgccta caaaggtcac	720

ctggaaattg tggaagtctt actgaaagcg ggcgctgacg ttaacgcca agacctgctg 780
 ggggaaacgc cagccgacct ggccgccgag cagggacatc aggatattgc tgaagttctg 840
 cagaaggcag caggctcgcc aacgccgacc cctacaacgc caaccccgac accaactaca 900
 ccgaccccca caccaacggg atcagacctg ggtgttaagt tgcttcgtgc tgccgtccac 960
 ggtcaattgg atgaagtacg catccttctg aaggctggcg cagacgtgaa cgcgaaagac 1020
 actgacggcg aaacccccct tcattacgcg gcacaattcg gccacttgga gatcgttgag 1080
 gtccttctga aagccggcgc agacgtgaat gcaaaggatg cttatggggc tacgccgtta 1140
 cattgggctg cttggcacgg ccatcttgag attgttgagg tcctgttgaa agcgggggcg 1200
 gatgtaaacg ctcaggacgt atccggcgcg acacctgctg acttagcagc taaagtcgga 1260
 caccaggata ttgctgaagt tctgcagaag gcagcagggt ccccgacccc tacgccaacg 1320
 actccgaccc caactccaac gacccttacc ccgacccga ccggatcaga cctgggtcaa 1380
 aagttgttgg aagctgcctg ggcgggacag gatgatgagg tgcgcgaatt acttaaggcg 1440
 ggagcagacg tgaatgcgaa aaactctcgt ggctggacac cactgcacac ggccgcgcaa 1500
 actggtcacc ttgaaatttt cgaagtgctt ctgaaggcag gcgcagatgt aaacgccaag 1560
 gatgacaaaag gggtaacacc gcttcatctg gctgctgcac tgggacatct tgagattgtc 1620
 gaagtactgc ttaaggcagg tgctgacgta aacgctcagg attcatgggg gaccacaccg 1680
 gcggacctgg cggctaaata cggacatgaa gatattgctg aagttctgca gaaggcggca 1740
 taatgatag 1749

<210> 95
 <211> 865
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPIn® protein #56

<400> 95
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15

Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	20	25	30
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu	35	40	45
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	50	55	60
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Asp	Gly	His		65	70	75
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	85	90	95
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly	100	105	110
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	115	120	125
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	130	135	140
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	145	150	155
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	165	170	175
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	180	185	190
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	195	200	205
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	210	215	220
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	225	230	235
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	245	250	255
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	260	265	270
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	275	280	285
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	290	295	300
Ala	Ala	Glu	Arg	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	305	310	315
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Ala	Glu	Gly	Tyr	Thr	Pro	Leu	325	330	335
His	Ile	Ala	Ala	Tyr	Gln	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	340	345	350
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	355	360	365
Leu	His	Leu	Ala	Ala	Ile	Gly	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	370	375	380
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Asn	Lys	Gly	Ser	Thr	385	390	395
Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	405	410	415

Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr
 420 425 430
 Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly
 435 440 445
 Lys Lys Leu Leu Glu Ala Ala Leu Glu Gly Gln Leu Asp Glu Val Arg
 450 455 460
 Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Gln Glu Gly
 465 470 475 480
 Tyr Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val
 485 490 495
 Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Gln Ile
 500 505 510
 Gly Arg Thr Pro Leu His Leu Ala Ala Tyr Lys Gly His Leu Glu Ile
 515 520 525
 Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ile
 530 535 540
 Ile Gly Gln Thr Pro Ala Asp Leu Ala Ala Gln Arg Gly His Gln Asp
 545 550 555 560
 Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro
 565 570 575
 Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Thr Gly
 580 585 590
 Ser Asp Leu Gly Ile Lys Leu Leu Thr Ala Ala Tyr Asp Gly Gln Leu
 595 600 605
 Asp Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 610 615 620
 Asp Leu Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Gly Leu Gly His
 625 630 635 640
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 645 650 655
 Lys Asp Leu His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly
 660 665 670
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 675 680 685
 Ala Gln Asp Val Glu Gly Val Thr Pro Ala Asp Leu Ala Ala Val Gln
 690 695 700
 Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro
 705 710 715 720
 Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro
 725 730 735
 Thr Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp
 740 745 750
 Ala Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp
 755 760 765
 Val Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala
 770 775 780
 Gln Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala
 785 790 795 800
 Asp Val Asn Ala Lys Asn Asp Lys Arg Val Thr Pro Leu His Leu Ala
 805 810 815

Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly
820 825 830
Ala Asp Val Asn Ala Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu
835 840 845
Ala Ala Lys Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala
850 855 860
Ala
865

<210> 96
<211> 847
<212> PRT
<213> Artificial Sequence

<220>
<223> DARPin® protein #57

<400> 96
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1 5 10 15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20 25 30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
35 40 45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50 55 60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
65 70 75 80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85 90 95
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
100 105 110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
115 120 125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Pro Thr Pro Thr
130 135 140
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala
145 150 155 160
Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val
165 170 175
Asn Ala Lys Asp Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg
180 185 190
Asn Gly His Leu Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp
195 200 205
Val Asn Ala Lys Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala
210 215 220
Ala Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
225 230 235 240
Asp Val Asn Ala Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala

				245					250				255			
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	
			260					265					270			
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	
		275					280					285				
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Ile	Lys	Leu	Leu	Thr	
	290					295					300					
Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	
305				310						315					320	
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	Arg	Gly	Gln	Thr	Pro	Leu	His	
			325					330					335			
Tyr	Ala	Ala	Gly	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	
		340						345					350			
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	His	Gly	Trp	Thr	Pro	Leu	
	355					360						365				
His	Leu	Ala	Ala	Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	
	370					375					380					
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Glu	Gly	Val	Thr	Pro	
385				390					395						400	
Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	
			405					410						415		
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	
		420						425					430			
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	
	435					440						445				
Lys	Leu	Leu	Gln	Ala	Ala	Leu	Glu	Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu	
	450					455					460					
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Glu	Gly	Tyr	
465				470					475						480	
Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	
			485					490						495		
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Ile	Gly	
		500						505					510			
Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly	His	Leu	Glu	Ile	Val	
	515					520						525				
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ile	Ile	
	530				535					540						
Gly	Gln	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Gln	Arg	Gly	His	Gln	Asp	Ile	
545				550					555						560	
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	
			565					570					575			
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	
		580						585					590			
Asp	Leu	Gly	Lys	Lys	Leu	Leu	Leu	Ala	Ala	Glu	Arg	Gly	Gln	Leu	Asp	
	595					600						605				
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
	610					615					620					
Arg	Ala	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala	Tyr	Gln	Gly	His	
625				630					635						640	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	

				645					650					655		
Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Ser	Gly	
			660					665					670			
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	
		675					680					685				
Ala	Gln	Asp	Asn	Lys	Gly	Ser	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr	
	690				695						700					
Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	
705				710					715						720	
Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly	
			725					730					735			
Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	
		740					745						750			
Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr	
	755				760							765				
Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	
	770				775					780						
Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	
785				790					795						800	
Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	
			805					810					815			
Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Pro	Ala	Asp	Leu	Ala	Ala		
		820					825					830				
Lys	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala		
		835				840						845				

<210> 97
 <211> 847
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #58

<400> 97

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	
1			5					10					15			
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
		20					25					30				
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu	
		35			40						45					
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
	50				55			60								
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His	
65				70				75					80			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
			85				90						95			
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly	
		100					105						110			

97/139

Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Phe	Lys	Gly	His	Leu	Glu	Ile	Val
		515					520					525			
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ile	Ile
		530				535					540				
Gly	Glu	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Arg	Gly	His	Gln	Asp	Ile
545					550					555					560
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr
			565						570						575
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser
			580					585						590	
Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	Ala	Ala	Glu	Arg	Gly	Gln	Leu	Asp
		595					600					605			
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		610				615					620				
Ile	Ala	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala	Tyr	Gln	Gly	His
625					630					635					640
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			645					650						655	
Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Gly	Gly
			660					665					670		
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn
		675					680					685			
Ala	Gln	Asp	Asn	Lys	Gly	Ser	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr
		690				695					700				
Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro
705					710					715					720
Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	Gly
			725							730					735
Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn
			740					745					750		
Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	Thr
		755					760					765			
Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
		770				775					780				
Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala
785					790					795					800
Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
			805						810					815	
Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala	Ala
			820					825					830		
Lys	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	
		835					840					845			

<210> 98

<211> 847

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPIn® protein #59

<400> 98

```
Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
1      5      10      15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20     25     30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
35     40     45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50     55     60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His
65     70     75     80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85     90     95
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly
100    105    110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr
115    120    125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr
130    135    140
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala
145    150    155    160
Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val
165    170    175
Asn Ala Lys Asp Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg
180    185    190
Asn Gly His Leu Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp
195    200    205
Val Asn Ala Lys Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala
210    215    220
Ala Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
225    230    235    240
Asp Val Asn Ala Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala
245    250    255
Ala Asp Ala Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
260    265    270
Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr
275    280    285
Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Ile Lys Leu Leu Thr
290    295    300
Ala Ala Tyr Asp Gly Gln Leu Asp Glu Val Arg Ile Leu Leu Lys Ala
305    310    315    320
Gly Ala Asp Val Asn Ala Lys Asp Leu Arg Gly Gln Thr Pro Leu His
325    330    335
Tyr Ala Ala Gly Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys
340    345    350
Ala Gly Ala Asp Val Asn Ala Lys Asp Leu His Gly Trp Thr Pro Leu
355    360    365
His Leu Ala Ala Trp Ser Gly His Leu Glu Ile Val Glu Val Leu Leu
```

370		375		380
Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Val Glu Gly Val Thr Pro				
385		390		395
Ala Asp Leu Ala Ala Val Gln Gly His Gln Asp Ile Ala Glu Val Leu				
	405		410	415
Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro				
	420		425	430
Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Lys				
	435		440	445
Lys Leu Leu Glu Ala Ala Leu Glu Gly Gln Leu Asp Glu Val Arg Glu				
	450		455	460
Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Gln Glu Gly Tyr				
465		470		475
Thr Pro Leu His Leu Ala Ala Ala Leu Gly His Leu Glu Ile Val Glu				
	485		490	495
Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Gln Ile Gly				
	500		505	510
Arg Thr Pro Leu His Leu Ala Ala Tyr Lys Gly His Leu Glu Ile Val				
	515		520	525
Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Ile Ile				
	530		535	540
Gly Gln Thr Pro Ala Asp Leu Ala Ala Gln Arg Gly His Gln Asp Ile				
545		550		555
Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr				
	565		570	575
Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Gly Ser				
	580		585	590
Asp Leu Gly Val Lys Leu Leu Leu Ala Ala Glu Arg Gly Gln Leu Asp				
	595		600	605
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp				
	610		615	620
Ile Ala Glu Gly Tyr Thr Pro Leu His Ile Ala Ala Tyr Gln Gly His				
625		630		635
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala				
	645		650	655
Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala Ala Ile Gly Gly				
	660		665	670
His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn				
	675		680	685
Ala Gln Asp Asn Lys Gly Ser Thr Pro Ala Asp Leu Ala Ala Asp Tyr				
	690		695	700
Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro				
705		710		715
Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala Gly				
	725		730	735
Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn				
	740		745	750
Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala Gln Thr				
	755		760	765
Gly His Leu Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp Val				

770		775		780
Asn Ala Lys Asn Asp Lys Arg Val Thr Pro Leu His Leu Ala Ala Ala				
785		790		800
Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp				
	805		810	815
Val Asn Ala Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala Ala				
	820		825	830
Lys Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala				
	835		840	845

<210> 99
 <211> 880
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #60

<400> 99

Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp				
1	5		10	15
Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp				
	20		25	30
Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu				
	35		40	45
Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys				
	50		55	60
Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala Ala Asp Gly His				
65	70		75	80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala				
	85		90	95
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly				
	100		105	110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr				
	115		120	125
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Pro Thr Pro Thr				
	130		135	140
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala				
145	150		155	160
Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val				
	165		170	175
Asn Ala Lys Asp Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg				
	180		185	190
Asn Gly His Leu Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp				
	195		200	205
Val Asn Ala Lys Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala				
	210		215	220
Ala Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala				
225	230		235	240

Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	245	250	255
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	260	265	270
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	275	280	285
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Ile	Lys	Leu	Leu	Thr	290	295	300
Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	305	310	315
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	Arg	Gly	Gln	Thr	Pro	Leu	His	325	330	335
Tyr	Ala	Ala	Gly	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	340	345	350
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	His	Gly	Trp	Thr	Pro	Leu	355	360	365
His	Leu	Ala	Ala	Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	370	375	380
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Glu	Gly	Val	Thr	Pro	385	390	395
Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	405	410	415
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	420	425	430
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	435	440	445
Lys	Leu	Leu	Gln	Ala	Ala	Arg	Ala	Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu	450	455	460
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Tyr	Gly	Arg	465	470	475
Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Lys	Gly	His	Leu	Glu	Ile	Val	Glu	485	490	495
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ser	Leu	Gly	500	505	510
Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Val	Glu	Gly	Pro	Leu	Glu	Ile	Val	515	520	525
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ala	Tyr	530	535	540
Gly	Gln	Thr	Pro	Leu	His	Ile	Ala	Ala	Ala	Trp	Gly	His	Leu	Glu	Ile	545	550	555
Val	Glu	Val	Leu	Leu	Lys	Ala	Val	Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	565	570	575
Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Arg	Ala	Gly	His	Gln	Asp	580	585	590
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	595	600	605
Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	610	615	620
Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu	Ala	Ala	Glu	Arg	Gly	Gln	Leu	625	630	635
																		640

Asp Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 645 650 655
 Asp Ile Ala Glu Gly Tyr Thr Pro Leu His Ile Ala Ala Tyr Gln Gly
 660 665 670
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 675 680 685
 Ala Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala Ala Ile Gly
 690 695 700
 Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val
 705 710 715 720
 Asn Ala Gln Asp Asn Lys Gly Ser Thr Pro Ala Asp Leu Ala Ala Asp
 725 730 735
 Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser
 740 745 750
 Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp Ala
 755 760 765
 Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val
 770 775 780
 Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala Gln
 785 790 795 800
 Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala Asp
 805 810 815
 Val Asn Ala Lys Asn Asp Lys Arg Val Thr Pro Leu His Leu Ala Ala
 820 825 830
 Ala Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala
 835 840 845
 Asp Val Asn Ala Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu Ala
 850 855 860
 Ala Lys Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 865 870 875 880

<210> 100

<211> 880

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #61

<400> 100

Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg Asn Gly His Leu
 35 40 45
 Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys

50	55	60
Asp Phe Ala Gly Lys Thr	Pro Leu His Leu Ala Ala Ala Asp Gly His	
65	70	75
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala		80
	85	90
Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala Ala Asp Ala Gly		95
	100	105
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro Thr		110
	115	120
Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr		125
	130	135
Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala		140
	145	150
Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val		155
	165	170
Asn Ala Lys Asp Tyr Phe Ser His Thr Pro Leu His Leu Ala Ala Arg		175
	180	185
Asn Gly His Leu Lys Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp		190
	195	200
Val Asn Ala Lys Asp Phe Ala Gly Lys Thr Pro Leu His Leu Ala Ala		205
	210	215
Ala Asp Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala		220
	225	230
Asp Val Asn Ala Gln Asp Ile Phe Gly Lys Thr Pro Ala Asp Ile Ala		235
	245	250
Ala Asp Ala Gly His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala		255
	260	265
Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Pro Thr Thr		270
	275	280
Pro Thr Pro Thr Pro Thr Gly Ser Asp Leu Gly Lys Lys Leu Leu Gln		285
	290	295
Ala Ala Arg Ala Gly Gln Leu Asp Glu Val Arg Glu Leu Leu Lys Ala		300
	305	310
Gly Ala Asp Val Asn Ala Lys Asp Gln Gln Gly Leu Thr Pro Leu His		315
	325	330
Ile Ala Ala Asn Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys		335
	340	345
Ala Gly Ala Asp Val Asn Ala Lys Asp Leu Phe Gly Leu Thr Pro Leu		350
	355	360
His Leu Ala Ala Phe Glu Gly His Leu Glu Ile Val Glu Val Leu Leu		365
	370	375
Lys Ala Gly Ala Asp Val Asn Ala Lys Asp Gln His Gly Ala Thr Pro		380
	385	390
Leu His Leu Ala Ala Trp Val Gly His Leu Glu Ile Val Glu Val Leu		395
	405	410
Leu Lys Ala Gly Ala Asp Val Asn Ala Gln Asp Lys Ser Gly Lys Thr		415
	420	425
Pro Ala Asp Leu Ala Ala Arg Ala Gly His Gln Asp Ile Ala Glu Val		430
	435	440
Leu Gln Lys Ala Ala Gly Ser Pro Thr Pro Thr Pro Thr Thr Pro Thr		445

450		455		460
Pro Thr Pro Thr Thr	Pro Thr Pro Thr Pro Thr	Gly Ser Asp Leu Gly		
465	470	475		480
Lys Lys Leu Leu Gln	Ala Ala Leu Glu Gly Gln	Leu Asp Glu Val Arg		
	485	490		495
Glu Leu Leu Lys Ala	Gly Ala Asp Val Asn	Ala Lys Asp Ile Glu Gly		
	500	505		510
Tyr Thr Pro Leu His	Leu Ala Ala Ala Leu	Gly His Leu Glu Ile Val		
	515	520		525
Glu Val Leu Leu Lys	Ala Gly Ala Asp Val	Asn Ala Lys Asp Gln Ile		
	530	535		540
Gly Arg Thr Pro Leu	His Leu Ala Ala Tyr	Lys Gly His Leu Glu Ile		
545	550	555		560
Val Glu Val Leu Leu	Lys Ala Gly Ala Asp	Val Asn Ala Gln Asp Ile		
	565	570		575
Ile Gly Gln Thr Pro	Ala Asp Leu Ala Ala	Gln Arg Gly His Gln Asp		
	580	585		590
Ile Ala Glu Val Leu	Gln Lys Ala Ala Gly	Ser Pro Thr Pro Thr Pro		
	595	600		605
Thr Thr Pro Thr Pro	Thr Pro Thr Thr Pro	Thr Pro Thr Pro Thr Gly		
	610	615		620
Ser Asp Leu Gly Lys	Lys Leu Leu Leu Ala	Ala Glu Arg Gly Gln Leu		
625	630	635		640
Asp Glu Val Arg Ile	Leu Leu Lys Ala Gly	Ala Asp Val Asn Ala Lys		
	645	650		655
Asp Arg Ala Glu Gly	Tyr Thr Pro Leu His	Ile Ala Ala Tyr Gln Gly		
	660	665		670
His Leu Glu Ile Val	Glu Val Leu Leu Lys	Ala Gly Ala Asp Val Asn		
	675	680		685
Ala Lys Asp Arg Tyr	Gly Lys Thr Pro Leu	His Leu Ala Ala Ile Ser		
	690	695		700
Gly His Leu Glu Ile	Val Glu Val Leu Leu	Lys Ala Gly Ala Asp Val		
705	710	715		720
Asn Ala Gln Asp Asn	Lys Gly Ser Thr Pro	Ala Asp Leu Ala Ala Asp		
	725	730		735
Tyr Gly His Gln Asp	Ile Ala Glu Val Leu	Gln Lys Ala Ala Gly Ser		
	740	745		750
Pro Thr Gly Ser Asp	Leu Gly Gln Lys Leu	Leu Glu Ala Ala Trp Ala		
	755	760		765
Gly Gln Asp Asp Glu	Val Arg Glu Leu Leu	Lys Ala Gly Ala Asp Val		
	770	775		780
Asn Ala Lys Asn Ser	Arg Gly Trp Thr Pro	Leu His Thr Ala Ala Gln		
785	790	795		800
Thr Gly His Leu Glu	Ile Phe Glu Val Leu	Leu Leu Lys Ala Gly Ala Asp		
	805	810		815
Val Asn Ala Lys Asn	Asp Lys Arg Val Thr	Pro Leu His Leu Ala Ala		
	820	825		830
Ala Leu Gly His Leu	Glu Ile Val Glu Val	Leu Leu Lys Ala Gly Ala		
	835	840		845
Asp Val Asn Ala Arg	Asp Ser Trp Gly Thr	Thr Pro Ala Asp Leu Ala		

850	855	860
Ala Lys Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala		
865	870	875
		880

<210> 101
 <211> 865
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #62

<400> 101

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20					25					30			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
	35					40					45				
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55					60					
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65				70				75						80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90					95		
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
	100						105					110			
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115					120						125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130					135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145				150					155					160	
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165				170						175		
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
	180						185					190			
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195				200							205			
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala
	210				215						220				
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225				230				235						240	
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala
			245					250						255	
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260				265						270		

Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
		275						280					285		
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Ile	Lys	Leu	Leu	Thr
	290					295					300				
Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	Arg	Gly	Gln	Thr	Pro	Leu	His
				325					330					335	
Tyr	Ala	Ala	Gly	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	His	Gly	Trp	Thr	Pro	Leu
		355					360					365			
His	Leu	Ala	Ala	Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Glu	Gly	Val	Thr	Pro
385					390					395					400
Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu
				405					410					415	
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
			420					425					430		
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val
		435					440					445			
Lys	Leu	Leu	Leu	Ala	Ala	Glu	Arg	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile
	450					455					460				
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Ala	Glu	Gly
465					470					475					480
Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala	Tyr	Gln	Gly	His	Leu	Glu	Ile	Val
				485					490					495	
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr
			500					505					510		
Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Gly	Gly	His	Leu	Glu	Ile
		515					520					525			
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Asn
	530					535					540				
Lys	Gly	Ser	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp
545					550					555					560
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro
				565					570					575	
Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly
			580					585					590		
Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Leu	Glu	Gly	Gln	Leu
		595					600					605			
Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	610					615					620				
Asp	Gln	Glu	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His
625					630					635					640
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				645					650					655	
Lys	Asp	Gln	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly
			660					665					670		

His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 675 680 685
 Ala Gln Asp Ile Ile Gly Gln Thr Pro Ala Asp Leu Ala Ala Gln Arg
 690 695 700
 Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala Gly Ser Pro
 705 710 715 720
 Thr Pro Thr Pro Thr Thr Pro Thr Pro Thr Thr Thr Pro Thr Pro
 725 730 735
 Thr Pro Thr Gly Ser Asp Leu Gly Gln Lys Leu Leu Glu Ala Ala Trp
 740 745 750
 Ala Gly Gln Asp Asp Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp
 755 760 765
 Val Asn Ala Lys Asn Ser Arg Gly Trp Thr Pro Leu His Thr Ala Ala
 770 775 780
 Gln Thr Gly His Leu Glu Ile Phe Glu Val Leu Leu Lys Ala Gly Ala
 785 790 795 800
 Asp Val Asn Ala Lys Asn Asp Lys Arg Val Thr Pro Leu His Leu Ala
 805 810 815
 Ala Ala Leu Gly His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly
 820 825 830
 Ala Asp Val Asn Ala Arg Asp Ser Trp Gly Thr Thr Pro Ala Asp Leu
 835 840 845
 Ala Ala Lys Tyr Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala
 850 855 860
 Ala
 865

<210> 102
 <211> 157
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #63

<400> 102
 Asp Leu Gly Lys Lys Leu Leu Gln Ala Ala Arg Ala Gly Gln Leu Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Gln Tyr Gly Arg Thr Pro Leu His Leu Ala Ala Ile Lys Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Ser Leu Gly Tyr Thr Pro Leu His Leu Ala Ala Val Glu Gly Pro
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Lys Asp Ala Tyr Gly Gln Thr Pro Leu His Ile Ala Ala Ala Trp Gly

			100					105				110					
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Val	Ala	Asp	Val	Asn		
		115						120				125					
Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Arg	Ala		
	130					135					140						
Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala					
145					150					155							

<210> 103
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #64

<400> 103																	
Asp	Leu	Gly	Trp	Lys	Leu	Leu	Asp	Ala	Ala	Glu	Ile	Gly	Gln	Asp	Asp		
1				5					10					15			
Glu	Val	Arg	Ile	Leu	Leu	Ala	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp		
		20						25					30				
Lys	Gln	Gly	Ile	Thr	Pro	Leu	His	Ile	Ala	Ala	Ala	His	Gly	His	Leu		
	35						40					45					
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys		
	50					55					60						
Asp	Glu	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Phe	Lys	Gly	His		
65				70					75					80			
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala		
				85					90					95			
Gln	Asp	Ile	Ile	Gly	Glu	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Arg	Gly		
		100						105					110				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala						
	115						120										

<210> 104
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #65

<400> 104																	
Asp	Leu	Gly	Trp	Lys	Leu	Leu	Asp	Ala	Ala	Glu	Ile	Gly	Gln	Leu	Asp		
1				5					10					15			
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp		
		20						25					30				
Lys	Gln	Gly	Ile	Thr	Pro	Leu	His	Ile	Ala	Ala	Ala	His	Gly	His	Leu		

1		5		10		15									
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20		25		30									
Ile	Glu	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu
		35		40		45									
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
		50		55		60									
Asp	Gln	Ile	Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly	His
65				70		75									80
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85		90									95
Gln	Asp	Ile	Ile	Gly	Gln	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Gln	Arg	Gly
			100			105									110
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala					
		115				120									

<210> 107

<211> 157

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPIn® protein #68

<400> 107

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Gln	Ala	Ala	Arg	Ala	Gly	Gln	Leu	Asp
1			5				10						15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20		25		30									
Gln	Ala	Gly	Leu	Thr	Pro	Leu	His	Ile	Ala	Ala	Ala	Thr	Gly	His	Leu
		35		40		45									
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
		50		55		60									
Asp	Phe	Ser	Gly	Leu	Thr	Pro	Leu	His	Leu	Ala	Ala	Phe	Glu	Gly	His
65				70		75									80
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85		90									95
Lys	Asp	Gln	His	Gly	Gln	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Thr	Gly
		100		105		110									
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn
		115		120		125									
Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Arg	Ala
		130		135		140									
Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala			
145				150		155									

<210> 108

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #69

<400> 108

```
Asp Leu Gly Tyr Lys Leu Leu Gln Ala Ala Tyr Asp Gly Gln Asp Asp
1      5      10      15
Glu Val Arg Ile Leu Leu Ala Ala Gly Ala Asp Val Asn Ala Lys Asp
20     25     30
Ser Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Ser Ile Gly His Leu
35     40     45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50     55     60
Asp Asp His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His
65     70     75     80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85     90     95
Gln Asp Gln Glu Gly Thr Thr Pro Ala Asp Leu Ala Ala Val Gln Ser
100    105    110
His Glu Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115    120
```

<210> 109

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #70

<400> 109

```
Asp Leu Gly Ile Lys Leu Leu Thr Ala Ala Tyr Asp Gly Gln Leu Asp
1      5      10      15
Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
20     25     30
Leu Arg Gly Gln Thr Pro Leu His Tyr Ala Ala Gly Leu Gly His Leu
35     40     45
Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
50     55     60
Asp Leu His Gly Trp Thr Pro Leu His Leu Ala Ala Trp Ser Gly His
65     70     75     80
Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
85     90     95
Gln Asp Val Glu Gly Val Thr Pro Ala Asp Leu Ala Ala Val Gln Gly
100    105    110
His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
115    120
```

<210> 110
 <211> 157
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #71

<400> 110
 Asp Leu Gly Lys Lys Leu Leu Gln Ala Ala Arg Ala Gly Gln Leu Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Gln Gln Gly Leu Thr Pro Leu His Ile Ala Ala Asn Leu Gly His Leu
 35 40 45
 Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys
 50 55 60
 Asp Leu Phe Gly Leu Thr Pro Leu His Leu Ala Ala Phe Glu Gly His
 65 70 75 80
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 85 90 95
 Lys Asp Gln His Gly Ala Thr Pro Leu His Leu Ala Ala Trp Val Gly
 100 105 110
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 115 120 125
 Ala Gln Asp Lys Ser Gly Lys Thr Pro Ala Asp Leu Ala Ala Arg Ala
 130 135 140
 Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 145 150 155

<210> 111
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #72

<400> 111
 Asp Leu Gly Val Lys Leu Leu Leu Ala Ala Glu Arg Gly Gln Leu Asp
 1 5 10 15
 Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Ile Ala Glu Gly Tyr Thr Pro Leu His Ile Ala Ala Tyr Gln Gly His
 35 40 45
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 50 55 60

Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala Ala Ile Gly Gly
 65 70 75 80
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 85 90 95
 Ala Gln Asp Asn Lys Gly Ser Thr Pro Ala Asp Leu Ala Ala Asp Tyr
 100 105 110
 Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 115 120 125

<210> 112
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #73

<400> 112
 Asp Leu Gly Lys Lys Leu Leu Leu Ala Ala Glu Arg Gly Gln Leu Asp
 1 5 10 15
 Glu Val Arg Ile Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30
 Arg Ala Glu Gly Tyr Thr Pro Leu His Ile Ala Ala Tyr Gln Gly His
 35 40 45
 Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn Ala
 50 55 60
 Lys Asp Arg Tyr Gly Lys Thr Pro Leu His Leu Ala Ala Ile Ser Gly
 65 70 75 80
 His Leu Glu Ile Val Glu Val Leu Leu Lys Ala Gly Ala Asp Val Asn
 85 90 95
 Ala Gln Asp Asn Lys Gly Ser Thr Pro Ala Asp Leu Ala Ala Asp Tyr
 100 105 110
 Gly His Gln Asp Ile Ala Glu Val Leu Gln Lys Ala Ala
 115 120 125

<210> 113
 <211> 864
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #74

<400> 113
 Asp Leu Gly Lys Lys Leu Leu Glu Ala Ala Arg Ala Gly Gln Asp Asp
 1 5 10 15
 Glu Val Arg Glu Leu Leu Lys Ala Gly Ala Asp Val Asn Ala Lys Asp
 20 25 30

Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
		35					40					45			
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50					55					60				
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65					70					75					80
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				85					90					95	
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
			100					105						110	
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
		115					120					125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
		130				135					140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145					150					155					160
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
				165					170						175
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
			180					185					190		
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195						200					205			
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala
	210					215					220				
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala
				245					250						255
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
		275					280					285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu
	290					295					300				
Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala
305					310					315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His
				325					330					335	
Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
			340					345					350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu
		355					360					365			
His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro
385					390					395					400
Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu
				405					410					415	
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
			420					425					430		

Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys
		435					440					445			
Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu
	450					455					460				
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr
465				470					475						480
Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu
			485					490						495	
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly
			500					505					510		
Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val
		515					520					525			
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser
	530					535					540				
Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	Ile
545					550					555					560
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr
				565					570					575	
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser
			580					585					590		
Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
	595						600					605			
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
	610					615					620				
Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu
625					630				635						640
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
				645					650					655	
Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His
			660					665					670		
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
		675					680					685			
Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly
	690					695					700				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
705					710					715					720
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
				725					730					735	
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala
			740					745					750		
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
		755					760					765			
Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln
	770					775					780				
Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
785					790					795					800
Val	Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro	Leu	His	Leu	Ala	Ala
				805					810					815	
Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
			820					825					830		

Asp	Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
		835					840					845			
Ala	Lys	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
	850					855					860				

<210> 114
 <211> 865
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> DARPin® protein #75

<400> 114

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20					25					30			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
	35					40					45				
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55				60						
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65				70				75						80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90					95		
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
		100					105				110				
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115					120					125				
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130				135					140					
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145				150				155						160	
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165				170					175			
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
		180				185					190				
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195				200						205				
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala
	210				215					220					
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225				230				235						240	
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala
			245				250						255		
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala

			260					265				270			
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
		275						280				285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Val	Lys	Leu	Leu	Leu
	290					295					300				
Ala	Ala	Glu	Arg	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala
305				310						315					320
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Ala	Glu	Gly	Tyr	Thr	Pro	Leu
			325						330					335	
His	Ile	Ala	Ala	Tyr	Gln	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
		340						345				350			
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro
	355						360					365			
Leu	His	Leu	Ala	Ala	Ile	Gly	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu
370						375					380				
Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Asn	Lys	Gly	Ser	Thr
385					390					395					400
Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val
			405					410						415	
Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr
	420							425					430		
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly
	435					440					445				
Lys	Lys	Leu	Leu	Glu	Ala	Ala	Leu	Glu	Gly	Gln	Leu	Asp	Glu	Val	Arg
450					455					460					
Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Glu	Gly
465					470					475					480
Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val
			485					490						495	
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Ile
		500						505				510			
Gly	Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly	His	Leu	Glu	Ile
	515						520					525			
Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ile
530					535						540				
Ile	Gly	Gln	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Gln	Arg	Gly	His	Gln	Asp
545					550					555					560
Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro
			565					570						575	
Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly
		580						585				590			
Ser	Asp	Leu	Gly	Ile	Lys	Leu	Leu	Thr	Ala	Ala	Tyr	Asp	Gly	Gln	Leu
	595						600					605			
Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	610					615				620					
Asp	Leu	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Gly	Leu	Gly	His
625					630					635					640
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			645					650						655	
Lys	Asp	Leu	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Ser	Gly

Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly			
			100					105					110					
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr			
		115					120					125						
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr			
		130				135					140							
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala			
145					150				155						160			
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val			
			165					170						175				
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg			
		180						185					190					
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp			
		195					200					205						
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala			
		210				215					220							
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala			
225					230					235					240			
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala			
				245				250						255				
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala			
			260					265					270					
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr			
		275					280					285						
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu			
		290				295					300							
Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala			
305					310					315					320			
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His			
				325				330						335				
Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys			
			340					345					350					
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu			
		355					360					365						
His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu			
		370				375					380							
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro			
385					390				395					400				
Ala	Asp	Leu	Ala	Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu			
				405				410						415				
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro			
			420					425					430					
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys			
		435					440					445						
Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu			
		450				455					460							
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr			
465					470					475					480			
Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu	Gly	His	Leu	Glu	Ile	Val	Glu			
				485					490					495				

<220>

<223> DARPin® protein #77

<400> 116

Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly	Gln	Asp	Asp
1			5					10					15		
Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
		20					25					30			
Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Asn	Gly	His	Leu
		35				40						45			
Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys
	50				55						60				
Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Asp	Gly	His
65				70				75						80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
			85					90						95	
Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala	Ala	Asp	Ala	Gly
		100					105						110		
His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr
	115					120						125			
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr
	130				135						140				
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala
145				150				155						160	
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val
			165				170							175	
Asn	Ala	Lys	Asp	Tyr	Phe	Ser	His	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg
		180					185					190			
Asn	Gly	His	Leu	Lys	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp
	195				200						205				
Val	Asn	Ala	Lys	Asp	Phe	Ala	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala
	210				215					220					
Ala	Asp	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225			230					235						240	
Asp	Val	Asn	Ala	Gln	Asp	Ile	Phe	Gly	Lys	Thr	Pro	Ala	Asp	Ile	Ala
		245					250							255	
Ala	Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
		260					265						270		
Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr
	275					280						285			
Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Ile	Lys	Leu	Leu	Thr
	290				295						300				
Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala
305			310					315						320	
Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	Arg	Gly	Gln	Thr	Pro	Leu	His
			325					330						335	
Tyr	Ala	Ala	Gly	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys
		340					345						350		
Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Leu	His	Gly	Trp	Thr	Pro	Leu

		355				360				365					
His	Leu	Ala	Ala	Trp	Ser	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu
	370					375					380				
Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Val	Glu	Gly	Val	Thr	Pro
385					390					395					400
Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu
				405					410					415	
Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro
		420						425					430		
Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser	Asp	Leu	Gly	Lys
	435						440				445				
Lys	Leu	Leu	Gln	Ala	Ala	Leu	Glu	Gly	Gln	Leu	Asp	Glu	Val	Arg	Glu
	450					455					460				
Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Ile	Glu	Gly	Tyr
465					470					475					480
Thr	Pro	Leu	His	Leu	Ala	Ala	Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu
				485					490					495	
Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	Gln	Ile	Gly
			500					505					510		
Arg	Thr	Pro	Leu	His	Leu	Ala	Ala	Tyr	Lys	Gly	His	Leu	Glu	Ile	Val
	515						520					525			
Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Gln	Asp	Ile	Ile
	530					535					540				
Gly	Gln	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Gln	Arg	Gly	His	Gln	Asp	Ile
545					550					555					560
Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	Pro	Thr	Pro	Thr
				565					570					575	
Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Gly	Ser
			580					585					590		
Asp	Leu	Gly	Lys	Lys	Leu	Leu	Leu	Ala	Ala	Glu	Arg	Gly	Gln	Leu	Asp
	595						600					605			
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp
	610					615					620				
Arg	Ala	Glu	Gly	Tyr	Thr	Pro	Leu	His	Ile	Ala	Ala	Tyr	Gln	Gly	His
625					630					635					640
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala
				645					650					655	
Lys	Asp	Arg	Tyr	Gly	Lys	Thr	Pro	Leu	His	Leu	Ala	Ala	Ile	Ser	Gly
			660					665					670		
His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn
	675						680					685			
Ala	Gln	Asp	Asn	Lys	Gly	Ser	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Asp	Tyr
	690					695					700				
Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro
705					710					715					720
Thr	Gly	Ser	Asp	Leu	Gly	Lys	Lys	Leu	Leu	Glu	Ala	Ala	Arg	Ala	Gly
				725					730					735	
Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn
			740					745					750		
Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	Glu

		755					760					765				
Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	
	770						775					780				
Asn	Ala	Lys	Asp	Lys	Asp	Gly	Tyr	Thr	Pro	Leu	His	Leu	Ala	Ala	Arg	
785					790					795					800	
Glu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	
			805						810					815		
Val	Asn	Ala	Gln	Asp	Lys	Ser	Gly	Lys	Thr	Pro	Ala	Asp	Leu	Ala	Ala	
		820					825					830				
Asp	Ala	Gly	His	Glu	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala		
	835						840					845				

<210> 117

<211> 272

<212> PRT

<213> Artificial Sequence

<220>

<223> DARPin® protein #78

<400> 117

Asp	Leu	Gly	Ile	Lys	Leu	Leu	Thr	Ala	Ala	Tyr	Asp	Gly	Gln	Leu	Asp	
1			5					10					15			
Glu	Val	Arg	Ile	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	Asp	
		20					25					30				
Leu	Arg	Gly	Gln	Thr	Pro	Leu	His	Tyr	Ala	Ala	Gly	Leu	Gly	His	Leu	
		35					40					45				
Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	Lys	
	50					55					60					
Asp	Leu	His	Gly	Trp	Thr	Pro	Leu	His	Leu	Ala	Ala	Trp	Ser	Gly	His	
65				70					75						80	
Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	Asn	Ala	
			85						90					95		
Gln	Asp	Val	Glu	Gly	Val	Thr	Pro	Ala	Asp	Leu	Ala	Ala	Val	Gln	Gly	
		100						105					110			
His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala	Gly	Ser	Pro	Thr	
	115					120						125				
Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Thr	Pro	Thr	Pro	Thr	
	130					135					140					
Pro	Thr	Gly	Ser	Asp	Leu	Gly	Gln	Lys	Leu	Leu	Glu	Ala	Ala	Trp	Ala	
145				150					155					160		
Gly	Gln	Asp	Asp	Glu	Val	Arg	Glu	Leu	Leu	Lys	Ala	Gly	Ala	Asp	Val	
			165					170						175		
Asn	Ala	Lys	Asn	Ser	Arg	Gly	Trp	Thr	Pro	Leu	His	Thr	Ala	Ala	Gln	
		180					185						190			
Thr	Gly	His	Leu	Glu	Ile	Phe	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala	Asp	
	195					200						205				
Val	Asn	Ala	Lys	Asn	Asp	Lys	Arg	Val	Thr	Pro	Leu	His	Leu	Ala	Ala	
	210					215					220					

Ala	Leu	Gly	His	Leu	Glu	Ile	Val	Glu	Val	Leu	Leu	Lys	Ala	Gly	Ala
225					230					235					240
Asp	Val	Asn	Ala	Arg	Asp	Ser	Trp	Gly	Thr	Thr	Pro	Ala	Asp	Leu	Ala
				245					250					255	
Ala	Lys	Tyr	Gly	His	Gln	Asp	Ile	Ala	Glu	Val	Leu	Gln	Lys	Ala	Ala
			260					265					270		

<210> 118
 <211> 2631
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nucleic acid encoding protein of SEQ ID NO:95

<400> 118

atgagaggat cgcatcacca tcaccatcac ggatccgacc tgggtaaaaa gctgctggag	60
gcagcgcgtg ccggtcaaga cgacgagggt cgcgattgc ttaaagcggg tgcagacgtc	120
aacgcaaaag attattttct tcataccccg ttgcatttag ccgcgcgtaa tggccatctg	180
aagatcgtcg aggtcctctt gaaggcaggc gcggatgtca atgcgaagga ttttgcgggc	240
aaaacgccgc tgcacttagc ggcggcggac ggtcatttag aaatcgttga agtcctgtta	300
aaagcgggcg ccgatgtgaa tgcgcaggat attttcggta aaacgccggc ggacattgcg	360
gcagatgcgg gtcatagaaga tatcgagaa gtcctgcaga aggcagcagg cagccctaca	420
cctacgccga ctacgcctac gccgactccg actaccccga ctccgacccc gaccggatca	480
gacctgggta aaaagctgct ggaggcagcg cgtgccggtc aagacgacga ggttcgcgaa	540
ttgcttaaag cgggtgcaga cgtcaacgcc aaagattatt tctctcatac cccgttgcatt	600
ttagccgcgc gtaatggcca tctgaagatc gtcgagggtc tcttgaaggc aggcgcggat	660
gtcaatgcga aggattttgc gggcaaaacg ccgctgcact tagcggcggc ggacgggtcat	720
ttagaaatcg ttgaagtcct gttaaaagcg ggcgccgatg tgaatgcgca ggatattttc	780
ggtaaaacgc cggcggacat tgcggcagat gcgggtcatg aagatatcgc agaagtcctg	840
cagaaggcag caggctcgcc aacgccgacc cctacaacgc caaccccgac accaactaca	900
ccgaccccca caccaacggg atcagacctg ggtgttaagc tggtgcttgc agccgagcgt	960

gggcagcttg atgaagtacg cattcttctt aaagcggggg ctgatgtgaa cgcgaaagat	1020
attgctgagg gttacacacc gcttcacatt gccgcctacc agggatcatct ggagattggt	1080
gaagtattac tgaaagcggg agcagatgtt aatgccaaag atcgctatgg aaaaactcct	1140
ttgcatttag ctgcaatcgg aggacacctg gaaatcgctg aagtgttatt aaaagctgga	1200
gcggacgtaa acgcacaaga taacaagggc tcaactcccg cggaccttgc cgcagattac	1260
ggatcatcagg acattgctga agttctgcag aaggcagcag gttccccgac ccctacgcca	1320
acgactccga ccccaactcc aacgaccctt accccgaccc cgaccggatc agacctgggt	1380
aaaaaattgc ttgaagccgc gttggaagga caattagacg aggtacgtga gctgttaaaa	1440
gcagggggccg atgtgaatgc taaagaccag gagggataca ccccttgca cctggctgcc	1500
gcgttgggcc acttagagat thtagagggt cttcttaagg cgggggcaga cgtgaatgca	1560
aaggacaaa ttggacgtac tcctttgcat ctggcagcct ataaggggca cttggagatt	1620
gtcgagggtct tgtaaaggc gggtgccgat gtaaatgccc aggacatcat tgggcagact	1680
ccggcagatt tggccgcca acgtggccac caagatattg ctgaagttct gcagaaggca	1740
gcaggcagcc ccacgccaac tcctacaacc cccacaccta caccgacgac gccgacaccg	1800
actccaaccg gatcagacct gggattataa ctgttgacag ccgcttacga cgggcaatta	1860
gacgaagtgc gtattctgct taaagctgga gctgacgtga acgcgaaaga cttacgcggc	1920
caaacgcctt tacattacgc ggccgggactg ggccatcttg agattgttga ggtgcttctg	1980
aaggcaggcg cggatgtcaa tgcaaaagac ctgcacggat ggacacctct tcacttagct	2040
gcttggtctg ggcatttgga gattgtagag gttttattga aagcaggggc ggatgtgaat	2100
gcgcaagacg tagaaggagt cccccagct gacctggcag cggttcaagg gcatcaagac	2160
attgctgaag ttctgcagaa ggcagcaggt tcgccgaccc caaccctac cactccaacg	2220
ccgacgccta ccaactcaac accaacacca acgggatcag acctgggtca aaagctgttg	2280
gaagccgcgt gggcgggtca ggacgatgaa gtccgtgagc tgcttaaagc aggagccgac	2340
gtgaacgcga agaactcacg cgggtggacg ccacttcaca cggccgcgca gacaggtcac	2400
cttgaaatct ttgaggttct tctgaaggca ggagcagacg ttaacgcca aaacgacaag	2460

cgcgtgactc cgttgcacct tgccgcagct ctggggcatt tggagatcgt tgaggctactg	2520
ttgaaagcgg gagcagatgt taatgctcgc gacagttggg ggacgacacc agcagacctg	2580
gccgcaaaat acggacacca agacattgct gaagttctgc agaaggcggc a	2631

<210> 119

<211> 2577

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO:96

<400> 119

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaagaa actgttggaa	60
gcagcacgtg cgggtcaaga cgatgaagtt cgtgagctgt taaaggctgg cgccgacgtg	120
aacgcgaagg actacttttag ccacacccccg ctgcacttgg cagcgcgcaa cggtcacctg	180
aaaattgtcg aggtcctgtt gaaggctggg gcggatgtga acgcaaaaga ttttgcgggt	240
aagacgccgc tgcattctggc ggccggctgat ggctcacttag agatcgtaga ggttctgttg	300
aaagcggggc cccgatgtgaa tgcccaggac atcttcggca agaccccggc agacattgcc	360
gcggatgctg gtcacgaaga tatcgagag gtcctgcaaa aagcggcagg cagcccgacc	420
ccgacgccga cactccgac ccgaccccc accacccccga ctccgactcc gaccggatct	480
gacctgggta aaaaactgct ggaagcagca cgtgccggcc aggatgatga agttcgtgaa	540
ctgctgaaag caggcgccga tgtaaatgca aaggattatt ttagccacac accgctgcat	600
ctggcagccc gtaatgggtc cctaaagatt gttgaagttc tgctgaaggc tggcgcagac	660
gttaacgcca aagatttctgc gggcaaaacc cctctgcatt tagccgcagc ggacggtcac	720
ctggagatcg tagagggtgct gcttaaggcg ggtgcggatg ttaatgcaca ggatattttc	780
ggtaaaaccc ctgccgatat tgcagctgat gccgggtcatg aagatatcgc agaagtgtg	840
cagaaggcag caggatcacc aacaccaacc ccgaccaccc caactccaac accgaccacc	900
ccgaccacct ccccaacagg atccgacctg ggtattaaac tggtgacagc cgcttacgac	960

gggcaattag acgaagtgcg tattctgctt aaagctggag ctgacgtgaa cgcgaaagac	1020
ttacgcggcc aaacgccttt acattacgcg gcgggactgg gccatcttga gattgttgag	1080
gtgcttctga aggcaggcgc ggatgtcaat gcaaaagacc tgcacggatg gacacctctt	1140
cacttagctg cttggtctgg gcatttggag attgtagagg ttttattgaa agcaggggcg	1200
gatgtgaatg cgcaagacgt agaaggagtc accccagctg acctggcagc ggttcaaggg	1260
catcaagaca ttgctgaagt tctgcagaag gcagcaggct cgccgactcc gaccccgacc	1320
accccaactc caacaccgac caccgacc cctaccccaa caggatctga cctgggtaaa	1380
aagttgttac aggcagcatt ggagggccaa cttgacgagg tgcgcgagtt actgaaagct	1440
ggtgcagatg tcaacgcgaa ggacattgaa ggatatactc cgctgcacct tgccgcggct	1500
ttggggcatc ttgagattgt ggagggtgctt cttaaaggcgg gagctgatgt caatgctaaa	1560
gaccaaactc ggcgcacacc gttacacttg gctgcgtaca aaggctcatt agaaatcgtg	1620
gaagtgcctt tgaaggctgg cgctgatgtc aacgccaag acattatcgg ccagacaccg	1680
gcggacctgg cagcgcaacg tgggcatcag gatattgctg aagttctgca gaaggcagca	1740
ggctcgccga ctccgacccc gaccaccca actccaacac cgaccacccc gaccctacc	1800
ccaacaggat ctgacctggg taaaaagttg ttattagctg cggagcgcgg gcagttagac	1860
gaagtgcgta ttctgctgaa ggccggggcc gacgttaacg caaaggatcg tgcaagggt	1920
tacaccccc tgcatatcgc cgcttatcaa ggtcacttgg agattgttga ggtcttactg	1980
aaagcggggg ccgacgtgaa tgccaaagat cgctatggaa aaacaccgtt acacttagca	2040
gctatttcgg ggcactctgga gatcgtggaa gtcctgttaa aggctggtgc cgatgttaat	2100
gcacaagata ataaaggcag cactccagcc gatctggccg ctgattatgg gcaccaggac	2160
attgctgaag ttctgcagaa ggacgaggc tcgccaaccg gatcagatct ggggtcaaaag	2220
ctgttggaag ccgcgtgggc gggtcaggac gatgaagtcc gtgagctgct taaagcagga	2280
gccgacgtga acgcgaagaa ctcacgcggg tggacgccac ttcacacggc cgcgagaca	2340
ggtcaccttg aaatctttga ggttcttctg aaggcaggag cagacgttaa cgccaaaaac	2400
gacaagcgcg tgactccgtt gcaccttgcc gcagctctgg ggcatttgga gatcgttgag	2460

gtactgttga aagcgggagc agatgttaat gctcgcgaca gttggggggac gacaccagca	2520
gacctggccg caaaatacgg acaccaagac attgctgaag ttctgcaaaa ggcagca	2577

<210> 120
 <211> 2586
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nucleic acid encoding protein of SEQ ID NO:97

<400> 120	
atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaagaa actgttggaa	60
gcagcacgtg cgggtcaaga cgatgaagtt cgtgagctgt taaaggctgg cgccgacgtg	120
aacgcgaagg actacttttag ccacacccccg ctgcacttgg cagcgcgcaa cggtcacctg	180
aaaattgtcg aggtcctgtt gaaggctggg gcggatgtga acgcaaaaga ttttgcgggt	240
aagacgccgc tgcacttggc ggaggctgat ggtcacttag agatcgtaga ggttctgttg	300
aaagcggggcg ccgatgtgaa tgcccaggac atcttcggca agaccccggc agacattgcc	360
gcggatgctg gtcacgaaga tatcgagag gtcctgcaaa aagcggcagg cagcccgacc	420
ccgacgccga ccaactccgac cccgacccca accaccccgga ctccgactcc gaccggatct	480
gacctgggta aaaaactgct ggaagcagca cgtgccggcc aggatgatga agttcgtgaa	540
ctgctgaaag caggcgccga tgttaatgca aaggattatt ttagccacac accgctgcat	600
ctggcagccc gtaatggtca cctaaagatt gttgaagttc tgctgaaggc tgggtgcagac	660
gttaacgcca aagatttcgc gggcaaaacc cctctgcatt tagccgcagc ggacggtcac	720
ctggagatcg tagagggtgct gcttaaggcg ggtgcggatg ttaatgcaca ggatattttc	780
ggtaaaaccc ctgccgatat tgcagctgat gccgggtcatg aagatatcgc agaagtgtg	840
cagaaggcag caggatcacc aacaccaacc ccgaccaccc caactccaac accgaccacc	900
ccgaccccta ccccaacagg atccgacctg ggtattaaac tgttgacagc cgcttacgac	960
gggcaattag acgaagtgcg tattctgctt aaagctggag ctgacgtgaa cgcgaaagac	1020
ttacgcggcc aaacgccttt acattacgcg gcgggactgg gccatcttga gattgttgag	1080

gtgcttctga aggcaggcgc ggatgtcaat gcaaaaagacc tgcacggatg gacacctctt	1140
cacttagctg cttgggtctgg gcatttggag attgtagagg ttttattgaa agcagggggcg	1200
gatgtgaatg cgcaagacgt agaaggagtc accccagctg acctggcagc ggttcaaggg	1260
catcaagaca ttgctgaagt tctgcagaag gcagcaggct cgccgactcc gaccccgacc	1320
accccaactc caacaccgac caccgacc cctaccccaa caggatctga cctgggttgg	1380
aaactgcttg atgccgccga gattggtcag cttgacgaag tccgtattct tttgaaggca	1440
ggggccgacg ttaatgcaa agacaaacag ggtatcacgc cgttacatat tgccgcagcg	1500
catggtcact tagagatcgt agaagtactt ctgaaagcag gtgctgacgt taatgcaaag	1560
gatgagatcg gccgcacccc gcttcatctt gctgccttta agggccattt ggaaatcgta	1620
gaggtgctgt taaaggctgg cgctgatgtc aatgcacaag acatcatcgg ggagacgcct	1680
gccgacctgg cggcgggtacg cgggcatcag gatattgctg aagttctgca gaaggcagca	1740
ggctcgccga ctccgacccc gaccacccca actccaacac cgaccacccc gaccctacc	1800
ccaacaggat ctgacctggg tgtaagctg ttgcttgacg ccgagcgtgg gcagcttgat	1860
gaagtacgca ttcttcttaa agcgggggct gatgtgaacg cgaaagatat tgctgagggt	1920
tacacaccgc ttcacattgc cgcctaccag ggtcatctgg agattgttga agtattactg	1980
aaagcgggag cagatgttaa tgccaaagat cgctatggaa aaactccttt gcatttagct	2040
gcaatcggag gacacctgga aatcgtcgaa gtgttattaa aagctggagc ggacgtaaac	2100
gcacaagata acaagggtc aactccgcg gaccttgccg cagattacgg tcatcaggac	2160
attgctgaag ttctgcagaa ggcagcaggc tcgccaaccg gatcagatct gggtaaaaag	2220
ctgttggaag ccgcgtgggc gggtcaggac gatgaagtcc gtgagctgct taaagcagga	2280
gccgacgtga acgcgaagaa ctacgcggg tggacgccac ttcacacggc cgcgagaca	2340
ggtcaccttg aaatctttga ggttcttctg aaggcaggag cagacgttaa cgccaaaaac	2400
gacaagcgcg tgactccgtt gcaccttgcc gcagctctgg ggcatttgga gatcgttgag	2460
gtactgttga aagcgggagc agatgttaat gctcgcgaca gttgggggac gacaccagca	2520
gacctggccg caaaatacgg acaccaagac attgctgaag ttctgcaaaa ggcagcataa	2580

tgatag

2586

<210> 121

<211> 2586

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO:98

<400> 121

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaagaa actgttggaa	60
gcagcacgtg cgggtcaaga cgatgaagtt cgtgagctgt taaaggctgg cgccgacgtg	120
aacgcgaagg actacttttag ccacacccccg ctgcacttgg cagcgcgcaa cggtcacctg	180
aaaattgtcg aggtcctgtt gaaggctggg gcggatgtga acgcaaaaga ttttgcgggt	240
aagacgccgc tgcacatggc ggaggctgat ggtcacttag agatcgtaga ggttctgttg	300
aaagcgggcg ccgatgtgaa tgcccaggac atcttcggca agaccccggc agacattgcc	360
gcggatgctg gtcacgaaga tatcgagag gtcctgcaaa aagcggcagg cagcccgacc	420
ccgacgccga ccaactccgac ccgaccccc accaccccgga ctccgactcc gaccggatct	480
gacctgggta aaaaaactgct ggaagcagca cgtgccggcc aggatgatga agttcgtgaa	540
ctgctgaaaag caggcgccga tgttaatgca aaggattatt ttagccacac accgctgcat	600
ctggcagccc gtaatgggtca cctaaagatt gttgaagttc tgctgaaggc tgggtgcagac	660
gttaacgcca aagatttcgc gggcaaaacc cctctgcatt tagccgcagc ggacggtcac	720
ctggagatcg tagagggtgct gcttaaggcg ggtgcggatg ttaatgcaca ggatattttc	780
ggtaaaaccc ctgccgatat tgcagctgat gccgggtcatg aagatatcgc agaagtgtg	840
cagaaggcag caggatcacc aacaccaacc ccgaccaccc caactccaac accgaccacc	900
ccgaccacct ccccaacagg atccgacctg ggtattaaac tgttgacagc cgcttacgac	960
gggcaattag acgaagtgcg tattctgctt aaagctggag ctgacgtgaa cgcgaaagac	1020
ttacgcggcc aaacgccttt acattacgcg gcgggactgg gccatcttga gattgttgag	1080

gtgcttctga aggcaggcgc ggatgtcaat gcaaaagacc tgcacggatg gacacctctt	1140
cacttagctg cttggctctgg gcatttggag attgtagagg ttttattgaa agcaggggcg	1200
gatgtgaatg cgcaagacgt agaaggagtc accccagctg acctggcagc ggttcaaggg	1260
catcaagaca ttgctgaagt tctgcagaag gcagcaggct cgccgactcc gaccccgacc	1320
accccaactc caacaccgac caccgacc cctaccccaa caggatctga cctgggtaaa	1380
aaattgcttg aagccgcgtt ggaaggacaa ttagacgagg tacgtgagct gttaaaagca	1440
ggggccgatg tgaatgctaa agaccaggag ggatacacc ccttgcacct ggctgccgcg	1500
ttgggccact tagagattgt agaggttctt cttaggcgg gggcagacgt gaatgcaaag	1560
gaccaaattg gacgtactcc tttgcatctg gcagcctata aggggcactt ggagattgtc	1620
gaggtcttgt taaaggcggg tgccgatgta aatgccagg acatcattgg gcagactccg	1680
gcagatttgg ccgccaacg tggccaccaa gatattgctg aagtcttgca gaaggcagca	1740
ggctcgccga ctccgacccc gaccaccca actccaacac cgaccacccc gaccctacc	1800
ccaacaggat ctgacctggg tgtaagctg ttgcttgag ccgagcgtgg gcagcttgat	1860
gaagtacgca ttcttcttaa agcgggggct gatgtgaacg cgaaagatat tgctgagggt	1920
tacacaccgc ttcacattgc cgcctaccag ggtcatctgg agattgttga agtattactg	1980
aaagcgggag cagatgttaa tgccaaagat cgctatggaa aaactccttt gcatttagct	2040
gcaatcggag gacacctgga aatcgtcgaa gtgttattaa aagctggagc ggacgtaaac	2100
gcacaagata acaagggtc aactcccgcg gaccttgccg cagattacgg tcatcaggac	2160
attgctgaag ttctgcagaa ggcagcaggc tcgccaaccg gatcagatct ggggtcaaaag	2220
ctgttggaag ccgctggggc gggtcaggac gatgaagtcc gtgagctgct taaagcagga	2280
gccgacgtga acgcaagaa ctcacgcggg tggacgccac ttcacacggc cgcgagaca	2340
ggtcaccttg aaatctttga ggttcttctg aaggcaggag cagacgttaa cgccaaaaac	2400
gacaagcgcg tgactccgtt gcacctgcc gcagctctgg ggcatttgga gatcgttgag	2460
gtactgttga aagcgggagc agatgttaat gctcgcgaca gttgggggac gacaccagca	2520
gacctggccg caaaatacgg acaccaagac attgctgaag ttctgcaaaa ggcagcataa	2580

tgatag

2586

<210> 122

<211> 2676

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO:99

<400> 122

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaagaa actgttggaa	60
gcagcacgtg cgggtcaaga cgatgaagtt cgtgagctgt taaaggctgg cgccgacgtg	120
aacgcgaagg actacttttag ccacacccccg ctgcacttgg cagcgcgcaa cggtcacctg	180
aaaattgtcg aggtcctgtt gaaggctggt gcggatgtga acgcaaaaga ttttgcgggt	240
aagacgccgc tgcacatggc ggccggctgat ggtcacttag agatcgtaga ggttctgttg	300
aaagcgggcg ccgatgtgaa tgcccaggac atcttcggca agaccccggc agacattgcc	360
gcggatgctg gtcacgaaga tatcgagag gtcctgcaaa aagcggcagg cagcccgacc	420
ccgacgccga ccactccgac ccgaccccc accaccccga ctccgactcc gaccggatct	480
gacctgggta aaaaaactgct ggaagcagca cgtgccggcc aggatgatga agttcgtgaa	540
ctgctgaaaag caggcgccga tgttaatgca aaggattatt ttagccacac accgctgcat	600
ctggcagccc gtaatgggtca cctaaagatt gttgaagttc tgctgaaggc tgggtgcagac	660
gttaacgcca aagatttcgc gggcaaaacc cctctgcatt tagccgcagc ggacggtcac	720
ctggagatcg tagagggtgct gcttaaggcg ggtgcggatg ttaatgcaca ggatattttc	780
ggtaaaaccc ctgccgatat tgcagctgat gccgggtcatg aagatatcgc agaagtgtg	840
cagaaggcag caggatcacc aacaccaacc ccgaccaccc caactccaac accgaccacc	900
ccgacccta cccaacagg atccgacctg ggtattaaac tgttgacagc cgcttacgac	960
gggcaattag acgaagtgcg tattctgctt aaagctggag ctgacgtgaa cgcgaaagac	1020
ttacgcggcc aaacgccttt acattacgcg gcgggactgg gccatcttga gattgttgag	1080
gtgcttctga aggcaggcgc ggatgtcaat gcaaaagacc tgcacggatg gacacctctt	1140

cacttagctg cttggtctgg gcatttggag attgtagagg ttttattgaa agcaggggcg	1200
gatgtgaatg cgcaagacgt agaaggagtc accccagctg acctggcagc ggttcaaggg	1260
catcaagaca ttgctgaagt tctgcagaag gcagcaggct cgccgactcc gaccccgacc	1320
accccaactc caacaccgac caccgacc cctaccccaa caggatctga cctgggtaaa	1380
aaactgctgc aagcagcacg tgcaggctcag ctggatgaag ttcgtgaact gctgaaagca	1440
ggcgccgatg ttaatgcaaa agatcaatac ggcagaaccc cgctgcatct ggctgctatc	1500
aagggtcacc tggaattgt tgaagtctg ctgaaagccg gtgcagatgt taatgcaaaa	1560
gattctctgg gctacacccc gctgcatctg gctgctgtgg aggggtcccct ggaaattgtt	1620
gaagtctgc tgaaagccgg tgcagatgtt aatgcaaaag atgcttacgg ccaaaccg	1680
ctgcatatcg ctgctgcttg gggtcacctg gaaattgttg aagtctgct gaaagccgtt	1740
gcagatgtta acgcacagga taaaagcggg aaaacccctg ccgatctggc agctcgcgcc	1800
ggcatcaag atattgctga agtgctgcag aaggcagcag gctcgccgac tccgaccg	1860
accaccccaa ctccaacacc gaccaccccg acccctaccc caacaggatc tgacctgggt	1920
gttaagctgt tgcttgagc cgagcgtggg cagcttgatg aagtacgcat tcttcttaaa	1980
gcgggggctg atgtgaacgc gaaagatatt gctgagggtt acacaccgct tcacattgcc	2040
gcctaccagg gtcatctgga gattgttgaa gtattactga aagcgggagc agatgttaat	2100
gccaaagatc gctatggaaa aactcctttg catttagctg caatcggagg acacctggaa	2160
atcgtcgaag tgttattaaa agctggagcg gacgtaaag cacaagataa caagggtca	2220
actcccgcg accttgccgc agattacggg catcaggaca ttgctgaagt tctgcagaag	2280
gcagcaggct cgccaaccgg atcagatctg ggtcaaaaagc tgttggaagc cgctggg	2340
ggtcaggacg atgaagtccg tgagctgctt aaagcaggag ccgacgtgaa cgcgaagaac	2400
tcacgcgggt ggacgccact tcacacggcc gcgcagacag gtcaccttga aatctttgag	2460
gttcttctga aggcaggagc agacgttaac gccaaaaacg acaagcgcgt gactccgtt	2520
caccttgccg cagctctggg gcatttggag atcggtgagg tactgttgaa agcgggagca	2580
gatgttaatg ctcgcgacag ttgggggacg acaccagcag acctggccgc aaaatacgga	2640

caccaagaca ttgctgaagt tctgcaaaaag gcagca

2676

<210> 123

<211> 2676

<212> DNA

<213> Artificial Sequence

<220>

<223> Nucleic acid encoding protein of SEQ ID NO:100

<400> 123

atgagaggat cgcacacca tcaccatcac ggatccgacc tgggtaagaa actgttggaa	60
gcagcacgtg cgggtcaaga cgatgaagtt cgtgagctgt taaaggctgg cgccgacgtg	120
aacgcgaagg actacttttag ccacacccccg ctgcacttgg cagcgcgcaa cggtcacctg	180
aaaattgtcg aggtcctgtt gaaggctggt gcggatgtga acgcaaaaga ttttgcgggt	240
aagacgccgc tgcacatggc ggaggctgat ggtcacttag agatcgtaga ggttctgttg	300
aaagcgggcg ccgatgtgaa tgcccaggac atcttcggca agaccccggc agacattgcc	360
gcggatgctg gtcacgaaga tatcgagag gtcctgcaaa aagcggcagg cagcccgacc	420
ccgacgccga ccaactccgac ccgaccccc accaccccga ctccgactcc gaccggatct	480
gacctgggta aaaaaactgct ggaagcagca cgtgccggcc aggatgatga agttcgtgaa	540
ctgctgaaaag caggcgccga tgttaatgca aaggattatt ttagccacac accgctgcat	600
ctggcagccc gtaatgggtca cctaaagatt gttgaagtgc tgctgaaggc tgggtgcagac	660
gttaacgcca aagatttcgc gggcaaaaacc cctctgcatt tagccgcagc ggacggtcac	720
ctggagatcg tagagggtgct gcttaaggcg ggtgcggatg ttaatgcaca ggatattttc	780
ggtaaaaccc ctgccgatat tgcagctgat gccgggtcatg aagatatcgc agaagtgtg	840
cagaaggcag caggatcacc aacaccaacc ccgaccaccc caactccaac accgaccacc	900
ccgaccacct ccccaacagg atccgacctg ggtaaaaaat tgcttcaggc cgctcgcgcc	960
gggcaacttg acgaagtacg tgaattactg aaagcaggcg cagacgtgaa cgctaaggat	1020
cagcagggct taactccggt acacatcgcc gctaactctgg gtcacatgga gattgttgaa	1080

gtattattaa aggccggagc ggatgtaaat gccaaggatc tgtttggact tacgccgctt	1140
catctggccg cttttgaggg tcacttagaa attgtggagg tcttacttaa ggcgggggct	1200
gacgtaaatg cgaaagatca gcatgggtgcc acgcctcttc atttggctgc ttgggtcggg	1260
catttggaag ttgtggaagt gttattgaaa gctggagcag atgtgaacgc gcaggacaag	1320
tcaggtaaaa ccccgccgga tctggcggca cgcgaggac atcaagatat tgctgaagtt	1380
ctgcagaagg cagcaggctc gccgactccg accccgacca ccccaactcc aacaccgacc	1440
accccgaccc ctacccaac aggatctgac ctgggtaaaa agttgttaca ggcagcattg	1500
gaggccaac ttgacgaggt gcgcgagtta ctgaaagctg gtgcagatgt caacgcgaag	1560
gacattgaag gatatactcc gctgcacctt gccgcggctt tggggcatct tgagattgtg	1620
gagggtgctt ttaaggcggg agctgatgtc aatgctaaag accaaatcgg gcgcacaccg	1680
ttacacttgg ctgcgtacaa aggtcactta gaaatcgtgg aagtgcttct gaaggctggc	1740
gctgatgtca acgccaaga cattatcggc cagacaccgg cggacctggc agcgcaacgt	1800
gggcatcagg atattgctga agttctgcag aaggcagcag gctcgccgac tccgaccccg	1860
accaccccaa ctccaacacc gaccaccccg acccctaccc caacaggatc tgacctgggt	1920
aaaaagttgt tattagctgc ggagcgcggg cagttagacg aagtgcgtat tctgctgaag	1980
gccggggccg acgttaacgc aaaggatcgt gcagagggtt acacccccct gcacatcgcc	2040
gcttatcaag gtcacttggg gattgttgag gtcttactga aagcgggggc cgacgtgaat	2100
gccaaagatc gctatggaaa aacaccgtta cacttagcag ctatttcggg gcatctggag	2160
atcgtggaag tcctgttaaa ggctgggtgcc gatgttaatg cacaagataa taaaggcagc	2220
actccagccg atctggccgc tgattatggg caccaggaca ttgctgaagt tctgcagaag	2280
gcagcaggct cgccaaccgg atcagatctg ggtcaaaagc tgttggaagc cgcgtgggcg	2340
ggtcaggacg atgaagtccg tgagctgctt aaagcaggag ccgacgtgaa cgcgaagaac	2400
tcacgcgggt ggacgccact tcacacggcc gcgcagacag gtcaccttga aatctttgag	2460
gttcttctga aggcaggagc agacgttaac gccaaaaacg acaagcgcgt gactccgttg	2520
caccttgccg cagctctggg gcatttggag atcgttgagg tactgttgaa agcgggagca	2580

gatgttaatg ctcgcgacag ttggggggacg acaccagcag acctggccgc aaaatacggg	2640
caccaagaca ttgctgaagt tctgcaaaaag gcagca	2676

<210> 124
 <211> 2631
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Nucleic acid encoding protein of SEQ ID NO:101

<400> 124	
atgagaggat cgcacaccca tcaccatcac ggatccgacc tgggtaaaaa gctgctggag	60
gcagcgcgtg ccggtcaaga cgacgaggtt cgcaattgc ttaaagcggg tgcagacgtc	120
aacgcaaaag attattttctc tcataccccg ttgcatttag ccgcgcgtaa tggccatctg	180
aagatcgtcg aggtcctctt gaaggcaggc gcggatgtca atgcgaagga ttttgcgggc	240
aaaacgccgc tgcacttagc ggcgggcgac ggtcatttag aaatcgttga agtcctgtta	300
aaagcggggc cccgatgtgaa tgcgcaggat attttcggta aaacgccggc ggacattgcg	360
gcagatgcgg gtcataaga tatcgcagaa gtcctgcaga aggcagcagg cagccctaca	420
cctacgccga ctacgcctac gccgactccg actacccccg ctccgacccc gaccggatca	480
gacctgggta aaaaagtgtc ggaggcagcg cgtgccggtc aagacgacga gggtcgcgaa	540
ttgcttaaag cgggtgcaga cgtcaacgcc aaagattatt tctctcatac cccgttgcac	600
ttagccgcgc gtaatggcca tctgaagatc gtcgagggtc tcttgaaggc aggcgcggat	660
gtcaatgcga aggattttgc gggcaaaaac ccgctgcact tagcggcggc ggacggatcat	720
ttagaaaatcg ttgaagtcct gttaaaaagcg ggccgcatg tgaatgcgca ggatattttc	780
ggtaaaaacgc cggcggacat tgcggcagat gcgggtcatg aagatatcgc agaagtcctg	840
cagaaggcag caggctcgcc aacgccgacc cctacaacgc caaccccgac accaactaca	900
ccgaccccca caccaacggg atcagacctg ggtattaaac tgttgacagc cgcttacgac	960
gggcaattag acgaagtgcg tattctgctt aaagctggag ctgacgtgaa cgcgaaagac	1020
ttacgcggcc aaacgccttt acattacgcg gcgggactgg gccatcttga gattgttgag	1080

gtgcttctga aggcaggcgc ggatgtcaat gcaaaaagacc tgcacggatg gacacctctt	1140
cacttagctg cttggtctgg gcatttggag attgtagagg ttttattgaa agcaggggcg	1200
gatgtgaatg cgcaagacgt agaaggagtc accccagctg acctggcagc ggttcaaggg	1260
catcaagaca ttgctgaagt tctgcagaag gcagcagggt ccccgacccc tacgccaacg	1320
actccgaccc caactccaac gacccctacc ccgaccccg cggatcaga cctgggtgtt	1380
aagctgttgc ttgcagccga gcgtgggcag cttgatgaag tacgcattct tcttaaagcg	1440
ggggctgatg tgaacgcgaa agatattgct gagggttaca caccgcttca cattgccgcc	1500
taccagggtc atctggagat tgttgaagta ttactgaaag cgggagcaga tgттаatgcc	1560
aaagatcgct atggaaaaac tcctttgcat ttagctgcaa tcggaggaca cctggaaatc	1620
gtcgaagtgt tattaanaagc tggagcggac gtaaacgcac aagataacaa gggctcaact	1680
cccgcgacc ttgccgcaga ttacggtcat caggacattg ctgaagttct gcagaaggca	1740
gcaggcagcc ccacgccaac tcctacaacc cccacaccta caccgacgac gccgacaccg	1800
actccaaccg gatcagacct gggtaaaaaa ttgcttgaag ccgcgttgga aggacaatta	1860
gacgaggtag gtgagctgtt aaaagcaggg gccgatgtga atgctaaaga ccaggaggga	1920
tacacccct tgcacctggc tgccgcgttg ggccacttag agattgtaga ggttcttctt	1980
aaggcggggg cagacgtgaa tgcaaaggac caaattggac gtactccttt gcatctggca	2040
gcctataagg ggcacttgga gattgtcgag gtcttgtaa aggcgggtgc cgatgtaaat	2100
gcccaggaca tcattgggca gactccggca gatttggccg cccaacgtgg ccaccaagat	2160
attgctgaag ttctgcagaa ggcagcagg tcccgaccc caaccctac cactccaacg	2220
ccgacgccta cactccaac accaacacca acgggatcag acctgggtca aaagctgttg	2280
gaagccgcgt gggcgggtca ggacgatgaa gtccgtgagc tgcttaaagc aggagccgac	2340
gtgaacgcga agaactcacg cgggtggacg ccacttcaca cggccgcgca gacaggtcac	2400
cttgaatct ttgaggttct tctgaaggca ggagcagacg ttaacgcaa aaacgacaag	2460
cgctgactc cgttgcacct tgccgcagct ctggggcatt tggagatcgt tgagggtactg	2520
ttgaaagcgg gagcagatgt taatgctcgc gacagttggg ggacgacacc agcagacctg	2580

gccgcaaaat acggacacca agacattgct gaagttctgc agaaggcggc a

2631