

LISTADO DE SECUENCIAS

<110> MOGAM INSTITUTE FOR BIOMEDICAL RESEARCH
 <120> VARIANTE DE ANTÍGENO DE VIRUS DE VARICELA ZÓSTER Y USO DE LA MISMA
 <130> PP-B2204
 <150> KR 2018-0058219
 <151> 2018-05-23
 <160> 24
 <170> KoPatentIn 3.0
 <210> 1
 <211> 623
 <212> PRT
 <213> Secuencia Artificial
 <220>
 <223> Secuencia Artificial
 <400> 1
 Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
 1 5 10 15
 Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
 20 25 30
 Leu Arg Tyr Asp Asp Phe His Xaa Asp Glu Asp Lys Leu Asp Thr Asn
 35 40 45
 Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
 50 55 60
 Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
 65 70 75 80
 Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
 85 90 95
 Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
 100 105 110
 Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
 115 120 125
 Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
 130 135 140
 Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
 145 150 155 160
 Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
 165 170 175

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

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
485 490 495

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
500 505 510

Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
515 520 525

Asn Pro Gly Thr Ser Pro Leu Xaa Arg Tyr Ala Ala Trp Thr Gly Gly
530 535 540

Leu Ala Ala Val Val Leu Leu Cys Leu Val Ile Phe Leu Ile Cys Thr
545 550 555 560

Ala Lys Arg Met Arg Val Lys Ala Tyr Arg Val Asp Lys Ser Pro Tyr
565 570 575

Asn Gln Ser Met Tyr Tyr Ala Gly Leu Pro Val Asp Asp Phe Glu Asp
580 585 590

Ser Glu Ser Thr Asp Thr Glu Glu Glu Phe Gly Asn Ala Ile Gly Gly
595 600 605

Ser His Gly Gly Ser Ser Tyr Thr Val Tyr Ile Asp Lys Thr Arg
610 615 620

<210> 2
<211> 534
<212> PRT
<213> Secuencia Artificial

<220>
<223> Secuencia Artificial

<400> 2
Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

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

Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
 420 425 430
 Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
 435 440 445
 Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
 450 455 460
 Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
 465 470 475 480
 Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
 485 490 495
 Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
 500 505 510
 Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
 515 520 525
 Asn Pro Gly Thr Ser Pro
 530

<210> 3
 <211> 535
 <212> PRT
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400> 3
 Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
 1 5 10 15
 Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
 20 25 30
 Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
 35 40 45
 Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
 50 55 60
 Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
 65 70 75 80
 Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
 85 90 95
 Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
 100 105 110
 Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
 115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
 130 135 140
 Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
 145 150 155 160
 Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
 165 170 175
 Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
 180 185 190
 Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
 195 200 205
 Thr Gly Asp Ala Ala Pro Ala Ile Gln His Ile Cys Leu Lys His Thr
 210 215 220
 Thr Cys Phe Gln Asp Val Val Val Asp Val Asp Cys Ala Glu Asn Thr
 225 230 235 240
 Lys Glu Asp Gln Leu Ala Glu Ile Ser Tyr Arg Phe Gln Gly Lys Lys
 245 250 255
 Glu Ala Asp Gln Pro Trp Ile Val Val Asn Thr Ser Thr Leu Phe Asp
 260 265 270
 Glu Leu Glu Leu Asp Pro Pro Glu Ile Glu Pro Gly Val Leu Lys Val
 275 280 285
 Leu Arg Thr Glu Lys Gln Tyr Leu Gly Val Tyr Ile Trp Asn Met Arg
 290 295 300
 Gly Ser Asp Gly Thr Ser Thr Tyr Ala Thr Phe Leu Val Thr Trp Lys
 305 310 315 320
 Gly Asp Glu Lys Thr Arg Asn Pro Thr Pro Ala Val Thr Pro Gln Pro
 325 330 335
 Arg Gly Ala Glu Phe His Met Trp Asn Tyr His Ser His Val Phe Ser
 340 345 350
 Val Gly Asp Thr Phe Ser Leu Ala Met His Leu Gln Tyr Lys Ile His
 355 360 365
 Glu Ala Pro Phe Asp Leu Leu Leu Glu Trp Leu Tyr Val Pro Ile Asp
 370 375 380
 Pro Thr Cys Gln Pro Met Arg Leu Tyr Ser Thr Cys Leu Tyr His Pro
 385 390 395 400
 Asn Ala Pro Gln Cys Leu Ser His Met Asn Ser Gly Cys Thr Phe Thr
 405 410 415
 Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
 420 425 430

Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
 435 440 445
 Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
 450 455 460
 Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
 465 470 475 480
 Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
 485 490 495
 Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
 500 505 510
 Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
 515 520 525
 Asn Pro Gly Thr Ser Pro Leu
 530 535

<210> 4
 <211> 536
 <212> PRT
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400> 4
 Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
 1 5 10 15
 Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
 20 25 30
 Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
 35 40 45
 Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
 50 55 60
 Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
 65 70 75 80
 Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
 85 90 95
 Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
 100 105 110
 Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
 115 120 125
 Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
 130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
 145 150 155 160
 Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
 165 170 175
 Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
 180 185 190
 Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
 195 200 205
 Thr Gly Asp Ala Ala Pro Ala Ile Gln His Ile Cys Leu Lys His Thr
 210 215 220
 Thr Cys Phe Gln Asp Val Val Val Asp Val Asp Cys Ala Glu Asn Thr
 225 230 235 240
 Lys Glu Asp Gln Leu Ala Glu Ile Ser Tyr Arg Phe Gln Gly Lys Lys
 245 250 255
 Glu Ala Asp Gln Pro Trp Ile Val Val Asn Thr Ser Thr Leu Phe Asp
 260 265 270
 Glu Leu Glu Leu Asp Pro Pro Glu Ile Glu Pro Gly Val Leu Lys Val
 275 280 285
 Leu Arg Thr Glu Lys Gln Tyr Leu Gly Val Tyr Ile Trp Asn Met Arg
 290 295 300
 Gly Ser Asp Gly Thr Ser Thr Tyr Ala Thr Phe Leu Val Thr Trp Lys
 305 310 315 320
 Gly Asp Glu Lys Thr Arg Asn Pro Thr Pro Ala Val Thr Pro Gln Pro
 325 330 335
 Arg Gly Ala Glu Phe His Met Trp Asn Tyr His Ser His Val Phe Ser
 340 345 350
 Val Gly Asp Thr Phe Ser Leu Ala Met His Leu Gln Tyr Lys Ile His
 355 360 365
 Glu Ala Pro Phe Asp Leu Leu Leu Glu Trp Leu Tyr Val Pro Ile Asp
 370 375 380
 Pro Thr Cys Gln Pro Met Arg Leu Tyr Ser Thr Cys Leu Tyr His Pro
 385 390 395 400
 Asn Ala Pro Gln Cys Leu Ser His Met Asn Ser Gly Cys Thr Phe Thr
 405 410 415
 Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
 420 425 430
 Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
 435 440 445

Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
450 455 460

Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
465 470 475 480

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
485 490 495

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
500 505 510

Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
515 520 525

Asn Pro Gly Thr Ser Pro Leu Leu
530 535

<210> 5
<211> 537
<212> PRT
<213> Secuencia Artificial

<220>
<223> Secuencia Artificial

<400> 5
Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp	Leu	Asn	Pro	Lys	Pro	Gln	Gly	Gln	Arg	Leu	Ile	Glu	Val	Ser	Val	
				165					170					175		
Glu	Glu	Asn	His	Pro	Phe	Thr	Leu	Arg	Ala	Pro	Ile	Gln	Arg	Ile	Tyr	
			180					185					190			
Gly	Val	Arg	Tyr	Thr	Glu	Thr	Trp	Ser	Phe	Leu	Pro	Ser	Leu	Thr	Cys	
		195					200					205				
Thr	Gly	Asp	Ala	Ala	Pro	Ala	Ile	Gln	His	Ile	Cys	Leu	Lys	His	Thr	
	210					215					220					
Thr	Cys	Phe	Gln	Asp	Val	Val	Val	Asp	Val	Asp	Cys	Ala	Glu	Asn	Thr	
225					230					235					240	
Lys	Glu	Asp	Gln	Leu	Ala	Glu	Ile	Ser	Tyr	Arg	Phe	Gln	Gly	Lys	Lys	
				245					250					255		
Glu	Ala	Asp	Gln	Pro	Trp	Ile	Val	Val	Asn	Thr	Ser	Thr	Leu	Phe	Asp	
			260					265					270			
Glu	Leu	Glu	Leu	Asp	Pro	Pro	Glu	Ile	Glu	Pro	Gly	Val	Leu	Lys	Val	
		275					280					285				
Leu	Arg	Thr	Glu	Lys	Gln	Tyr	Leu	Gly	Val	Tyr	Ile	Trp	Asn	Met	Arg	
	290					295					300					
Gly	Ser	Asp	Gly	Thr	Ser	Thr	Tyr	Ala	Thr	Phe	Leu	Val	Thr	Trp	Lys	
305					310					315					320	
Gly	Asp	Glu	Lys	Thr	Arg	Asn	Pro	Thr	Pro	Ala	Val	Thr	Pro	Gln	Pro	
				325					330					335		
Arg	Gly	Ala	Glu	Phe	His	Met	Trp	Asn	Tyr	His	Ser	His	Val	Phe	Ser	
			340					345					350			
Val	Gly	Asp	Thr	Phe	Ser	Leu	Ala	Met	His	Leu	Gln	Tyr	Lys	Ile	His	
		355					360					365				
Glu	Ala	Pro	Phe	Asp	Leu	Leu	Leu	Glu	Trp	Leu	Tyr	Val	Pro	Ile	Asp	
	370					375					380					
Pro	Thr	Cys	Gln	Pro	Met	Arg	Leu	Tyr	Ser	Thr	Cys	Leu	Tyr	His	Pro	
385					390					395					400	
Asn	Ala	Pro	Gln	Cys	Leu	Ser	His	Met	Asn	Ser	Gly	Cys	Thr	Phe	Thr	
				405					410					415		
Ser	Pro	His	Leu	Ala	Gln	Arg	Val	Ala	Ser	Thr	Val	Tyr	Gln	Asn	Cys	
			420					425					430			
Glu	His	Ala	Asp	Asn	Tyr	Thr	Ala	Tyr	Cys	Leu	Gly	Ile	Ser	His	Met	
		435					440					445				
Glu	Pro	Ser	Phe	Gly	Leu	Ile	Leu	His	Asp	Gly	Gly	Thr	Thr	Leu	Lys	
	450					455					460					

Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
465 470 475 480

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
485 490 495

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
500 505 510

Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
515 520 525

Asn Pro Gly Thr Ser Pro Leu Leu Arg
530 535

<210> 6

<211> 538

<212> PRT

<213> Secuencia Artificial

<220>

<223> Secuencia Artificial

<400> 6

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175

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

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
485 490 495

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
500 505 510

Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
515 520 525

Asn Pro Gly Thr Ser Pro Leu Leu Arg Tyr
530 535

<210> 7

<211> 539

<212> PRT

<213> Secuencia Artificial

<220>

<223> Secuencia Artificial

<400> 7

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175

Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
180 185 190

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

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
500 505 510

Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
515 520 525

Asn Pro Gly Thr Ser Pro Leu Leu Arg Tyr Ala
530 535

<210> 8
<211> 540
<212> PRT
<213> Secuencia Artificial

<220>
<223> Secuencia Artificial

<400> 8
Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175

Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
180 185 190

Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
195 200 205

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

Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile Thr Pro Val
515 520 525

Asn Pro Gly Thr Ser Pro Leu Leu Arg Tyr Ala Ala
530 535 540

<210> 9
<211> 1602
<212> ADN
<213> Secuencia Artificial

<220>
<223> Secuencia Artificial

<400> 9
atgggaacag tcaacaaacc agtcgtcggc gtgctgatgg gcttcggtat tattacagga 60
actctgagga ttactaacc cgtgcgcgcc tctgtgctgc ggtacgacga tttccacaca 120
gacgaggata agctggacac caattccgtg tatgagccct actatcactc tgatcacgcc 180
gagagctcct ggggtgaaccg gggcgagtct agcaggaagg cttacgacca caacagccct 240
tatactctggc cacggaatga ctacgatggc tttctggaga acgcccacga gcaccacggc 300
gtgtataatc agggcagagg catcgactct ggcgagcggc tgatgcagcc caccagatg 360
agcgcgccagg aggatctggg cgacgataca ggcattccacg tgatccctac cctgaatggc 420
gacgataggc acaagatcgt gaacgtggat cagagacagt acggcgacgt gttcaagggc 480
gatctgaatc ccaagcctca gggccagagg ctgatcgagg tgtccgtgga ggagaaccac 540
cccttcaccc tgagagcccc tatccagcgg atctacggcg tgaggatatac cgagacatgg 600
agctttctgc catccctgac atgcaccggc gacgctgctc ctgctatcca gcacatctgc 660
ctgaagcaca ccacatgttt tcaggacgtg gtgggtggacg tggattgtgc cgagaataca 720
aaggaggatc agctggctga gatctcctac cggttccagg gcaagaagga ggccgatcag 780
ccttggtatc tgggtgaacac ctctacactg tttgacgagc tggagctgga tccccctgag 840
atcgagccag gcgtgctgaa ggtgctgaga accgagaagc agtacctggg cgtgtatatc 900
tggaacatgc ggggctctga cggcaccagc acatacgcta ccttcctggt cacatggaag 960
ggcgatgaga agaccgggaa tccaacacct gctgtgaccc ctacagccaag gggagctgag 1020
tttcacatgt ggaactatca ctcccacgtg ttctctgtgg gcgacacctt tagcctggcc 1080
atgcacctgc aatataagat ccacgaggct cctttcgacc tgctgctgga gtggctgtat 1140
gtgcccacg atcctacatg ccagccaatg aggctgtact ccacctgtct gtatcaccca 1200
aatgcccccc aatgcctgag ccacatgaac tccggctgta cctttacaag cccccacctg 1260
gcccagagag tggcttcac agtgtaccag aactgcgagc acgcccacaa ttacaccgct 1320
tattgtctgg gcattcttca catggagccc agcttcggcc tgatcctgca cgacggcggc 1380
accacactga agtttggtga tacaccgag tccctgtctg gcctctacgt gttcgtggtg 1440
tacttcaacg gccacgtgga ggccgtggct tatacagtgg tgtctaccgt ggatcacttc 1500
gtgaacgcca tcgaggagag aggatttcca cctaccgctg gacagcctcc agtaccaca 1560
aagcctaagg aaatcacccc tgtcaatcct ggaacttcac ct 1602

<210> 10
<211> 1605
<212> ADN
<213> Secuencia Artificial

<220>
<223> Secuencia Artificial

<400> 10
atgggaacag tcaacaaacc agtcgtcggc gtgctgatgg gcttcggtat tattacagga 60
actctgagga ttactaacc cgtgcgcgcc tctgtgctgc ggtacgacga tttccacaca 120
gacgaggata agctggacac caattccgtg tatgagccct actatcactc tgatcacgcc 180
gagagctcct ggggtgaaccg gggcgagtct agcaggaagg cttacgacca caacagccct 240

tatatctggc	cacggaatga	ctacgatggc	tttctggaga	acgcccacga	gcaccacggc	300
gtgtataatc	agggcagagg	catcgactct	ggcgagcggc	tgatgcagcc	cacccagatg	360
agcggccagg	aggatctggg	cgacgataca	ggcatccacg	tgatccctac	cctgaatggc	420
gacgataggc	acaagatcgt	gaacgtggat	cagagacagt	acggcgacgt	gttcaagggc	480
gatctgaatc	ccaagcctca	gggccagagg	ctgatcgagg	tgtccgtgga	ggagaaccac	540
cccttcaccc	tgagagcccc	tatccagcgg	atctacggcg	tgaggatatac	cgagacatgg	600
agctttctgc	catccctgac	atgcaccggc	gacgctgctc	ctgctatcca	gcacatctgc	660
ctgaagcaca	ccacatgttt	tcaggacgtg	gtgggtggacg	tggattgtgc	cgagaataca	720
aaggaggatc	agctggctga	gatctcctac	cggttccagg	gcaagaagga	ggccgatcag	780
ccttgatcg	tggatgaacac	ctctacactg	tttgacgagc	tggagctgga	tccccctgag	840
atcgagccag	gcgtgctgaa	ggtgctgaga	accgagaagc	agtacctggg	cgtgtatatc	900
tggaacatgc	ggggctctga	cggcaccagc	acatacgcta	ccttcctggg	ccatggaag	960
ggcgatgaga	agacccggaa	tccaacacct	gctgtgaccc	ctcagccaag	gggagctgag	1020
tttcacatgt	ggaactatca	ctcccacgtg	ttctctgtgg	gcgacacctt	tagcctggcc	1080
atgcacctgc	aatataagat	ccacgaggct	cctttcgacc	tgctgctgga	gtggctgtat	1140
gtgcccacg	atcctacatg	ccagccaatg	aggctgtact	ccacctgtct	gtatcaccca	1200
aatgcccccc	aatgcctgag	ccacatgaac	tccggctgta	cctttacaag	ccccacctg	1260
gcccagagag	tggcttccac	agtgtaccag	aactgcgagc	acgccgacaa	ttacaccgct	1320
tattgtctgg	gcattctctca	catggagccc	agcttcggcc	tgatcctgca	cgacggcggc	1380
accacactga	agtttgtgga	tacacccgag	tccctgtctg	gcctctacgt	gttcgtggtg	1440
tacttcaacg	gccacgtgga	ggccgtggct	tatacagtgg	tgtctaccgt	ggatcacttc	1500
gtgaacgcc	tcgaggagag	aggatttcca	cctaccgctg	gacagcctcc	agctaccaca	1560
aagcctaagg	aaatcacccc	tgtcaatcct	ggaacttcac	ctctg		1605

<210> 11
 <211> 1608
 <212> ADN
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400>	11					
atgggaacag	tcaacaaacc	agtcgtcggc	gtgctgatgg	gcttcgggat	tattacagga	60
actctgagga	ttactaacc	cgtagcgcc	tctgtgctgc	ggtagcagca	tttccacaca	120
gacgaggata	agctggacac	caattccgtg	tatgagccct	actatcactc	tgatcacgcc	180
gagagctcct	gggtgaaccg	gggcgagtct	agcaggaagg	cttacgacca	caacagccct	240
tatatctggc	cacggaatga	ctacgatggc	tttctggaga	acgcccacga	gcaccacggc	300
gtgtataatc	agggcagagg	catcgactct	ggcgagcggc	tgatgcagcc	cacccagatg	360
agcggccagg	aggatctggg	cgacgataca	ggcatccacg	tgatccctac	cctgaatggc	420
gacgataggc	acaagatcgt	gaacgtggat	cagagacagt	acggcgacgt	gttcaagggc	480
gatctgaatc	ccaagcctca	gggccagagg	ctgatcgagg	tgtccgtgga	ggagaaccac	540
cccttcaccc	tgagagcccc	tatccagcgg	atctacggcg	tgaggatatac	cgagacatgg	600
agctttctgc	catccctgac	atgcaccggc	gacgctgctc	ctgctatcca	gcacatctgc	660
ctgaagcaca	ccacatgttt	tcaggacgtg	gtgggtggacg	tggattgtgc	cgagaataca	720
aaggaggatc	agctggctga	gatctcctac	cggttccagg	gcaagaagga	ggccgatcag	780
ccttgatcg	tggatgaacac	ctctacactg	tttgacgagc	tggagctgga	tccccctgag	840
atcgagccag	gcgtgctgaa	ggtgctgaga	accgagaagc	agtacctggg	cgtgtatatc	900
tggaacatgc	ggggctctga	cggcaccagc	acatacgcta	ccttcctggg	ccatggaag	960
ggcgatgaga	agacccggaa	tccaacacct	gctgtgaccc	ctcagccaag	gggagctgag	1020
tttcacatgt	ggaactatca	ctcccacgtg	ttctctgtgg	gcgacacctt	tagcctggcc	1080
atgcacctgc	aatataagat	ccacgaggct	cctttcgacc	tgctgctgga	gtggctgtat	1140
gtgcccacg	atcctacatg	ccagccaatg	aggctgtact	ccacctgtct	gtatcaccca	1200
aatgcccccc	aatgcctgag	ccacatgaac	tccggctgta	cctttacaag	ccccacctg	1260
gcccagagag	tggcttccac	agtgtaccag	aactgcgagc	acgccgacaa	ttacaccgct	1320
tattgtctgg	gcattctctca	catggagccc	agcttcggcc	tgatcctgca	cgacggcggc	1380
accacactga	agtttgtgga	tacacccgag	tccctgtctg	gcctctacgt	gttcgtggtg	1440

tacttcaacg	gccacgtgga	ggccgtggct	tatacagtgg	tgtctaccgt	ggatcacttc	1500
gtgaacgcca	tcgaggagag	aggatttcca	cctaccgctg	gacagcctcc	agctaccaca	1560
aagcctaagg	aaatcacccc	tgtcaatcct	ggaacttcac	ctctgctg		1608

<210> 12
 <211> 1611
 <212> ADN
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400>	12					
atgggaacag	tcaacaaacc	agtcgtcggc	gtgctgatgg	gcttcggtat	tattacagga	60
actctgagga	ttactaacc	cgtgcgcgcc	tctgtgctgc	ggtacgacga	tttccacaca	120
gacgaggata	agctggacac	caattccgtg	tatgagccct	actatcactc	tgatcacgcc	180
gagagctcct	gggtgaaccg	gggcgagtct	agcaggaagg	cttacgacca	caacagccct	240
tatatctggc	cacggaatga	ctacgatggc	tttctggaga	acgcccacga	gcaccacggc	300
gtgtataatc	agggcagagg	catcgactct	ggcgagcggc	tgatgcagcc	caccagatg	360
agcgcgccag	aggatctggg	cgacgataca	ggcatccacg	tgatccctac	cctgaatggc	420
gacgataagg	acaagatcgt	gaacgtggat	cagagacagt	acggcgacgt	gttcaagggc	480
gatctgaatc	ccaagcctca	gggccagagg	ctgatcgagg	tgtccgtgga	ggagaaccac	540
cccttcaccc	tgagagcccc	tatccagcgg	atctacggcg	tgaggatatac	cgagacatgg	600
agctttctgc	catccctgac	atgcaccggc	gacgctgctc	ctgctatcca	gcacatctgc	660
ctgaagcaca	ccacatgttt	tcaggacgtg	gtgggtggacg	tggattgtgc	cgagaataca	720
aaggaggatc	agctggctga	gatctcctac	cggttccagg	gcaagaagga	ggccgatcag	780
ccttgatcg	tggatgaacac	ctctacactg	tttgacgagc	tggagctgga	tccccctgag	840
atcgagccag	gcgtgctgaa	ggtgctgaga	accgagaagc	agtacctggg	cgtgtatatc	900
tgaacatga	ggggctctga	cggcaccagc	acatacgcta	ccttcctggt	cacatggaag	960
ggcgatgaga	agacccggaa	tccaacacct	gctgtgaccc	ctcagccaag	gggagctgag	1020
tttcacatgt	ggaactatca	ctcccacgtg	ttctctgtgg	gcgacacctt	tagcctggcc	1080
atgcacctgc	aatataagat	ccacgaggct	cctttcgacc	tgctgctgga	gtggctgtat	1140
gtgcccacg	atcctacatg	ccagccaatg	aggctgtact	ccacctgtct	gtatcaccca	1200
aatgcccccc	aatgcctgag	ccacatgaac	tccggctgta	cctttacaag	ccccacctg	1260
gcccagagag	tggcttccac	agtgtaccag	aactgcgagc	acgcccacaa	ttacaccgct	1320
tattgtctgg	gcattctctca	catggagccc	agcttcggcc	tgatcctgca	cgacggcggc	1380
accacactga	agtttgtgga	tacacccgag	tccctgtctg	gcctctacgt	gttcgtgggtg	1440
tacttcaacg	gccacgtgga	ggccgtggct	tatacagtgg	tgtctaccgt	ggatcacttc	1500
gtgaacgcca	tcgaggagag	aggatttcca	cctaccgctg	gacagcctcc	agctaccaca	1560
aagcctaagg	aaatcacccc	tgtcaatcct	ggaacttcac	ctctgctgcg	c	1611

<210> 13
 <211> 1614
 <212> ADN
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400>	13					
atgggaacag	tcaacaaacc	agtcgtcggc	gtgctgatgg	gcttcggtat	tattacagga	60
actctgagga	ttactaacc	cgtgcgcgcc	tctgtgctgc	ggtacgacga	tttccacaca	120
gacgaggata	agctggacac	caattccgtg	tatgagccct	actatcactc	tgatcacgcc	180
gagagctcct	gggtgaaccg	gggcgagtct	agcaggaagg	cttacgacca	caacagccct	240
tatatctggc	cacggaatga	ctacgatggc	tttctggaga	acgcccacga	gcaccacggc	300
gtgtataatc	agggcagagg	catcgactct	ggcgagcggc	tgatgcagcc	caccagatg	360

agcgcccagg	aggatctggg	cgacgataca	ggcatccacg	tgatccctac	cctgaatggc	420
gacgataggc	acaagatcgt	gaacgtggat	cagagacagt	acggcgacgt	gttcaagggc	480
gatctgaatc	ccaagcctca	gggccagagg	ctgatcgagg	tgtccgtgga	ggagaaccac	540
cccttcaccc	tgagagcccc	tatccagcgg	atctacggcg	tgaggatatac	cgagacatgg	600
agctttctgc	catccctgac	atgcaccggc	gacgctgctc	ctgctatcca	gcacatctgc	660
ctgaagcaca	ccacatgttt	tcaggacgtg	gtggtggacg	tggattgtgc	cgagaataca	720
aaggaggatc	agctggctga	gatctcctac	cggttccagg	gcaagaagga	ggccgatcag	780
ccttgatcg	tggatgaacac	ctctacactg	tttgacgagc	tggagctgga	tccccctgag	840
atcgagccag	gcgtgctgaa	ggtgctgaga	accgagaagc	agtacctggg	cgtgtatatc	900
tggaaacatgc	ggggctctga	cggcaccagc	acatacgcta	ccttcctggg	cacatggaag	960
ggcgatgaga	agaccgggaa	tccaacacct	gctgtgaccc	ctcagccaag	gggagctgag	1020
tttcacatgt	ggaacctatca	ctcccacgtg	ttctctgtgg	gcgacacctt	tagcctggcc	1080
atgcacctgc	aatataagat	ccacgaggct	cctttcgacc	tgctgctgga	gtggctgtat	1140
gtgcccacgc	atcctacatg	ccagccaatg	aggctgtact	ccacctgtct	gtatcaccca	1200
aatgcccccc	aatgcctgag	ccacatgaac	tccggctgta	cctttacaag	cccccacctg	1260
gcccagagag	tggcttccac	agtgtaccag	aactgcgagc	acgccgacaa	ttacaccgct	1320
tattgtctgg	gcattctctca	catggagccc	agcttcggcc	tgatcctgca	cgacggcggc	1380
accacactga	agtttgtgga	tacacccgag	tccctgtctg	gcctctacgt	gttcgtgggtg	1440
tacttcaacg	gccacgtgga	ggccgtggct	tatacagtgg	tgtctaccgt	ggatcacttc	1500
gtgaacgccca	tcgaggagag	aggatttcca	cctaccgctg	gacagcctcc	agctaccaca	1560
aagcctaagg	aaatcacccc	tgtcaatcct	ggaacttcac	ctctgctgcy	ctac	1614

<210> 14
 <211> 1617
 <212> ADN
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400>	14					
atgggaacag	tcaacaaacc	agtcgtcggc	gtgctgatgg	gcttcggtat	tattacagga	60
actctgagga	ttactaacc	cgtgcgcgcc	tctgtgctgc	ggtacgacga	tttccacaca	120
gacgaggata	agctggacac	caattccgtg	tatgagccct	actatcactc	tgatcacgcc	180
gagagctcct	gggtgaaccg	gggcgagtct	agcaggaagg	cttacgacca	caacagccct	240
tatatctggc	cacggaatga	ctacgatggc	tttctggaga	acgcccacga	gcaccacggc	300
gtgtataatc	agggcagagg	catcgactct	ggcgagcggc	tgatgcagcc	caccacgatg	360
agcgcccagg	aggatctggg	cgacgataca	ggcatccacg	tgatccctac	cctgaatggc	420
gacgataggc	acaagatcgt	gaacgtggat	cagagacagt	acggcgacgt	gttcaagggc	480
gatctgaatc	ccaagcctca	gggccagagg	ctgatcgagg	tgtccgtgga	ggagaaccac	540
cccttcaccc	tgagagcccc	tatccagcgg	atctacggcg	tgaggatatac	cgagacatgg	600
agctttctgc	catccctgac	atgcaccggc	gacgctgctc	ctgctatcca	gcacatctgc	660
ctgaagcaca	ccacatgttt	tcaggacgtg	gtggtggacg	tggattgtgc	cgagaataca	720
aaggaggatc	agctggctga	gatctcctac	cggttccagg	gcaagaagga	ggccgatcag	780
ccttgatcg	tggatgaacac	ctctacactg	tttgacgagc	tggagctgga	tccccctgag	840
atcgagccag	gcgtgctgaa	ggtgctgaga	accgagaagc	agtacctggg	cgtgtatatc	900
tggaaacatgc	ggggctctga	cggcaccagc	acatacgcta	ccttcctggg	cacatggaag	960
ggcgatgaga	agaccgggaa	tccaacacct	gctgtgaccc	ctcagccaag	gggagctgag	1020
tttcacatgt	ggaacctatca	ctcccacgtg	ttctctgtgg	gcgacacctt	tagcctggcc	1080
atgcacctgc	aatataagat	ccacgaggct	cctttcgacc	tgctgctgga	gtggctgtat	1140
gtgcccacgc	atcctacatg	ccagccaatg	aggctgtact	ccacctgtct	gtatcaccca	1200
aatgcccccc	aatgcctgag	ccacatgaac	tccggctgta	cctttacaag	cccccacctg	1260
gcccagagag	tggcttccac	agtgtaccag	aactgcgagc	acgccgacaa	ttacaccgct	1320
tattgtctgg	gcattctctca	catggagccc	agcttcggcc	tgatcctgca	cgacggcggc	1380
accacactga	agtttgtgga	tacacccgag	tccctgtctg	gcctctacgt	gttcgtgggtg	1440
tacttcaacg	gccacgtgga	ggccgtggct	tatacagtgg	tgtctaccgt	ggatcacttc	1500
gtgaacgccca	tcgaggagag	aggatttcca	cctaccgctg	gacagcctcc	agctaccaca	1560

aagcctaagg aaatcacccc tgtcaatcct ggaacttcac ctctgctgcg ctacgca 1617

<210> 15
 <211> 1620
 <212> ADN
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400> 15
 atgggaacag tcaacaaacc agtcgtcggc gtgctgatgg gcttcggtat tattacagga 60
 actctgagga ttactaacc cgtgcgcgcc tctgtgctgc ggtacgacga tttccacaca 120
 gacgaggata agctggacac caattccgtg tatgagccct actatcactc tgatcacgcc 180
 gagagctcct ggggtaaccg gggcgagtct agcaggaagg cttacgacca caacagccct 240
 tataatctggc cacggaatga ctacgatggc tttctggaga acgcccacga gcaccacggc 300
 gtgtataatc agggcagagg catcgactct ggcgagcggc tgatgcagcc caccagatg 360
 agcggccagg aggatctggg cgacgataca ggcacccacg tgatccctac cctgaatggc 420
 gacgataggc acaagatcgt gaacgtggat cagagacagt acggcgacgt gttcaagggc 480
 gatctgaatc ccaagcctca gggccagagg ctgatcgagg tgtccgtgga ggagaaccac 540
 cccttcaccc tgagagcccc tatccagcgg atctacggcg tgagggtatac cgagacatgg 600
 agctttctgc catccctgac atgcaccggc gacgctgctc ctgctatcca gcacatctgc 660
 ctgaagcaca ccacatgttt tcaggacgtg gtgggtggacg tggattgtgc cgagaataca 720
 aaggaggatc agctggctga gatctcctac cggttccagg gcaagaagga ggccgatcag 780
 ccttgatcg tgggtaacac ctctacactg tttgacgagc tggagctgga tccccctgag 840
 atcgagccag gcgtgctgaa ggtgctgaga accgagaagc agtacctggg cgtgtatatc 900
 tggaaacatgc ggggctctga cggcaccagc acatacgcta ccttcctggg cacatggaag 960
 ggcgatgaga agaccgggaa tccaacacct gctgtgacct ctcagccaag gggagctgag 1020
 tttcacatgt ggaactatca ctcccacgtg ttctctgtgg gcgacacct tagcctggcc 1080
 atgcacctgc aataaagat ccacgaggct ccttcgacc tgcgtgctgga gtggctgtat 1140
 gtgcccacgc atcctacatg ccagccaatg aggcgtgtact ccacctgtct gtatcaccca 1200
 aatgcccccc aatgcctgag ccacatgaac tccggctgta cctttacaag cccccacctg 1260
 gcccagagag tggcttcac agtgtaccag aactgcgagc acgcccacaa ttacaccgct 1320
 tattgtctgg gcactcttca catggagccc agcttcggcc tgatcctgca cgacggcggc 1380
 accacactga agtttgtgga tacaccgag tccctgtctg gcctctacgt gttcgtgggtg 1440
 tacttcaacg gccacgtgga ggccgtggct tatacagtgg tgcctaccgt ggatcacttc 1500
 gtgaacgcca tcgaggagag aggatttcca cctaccgctg gacagcctcc agctaccaca 1560
 aagcctaagg aaatcacccc tgtcaatcct ggaacttcac ctctgctgcg ctacgcagcc 1620
 1620

<210> 16
 <211> 500
 <212> PRT
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400> 16
 Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
 1 5 10 15
 Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
 20 25 30

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

Arg Gly Ala Glu Phe His Met Trp Asn Tyr His Ser His Val Phe Ser
 340 345 350
 Val Gly Asp Thr Phe Ser Leu Ala Met His Leu Gln Tyr Lys Ile His
 355 360 365
 Glu Ala Pro Phe Asp Leu Leu Leu Glu Trp Leu Tyr Val Pro Ile Asp
 370 375 380
 Pro Thr Cys Gln Pro Met Arg Leu Tyr Ser Thr Cys Leu Tyr His Pro
 385 390 395 400
 Asn Ala Pro Gln Cys Leu Ser His Met Asn Ser Gly Cys Thr Phe Thr
 405 410 415
 Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
 420 425 430
 Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
 435 440 445
 Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
 450 455 460
 Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
 465 470 475 480
 Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
 485 490 495
 Val Asp His Phe
 500

<210> 17
 <211> 505
 <212> PRT
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400> 17
 Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
 1 5 10 15
 Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
 20 25 30
 Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
 35 40 45
 Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
 50 55 60
 Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
 65 70 75 80

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

Pro Thr Cys Gln Pro Met Arg Leu Tyr Ser Thr Cys Leu Tyr His Pro
385 390 395 400

Asn Ala Pro Gln Cys Leu Ser His Met Asn Ser Gly Cys Thr Phe Thr
405 410 415

Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
420 425 430

Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
435 440 445

Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
450 455 460

Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
465 470 475 480

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
485 490 495

Val Asp His Phe Val Asn Ala Ile Glu
500 505

<210> 18

<211> 510

<212> PRT

<213> Secuencia Artificial

<220>

<223> Secuencia Artificial

<400> 18

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
 130 135 140
 Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
 145 150 155 160
 Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
 165 170 175
 Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
 180 185 190
 Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
 195 200 205
 Thr Gly Asp Ala Ala Pro Ala Ile Gln His Ile Cys Leu Lys His Thr
 210 215 220
 Thr Cys Phe Gln Asp Val Val Val Asp Val Asp Cys Ala Glu Asn Thr
 225 230 235 240
 Lys Glu Asp Gln Leu Ala Glu Ile Ser Tyr Arg Phe Gln Gly Lys Lys
 245 250 255
 Glu Ala Asp Gln Pro Trp Ile Val Val Asn Thr Ser Thr Leu Phe Asp
 260 265 270
 Glu Leu Glu Leu Asp Pro Pro Glu Ile Glu Pro Gly Val Leu Lys Val
 275 280 285
 Leu Arg Thr Glu Lys Gln Tyr Leu Gly Val Tyr Ile Trp Asn Met Arg
 290 295 300
 Gly Ser Asp Gly Thr Ser Thr Tyr Ala Thr Phe Leu Val Thr Trp Lys
 305 310 315 320
 Gly Asp Glu Lys Thr Arg Asn Pro Thr Pro Ala Val Thr Pro Gln Pro
 325 330 335
 Arg Gly Ala Glu Phe His Met Trp Asn Tyr His Ser His Val Phe Ser
 340 345 350
 Val Gly Asp Thr Phe Ser Leu Ala Met His Leu Gln Tyr Lys Ile His
 355 360 365
 Glu Ala Pro Phe Asp Leu Leu Leu Glu Trp Leu Tyr Val Pro Ile Asp
 370 375 380
 Pro Thr Cys Gln Pro Met Arg Leu Tyr Ser Thr Cys Leu Tyr His Pro
 385 390 395 400
 Asn Ala Pro Gln Cys Leu Ser His Met Asn Ser Gly Cys Thr Phe Thr
 405 410 415
 Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
 420 425 430

Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
 435 440 445

Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
 450 455 460

Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
 465 470 475 480

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
 485 490 495

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro
 500 505 510

<210> 19

<211> 515

<212> PRT

<213> Secuencia Artificial

<220>

<223> Secuencia Artificial

<400> 19

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
 1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
 20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
 35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
 50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
 65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
 85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
 100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
 115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
 130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
 145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
 165 170 175

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

Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
485 490 495

Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
500 505 510

Ala Gly Gln
515

$\langle 210 \rangle$ 20

<211> 520

<212> PRT

<213> Secuencia Artificial

 $\langle 220 \rangle$

<223> Secuencia Artificial

<400> 20

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175

Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
180 185 190

Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
195 200 205

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

Ala Gly Gln Pro Pro Ala Thr Thr
515 520

<210> 21
<211> 525
<212> PRT
<213> Secuencia Artificial

<220>
<223> Secuencia Artificial

<400> 21
Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15
Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30
Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45
Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60
Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80
Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95
Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110
Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125
Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140
Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160
Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175
Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
180 185 190
Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
195 200 205
Thr Gly Asp Ala Ala Pro Ala Ile Gln His Ile Cys Leu Lys His Thr
210 215 220
Thr Cys Phe Gln Asp Val Val Val Asp Val Asp Cys Ala Glu Asn Thr
225 230 235 240

Lys Glu Asp Gln Leu Ala Glu Ile Ser Tyr Arg Phe Gln Gly Lys Lys
 245 250 255
 Glu Ala Asp Gln Pro Trp Ile Val Val Asn Thr Ser Thr Leu Phe Asp
 260 265 270
 Glu Leu Glu Leu Asp Pro Pro Glu Ile Glu Pro Gly Val Leu Lys Val
 275 280 285
 Leu Arg Thr Glu Lys Gln Tyr Leu Gly Val Tyr Ile Trp Asn Met Arg
 290 295 300
 Gly Ser Asp Gly Thr Ser Thr Tyr Ala Thr Phe Leu Val Thr Trp Lys
 305 310 315 320
 Gly Asp Glu Lys Thr Arg Asn Pro Thr Pro Ala Val Thr Pro Gln Pro
 325 330 335
 Arg Gly Ala Glu Phe His Met Trp Asn Tyr His Ser His Val Phe Ser
 340 345 350
 Val Gly Asp Thr Phe Ser Leu Ala Met His Leu Gln Tyr Lys Ile His
 355 360 365
 Glu Ala Pro Phe Asp Leu Leu Leu Glu Trp Leu Tyr Val Pro Ile Asp
 370 375 380
 Pro Thr Cys Gln Pro Met Arg Leu Tyr Ser Thr Cys Leu Tyr His Pro
 385 390 395 400
 Asn Ala Pro Gln Cys Leu Ser His Met Asn Ser Gly Cys Thr Phe Thr
 405 410 415
 Ser Pro His Leu Ala Gln Arg Val Ala Ser Thr Val Tyr Gln Asn Cys
 420 425 430
 Glu His Ala Asp Asn Tyr Thr Ala Tyr Cys Leu Gly Ile Ser His Met
 435 440 445
 Glu Pro Ser Phe Gly Leu Ile Leu His Asp Gly Gly Thr Thr Leu Lys
 450 455 460
 Phe Val Asp Thr Pro Glu Ser Leu Ser Gly Leu Tyr Val Phe Val Val
 465 470 475 480
 Tyr Phe Asn Gly His Val Glu Ala Val Ala Tyr Thr Val Val Ser Thr
 485 490 495
 Val Asp His Phe Val Asn Ala Ile Glu Glu Arg Gly Phe Pro Pro Thr
 500 505 510
 Ala Gly Gln Pro Pro Ala Thr Thr Lys Pro Lys Glu Ile
 515 520 525

<210> 22
 <211> 530
 <212> PRT

<213> Secuencia Artificial

 $\langle 220 \rangle$

<223> Secuencia Artificial

<400> 22

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175

Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
180 185 190

Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
195 200 205

Thr Gly Asp Ala Ala Pro Ala Ile Gln His Ile Cys Leu Lys His Thr
210 215 220

Thr Cys Phe Gln Asp Val Val Val Asp Val Asp Cys Ala Glu Asn Thr
225 230 235 240

Lys Glu Asp Gln Leu Ala Glu Ile Ser Tyr Arg Phe Gln Gly Lys Lys
245 250 255

Glu Ala Asp Gln Pro Trp Ile Val Val Asn Thr Ser Thr Leu Phe Asp
260 265 270

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

<210> 23
 <211> 543
 <212> PRT
 <213> Secuencia Artificial
 <220>

<223> Secuencia Artificial

<400> 23

Met Gly Thr Val Asn Lys Pro Val Val Gly Val Leu Met Gly Phe Gly
1 5 10 15

Ile Ile Thr Gly Thr Leu Arg Ile Thr Asn Pro Val Arg Ala Ser Val
20 25 30

Leu Arg Tyr Asp Asp Phe His Thr Asp Glu Asp Lys Leu Asp Thr Asn
35 40 45

Ser Val Tyr Glu Pro Tyr Tyr His Ser Asp His Ala Glu Ser Ser Trp
50 55 60

Val Asn Arg Gly Glu Ser Ser Arg Lys Ala Tyr Asp His Asn Ser Pro
65 70 75 80

Tyr Ile Trp Pro Arg Asn Asp Tyr Asp Gly Phe Leu Glu Asn Ala His
85 90 95

Glu His His Gly Val Tyr Asn Gln Gly Arg Gly Ile Asp Ser Gly Glu
100 105 110

Arg Leu Met Gln Pro Thr Gln Met Ser Ala Gln Glu Asp Leu Gly Asp
115 120 125

Asp Thr Gly Ile His Val Ile Pro Thr Leu Asn Gly Asp Asp Arg His
130 135 140

Lys Ile Val Asn Val Asp Gln Arg Gln Tyr Gly Asp Val Phe Lys Gly
145 150 155 160

Asp Leu Asn Pro Lys Pro Gln Gly Gln Arg Leu Ile Glu Val Ser Val
165 170 175

Glu Glu Asn His Pro Phe Thr Leu Arg Ala Pro Ile Gln Arg Ile Tyr
180 185 190

Gly Val Arg Tyr Thr Glu Thr Trp Ser Phe Leu Pro Ser Leu Thr Cys
195 200 205

Thr Gly Asp Ala Ala Pro Ala Ile Gln His Ile Cys Leu Lys His Thr
210 215 220

Thr Cys Phe Gln Asp Val Val Val Asp Val Asp Cys Ala Glu Asn Thr
225 230 235 240

Lys Glu Asp Gln Leu Ala Glu Ile Ser Tyr Arg Phe Gln Gly Lys Lys
245 250 255

Glu Ala Asp Gln Pro Trp Ile Val Val Asn Thr Ser Thr Leu Phe Asp
260 265 270

Glu Leu Glu Leu Asp Pro Pro Glu Ile Glu Pro Gly Val Leu Lys Val
275 280 285

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

<210> 24
 <211> 546
 <212> PRT
 <213> Secuencia Artificial

<220>
 <223> Secuencia Artificial

<400>																24
Met 1	Gly	Thr	Val	Asn 5	Lys	Pro	Val	Val	Gly 10	Val	Leu	Met	Gly	Phe 15	Gly	
Ile	Ile	Thr	Gly 20	Thr	Leu	Arg	Ile	Thr 25	Asn	Pro	Val	Arg	Ala 30	Ser	Val	
Leu	Arg	Tyr 35	Asp	Asp	Phe	His	Thr 40	Asp	Glu	Asp	Lys	Leu 45	Asp	Thr	Asn	
Ser	Val 50	Tyr	Glu	Pro	Tyr	Tyr 55	His	Ser	Asp	His	Ala 60	Glu	Ser	Ser	Trp	
Val 65	Asn	Arg	Gly	Glu	Ser 70	Ser	Arg	Lys	Ala	Tyr 75	Asp	His	Asn	Ser	Pro 80	
Tyr	Ile	Trp	Pro	Arg 85	Asn	Asp	Tyr	Asp	Gly 90	Phe	Leu	Glu	Asn	Ala 95	His	
Glu	His	His	Gly 100	Val	Tyr	Asn	Gln	Gly 105	Arg	Gly	Ile	Asp	Ser 110	Gly	Glu	
Arg	Leu	Met 115	Gln	Pro	Thr	Gln	Met 120	Ser	Ala	Gln	Glu	Asp 125	Leu	Gly	Asp	
Asp	Thr 130	Gly	Ile	His	Val	Ile 135	Pro	Thr	Leu	Asn	Gly 140	Asp	Asp	Arg	His	
Lys 145	Ile	Val	Asn	Val	Asp 150	Gln	Arg	Gln	Tyr	Gly 155	Asp	Val	Phe	Lys 160	Gly	
Asp	Leu	Asn	Pro	Lys 165	Pro	Gln	Gly	Gln	Arg 170	Leu	Ile	Glu	Val	Ser 175	Val	
Glu	Glu	Asn	His 180	Pro	Phe	Thr	Leu	Arg 185	Ala	Pro	Ile	Gln	Arg 190	Ile	Tyr	
Gly	Val	Arg 195	Tyr	Thr	Glu	Thr	Trp 200	Ser	Phe	Leu	Pro	Ser 205	Leu	Thr	Cys	
Thr	Gly 210	Asp	Ala	Ala	Pro	Ala 215	Ile	Gln	His	Ile	Cys 220	Leu	Lys	His	Thr	
Thr 225	Cys	Phe	Gln	Asp	Val 230	Val	Val	Asp	Val	Asp 235	Cys	Ala	Glu	Asn	Thr 240	
Lys	Glu	Asp	Gln	Leu 245	Ala	Glu	Ile	Ser	Tyr 250	Arg	Phe	Gln	Gly	Lys 255	Lys	
Glu	Ala	Asp	Gln 260	Pro	Trp	Ile	Val	Val 265	Asn	Thr	Ser	Thr	Leu 270	Phe	Asp	
Glu	Leu	Glu 275	Leu	Asp	Pro	Pro	Glu 280	Ile	Glu	Pro	Gly	Val 285	Leu	Lys	Val	
Leu	Arg 290	Thr	Glu	Lys	Gln	Tyr 295	Leu	Gly	Val	Tyr	Ile 300	Trp	Asn	Met	Arg	

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