

LISTADO DE SECUENCIAS

<110> Eli Lilly and Company

<120> Agonistas GDF15 y sus métodos de uso

<130> X21678

<150> US 62/653.759

<151> 06-04-2018

<160> 17

<170> PatentIn versión 3.5

<210> 1

<211> 112

<212> PRT

<213> Homo sapiens

<400> 1

Ala	Arg	Asn	Gly	Asp	His	Cys	Pro	Leu	Gly	Pro	Gly	Arg	Cys	Cys	Arg
1				5					10					15	

Leu	His	Thr	Val	Arg	Ala	Ser	Leu	Glu	Asp	Leu	Gly	Trp	Ala	Asp	Trp
			20					25					30		

Val	Leu	Ser	Pro	Arg	Glu	Val	Gln	Val	Thr	Met	Cys	Ile	Gly	Ala	Cys
		35					40					45			

Pro	Ser	Gln	Phe	Arg	Ala	Ala	Asn	Met	His	Ala	Gln	Ile	Lys	Thr	Ser
	50					55					60				

Leu	His	Arg	Leu	Lys	Pro	Asp	Thr	Val	Pro	Ala	Pro	Cys	Cys	Val	Pro
65					70					75					80

Ala	Ser	Tyr	Asn	Pro	Met	Val	Leu	Ile	Gln	Lys	Thr	Asp	Thr	Gly	Val
				85					90					95	

Ser	Leu	Gln	Thr	Tyr	Asp	Asp	Leu	Leu	Ala	Lys	Asp	Cys	His	Cys	Ile
			100					105					110		

<210> 2

<211> 351

<212> PRT

<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 2

Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
1 5 10 15

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
20 25 30

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
35 40 45

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
50 55 60

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
65 70 75 80

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
85 90 95

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
100 105 110

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
115 120 125

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
130 135 140

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
145 150 155 160

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Gln Leu Glu Ser
165 170 175

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
180 185 190

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
195 200 205

Leu Ser Leu Ser Leu Gly Gly Gly Gly Gly Ala Pro Ala Pro Ala Pro
210 215 220

Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Gly Gly
225 230 235 240

Gly Gly Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys Arg Leu
245 250 255

His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp Trp Val
260 265 270

Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala Cys Pro
275 280 285

Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr Ser Leu
290 295 300

His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val Pro Ala
305 310 315 320

Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly Val Ser
325 330 335

Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys Ile
340 345 350

<210> 3
<211> 20
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 3

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly
20

<210> 4
<211> 325
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 4

Gln Thr Asn Asn Cys Thr Tyr Leu Arg Glu Gln Cys Leu Arg Asp Ala
1 5 10 15

Asn Gly Cys Lys His Ala Trp Arg Val Met Glu Asp Ala Cys Asn Asp
20 25 30

Ser Asp Pro Gly Asp Pro Cys Lys Met Arg Asn Ser Ser Tyr Cys Asn
35 40 45

Leu Ser Ile Gln Tyr Leu Val Glu Ser Asn Phe Gln Phe Lys Glu Cys
50 55 60

Leu Cys Thr Asp Asp Phe Tyr Cys Thr Val Asn Lys Leu Leu Gly Lys
65 70 75 80

Lys Cys Ile Asn Lys Ser Asp Asn Val Lys Glu Asp Lys Phe Lys Trp
85 90 95

Asn Leu Thr Thr Arg Ser His His Gly Phe Lys Gly Met Trp Ser Cys
100 105 110

Leu Glu Val Ala Glu Ala Cys Val Gly Asp Val Val Cys Asn Ala Gln
115 120 125

Leu Ala Ser Tyr Leu Lys Ala Cys Ser Ala Asn Gly Asn Pro Cys Asp
130 135 140

Leu Lys Gln Cys Gln Ala Ala Ile Arg Phe Phe Tyr Gln Asn Ile Pro
145 150 155 160

Phe Asn Ile Ala Gln Met Leu Ala Phe Cys Asp Cys Ala Gln Ser Asp
165 170 175

Ile Pro Cys Gln Gln Ser Lys Glu Ala Leu His Ser Lys Thr Cys Ala
180 185 190

Val Asn Met Val Pro Pro Pro Thr Cys Leu Ser Val Ile Arg Ser Cys
195 200 205

Gln Asn Asp Glu Leu Cys Arg Arg His Tyr Arg Thr Phe Gln Ser Lys
210 215 220

Cys Trp Gln Arg Val Thr Arg Lys Cys His Glu Asp Glu Asn Cys Ile
225 230 235 240

Ser Thr Leu Ser Lys Gln Asp Leu Thr Cys Ser Gly Ser Asp Asp Cys
245 250 255

Lys Ala Ala Tyr Ile Asp Ile Leu Gly Thr Val Leu Gln Val Gln Cys
260 265 270

Thr Cys Arg Thr Ile Thr Gln Ser Glu Glu Ser Leu Cys Lys Ile Phe
275 280 285

Gln His Met Leu His Arg Lys Ser Cys Phe Asn Tyr Pro Thr Leu Ser
290 295 300

Asn Val Lys Gly Met Ala Leu Tyr Thr Arg Lys His Ala Asn Lys His
305 310 315 320

His His His His His
325

<210> 5
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<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 5

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

Ser Pro Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
225 230 235 240

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
245 250 255

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Arg Lys Ser Ser
260 265 270

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
275 280 285

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
290 295 300

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
305 310 315 320

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
325 330 335

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
340 345 350

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
355 360 365

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
370 375 380

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
385 390 395 400

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
405 410 415

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
420 425 430

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
435 440 445

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
450 455 460

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
465 470 475 480

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Gly Gly
485 490 495

Gly Ser Gly Gly Gly Gly Ala Ser Ala Arg Asn Gly Asp His Cys Pro
500 505 510

Leu Gly Pro Gly Arg Cys Cys Arg Leu His Thr Val Arg Ala Ser Leu
515 520 525

Glu Asp Leu Gly Trp Ala Asp Trp Val Leu Ser Pro Arg Glu Val Gln
530 535 540

Val Thr Met Cys Ile Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala Asn
545 550 555 560

Met His Ala Gln Ile Lys Thr Ser Leu His Arg Leu Lys Pro Asp Thr
565 570 575

Val Pro Ala Pro Cys Cys Val Pro Ala Ser Tyr Asn Pro Met Val Leu
580 585 590

Ile Gln Lys Thr Asp Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp Leu
595 600 605

Leu Ala Lys Asp Cys His Cys Ile
610 615

<210> 6
<211> 361
<212> PRT
<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 6

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Ala Leu Gly Gly
1 5 10 15

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
20 25 30

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
35 40 45

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
50 55 60

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
65 70 75 80

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
85 90 95

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
100 105 110

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
115 120 125

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
130 135 140

Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
145 150 155 160

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
165 170 175

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
180 185 190

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
195 200 205

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
210 215 220

Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
225 230 235 240

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Gly Thr His Cys
245 250 255

Pro Leu Gly Pro Gly Arg Cys Cys Arg Leu His Thr Val Arg Ala Ser
260 265 270

Leu Glu Asp Leu Gly Trp Ala Asp Trp Val Leu Ser Pro Arg Glu Val
275 280 285

Gln Val Thr Met Cys Ile Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala
290 295 300

Asn Met His Ala Gln Ile Lys Thr Ser Leu His Arg Leu Lys Pro Asp
305 310 315 320

Thr Val Pro Ala Pro Cys Cys Val Pro Ala Ser Tyr Asn Pro Met Val
325 330 335

Leu Ile Gln Lys Thr Asp Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp
340 345 350

Leu Leu Ala Lys Asp Cys His Cys Ile
355 360

<210> 7
<211> 353
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 7

Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
1 5 10 15

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

Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly
225 230 235 240

Gln Gly Gly Gly Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys
245 250 255

Arg Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp
260 265 270

Trp Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala
275 280 285

Cys Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr
290 295 300

Ser Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val
305 310 315 320

Pro Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly
325 330 335

Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys
340 345 350

Ile

<210> 8
<211> 12
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 8

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
1 5 10

<210> 9
<211> 353
<212> PRT
<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 9

Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
1 5 10 15

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
20 25 30

Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
85 90 95

Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met
115 120 125

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Gln Leu
165 170 175

Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Leu Gly Gly Gly Gly Gly Gln Gly Gly Gly
210 215 220

Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly
225 230 235 240

Gln Gly Gly Gly Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys
245 250 255

Arg Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp
260 265 270

Trp Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala
275 280 285

Cys Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr
290 295 300

Ser Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val
305 310 315 320

Pro Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly
325 330 335

Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys
340 345 350

Ile

<210> 10
<211> 353
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 10

Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
1 5 10 15

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
20 25 30

Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
85 90 95

Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met
115 120 125

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
165 170 175

Glu Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Leu Gly Gly Gly Gly Gly Gln Gly Gly Gly
210 215 220

Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly
225 230 235 240

Gln Gly Gly Gly Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys
245 250 255

Arg Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp
260 265 270

Trp Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala
275 280 285

Cys Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr
290 295 300

Ser Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val
305 310 315 320

Pro Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly
325 330 335

Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys
340 345 350

Ile

<210> 11
<211> 355
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 11

Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
1 5 10 15

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
20 25 30

Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
85 90 95

Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met
115 120 125

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Val Leu Asp Ser Asp Gly Ser Phe Gln Leu
165 170 175

Glu Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Leu Gly Gly Gly Gly Gly Ser Ala Pro Ala
210 215 220

Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala
225 230 235 240

Pro Gly Gly Gly Gly Ser Gly Asp His Cys Pro Leu Gly Pro Gly Arg
245 250 255

Cys Cys Arg Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp
260 265 270

Ala Asp Trp Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile
275 280 285

Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile
290 295 300

Lys Thr Ser Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys
305 310 315 320

Cys Val Pro Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp
325 330 335

Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys
340 345 350

His Cys Ile
355

<210> 12
<211> 25
<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 12

Gly Gly Gly Gly Gln Gly Gly Gly Gly Gln Gly Gly Gly Gly Gln Gly
1 5 10 15

Gly Gly Gly Gln Gly Gly Gly Gly Gln
20 25

<210> 13
<211> 20
<212> PRT
<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 13

Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro
1 5 10 15

Ala Pro Ala Pro
20

<210> 14

<211> 5

<212> PRT

<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 14

Gly Gly Gly Gly Ser
1 5

<210> 15

<211> 4

<212> PRT

<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 15

Gly Gly Gly Gly
1

<210> 16

<211> 1053

<212> DNA

<213> Secuencia artificial

<220>

<223> Constructo sintético

<400> 16

gaggccgccg ggggaccatc agtcttcctg ttcccccaa aacccaagga cactctcatg
60

atctcccga cccctgaggt cacgtgctg gtggtggac tgagccagga agaccccag
120

gtccagttca actggtacgt ggatggcgtg gaggtgcata atgccaagac aaagccgcgg
180

gaggagcagt tcaacagcac gtaccgtgtg gtcagcgtcc tcaccgtcct gcaccaggac
240

tggctgaacg gcaaggagta caagtgcaag gtctccaaca aaggcctccc gtcctccatc
300

gagaaaacca tctccaaagc caaagggcag ccccgagagc cacaggtgta caccctgccc
360

ccatcccagg aggagatgac caagaaccag gtcagcctga cctgcctggg caaaggcttc
420

taccccagcg acatcgccgt ggagtgggaa agcaatgggc agccggagaa caactacaag
480

accagcctc cegtgtctga ctccgacggc tccttcacgc tcgagagcag gctaaccgtg
540

gacaagagca ggtggcagga ggggaatgtc ttctcatgct cegtgatgca tgaggctctg
600

cacaaccact acacacagaa gagcctctcc ctgtctctgg gtggcggtgg tggagctcca
660

gcccagctc ctgtcctgc accagcacct gccccgctc cagcacccgc acctggagga
720

gggggcggtg accactgtcc cctggggcct ggccggtgtt gcagactgca tacagtccgg
780

gcctccctgg aagacctggg ttgggcagat tgggtgctct cacctcgca ggttcagggt
840

accatgtgca ttggggcttg tccctcaca tttcgcgag ctaacatgca cgcccaaadc
900

aaaacctccc tgcaccggct taaaccgat actgttcctg ctccctgctg cgtgccagca
960

tcctacaacc ccatggtgct gatccagaag acggatacag ggggtgtcact gcagacctat
1020

gatgacctcc tggccaaaga ttgccactgt atc
1053

<210> 17

<211> 227

<212> PRT
<213> Secuencia artificial

<220>
<223> Constructo sintético

<400> 17

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Ala Leu Ala Gly
1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
35 40 45

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
50 55 60

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
65 70 75 80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
100 105 110

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
115 120 125

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
130 135 140

Leu Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145 150 155 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
165 170 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val
180 185 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
195 200 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
210 215 220

Pro Gly Lys
225