

Traducción Listado de Secuencias ES.
LISTADO DE SECUENCIAS

<110> RedVax GmbH

<120> MEDIOS Y MÉTODOS PARA EL TRATAMIENTO DE CMV

<130> RBT15047PCT

<160> 72

<170> PatentIn version 3.5

<210> 1

<211> 716

<212> PRT

<213> Cytomegalovirus

<400> 1

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Pro Leu Asp Lys Ala Phe His Leu Leu Leu Asn Thr Tyr Gly Arg Pro
35 40 45

Ile Arg Phe Leu Arg Glu Asn Thr Thr Gln Cys Thr Tyr Asn Ser Ser
50 55 60

Leu Arg Asn Ser Thr Val Val Arg Glu Asn Ala Ile Ser Phe Asn Phe
65 70 75 80

Phe Gln Ser Tyr Asn Gln Tyr Tyr Val Phe His Met Pro Arg Cys Leu
85 90 95

Phe Ala Gly Pro Leu Ala Glu Gln Phe Leu Asn Gln Val Asp Leu Thr
100 105 110

Glu Thr Leu Glu Arg Tyr Gln Gln Arg Leu Asn Thr Tyr Ala Leu Val
115 120 125

Ser Lys Asp Leu Ala Ser Tyr Arg Ser Phe Ser Gln Gln Leu Lys Ala
130 135 140

Gln Asp Ser Leu Gly Glu Gln Pro Thr Thr Val Pro Pro Pro Ile Asp
145 150 155 160

Leu Ser Ile Pro His Val Trp Met Pro Pro Gln Thr Thr Pro His Gly
165 170 175

Traducción Listado de Secuencias ES.

Trp Thr Glu Ser His Thr Thr Ser Gly Leu His Arg Pro His Phe Asn
180 185 190

Gln Thr Cys Ile Leu Phe Asp Gly His Asp Leu Leu Phe Ser Thr Val
195 200 205

Thr Pro Cys Leu His Gln Gly Phe Tyr Leu Ile Asp Glu Leu Arg Tyr
210 215 220

Val Lys Ile Thr Leu Thr Glu Asp Phe Phe Val Val Thr Val Ser Ile
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Asp Asp Asp Thr Pro Met Leu Leu Ile Phe Gly His Leu Pro Arg Val
245 250 255

Leu Phe Lys Ala Pro Tyr Gln Arg Asp Asn Phe Ile Leu Arg Gln Thr
260 265 270

Glu Lys His Glu Leu Leu Val Leu Val Lys Lys Asp Gln Leu Asn Arg
275 280 285

His Ser Tyr Leu Lys Asp Pro Asp Phe Leu Asp Ala Ala Leu Asp Phe
290 295 300

Asn Tyr Leu Asp Leu Ser Ala Leu Leu Arg Asn Ser Phe His Arg Tyr
305 310 315 320

Ala Val Asp Val Leu Lys Ser Gly Arg Cys Gln Met Leu Asp Arg Arg
325 330 335

Thr Val Glu Met Ala Phe Ala Tyr Ala Leu Ala Leu Phe Ala Ala Ala
340 345 350

Arg Gln Glu Glu Ala Gly Ala Gln Val Ser Val Pro Arg Ala Leu Asp
355 360 365

Arg Gln Ala Ala Leu Leu Gln Ile Gln Glu Phe Met Ile Thr Cys Leu
370 375 380

Ser Gln Thr Pro Pro Arg Thr Thr Leu Leu Leu Tyr Pro Thr Ala Val
385 390 395 400

Asp Leu Ala Lys Arg Ala Leu Trp Thr Pro Asn Gln Ile Thr Asp Ile
405 410 415

Thr Ser Leu Val Arg Leu Val Tyr Ile Leu Ser Lys Gln Asn Gln Gln
420 425 430

Traducción Listado de Secuencias ES.

His Leu Ile Pro Gln Trp Ala Leu Arg Gln Ile Ala Asp Phe Ala Leu
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 Lys Leu His Lys Thr His Leu Ala Ser Phe Leu Ser Ala Phe Ala Arg
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 Thr Thr Glu Arg Arg Glu Ile Phe Ile Val Glu Thr Gly Leu Cys Ser
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 Leu Ala Glu Leu Ser His Phe Thr Gln Leu Leu Ala His Pro His His
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 Glu Tyr Leu Ser Asp Leu Tyr Thr Pro Cys Ser Ser Ser Gly Arg Arg
 515 520 525
 Asp His Ser Leu Glu Arg Leu Thr Arg Leu Phe Pro Asp Ala Thr Val
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 Pro Thr Thr Val Pro Ala Ala Leu Ser Ile Leu Ser Thr Met Gln Pro
 545 550 555 560
 Ser Thr Leu Glu Thr Phe Pro Asp Leu Phe Cys Leu Pro Leu Gly Glu
 565 570 575
 Ser Phe Ser Ala Leu Thr Val Ser Glu His Val Ser Tyr Val Val Thr
 580 585 590
 Asn Gln Tyr Leu Ile Lys Gly Ile Ser Tyr Pro Val Ser Thr Thr Val
 595 600 605
 Val Gly Gln Ser Leu Ile Ile Thr Gln Thr Asp Ser Gln Thr Lys Cys
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 Glu Leu Thr Arg Asn Met His Thr Thr His Ser Ile Thr Ala Ala Leu
 625 630 635 640
 Asn Ile Ser Leu Glu Asn Cys Ala Phe Cys Gln Ser Ala Leu Leu Glu
 645 650 655
 Tyr Asp Asp Thr Gln Gly Val Ile Asn Ile Met Tyr Met His Asp Ser
 660 665 670
 Asp Asp Val Leu Phe Ala Leu Asp Pro Tyr Asn Glu Val Val Val Ser
 675 680 685

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Glu Val Thr Asp Val Val Val Asp Ala Thr Asp Ser
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<210> 2
<211> 278
<212> PRT
<213> Cytomegalovirus

<400> 2

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20 25 30

Val Ser Val Ala Pro Thr Val Ala Glu Lys Val Pro Ala Glu Cys Pro
35 40 45

Glu Leu Thr Arg Arg Cys Leu Leu Gly Glu Val Phe Gln Gly Asp Lys
50 55 60

Tyr Glu Ser Trp Leu Arg Pro Leu Val Asn Val Thr Arg Arg Asp Gly
65 70 75 80

Pro Leu Ser Gln Leu Ile Arg Tyr Arg Pro Val Thr Pro Glu Ala Ala
85 90 95

Asn Ser Val Leu Leu Asp Asp Ala Phe Leu Asp Thr Leu Ala Leu Leu
100 105 110

Tyr Asn Asn Pro Asp Gln Leu Arg Ala Leu Leu Thr Leu Leu Ser Ser
115 120 125

Asp Thr Ala Pro Arg Trp Met Thr Val Met Arg Gly Tyr Ser Glu Cys
130 135 140

Gly Asp Gly Ser Pro Ala Val Tyr Thr Cys Val Asp Asp Leu Cys Arg
145 150 155 160

Gly Tyr Asp Leu Thr Arg Leu Ser Tyr Gly Arg Ser Ile Phe Thr Glu
165 170 175

His Val Leu Gly Phe Glu Leu Val Pro Pro Ser Leu Phe Asn Val Val
180 185 190

Traducción Listado de Secuencias ES.

Val Ala Ile Arg Asn Glu Ala Thr Arg Thr Asn Arg Ala Val Arg Leu
195 200 205

Pro Val Ser Thr Ala Ala Ala Pro Glu Gly Ile Thr Leu Phe Tyr Gly
210 215 220

Leu Tyr Asn Ala Val Lys Glu Phe Cys Leu Arg His Gln Leu Asp Pro
225 230 235 240

Pro Leu Leu Arg His Leu Asp Lys Tyr Tyr Ala Gly Leu Pro Pro Glu
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Leu Lys Gln Thr Arg Val Asn Leu Pro Ala His Ser Arg Tyr Gly Pro
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Gln Ala Val Asp Ala Arg
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<210> 3
<211> 171
<212> PRT
<213> Cytomegalovirus

<400> 3

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Phe Ile Asn Val Asn His Pro Pro Glu Arg Cys Tyr Asp Phe Lys Met
35 40 45

Cys Asn Arg Phe Thr Val Ala Leu Arg Cys Pro Asp Gly Glu Val Cys
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Tyr Ser Pro Glu Lys Thr Ala Glu Ile Arg Gly Ile Val Thr Thr Met
65 70 75 80

Thr His Ser Leu Thr Arg Gln Val Val His Asn Lys Leu Thr Ser Cys
85 90 95

Asn Tyr Asn Pro Leu Tyr Leu Glu Ala Asp Gly Arg Ile Arg Cys Gly
100 105 110

Lys Val Asn Asp Lys Ala Gln Tyr Leu Leu Gly Ala Ala Gly Ser Val
115 120 125

Traducción Listado de Secuencias ES.

Pro Tyr Arg Trp Ile Asn Leu Glu Tyr Asp Lys Ile Thr Arg Ile Val
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Gly Leu Asp Gln Tyr Leu Glu Ser Val Lys Lys His Lys Arg Leu Asp
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Val Cys Arg Ala Lys Met Gly Tyr Met Leu Gln
165 170

<210> 4
<211> 213
<212> PRT
<213> Cytomegalovirus

<400> 4

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20 25 30

Ala Asn Gln Asn Pro Ser Pro Pro Trp Ser Lys Leu Thr Tyr Ser Lys
35 40 45

Pro His Asp Ala Ala Thr Phe Tyr Cys Pro Phe Leu Tyr Pro Ser Pro
50 55 60

Pro Arg Ser Pro Leu Gln Phe Ser Gly Phe Gln Arg Val Leu Thr Gly
65 70 75 80

Pro Glu Cys Arg Asn Glu Thr Leu Tyr Leu Leu Tyr Asn Arg Glu Gly
85 90 95

Gln Thr Leu Val Glu Arg Ser Ser Thr Trp Val Lys Lys Val Ile Trp
100 105 110

Tyr Leu Ser Gly Arg Asn Gln Thr Ile Leu Gln Arg Met Pro Arg Thr
115 120 125

Ala Ser Lys Pro Ser Asp Gly Asn Val Gln Ile Ser Val Glu Asp Ala
130 135 140

Lys Ile Phe Gly Ala His Met Val Pro Lys Gln Thr Lys Leu Leu Arg
145 150 155 160

Phe Val Val Asn Asp Gly Thr Arg Tyr Gln Met Cys Val Met Lys Leu
165 170 175

Traducción Listado de Secuencias ES.

Glu Ser Trp Ala His Val Phe Arg Asp Tyr Ser Val Ser Phe Gln Val
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Arg Leu Thr Phe Thr Glu Ala Asn Asn Gln Thr Tyr Thr Phe Cys Thr
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His Pro Asn Leu Ile
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<210> 5
<211> 128
<212> PRT
<213> Cytomegalovirus

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Leu Gly Gln Cys Gln Arg Glu Thr Ala Glu Lys Asn Asp Tyr Tyr Arg
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Val Pro His Tyr Trp Asp Ala Cys Ser Arg Ala Leu Pro Asp Gln Thr
35 40 45

Arg Tyr Lys Tyr Val Glu Gln Leu Val Asp Leu Thr Leu Asn Tyr His
50 55 60

Tyr Asp Ala Ser His Gly Leu Asp Asn Phe Asp Val Leu Lys Arg Ile
65 70 75 80

Asn Val Thr Glu Val Ser Leu Leu Ile Ser Asp Phe Arg Arg Gln Asn
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Arg Arg Gly Gly Thr Asn Lys Arg Thr Thr Phe Asn Ala Ala Gly Ser
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<212> ADN
<213> artificial

<220>
<223> Secuencia sintética para la expresión del complejo pentamérico de CMV

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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cgctgcgtctg	ttcgctaact	aaaagcttgt	cgagaagtac	tagaggatca	taatcagcca	11340
taccacattt	gtagagggtt	tacttgcttt	aaaaaacctc	ccacacctcc	ccctgaacct	11400
gaaacataaa	atgaatgcaa	ttgttgttgt	taacttggtt	attgcagctt	ataatgggtta	11460
caaataaagc	aatagcatca	caaatttcac	aaataaagca	tttttttcac	tgcattctag	11520
ttgtgggttg	tccaaactca	tcaatgtatc	ttatcatgtc	tggatctgat	cactgcttga	11580
gcctagaaga	tccggctgct	aacaaagccc	gaaaggaagc	tgagttgggt	gctgccaccg	11640

Traducción Listado de Secuencias ES.

ctgagcaata actatcataa cccctaggag atccgaacca gataagtga atctagttcc 11700
aaactatttt gtcattttta attttcgtat tagcttacga cgctacaccc agttcccatc 11760
tattttgtca ctcttccta aataatcctt aaaaactcca tttccacccc tcccagttcc 11820
caactatttt gtccgccac a 11841

<210> 22
<211> 8
<212> PRT
<213> artificial

<220>
<223> Secuencia sintética

<400> 22

Ser Ile Ile Asn Phe Glu Lys Leu
1 5

<210> 23
<211> 29
<212> PRT
<213> artificial

<220>
<223> Secuencia sintética

<220>
<221> misc
<222> (17)..(17)
<223> X = L-cylohexilalanina

<220>
<221> misc
<222> (28)..(28)
<223> X = acido aminocapróico

<400> 23

Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Val Ala Lys
1 5 10 15

Xaa Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Xaa Cys
20 25

<210> 24
<211> 16
<212> PRT
<213> artificial

<220>
<223> Secuencia sintética

<400> 24

Traducción Listado de Secuencias ES.

Thr Ala Lys Phe Val Ala Ala Trp Thr Leu Lys Ala Ala Ala Val Gly
1 5 10 15

<210> 25
<211> 5
<212> PRT
<213> artificial

<220>
<223> Secuencia sintética

<400> 25

Pro Ala Asp Arg Glu
1 5

<210> 26
<211> 16
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de gB (UL55)

<400> 26

Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr
1 5 10 15

<210> 27
<211> 16
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de gB (UL55)

<400> 27

Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr Val Thr Val Lys
1 5 10 15

<210> 28
<211> 11
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de gB (UL55)

<400> 28

Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr Val
1 5 10

<210> 29
<211> 16
<212> PRT

Traducción Listado de Secuencias ES.

<213> artificial

<220>

<223> epítotope derivado de gB (UL55)

<400> 29

Thr Ser Ala Ala His Ser Arg Ser Gly Ser Val Ser Gln Arg Val Thr
1 5 10 15

<210> 30

<211> 16

<212> PRT

<213> artificial

<220>

<223> epítotope derivado de gB (UL55)

<400> 30

His Ser Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr
1 5 10 15

<210> 31

<211> 16

<212> PRT

<213> artificial

<220>

<223> epítotope derivado de gB (UL55)

<400> 31

Gly Asn Val Ser Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp
1 5 10 15

<210> 32

<211> 16

<212> PRT

<213> artificial

<220>

<223> epítotope derivado de gB (UL55)

<400> 32

Val Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys
1 5 10 15

<210> 33

<211> 15

<212> PRT

<213> artificial

<220>

<223> epítotope derivado de gB (UL55)

<400> 33

Traducción Listado de Secuencias ES.

Phe Glu Thr Thr Gly Gly Leu Val Val Phe Trp Gln Gly Ile Lys
1 5 10 15

<210> 34
<211> 13
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de gB (UL55)

<400> 34

Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp
1 5 10

<210> 35
<211> 20
<212> PRT
<213> artificial

<220>
<223> eepítotope derivado de gB (UL55)

<400> 35

Asn Ser Ala Tyr Glu Tyr Val Asp Tyr Leu Phe Lys Arg Met Ile Asp
1 5 10 15

Leu Ser Ser Ile
20

<210> 36
<211> 20
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de gB (UL55)

<400> 36

Met Gln Leu Ile Pro Asp Asp Tyr Ser Asn Thr His Ser Thr Arg Tyr
1 5 10 15

Val Thr Val Lys
20

<210> 37
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 37

Traducción Listado de Secuencias ES.

Val Lys Gln Ile Lys Val Arg Val Asp Met Val Arg His Arg Ile
1 5 10 15

<210> 38
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 38

Val Arg Val Asp Met Val Arg His Arg Ile Lys Glu His Met Leu
1 5 10 15

<210> 39
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 39

Thr Thr Phe Leu Gln Thr Met Leu Arg
1 5

<210> 40
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 40

Lys Glu Val Asn Ser Gln Leu Ser Leu
1 5

<210> 41
<211> 8
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 41

Gln Ile Lys Val Arg Val Asp Met
1 5

<210> 42
<211> 9

Traducción Listado de Secuencias ES.

<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 42

Gln Ile Lys Val Arg Val Asp Met Val
1 5

<210> 43
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 43

Arg Ile Lys Glu His Met Leu Lys Lys
1 5

<210> 44
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 44

Lys Leu Gly Gly Ala Leu Gln Ala Lys
1 5

<210> 45
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 45

Glu Leu Arg Arg Lys Met Met Tyr Met
1 5

<210> 46
<211> 11
<212> PRT
<213> artificial

<220>
<223> epítotope derivado de IE-1

<400> 46

Traducción Listado de Secuencias ES.

Phe Pro Lys Thr Thr Asn Gly Cys Ser Gln Ala
1 5 10

<210> 47
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-1

<400> 47

Ala Tyr Ala Gln Lys Ile Phe Lys Ile
1 5

<210> 48
<211> 10
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-1

<400> 48

Thr Ser Asp Ala Cys Met Met Thr Met Tyr
1 5 10

<210> 49
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-1

<400> 49

Cys Arg Val Leu Cys Cys Tyr Val Leu
1 5

<210> 50
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-1

<400> 50

Val Leu Glu Glu Thr Ser Val Met Leu
1 5

<210> 51
<211> 10

Traducción Listado de Secuencias ES.

<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-1

<400> 51

Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val
1 5 10

<210> 52
<211> 9
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-1

<400> 52

Glu Glu Ala Ile Val Ala Tyr Thr Leu
1 5

<210> 53
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de IE-2

<400> 53

Thr Arg Arg Gly Arg Val Lys Ile Asp Glu Val Ser Arg Met Phe
1 5 10 15

<210> 54
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 54

Asp Gln Tyr Val Lys Val Tyr Leu Glu Ser Phe Cys Glu Asp Val
1 5 10 15

<210> 55
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 55

Traducción Listado de Secuencias ES.

Gly Lys Ile Ser His Ile Met Leu Asp Val Ala Phe Thr Ser His
1 5 10 15

<210> 56
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 56

Glu His Pro Thr Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu
1 5 10 15

<210> 57
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 57

Ala Gly Ile Leu Ala Arg Asn Leu Val Pro Met Val Ala Thr Val
1 5 10 15

<210> 58
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 58

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

<210> 59
<211> 15
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 59

Lys Tyr Gln Glu Phe Phe Trp Asp Ala Asn Asp Ile Tyr Arg Ile
1 5 10 15

<210> 60
<211> 9

Traducción Listado de Secuencias ES.

<212> PRT
<213> artificial

<220>
<223> epítoto derivado de pp65

<400> 60

Asn Leu Val Pro Met Val Ala Thr Val
1 5

<210> 61
<211> 12
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de gH

<400> 61

His Glu Leu Leu Val Leu Val Lys Lys Ala Gln Leu
1 5 10

<210> 62
<211> 11
<212> PRT
<213> artificial

<220>
<223> epítoto derivado de gH

<400> 62

His Glu Leu Leu Val Leu Val Lys Lys Ala Gln
1 5 10

<210> 63
<211> 561
<212> PRT
<213> Citomegalovirus

<400> 63

Met Glu Ser Arg Gly Arg Arg Cys Pro Glu Met Ile Ser Val Leu Gly
1 5 10 15

Pro Ile Ser Gly His Val Leu Lys Ala Val Phe Ser Arg Gly Asp Thr
20 25 30

Pro Val Leu Pro His Glu Thr Arg Leu Leu Gln Thr Gly Ile His Val
35 40 45

Arg Val Ser Gln Pro Ser Leu Ile Leu Val Ser Gln Tyr Thr Pro Asp
50 55 60

Traducción Listado de Secuencias ES.

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

Traducción Listado de Secuencias ES.

Met Asn Gly Gln Gln Ile Phe Leu Glu Val Gln Ala Ile Arg Glu Thr
325 330 335

Val Glu Leu Arg Gln Tyr Asp Pro Val Ala Ala Leu Phe Phe Phe Asp
340 345 350

Ile Asp Leu Leu Leu Gln Arg Gly Pro Gln Tyr Ser Glu His Pro Thr
355 360 365

Phe Thr Ser Gln Tyr Arg Ile Gln Gly Lys Leu Glu Tyr Arg His Thr
370 375 380

Trp Asp Arg His Asp Glu Gly Ala Ala Gln Gly Asp Asp Asp Val Trp
385 390 395 400

Thr Ser Gly Ser Asp Ser Asp Glu Glu Leu Val Thr Thr Glu Arg Lys
405 410 415

Thr Pro Arg Val Thr Gly Gly Gly Ala Met Ala Gly Ala Ser Thr Ser
420 425 430

Ala Gly Arg Lys Arg Lys Ser Ala Ser Ser Ala Thr Ala Cys Thr Ala
435 440 445

Gly Val Met Thr Arg Gly Arg Leu Lys Ala Glu Ser Thr Val Ala Pro
450 455 460

Glu Glu Asp Thr Asp Glu Asp Ser Asp Asn Glu Ile His Asn Pro Ala
465 470 475 480

Val Phe Thr Trp Pro Trp Gln Ala Gly Ile Leu Ala Arg Asn Leu
485 490 495

Val Pro Met Val Ala Thr Val Gln Gly Gln Asn Leu Lys Tyr Gln Glu
500 505 510

Phe Phe Trp Asp Ala Asn Asp Ile Tyr Arg Ile Phe Ala Glu Leu Glu
515 520 525

Gly Val Trp Gln Pro Ala Ala Gln Pro Lys Arg Arg Arg His Arg Gln
530 535 540

Asp Ala Leu Pro Gly Pro Cys Ile Ala Ser Thr Pro Lys Lys His Arg
545 550 555 560

Gly

Traducción Listado de Secuencias ES.

<210> 64
 <211> 907
 <212> PRT
 <213> Citomegalovirus

<400> 64

Met Glu Ser Arg Ile Trp Cys Leu Val Val Cys Val Asn Leu Cys Ile
 1 5 10 15

Val Cys Leu Gly Ala Ala Val Ser Ser Ser Thr Arg Gly Thr Ser
 20 25 30

Ala Thr His Ser His His Ser Ser His Thr Thr Ser Ala Ala His Ser
 35 40 45

Arg Ser Gly Ser Val Ser Gln Arg Val Thr Ser Ser Gln Thr Val Ser
 50 55 60

His Gly Val Asn Glu Thr Ile Tyr Asn Thr Thr Leu Lys Tyr Gly Asp
 65 70 75 80

Val Val Gly Val Asn Thr Thr Lys Tyr Pro Tyr Arg Val Cys Ser Met
 85 90 95

Ala Gln Gly Thr Asp Leu Ile Arg Phe Glu Arg Asn Ile Val Cys Thr
 100 105 110

Ser Met Lys Pro Ile Asn Glu Asp Leu Asp Glu Gly Ile Met Val Val
 115 120 125

Tyr Lys Arg Asn Ile Val Ala His Thr Phe Lys Val Arg Val Tyr Gln
 130 135 140

Lys Val Leu Thr Phe Arg Arg Ser Tyr Ala Tyr Ile His Thr Thr Tyr
 145 150 155 160

Leu Leu Gly Ser Asn Thr Glu Tyr Val Ala Pro Pro Met Trp Glu Ile
 165 170 175

His His Ile Asn Ser His Ser Gln Cys Tyr Ser Ser Tyr Ser Arg Val
 180 185 190

Ile Ala Gly Thr Val Phe Val Ala Tyr His Arg Asp Ser Tyr Glu Asn
 195 200 205

Lys Thr Met Gln Leu Met Pro Asp Asp Tyr Ser Asn Thr His Ser Thr
 210 215 220

Traducción Listado de Secuencias ES.

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

Traducción Listado de Secuencias ES.

465	Traducción								Estado de Secuencias ES.							480
Tyr	Ala	Gln	Leu	Gln 485	Phe	Thr	Tyr	Asp	Thr 490	Leu	Arg	Gly	Tyr	Ile 495	Asn	
Arg	Ala	Leu	Ala 500	Gln	Ile	Ala	Glu	Ala 505	Trp	Cys	Val	Asp	Gln 510	Arg	Arg	
Thr	Leu	Glu 515	Val	Phe	Lys	Glu	Leu 520	Ser	Lys	Ile	Asn	Pro 525	Ser	Ala	Ile	
Leu	Ser 530	Ala	Ile	Tyr	Asn	Lys 535	Pro	Ile	Ala	Ala	Arg 540	Phe	Met	Gly	Asp	
Val 545	Leu	Gly	Leu	Ala	Ser 550	Cys	Val	Thr	Ile	Asn 555	Gln	Thr	Ser	Val	Lys 560	
Val	Leu	Arg	Asp	Met 565	Asn	Val	Lys	Glu	Ser 570	Pro	Gly	Arg	Cys	Tyr 575	Ser	
Arg	Pro	Val	Val 580	Ile	Phe	Asn	Phe	Ala 585	Asn	Ser	Ser	Tyr	Val 590	Gln	Tyr	
Gly	Gln	Leu 595	Gly	Glu	Asp	Asn	Glu 600	Ile	Leu	Leu	Gly	Asn 605	His	Arg	Thr	
Glu	Glu 610	Cys	Gln	Leu	Pro	Ser 615	Leu	Lys	Ile	Phe	Ile 620	Ala	Gly	Asn	Ser	
Ala 625	Tyr	Glu	Tyr	Val	Asp 630	Tyr	Leu	Phe	Lys	Arg 635	Met	Ile	Asp	Leu	Ser 640	
Ser	Ile	Ser	Thr	Val 645	Asp	Ser	Met	Ile	Ala 650	Leu	Asp	Ile	Asp	Pro 655	Leu	
Glu	Asn	Thr	Asp 660	Phe	Arg	Val	Leu	Glu 665	Leu	Tyr	Ser	Gln	Lys 670	Glu	Leu	
Arg	Ser	Ile 675	Asn	Val	Phe	Asp	Leu 680	Glu	Glu	Ile	Met	Arg 685	Glu	Phe	Asn	
Ser	Tyr 690	Lys	Gln	Arg	Val	Lys 695	Tyr	Val	Glu	Asp	Lys 700	Val	Val	Asp	Pro	
Leu 705	Pro	Pro	Tyr	Leu	Lys 710	Gly	Leu	Asp	Asp	Leu 715	Met	Ser	Gly	Leu	Gly 720	

Traducción Listado de Secuencias ES.

Ala Ala Gly Lys Ala Val Gly Val Ala Ile Gly Ala Val Gly Gly Ala
725 730 735

Val Ala Ser Val Val Glu Gly Val Ala Thr Phe Leu Lys Asn Pro Phe
740 745 750

Gly Ala Phe Thr Ile Ile Leu Val Ala Ile Ala Val Val Ile Ile Ile
755 760 765

Tyr Leu Ile Tyr Thr Arg Gln Arg Arg Leu Cys Met Gln Pro Leu Gln
770 775 780

Asn Leu Phe Pro Tyr Leu Val Ser Ala Asp Gly Thr Thr Val Thr Ser
785 790 795 800

Gly Asn Thr Lys Asp Thr Ser Leu Gln Ala Pro Pro Ser Tyr Glu Glu
805 810 815

Ser Val Tyr Asn Ser Gly Arg Lys Gly Pro Gly Pro Pro Ser Ser Asp
820 825 830

Ala Ser Thr Ala Ala Pro Pro Tyr Thr Asn Glu Gln Ala Tyr Gln Met
835 840 845

Leu Leu Ala Leu Val Arg Leu Asp Ala Glu Gln Arg Ala Gln Gln Asn
850 855 860

Gly Thr Asp Ser Leu Asp Gly Gln Thr Gly Thr Gln Asp Lys Gly Gln
865 870 875 880

Lys Pro Asn Leu Leu Asp Arg Leu Arg His Arg Lys Asn Gly Tyr Arg
885 890 895

His Leu Lys Asp Ser Asp Glu Glu Glu Asn Val
900 905

<210> 65
<211> 491
<212> PRT
<213> Citomegalovirus

<400> 65

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu
1 5 10 15

Gly Pro Ser Ser Lys Val Pro Arg Pro Glu Thr Pro Val Thr Lys Ala
20 25 30

Traducción Listado de Secuencias ES.

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

Traducción Listado de Secuencias ES.

Val Thr Ser Asp Ala Cys Met Met Thr Met Tyr Gly Gly Ile Ser Leu
290 295 300

Leu Ser Glu Phe Cys Arg Val Leu Cys Cys Tyr Val Leu Glu Glu Thr
305 310 315 320

Ser Val Met Leu Ala Lys Arg Pro Leu Ile Thr Lys Pro Glu Val Ile
325 330 335

Ser Val Met Lys Arg Arg Ile Glu Glu Ile Cys Met Lys Val Phe Ala
340 345 350

Gln Tyr Ile Leu Gly Ala Asp Pro Leu Arg Val Cys Ser Pro Ser Val
355 360 365

Asp Asp Leu Arg Ala Ile Ala Glu Glu Ser Asp Glu Glu Glu Ala Ile
370 375 380

Val Ala Tyr Thr Leu Ala Thr Ala Gly Ala Ser Ser Ser Asp Ser Leu
385 390 395 400

Val Ser Pro Pro Glu Ser Pro Val Pro Ala Thr Ile Pro Leu Ser Ser
405 410 415

Val Ile Val Ala Glu Asn Ser Asp Gln Glu Glu Ser Glu Gln Ser Asp
420 425 430

Glu Glu Glu Glu Glu Gly Ala Gln Glu Glu Arg Glu Asp Thr Val Ser
435 440 445

Val Lys Ser Glu Pro Val Ser Glu Ile Glu Glu Val Ala Pro Glu Glu
450 455 460

Glu Glu Asp Gly Ala Glu Glu Pro Thr Ala Ser Gly Gly Lys Ser Thr
465 470 475 480

His Pro Met Val Thr Arg Ser Lys Ala Asp Gln
485 490

<210> 66
<211> 579
<212> PRT
<213> Citomegalovirus

<400> 66

Met Glu Ser Ser Ala Lys Arg Lys Met Asp Pro Asp Asn Pro Asp Glu
1 5 10 15

Traducción Listado de Secuencias ES.

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

Traducción Listado de Secuencias ES.

Ser Glu Ser Glu Glu Met Lys Cys Ser Ser Gly Gly Gly Ala Ser Val
275 280 285

Thr Ser Ser His His Gly Arg Gly Gly Phe Gly Gly Ala Ala Ser Ser
290 295 300

Ser Leu Leu Ser Cys Gly His Gln Ser Ser Gly Gly Ala Ser Thr Gly
305 310 315 320

Pro Arg Lys Lys Lys Ser Lys Arg Ile Ser Glu Leu Asp Asn Glu Lys
325 330 335

Val Arg Asn Ile Met Lys Asp Lys Asn Thr Pro Phe Cys Thr Pro Asn
340 345 350

Val Gln Thr Arg Arg Gly Arg Val Lys Ile Asp Glu Val Ser Arg Met
355 360 365

Phe Arg Asn Thr Asn Arg Ser Leu Glu Tyr Lys Asn Leu Pro Phe Thr
370 375 380

Ile Pro Ser Met His Gln Val Leu Asp Glu Ala Ile Lys Ala Cys Lys
385 390 395 400

Thr Met Gln Val Asn Asn Lys Gly Ile Gln Ile Ile Tyr Thr Arg Asn
405 410 415

His Glu Val Lys Ser Glu Val Asp Ala Val Arg Cys Arg Leu Gly Thr
420 425 430

Met Cys Asn Leu Ala Leu Ser Thr Pro Phe Leu Met Glu His Thr Met
435 440 445

Pro Val Thr His Pro Pro Glu Val Ala Gln Arg Thr Ala Asp Ala Cys
450 455 460

Asn Glu Gly Val Lys Ala Ala Trp Ser Leu Lys Glu Leu His Thr His
465 470 475 480

Gln Leu Cys Pro Arg Ser Ser Asp Tyr Arg Asn Met Ile Ile His Ala
485 490 495

Ala Thr Pro Val Asp Leu Leu Gly Ala Leu Asn Leu Cys Leu Pro Leu
500 505 510

Met Gln Lys Phe Pro Lys Gln Val Met Val Arg Ile Phe Ser Thr Asn

Traducción Listado de Secuencias ES.

515

520

525

Gln Gly Gly Phe Met Leu Pro Ile Tyr Glu Thr Ala Ala Lys Ala Tyr
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Ala Val Gly Gln Phe Glu Gln Pro Thr Glu Thr Pro Pro Glu Asp Leu
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Lys Ser Gln

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<212> ADN
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<220>
<223> Secuencia sintética para la expresión del complejo pentamérico de CMV

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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Traducción Listado de Secuencias ES.

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