

SEQUENCE LISTING

<110> Fundació Privada Institut d'Investigació Oncològica de Vall
Hebron
FUNDACIÓ PRIVADA INSTITUCIÓ CATALANA DE RECERCA I ESTUDIS
AVANÇATS

<120> METHODS AND COMPOSITIONS FOR THE TREATMENT OF CANCER

<130> P13088PC00

<150> EP 16382339

<151> 2016-07-15

<160> 64

<170> PatentIn version 3.5

<210> 1

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Polypeptide

<220>

<221> VARIANT

<222> (89)..(89)

<223> Xaa may be any amino acid except Cysteine

<400> 1

Thr	Glu	Glu	Asn	Val	Lys	Arg	Arg	Thr	His	Asn	Val	Leu	Glu	Arg	Gln
1				5					10					15	

Arg	Arg	Asn	Glu	Leu	Lys	Arg	Ser	Phe	Phe	Ala	Leu	Arg	Asp	Gln	Ile
			20					25					30		

Pro	Glu	Leu	Glu	Asn	Asn	Glu	Lys	Ala	Pro	Lys	Val	Val	Ile	Leu	Lys
		35					40					45			

Lys	Ala	Thr	Ala	Tyr	Ile	Leu	Ser	Val	Gln	Ala	Glu	Thr	Gln	Lys	Leu
	50					55					60				

Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys His
65 70 75 80

Lys Leu Glu Gln Leu Arg Asn Ser Xaa Ala
85 90

<210> 2
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Polypeptide

<400> 2

Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg Gln
1 5 10 15

Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln Ile
20 25 30

Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu Lys
35 40 45

Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys Leu
50 55 60

Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys His
65 70 75 80

Lys Leu Glu Gln Leu Arg Asn Ser Ser Ala
85 90

<210> 3
<211> 91
<212> PRT
<213> Artificial Sequence

<220>
<223> Polypeptide

<220>
 <221> VARIANT
 <222> (90)..(90)
 <223> X may be any amino acid except Cysteine

<400> 3

Met Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg
 1 5 10 15

Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln
 20 25 30

Ile Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu
 35 40 45

Lys Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys
 50 55 60

Leu Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys
 65 70 75 80

His Lys Leu Glu Gln Leu Arg Asn Ser Xaa Ala
 85 90

<210> 4
 <211> 91
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Polypeptide

<400> 4

Met Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg
 1 5 10 15

Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln
 20 25 30

Ile Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu
35 40 45

Lys Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys
50 55 60

Leu Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys
65 70 75 80

His Lys Leu Glu Gln Leu Arg Asn Ser Ser Ala
85 90

<210> 5
<211> 454
<212> PRT
<213> Homo sapiens

<400> 5

Met Asp Phe Phe Arg Val Val Glu Asn Gln Gln Pro Pro Ala Thr Met
1 5 10 15

Pro Leu Asn Val Ser Phe Thr Asn Arg Asn Tyr Asp Leu Asp Tyr Asp
20 25 30

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

Gln Gln Gln Gln Ser Glu Leu Gln Pro Pro Ala Pro Ser Glu Asp Ile
50 55 60

Trp Lys Lys Phe Glu Leu Leu Pro Thr Pro Pro Leu Ser Pro Ser Arg
65 70 75 80

Arg Ser Gly Leu Cys Ser Pro Ser Tyr Val Ala Val Thr Pro Phe Ser
85 90 95

Leu Arg Gly Asp Asn Asp Gly Gly Gly Gly Ser Phe Ser Thr Ala Asp
100 105 110

Gln Leu Glu Met Val Thr Glu Leu Leu Gly Gly Asp Met Val Asn Gln
115 120 125

Ser Phe Ile Cys Asp Pro Asp Asp Glu Thr Phe Ile Lys Asn Ile Ile
130 135 140

Ile Gln Asp Cys Met Trp Ser Gly Phe Ser Ala Ala Ala Lys Leu Val
145 150 155 160

Ser Glu Lys Leu Ala Ser Tyr Gln Ala Ala Arg Lys Asp Ser Gly Ser
165 170 175

Pro Asn Pro Ala Arg Gly His Ser Val Cys Ser Thr Ser Ser Leu Tyr
180 185 190

Leu Gln Asp Leu Ser Ala Ala Ala Ser Glu Cys Ile Asp Pro Ser Val
195 200 205

Val Phe Pro Tyr Pro Leu Asn Asp Ser Ser Ser Pro Lys Ser Cys Ala
210 215 220

Ser Gln Asp Ser Ser Ala Phe Ser Pro Ser Ser Asp Ser Leu Leu Ser
225 230 235 240

Ser Thr Glu Ser Ser Pro Gln Gly Ser Pro Glu Pro Leu Val Leu His
245 250 255

Glu Glu Thr Pro Pro Thr Thr Ser Ser Asp Ser Glu Glu Glu Gln Glu
260 265 270

Asp Glu Glu Glu Ile Asp Val Val Ser Val Glu Lys Arg Gln Ala Pro
275 280 285

Gly Lys Arg Ser Glu Ser Gly Ser Pro Ser Ala Gly Gly His Ser Lys
290 295 300

Pro Pro His Ser Pro Leu Val Leu Lys Arg Cys His Val Ser Thr His

305 310 315 320

Gln His Asn Tyr Ala Ala Pro Pro Ser Thr Arg Lys Asp Tyr Pro Ala
325 330 335

Ala Lys Arg Val Lys Leu Asp Ser Val Arg Val Leu Arg Gln Ile Ser
340 345 350

Asn Asn Arg Lys Cys Thr Ser Pro Arg Ser Ser Asp Thr Glu Glu Asn
355 360 365

Val Lys Arg Arg Thr His Asn Val Leu Glu Arg Gln Arg Arg Asn Glu
370 375 380

Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln Ile Pro Glu Leu Glu
385 390 395 400

Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu Lys Lys Ala Thr Ala
405 410 415

Tyr Ile Leu Ser Val Gln Ala Glu Glu Gln Lys Leu Ile Ser Glu Glu
420 425 430

Asp Leu Leu Arg Lys Arg Arg Glu Gln Leu Lys His Lys Leu Glu Gln
435 440 445

Leu Arg Asn Ser Cys Ala
450

$\langle 210 \rangle$ 6

<211> 7

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<223> SV40 large T Antigen NLS

<400> 6

Pro Lys Lys Lys Arg Lys Val

1 5

<210> 7
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Nucleoplasmin NLS

<400> 7

Lys Arg Pro Ala Ala Thr Lys Lys Ala Gly Gln Ala Lys Lys Lys Lys
1 5 10 15

<210> 8
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> CBP80 NLS

<400> 8

Arg Arg Arg His Ser Asp Glu Asn Asp Gly Gly Gln Pro His Lys Arg
1 5 10 15

Arg Lys

<210> 9
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HIV-I Rev protein NLS

<400> 9

Arg Gln Ala Arg Arg Asn Arg Arg Arg Trp Glu
1 5 10

<210> 10

<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> HTLV-I Rex

<400> 10

Met Pro Lys Thr Arg Arg Arg Pro Arg Arg Ser Gln Arg Lys Arg Pro
1 5 10 15

Pro Thr

<210> 11
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> hnRNP A NLS

<400> 11

Asn Gln Ser Ser Asn Phe Gly Pro Met Lys Gly Gly Asn Phe Gly Gly
1 5 10 15

Arg Ser Ser Gly Pro Tyr Gly Gly Gly Gly Gln Tyr Phe Lys Pro Arg
20 25 30

Asn Gln Gly Gly Tyr
35

<210> 12
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> rpL23a NLS

<400> 12

Val His Ser His Lys Lys Lys Lys Ile Arg Thr Ser Pro Thr Phe Thr

1	5	10	15
Thr	Pro	Lys	Thr
	Leu	Arg	Leu
	Arg	Arg	Gln
	Pro	Lys	Tyr
	Pro	Arg	Lys
	20	25	30

Ser	Ala	Pro	Arg	Arg	Asn	Lys	Leu	Asp	His	Tyr
	35					40				

<210> 13
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> NLS sequence

<220>
 <221> VARIANT
 <222> (2)..(2)
 <223> replace="R or K"

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa can be any naturally occurring amino acid

<220>
 <221> VARIANT
 <222> (4)..(4)
 <223> replace="R or K"

<400> 13

Leu Xaa Xaa Xaa
 1

<210> 14
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> CPP found in Drosophila antennapedia protein

<400> 14

Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 15

<400> 15
000

<210> 16

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of Bac-7

<400> 16

Arg Arg Ile Arg Pro Arg Pro Pro Arg Leu Pro Arg Pro Arg Pro Arg
1 5 10 15

Pro Leu Pro Phe Pro Arg Pro Gly
20

<210> 17

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of the HIV-1 TAT protein

<400> 17

Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5

<210> 18

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of the HIV-1 TAT protein

<400> 18

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Thr Pro Gln
1 5 10

<210> 19

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of the HIV-1 TAT protein

<400> 19

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 20

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of S413-PV peptide

<400> 20

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

Lys Arg Lys Val
20

<210> 21

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of penetratin

<400> 21

Arg Gln Ile Lys Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 22
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of SynB1

<400> 22

Arg Gly Gly Arg Leu Ser Tyr Ser Arg Arg Arg Phe Ser Thr Ser Thr
1 5 10 15

Gly Arg

<210> 23
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of SynB3

<400> 23

Arg Arg Leu Ser Tyr Ser Arg Arg Arg Phe
1 5 10

<210> 24
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of PTD-4

<400> 24

Pro Ile Arg Arg Arg Lys Lys Leu Arg Arg Leu Lys
1 5 10

<210> 25
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of PTD-5

<400> 25

Arg Arg Gln Arg Arg Thr Ser Lys Leu Met Lys Arg
1 5 10

<210> 26
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of the FHV Coat-(35-49)

<400> 26

Arg Arg Arg Arg Asn Arg Thr Arg Arg Asn Arg Arg Arg Val Arg
1 5 10 15

<210> 27
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of BMV Gag-(7-25)

<400> 27

Lys Met Thr Arg Ala Gln Arg Arg Ala Ala Ala Arg Arg Asn Arg Trp
1 5 10 15

Thr Ala Arg

<210> 28
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> CPP of HTLV-II Rex-(4-16)

<400> 28

Thr Arg Arg Gln Arg Thr Arg Arg Ala Arg Arg Asn Arg
1 5 10

<210> 29

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of D-Tat

<400> 29

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln
1 5 10

<210> 30

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP R9-Tat

<400> 30

Gly Arg Arg Arg Arg Arg Arg Arg Arg Arg Pro Pro Gln
1 5 10

<210> 31

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP of MAP

<400> 31

Lys Leu Ala Leu Lys Leu Ala Leu Lys Leu Ala Leu Ala Leu Lys Leu
1 5 10 15

Ala

<210> 32
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of SBP

<400> 32

Met Gly Leu Gly Leu His Leu Leu Val Leu Ala Ala Ala Leu Gln Gly
1 5 10 15

Ala Trp Ser Gln Pro Lys Lys Lys Arg Lys Val
20 25

<210> 33
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of FBP

<400> 33

Gly Ala Leu Phe Leu Gly Trp Leu Gly Ala Ala Gly Ser Thr Met Gly
1 5 10 15

Ala Trp Ser Gln Pro Lys Lys Lys Arg Lys Val
20 25

<210> 34
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of MPG

<400> 34

Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly
1 5 10 15

Ala Trp Ser Gln Pro Lys Lys Lys Arg Lys Val
20 25

<210> 35
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of MPG(ENLS)

<400> 35

Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly
1 5 10 15

Ala Trp Ser Gln Pro Lys Ser Lys Arg Lys Val
20 25

<210> 36
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP of Pep-1

<400> 36

Lys Glu Thr Trp Trp Glu Thr Trp Trp Thr Glu Trp Ser Gln Pro Lys
1 5 10 15

Lys Lys Arg Lys Val
20

<210> 37
<211> 21
<212> PRT
<213> Artificial Sequence

<220>

<223> CPP of Pep-2

<400> 37

Lys Glu Thr Trp Phe Glu Thr Trp Phe Thr Glu Trp Ser Gln Pro Lys
1 5 10 15

Lys Lys Arg Lys Val
20

<210> 38

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 38

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 39

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 39

Arg Arg Arg Arg Arg Arg Leu Arg
1 5

<210> 40

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 40

Arg Arg Gln Arg Arg Thr Ser Lys Leu Met Lys Arg
1 5 10

<210> 41
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP

<400> 41

Gly Trp Thr Leu Asn Ser Ala Gly Tyr Leu Leu Gly Lys Ile Asn Leu
1 5 10 15

Lys Ala Leu Ala Ala Leu Ala Lys Lys Ile Leu
20 25

<210> 42
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP

<400> 42

Lys Ala Leu Ala Trp Glu Ala Lys Leu Ala Lys Ala Leu Ala Lys Ala
1 5 10 15

Leu Ala Lys His Leu Ala Lys Ala Leu Ala Lys Ala Leu Lys Cys Glu
20 25 30

Ala

<210> 43
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> CPP

<400> 43

Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 44

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 44

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 45

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 45

Arg Lys Lys Arg Arg Gln Arg Arg
1 5

<210> 46

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 46

Tyr Ala Arg Ala Ala Ala Arg Gln Ala Arg Ala
1 5 10

<210> 47
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP

<400> 47

Thr His Arg Leu Pro Arg Arg Arg Arg Arg Arg
1 5 10

<210> 48
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP

<400> 48

Gly Gly Arg Arg Ala Arg Arg Arg Arg Arg Arg
1 5 10

<210> 49
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HIV-1 TAT protein

<400> 49

Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5

<210> 50
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> CPP

<400> 50

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 51

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> CPP

<400> 51

Arg Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 52

<211> 101

<212> PRT

<213> Artificial Sequence

<220>

<223> OmoCS*TAT

<400> 52

Met Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg
1 5 10 15

Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln
20 25 30

Ile Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu
35 40 45

Lys Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys
50 55 60

Leu Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys
65 70 75 80

His Lys Leu Glu Gln Leu Arg Asn Ser Ser Ala Gly Arg Lys Lys Arg
85 90 95

Arg Gln Arg Arg Arg
100

<210> 53
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<223> OmoCS*LZArg

<400> 53

Met Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg
1 5 10 15

Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln
20 25 30

Ile Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu
35 40 45

Lys Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys
50 55 60

Leu Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys
65 70 75 80

His Lys Leu Glu Gln Leu Arg Asn Ser Ser Ala Arg Arg Arg Arg Arg
85 90 95

Arg Arg Arg

<210> 54
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> M1 peptide

<400> 54

Pro Ala Ala Lys Arg Val Lys Leu Asp
1 5

<210> 55

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> M2 peptide

<400> 55

Arg Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe
1 5 10

<210> 56

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> poly-glycine region

<400> 56

Gly Pro Arg Arg Arg Arg
1 5

<210> 57

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> FLAG-tag

<400> 57

Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 58
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Strep-tag

<400> 58

Trp Ser His Pro Gln Phe Glu Lys
1 5

<210> 59
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> HA tag

<400> 59

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 60
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> V5 tag

<400> 60

Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr
1 5 10

<210> 61
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> Tag sequence

<400> 61

Ala His Gly His Arg Pro
1 5

<210> 62

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> tag sequence

<220>

<221> MISC_FEATURE

<222> (19)..(20)

<223> Xaa can be any natural occurring amino acid

<400> 62

Pro Ile His Asp His Asp His Pro His Leu Val Ile His Ser Gly Met
1 5 10 15

Thr Cys Xaa Xaa Cys
20

<210> 63

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Polypeptide

<400> 63

Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg Gln
1 5 10 15

Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln Ile
20 25 30

Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu Lys
35 40 45

Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys Leu
50 55 60

Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys His
65 70 75 80

Lys Leu Glu Gln Leu Arg Asn Ser Ala Ala
85 90

<210> 64

<211> 91

<212> PRT

<213> Artificial Sequence

<220>

<223> OmoCA

<400> 64

Met Thr Glu Glu Asn Val Lys Arg Arg Thr His Asn Val Leu Glu Arg
1 5 10 15

Gln Arg Arg Asn Glu Leu Lys Arg Ser Phe Phe Ala Leu Arg Asp Gln
20 25 30

Ile Pro Glu Leu Glu Asn Asn Glu Lys Ala Pro Lys Val Val Ile Leu
35 40 45

Lys Lys Ala Thr Ala Tyr Ile Leu Ser Val Gln Ala Glu Thr Gln Lys
50 55 60

Leu Ile Ser Glu Ile Asp Leu Leu Arg Lys Gln Asn Glu Gln Leu Lys
65 70 75 80

His Lys Leu Glu Gln Leu Arg Asn Ser Ala Ala
85 90