

SEQUENCE LISTING

<110> INSERM
Léveillard, Thierry

<120> NEW NEURONAL VIABILITY FACTOR AND USE THEREOF

<130> 353047/D25504

<150> EP 07109652.3

<151> 2007-06-05

<160> 78

<170> PatentIn version 3.3

<210> 1

<211> 101

<212> PRT

<213> Homo sapiens

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Met	Val	Asp	Ile	Leu	Gly	Glu	Arg	His	Leu	Val	Thr	Cys	Lys	Gly	Ala
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Thr	Val	Glu	Ala	Glu	Ala	Ala	Leu	Gln	Asn	Lys	Val	Val	Ala	Leu	Tyr
		20						25					30		

Phe	Ala	Ala	Ala	Arg	Cys	Ala	Pro	Ser	Arg	Asp	Phe	Thr	Pro	Leu	Leu
		35					40					45			

Cys	Asp	Phe	Tyr	Thr	Ala	Leu	Val	Ala	Glu	Ala	Arg	Arg	Pro	Ala	Pro
	50					55					60				

Phe	Glu	Val	Val	Phe	Val	Ser	Ala	Asp	Gly	Ser	Ser	Gln	Glu	Met	Leu
65					70					75				80	

Asp	Phe	Met	Arg	Glu	Leu	His	Gly	Ala	Trp	Leu	Ala	Leu	Pro	Phe	His
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Asp	Pro	Tyr	Arg	Gln
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<210> 2

<211> 101

<212> PRT

<213> Mus musculus

<400> 2

Met	Val	Asp	Val	Leu	Gly	Gly	Arg	Arg	Leu	Val	Thr	Arg	Glu	Gly	Thr
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Val Val Glu Ala Glu Val Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ser Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Ser Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ala Glu Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ser Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg Gln
100

<210> 3
<211> 101
<212> PRT
<213> Rattus norvegicus

<400> 3

Met Val Asp Val Leu Gly Gly Arg Arg Leu Met Thr Arg Glu Gly Thr
1 5 10 15

Leu Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Ser Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Arg Ser Ala Glu Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ser Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg Gln
100

<210> 4

<211> 101
<212> PRT
<213> Pan troglodytes

<400> 4

Met Val Asp Ile Leu Gly Gly Arg His Leu Val Thr Cys Lys Gly Ala
1 5 10 15

Thr Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Ala Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Ala Leu Val Ala Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ser Gln Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ala Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg Gln
100

<210> 5
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<212> PRT
<213> Bos taurus

<400> 5

Met Val Asp Val Leu Gly Gly Arg Arg Leu Val Thr Cys Asp Gly Ala
1 5 10 15

Trp Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Glu Glu Leu Val Asp Asp Ala Arg Pro Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ala His Glu Met Leu
65 70 75 80

Glu Phe Met Lys Glu Leu His Gly Ala Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg Gln
100

<210> 6
<211> 101
<212> PRT
<213> Gallus gallus

<400> 6

Met Val Asp Val Phe Ser Gly Arg Leu Leu Val Ser Lys Asp Gly Arg
1 5 10 15

Ser Val Asp Pro Glu Glu Ala Leu Gln Asn Lys Val Gly Gly Leu Tyr
20 25 30

Phe Ser Ala Gly Trp Cys Ser Pro Cys Arg Asp Phe Thr Pro Val Leu
35 40 45

Cys Asp Phe Tyr Thr Asp Leu Leu Glu Glu Cys Gln Pro Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Ile Ser Ser Asp His Ser Ala Glu Glu Met Val
65 70 75 80

Ser Tyr Met His Ser Met His Gly Asp Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Lys Gln
100

<210> 7
<211> 100
<212> PRT
<213> Xenopus laevis

<400> 7

Met Asp Ile Phe Ser Gly His Ile Leu Leu Asn Lys Tyr Gly Glu Arg
1 5 10 15

Val Asp Pro Glu Glu Ala Leu Gln Asn Lys Ile Val Gly Leu Tyr Phe
20 25 30

Ser Ala Ser Trp Cys Ser Pro Cys Arg Asp Phe Thr Pro Ile Leu Cys
35 40 45

Asp Phe Tyr Thr Glu Leu Val Glu Glu Ser Glu Pro Pro Ala Gln Phe
50 55 60

Glu Ile Val Phe Ile Ser Ser Asp Lys Ser Pro Glu Glu Met Val Asp
65 70 75 80

Tyr Met His Asp Met Gln Gly Asp Trp Leu Ala Leu Pro Phe His Asp
85 90 95

Pro Tyr Lys Gln
100

<210> 8
<211> 101
<212> PRT
<213> Tetraodon nigroviridis

<400> 8

Met Val Glu Val Phe Thr Gly Arg Thr Leu Leu Asn Lys Asp Gly Asp
1 5 10 15

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

Phe Ser Ala Gly Trp Cys Pro Pro Cys Arg Asp Phe Thr Pro Ile Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Glu Glu Ser Asp Pro Pro Ala Gln
50 55 60

Phe Glu Val Val Phe Val Ser Ser Asp Lys Thr Ser Glu Asp Met Val
65 70 75 80

Glu Tyr Tyr His Asp Leu His Gly Asp Trp Leu Ala Leu Pro Trp Ser
85 90 95

Asp Asp Tyr Lys Lys
100

<210> 9
<211> 101
<212> PRT
<213> Danio rerio

<400> 9

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

Leu Val Glu Pro Glu Glu Ala Leu Arg Asn Lys Val Val Gly Leu Tyr
20 25 30

Phe Ser Ala Gly Trp Cys Pro Pro Cys Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Glu Glu Thr Glu Pro Pro Ala Gln
50 55 60

Phe Glu Ile Val Phe Ile Ser Ser Asp Lys Ser Thr Glu Asp Met Val
65 70 75 80

Glu Tyr Tyr His Asp Met His Gly Asp Trp Leu Ala Leu Pro Trp Thr
85 90 95

Asp Pro Tyr Lys Gln
100

<210> 10
<211> 156
<212> PRT
<213> Homo sapiens

<400> 10

Met Val Asp Ile Leu Gly Glu Arg His Leu Val Thr Cys Lys Gly Ala
1 5 10 15

Thr Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Ala Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Ala Leu Val Ala Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ser Gln Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ala Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Arg Lys Arg Tyr Asn Val Thr Ala Ile
100 105 110

Pro Lys Leu Val Ile Val Lys Gln Asn Gly Glu Val Ile Thr Asn Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asp Trp
130 135 140

Val Glu Ala Ala Asp Ile Phe Gln Asn Phe Ser Val
145 150 155

<210> 11
<211> 306
<212> DNA
<213> Homo sapiens

<400> 11
atggttgaca ttctgggcga gcggcacctg gtgacctgta agggcgcgac ggtggaggcc 60
gaggcggcgc tgcagaacaa ggtggtggca ctgtacttcg cggcggcccg gtgcgcgccg 120
agccgcgact tcacgccgct gctctgcgac ttctatacgg cgctggtggc cgaggcgccg 180
cggcccgcgc cttcgaagt ggtcttcgtg tcagccgacg gcagctccca ggagatgctg 240
gacttcatgc gcgagctgca tggcgcttgg ctggcgctgc ccttcacga cccctaccgg 300
cagtga 306

<210> 12
<211> 156
<212> PRT
<213> Mus musculus

<400> 12

Met Val Asp Val Leu Gly Gly Arg Arg Leu Val Thr Arg Glu Gly Thr
1 5 10 15

Val Val Glu Ala Glu Val Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ser Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Ser Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ala Glu Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ser Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Lys Lys Arg Tyr Glu Ile Thr Ala Ile
100 105 110

Pro Lys Leu Val Val Ile Lys Gln Asn Gly Ala Val Ile Thr Asn Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asn Trp
130 135 140

Val Glu Ala Ala Asp Val Phe Gln Asn Phe Ser Gly
145 150 155

<210> 13
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<220>
<223> Primer

<400> 13
catcaccaac aaagggcgga ag 22

<210> 14
<211> 23
<212> DNA
<213> artificial sequence

<220>
<223> Primer

<400> 14
cattcctcag cagagaaggg aac 23

<210> 15
<211> 35
<212> DNA
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<220>
<223> Primer

<400> 15
ccgtgctatt gtttcagagc ccttaacttt ctatc 35

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<212> DNA
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aagccgatga gcaacttcc	19
<210> 18	
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<223> Primer	
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tcatctccca gtggattctt	20
<210> 19	
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<223> Primer	
<400> 19	
gtagctttgt actttgcggc g	21
<210> 20	
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<212> DNA	
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<223> Primer	
<400> 20	
gtcatcagaa aatgtatcac ctccatagg	29
<210> 21	
<211> 25	
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<223> Primer	
<400> 21	

gccatctctg cgacttattt ttacc 25

<210> 22
<211> 22
<212> DNA
<213> Artificial sequence

<220>
<223> Primer

<400> 22
aattagtgcc accagcacca tc 22

<210> 23
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> Figure 1

<400> 23

Glu Leu Arg Arg
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<210> 24
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF-S - M. musculus

<400> 24
gaactgagga ggtgaggccc c 21

<210> 25
<211> 21
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<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF-S - R. norvegicus

<400> 25
gacctgagga ggtgaggccc c 21

<210> 26
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF-S - M. domestica

<400> 26
 gagctgaaaa ggtgagccta c 21

<210> 27
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Figure 1 - RdCVF-S - H. sapiens

<400> 27
 gatctgagga ggtgaggagg g 21

<210> 28
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Figure 1 - RdCVF-S - P. troglodytes

<400> 28
 gatctgagga ggtgaggagg g 21

<210> 29
 <211> 22
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Figure 1 - RdCVF-S - M. mulatta

<400> 29
 gaactgagga ggtgasggag gg 22

<210> 30
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Figure 1 - RdCVF-S - B. taurus

<400> 30
 gacctgagga ggtgagacaa g 21

<210> 31
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Figure 1 - RdCVF-S - C. familiaris

<400> 31

gacctgagga ggtgaggtgg g 21

<210> 32
<211> 128
<212> DNA
<213> Artificial sequence

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<223> Figure 1 - RdCVF-S - G. gallus

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<223> N= A, T, G ou C

<220>
<221> misc_feature
<222> (116)..(125)
<223> n is a, c, g, or t

<400> 32
gacctgagga ggtggnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 60
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnntaa 128

<210> 33
<211> 21
<212> DNA
<213> Artificial sequence

<220>
<223> 1 - RdCVF-S -X. tropicalis

<400> 33
gaattcagga ggtgagatag g 21

<210> 34
<211> 54
<212> DNA
<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF-S -B. rerio

<220>
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<223> N= A, T, G ou C

<400> 34
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<210> 35

<211> 21
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF-S -T. rubripes

 <400> 35
 ccatacagac agtaggtgga t 21

 <210> 36
 <211> 21
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF-S -T. nigroviridis

 <400> 36
 ccatacagac agtaggtgga c 21

 <210> 37
 <211> 24
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF-S -T. rubripes

 <400> 37
 cccttcagga ggtgtgtggt ttag 24

 <210> 38
 <211> 58
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF-S - T. nigroviridis

 <220>
 <221> misc_feature
 <222> (16)..(55)
 <223> N= A, T, G ou C

 <400> 38
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 <210> 39
 <211> 4
 <212> PRT
 <213> Artificial sequence

 <220>
 <223> Figure 1- RdCVF2-L

<400> 39

Pro Tyr Arg His
1

<210> 40

<211> 4

<212> PRT

<213> Artificial sequence

<220>

<223> Figure 1- RdCVF2-S

<400> 40

Pro Tyr Arg Gln
1

<210> 41

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Figure 1 - RdCVF2-S - M. musculus

<400> 41

ccctaccggc agtgagtggg gac

23

<210> 42

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Figure 1 - RdCVF2-S - R. norvegicus

<400> 42

ccctaccggc agtgagtggg gac

23

<210> 43

<400> 43

000

<210> 44

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Figure 1 - RdCVF2-S - H. sapiens

<400> 44

ccctaccggc agtgagtggg ggc

23

<210> 45
 <211> 23
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF2-S - *P. troglodytes*

 <400> 45
 ccctaccggc agtgagtggg ggc 23

 <210> 46
 <211> 23
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF2-S - *M. mulatta*

 <400> 46
 ccctaccagc agtgagtggg ggc 23

 <210> 47
 <211> 23
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF2-S - *B. taurus*

 <400> 47
 ccctaccggc agtgagtgga ggc 23

 <210> 48
 <211> 23
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF2-S - *G. gallus*

 <400> 48
 ccctacaagc agtaagtacc gca 23

 <210> 49
 <211> 23
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Figure 1 - RdCVF2-S -*X. tropicalis*

 <400> 49
 ccatacaagc agtaagttcc ttg 23

 <210> 50

<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF2-S -B. rerio

<400> 50
ccatacaaac agtgagttca cca 23

<210> 51
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF2-S -T. rubripes

<400> 51
gactacaaga agtgagtgag gtt 23

<210> 52
<211> 23
<212> DNA
<213> Artificial sequence

<220>
<223> Figure 1 - RdCVF2-S -T. nigroviridis

<400> 52
gactacaaga agtgagtccg cct 23

<210> 53
<211> 109
<212> PRT
<213> Escherichia coli

<400> 53

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

Val Leu Lys Ala Asp Gly Ala Ile Leu Val Asp Phe Trp Ala Glu Trp
20 25 30

Cys Gly Pro Cys Lys Met Ile Ala Pro Ile Leu Asp Glu Ile Ala Asp
35 40 45

Glu Tyr Gln Gly Lys Leu Thr Val Ala Lys Leu Asn Ile Asp Gln Asn
50 55 60

Pro Gly Thr Ala Pro Lys Tyr Gly Ile Arg Gly Ile Pro Thr Leu Leu
65 70 75 80

Leu Phe Lys Asn Gly Glu Val Ala Ala Thr Lys Val Gly Ala Leu Ser
85 90 95

Lys Gly Gln Leu Lys Glu Phe Leu Asp Ala Asn Leu Ala
100 105

<210> 54
<211> 105
<212> PRT
<213> Homo sapiens

<400> 54

Met Val Lys Gln Ile Glu Ser Lys Thr Ala Phe Gln Glu Ala Leu Asp
1 5 10 15

Ala Ala Gly Asp Lys Leu Val Val Val Asp Phe Ser Ala Thr Trp Cys
20 25 30

Gly Pro Cys Lys Met Ile Lys Pro Phe Phe His Ser Leu Ser Glu Lys
35 40 45

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

Val Ala Ser Glu Cys Glu Val Lys Cys Met Pro Thr Phe Gln Phe Phe
65 70 75 80

Lys Lys Gly Gln Lys Val Gly Glu Phe Ser Gly Ala Asn Lys Glu Lys
85 90 95

Leu Glu Ala Thr Ile Asn Glu Leu Val
100 105

<210> 55
<211> 435
<212> PRT
<213> Mus musculus

<400> 55

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

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

Leu Leu Gly Leu Tyr Phe Gly Cys Ser Leu Ser Ala Pro Cys Ala Gln
35 40 45

Leu Ser Ala Ser Leu Ala Ala Phe Tyr Gly Arg Leu Arg Gly Asp Ala
50 55 60

Ala Ala Gly Pro Gly Ala Gly Ala Gly Ala Gly Ala Ala Ala Glu Pro
65 70 75 80

Glu Pro Arg His Arg Leu Glu Ile Val Phe Val Ser Ser Asp Gln Asp
85 90 95

Gln Arg Gln Trp Gln Asp Phe Val Arg Asp Met Pro Trp Leu Ala Leu
100 105 110

Pro Tyr Lys Glu Lys His Arg Lys Leu Lys Leu Trp Asn Lys Tyr Arg
115 120 125

Val Ser Asn Ile Pro Ser Leu Ile Phe Leu Asp Ala Thr Thr Gly Lys
130 135 140

Val Val Cys Arg Asn Gly Leu Leu Val Ile Arg Asp Asp Pro Glu Gly
145 150 155 160

Leu Glu Phe Pro Trp Gly Pro Lys Pro Phe Arg Glu Val Ile Ala Gly
165 170 175

Pro Leu Leu Arg Asn Asn Gly Gln Ser Leu Glu Ser Ser Ser Leu Glu
180 185 190

Gly Ser His Val Gly Val Tyr Phe Ser Ala His Trp Cys Pro Pro Cys
195 200 205

Arg Ser Leu Thr Arg Val Leu Val Glu Ser Tyr Arg Lys Ile Lys Glu
210 215 220

Ala Gly Gln Glu Phe Glu Ile Ile Phe Val Ser Ala Asp Arg Ser Glu
225 230 235 240

Glu Ser Phe Lys Gln Tyr Phe Ser Glu Met Pro Trp Leu Ala Val Pro
245 250 255

Tyr Thr Asp Glu Ala Arg Arg Ser Arg Leu Asn Arg Leu Tyr Gly Ile
260 265 270

Gln Gly Ile Pro Thr Leu Ile Val Leu Asp Pro Gln Gly Glu Val Ile
275 280 285

Thr Arg Gln Gly Arg Val Glu Val Leu Asn Asp Glu Asp Cys Arg Glu
290 295 300

Phe Pro Trp His Pro Lys Pro Val Leu Glu Leu Ser Asp Ser Asn Ala
305 310 315 320

Val Gln Leu Asn Glu Gly Pro Cys Leu Val Leu Phe Val Asp Ser Glu
325 330 335

Asp Asp Gly Glu Ser Glu Ala Ala Lys Gln Leu Ile Gln Pro Ile Ala
340 345 350

Glu Lys Ile Ile Ala Lys Tyr Lys Ala Lys Glu Glu Glu Ala Pro Leu
355 360 365

Leu Phe Phe Val Ala Gly Glu Asp Asp Met Thr Asp Ser Leu Arg Asp
370 375 380

Tyr Thr Asn Leu Pro Glu Ala Ala Pro Leu Leu Thr Ile Leu Asp Met
385 390 395 400

Ser Ala Arg Ala Lys Tyr Val Met Asp Val Glu Glu Ile Thr Pro Ala
405 410 415

Ile Val Glu Thr Phe Val Asn Asp Phe Leu Ala Glu Lys Leu Lys Pro
420 425 430

Glu Pro Ile
435

<210> 56
<211> 146
<212> PRT
<213> C. facsiculata

<400> 56

Met Ser Gly Leu Asp Lys Tyr Leu Pro Gly Ile Glu Lys Leu Arg Arg
1 5 10 15

Gly Asp Gly Glu Val Glu Val Lys Ser Leu Ala Gly Lys Leu Val Phe
20 25 30

Phe Tyr Phe Ser Ala Ser Trp Cys Pro Pro Cys Arg Gly Phe Thr Pro
35 40 45

Gln Leu Ile Glu Phe Tyr Asp Lys Phe His Glu Ser Lys Asn Phe Glu

50

55

60

Val Val Phe Cys Thr Trp Asp Glu Glu Glu Asp Gly Phe Ala Gly Tyr
65 70 75 80

Phe Ala Lys Met Pro Trp Leu Ala Val Pro Phe Ala Gln Ser Glu Ala
85 90 95

Val Gln Lys Leu Ser Lys His Phe Asn Val Glu Ser Ile Pro Thr Leu
100 105 110

Ile Gly Val Asp Ala Asp Ser Gly Asp Val Val Thr Thr Arg Ala Arg
115 120 125

Ala Thr Leu Val Lys Asp Pro Glu Gly Glu Gln Phe Pro Trp Lys Asp
130 135 140

Ala Pro
145

<210> 57
<211> 156
<212> PRT
<213> Mus musculus

<400> 57

Met Val Asp Val Leu Gly Gly Arg Arg Leu Val Thr Arg Glu Gly Thr
1 5 10 15

Val Val Glu Ala Glu Val Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ser Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Ser Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ala Glu Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ser Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Lys Lys Arg Tyr Glu Ile Thr Ala Ile
100 105 110

Pro Lys Leu Val Val Ile Lys Gln Asn Gly Ala Val Ile Thr Asn Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asn Trp
130 135 140

Val Glu Ala Ala Asp Val Phe Gln Asn Phe Ser Gly
145 150 155

<210> 58
<211> 101
<212> PRT
<213> Mus musculus

<400> 58

Met Val Asp Val Leu Gly Gly Arg Arg Leu Val Thr Arg Glu Gly Thr
1 5 10 15

Val Val Glu Ala Glu Val Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ser Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Ser Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ala Glu Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ser Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg Gln
100

<210> 59
<211> 156
<212> PRT
<213> Rattus norvegicus

<400> 59

Met Val Asp Val Leu Gly Gly Arg Arg Leu Met Thr Arg Glu Gly Thr
1 5 10 15

Leu Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Ser Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Arg Ser Ala Glu Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ser Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Lys Lys Arg Tyr Asp Ile Thr Val Ile
100 105 110

Pro Lys Val Val Val Ile Lys Gln Asn Gly Ala Val Ile Thr Asn Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asn Trp
130 135 140

Val Glu Ala Ala Asp Val Phe Gln Asn Phe Ser Gly
145 150 155

<210> 60
<211> 156
<212> PRT
<213> Homo sapiens

<400> 60

Met Val Asp Ile Leu Gly Glu Arg His Leu Val Thr Cys Lys Gly Ala
1 5 10 15

Thr Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Ala Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Ala Leu Val Ala Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ser Gln Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ala Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Arg Lys Arg Tyr Asn Val Thr Ala Ile
100 105 110

Pro Lys Leu Val Ile Val Lys Gln Asn Gly Glu Val Ile Thr Asn Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asp Trp
130 135 140

Val Glu Ala Ala Asp Ile Phe Gln Asn Phe Ser Val
145 150 155

<210> 61
<211> 156
<212> PRT
<213> Pan troglodytes

<400> 61

Met Val Asp Ile Leu Gly Gly Arg His Leu Val Thr Cys Lys Gly Ala
1 5 10 15

Thr Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Ala Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Thr Ala Leu Val Ala Glu Ala Arg Arg Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ser Gln Glu Met Leu
65 70 75 80

Asp Phe Met Arg Glu Leu His Gly Ala Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Arg Lys Arg Tyr Asn Val Thr Ala Ile
100 105 110

Pro Lys Leu Val Ile Val Lys Gln Asn Gly Glu Val Ile Thr Asn Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asp Trp
130 135 140

Val Glu Ala Ala Asp Ile Phe Gln Asn Phe Ser Val
145 150 155

<210> 62
<211> 156
<212> PRT
<213> Bos taurus

<400> 62

Met Val Asp Val Leu Gly Gly Arg Arg Leu Val Thr Cys Asp Gly Ala
1 5 10 15

Trp Val Glu Ala Glu Ala Ala Leu Gln Asn Lys Val Val Ala Leu Tyr
20 25 30

Phe Ala Ala Gly Arg Cys Ala Pro Ser Arg Asp Phe Thr Pro Leu Leu
35 40 45

Cys Asp Phe Tyr Glu Glu Leu Val Asp Asp Ala Arg Pro Pro Ala Pro
50 55 60

Phe Glu Val Val Phe Val Ser Ala Asp Gly Ser Ala His Glu Met Leu
65 70 75 80

Glu Phe Met Lys Glu Leu His Gly Ala Trp Leu Ala Leu Pro Phe His
85 90 95

Asp Pro Tyr Arg His Glu Leu Arg Thr Arg Tyr His Ile Thr Ala Ile
100 105 110

Pro Arg Leu Val Ile Leu Lys Pro Ser Gly Glu Val Ile Thr Asp Lys
115 120 125

Gly Arg Lys Gln Ile Arg Glu Arg Gly Leu Ala Cys Phe Gln Asn Trp
130 135 140

Val Glu Ala Ala Asp Ile Phe Gln Asn Phe Ser Ser
145 150 155

<210> 63
<211> 156
<212> PRT
<213> Gallus gallus

<400> 63

Met Val Asp Val Phe Ser Gly Arg Leu Leu Val Ser Lys Asp Gly Arg

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

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<210> 64
<211> 156
<212> PRT
<213> Xenopus laevis
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<400> 64

Met Asp Ile Phe Ser Gly His Ile Leu Leu Asn Lys Tyr Gly Glu Arg
1 5 10 15

Val Asp Pro Glu Glu Ala Leu Gln Asn Lys Ile Val Gly Leu Tyr Phe
20 25 30

Ser Ala Ser Trp Cys Ser Pro Cys Arg Asp Phe Thr Pro Ile Leu Cys
35 40 45

Asp Phe Tyr Thr Glu Leu Val Glu Glu Ser Glu Pro Pro Ala Gln Phe
50 55 60

Glu Ile Val Phe Ile Ser Ser Asp Lys Ser Pro Glu Glu Met Val Asp
65 70 75 80

Tyr Met His Asp Met Gln Gly Asp Trp Leu Ala Leu Pro Phe His Asp
85 90 95

Pro Tyr Lys His Glu Leu Lys Asn Lys Tyr Lys Ile Thr Ala Ile Pro
100 105 110

Lys Leu Val Ile Val Lys Gln Asn Gly Asp Val Ile Thr Asp Lys Gly
115 120 125

Arg Lys Gln Ile Arg Glu Arg Gly Leu Ser Cys Phe Arg Thr Trp Leu
130 135 140

Glu Val Gly Asp Val Phe Gln Asn Phe Thr Gly Lys
145 150 155

<210> 65
<211> 156
<212> PRT
<213> Tetraodon nigroviridis

<400> 65

Met Val Glu Val Phe Thr Gly Arg Thr Leu Leu Asn Lys Asp Gly Asp
1 5 10 15

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

Phe Ser Ala Gly Trp Cys Pro Pro Cys Arg Asp Phe Thr Pro Ile Leu
35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Glu Glu Ser Asp Pro Pro Ala Gln
50 55 60

Phe Glu Val Val Phe Val Ser Ser Asp Lys Thr Ser Glu Asp Met Val
65 70 75 80

Glu Tyr Tyr His Asp Leu His Gly Asp Trp Leu Ala Leu Pro Trp Ser
85 90 95

Asp Asp Tyr Lys Asn Glu Leu Lys Gln Arg Tyr Lys Ile Thr Ala Val
100 105 110

Pro Lys Leu Val Ile Val Lys Glu Ser Gly Glu Val Ile Thr Asp Lys

115

120

125

Gly Arg Lys Gln Ile Arg Asp Arg Gly Leu Ala Cys Phe Arg Ser Trp
 130 135 140

Leu Asp Ala Ala Glu Val Phe Gln Asn Phe Glu Gly
 145 150 155

<210> 66
 <211> 156
 <212> PRT
 <213> Danio rerio

<400> 66

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

Leu Val Glu Pro Glu Glu Ala Leu Arg Asn Lys Val Val Gly Leu Tyr
 20 25 30

Phe Ser Ala Gly Trp Cys Pro Pro Cys Arg Asp Phe Thr Pro Leu Leu
 35 40 45

Cys Asp Phe Tyr Thr Glu Leu Val Glu Glu Thr Glu Pro Pro Ala Gln
 50 55 60

Phe Glu Ile Val Phe Ile Ser Ser Asp Lys Ser Thr Glu Asp Met Val
 65 70 75 80

Glu Tyr Tyr His Asp Met His Gly Asp Trp Leu Ala Leu Pro Trp Thr
 85 90 95

Asp Pro Tyr Lys His Glu Leu Lys Lys Arg Tyr Asn Ile Thr Ala Val
 100 105 110

Pro Lys Leu Val Ile Val Lys Glu Asn Gly Gln Val Ile Thr Asp Lys
 115 120 125

Gly Arg Lys Gln Ile Arg Asp Gln Gly Leu Ala Cys Phe Arg Ser Trp
 130 135 140

Ile Glu Val Ala Glu Ile Phe Gln Asn Phe Lys Gly
 145 150 155

<210> 67
 <211> 217
 <212> PRT

<213> Mus musculus

<400> 67

Met Ala Ser Leu Phe Ser Gly Arg Ile Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Val Glu Thr Glu Ala Glu Leu Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ala Cys Pro Gln Cys Gln
35 40 45

Ala Phe Ala Pro Val Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Leu Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Pro Thr Glu Glu Gln Gln Asp Leu Phe Leu Arg Asp Met Pro Glu
85 90 95

Lys Trp Leu Phe Leu Pro Phe His Asp Glu Leu Arg Arg Asp Leu Gly
100 105 110

Arg Gln Phe Ser Val Arg Gln Leu Pro Ala Val Val Val Leu Lys Pro
115 120 125

Gly Gly Asp Val Leu Thr Ser Asp Ala Thr Glu Glu Ile Gln Arg Leu
130 135 140

Gly Pro Ala Cys Phe Ala Asn Trp Gln Glu Ala Ala Glu Leu Leu Asp
145 150 155 160

Arg Ser Phe Leu Gln Pro Glu Asp Leu Asp Glu Pro Ala Arg Arg Ser
165 170 175

Ile Thr Glu Pro Leu Arg Arg Arg Lys Tyr Arg Val Asp Arg Asp Val
180 185 190

Gly Arg Glu Arg Gly Arg Asn Gly Arg Asp Ser Gly Asp Pro Gln Gly
195 200 205

Asp Ala Gly Thr Arg Ala Glu Leu Trp
210 215

<210> 68

<211> 109
<212> PRT
<213> Mus musculus

<400> 68

Met Ala Ser Leu Phe Ser Gly Arg Ile Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Val Glu Thr Glu Ala Glu Leu Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ala Cys Pro Gln Cys Gln
35 40 45

Ala Phe Ala Pro Val Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Leu Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Pro Thr Glu Glu Gln Gln Asp Leu Phe Leu Arg Asp Met Pro Glu
85 90 95

Lys Trp Leu Phe Leu Pro Phe His Asp Glu Leu Arg Arg
100 105

<210> 69
<211> 576
<212> PRT
<213> Rattus norvegicus

<400> 69

Met Val Ser Leu Phe Ser Gly Arg Ile Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Val Glu Thr Glu Ala Glu Leu Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ala Cys Pro Gln Cys Gln
35 40 45

Ala Phe Ala Pro Val Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Leu Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Pro Thr Glu Glu Gln Gln Asp Leu Phe Leu Arg Asp Met Pro Glu
85 90 95

Lys Trp Leu Phe Leu Pro Phe His Asp Asp Leu Arg Arg Asp Leu Gly
100 105 110

Arg Gln Phe Ser Val Arg Gln Leu Pro Ala Val Val Val Leu Lys Pro
115 120 125

Gly Gly Asp Val Leu Thr Ser Asp Ala Thr Asp Glu Ile Gln Arg Leu
130 135 140

Gly Pro Ala Cys Phe Ala Asn Trp Gln Glu Ala Ala Glu Leu Leu Asp
145 150 155 160

Arg Ser Phe Leu Gln Pro Glu Asp Leu Asp Glu Pro Ala Arg Arg Ser
165 170 175

Ile Thr Glu Pro Leu Arg Arg Arg Lys Tyr Arg Val Asp Arg Asp Ala
180 185 190

Gly Arg Gly Arg Gly Arg Asn Glu Cys Asp Ser Arg Asn Pro Gln Gly
195 200 205

Gly Arg Gly Cys Arg Asp Gly Ala Leu Val Ile Pro Pro Ala Pro Gln
210 215 220

Gly Thr Arg Val His Trp Trp Asn Phe Gly Asp Leu Gln Gly Asn Ser
225 230 235 240

Gly Leu Gly Ile Gly Val Gln Leu Arg Val Gln Pro Val Gly Ala Tyr
245 250 255

Ala Pro Gln Leu Arg Ala Pro Cys Leu Glu Leu Glu Gln Gln Leu Arg
260 265 270

Ser Gln Arg Asp Gln His Arg Gly Arg Asp Ala Gln Lys Gly His Arg
275 280 285

Gly Gln Tyr Pro Ala Ser Ala Cys Ala Met Gly Arg Ser Tyr Gly Gly
290 295 300

Arg Val Leu Ala Ala Met Thr Leu Leu Gly Ile Pro Ala Ala Val Leu
305 310 315 320

Val Ala Leu Ala Ala Gln Leu Leu Phe Gln Leu Gln Ala Gly Arg Ala

325								330				335			
Glu	Leu	Arg	Gly 340	Ile	Arg	Thr	Asp	Gly 345	Leu	His	Pro	Glu	Leu	Asp	Pro
Asp	Ala	Gly 355	Leu	Pro	Glu	Ala	Ala 360	Ala	Gly	Ala	Leu	Leu	Pro	Leu	Ala
Thr	Ala 370	Leu	Ala	Ala	Leu	Ala 375	Gln	Val	Leu	Gly	Leu 380	Gly	Cys	Leu	Leu
Leu 385	Ala	Ala	Leu	Cys	Gly 390	His	Leu	Gly	Ala	Glu 395	Leu	Ala	Arg	Gly	Pro 400
Gly	Pro	Gly	Arg	Leu 405	Thr	Leu	Asn	Val	Trp 410	Ser	Cys	Phe	Asn	Leu 415	Pro
Asn	Leu	Gly 420	Arg	Arg	Ala	Leu	Ala 425	Ile	Tyr	Ala	Leu	Leu	Leu 430	Phe	Glu
Ile	Glu 435	Ala	Gly	Ala	Ala	Ala	Ala 440	Ser	Ile	Leu	Gly	Ser 445	Gly	Ala	Leu
Ile 450	Leu	Val	Ala	Ile	Met	Thr 455	His	Thr	Leu	Phe	Arg 460	Ala	Val	Gln	Ala
Thr 465	Arg	Arg	Gly	Leu	Arg 470	Glu	Leu	Pro	Pro	Pro 475	Ser	Ser	Glu	Asp	Glu 480
Pro	Ala	Arg	Ser	Ser 485	Glu	Asp	Ser	Lys	Ala 490	Gly	Cys	Arg	Ala	Gln 495	Pro
Gln	Gln	Gly 500	Thr	His	Cys	Gln	Ile 505	Phe	Tyr	Asn	Pro	Ser	Gln 510	Glu	Leu
Gly	Asp 515	Pro	Pro	Gly	Ser	Met	Ala 520	Thr	Cys	Ile	Thr	Ser 525	Ala	Val	Leu
Glu 530	Arg	Ala	Ser	Glu	Ser	Ser 535	Leu	Leu	Ala	Ser	His 540	Leu	Pro	Gln	Thr
Leu 545	Arg	Ser	Met	Gly	Pro 550	Trp	Asp	Gly	Val	Thr 555	Tyr	Glu	Met	His	Gly 560
Met	Leu	Gly	His	Arg 565	Pro	Pro	Asp	Met	Gly 570	Lys	Asp	Ala	Thr	Leu 575	Val

<210> 70
<211> 212
<212> PRT
<213> Homo sapiens

<400> 70

Met Ala Ser Leu Phe Ser Gly Arg Ile Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Leu Asp Thr Glu Ala Glu Val Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ala Cys Pro Gln Cys Gln
35 40 45

Ala Phe Val Pro Ile Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Leu Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Ser Thr Glu Glu Gln Gln Asp Leu Phe Leu Lys Asp Met Pro Lys
85 90 95

Lys Trp Leu Phe Leu Pro Phe Glu Asp Asp Leu Arg Arg Asp Leu Gly
100 105 110

Arg Gln Phe Ser Val Glu Arg Leu Pro Ala Val Val Val Leu Lys Pro
115 120 125

Asp Gly Asp Val Leu Thr Arg Asp Gly Ala Asp Glu Ile Gln Arg Leu
130 135 140

Gly Thr Ala Cys Phe Ala Asn Trp Gln Glu Ala Ala Glu Val Leu Asp
145 150 155 160

Arg Asn Phe Gln Leu Pro Glu Asp Leu Glu Asp Gln Glu Pro Arg Ser
165 170 175

Leu Thr Glu Cys Leu Arg Arg His Lys Tyr Arg Val Glu Lys Ala Ala
180 185 190

Arg Gly Gly Arg Asp Pro Gly Gly Gly Gly Gly Glu Glu Gly Gly Ala
195 200 205

Gly Gly Leu Phe
210

<210> 71
<211> 202
<212> PRT
<213> Pan troglodytes

<220>
<221> misc_feature
<222> (168)..(201)
<223> Xaa can be any naturally occurring amino acid

<400> 71

Met Ala Ser Leu Phe Ser Gly Arg Ile Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Leu Asp Thr Glu Ala Glu Val Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ala Cys Pro Gln Cys Gln
35 40 45

Ala Phe Val Pro Ile Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Leu Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Ser Thr Glu Glu Gln Gln Asp Leu Phe Leu Lys Asp Met Pro Lys
85 90 95

Lys Trp Leu Phe Leu Pro Phe Glu Asp Asp Leu Arg Arg Asp Leu Gly
100 105 110

Arg Gln Phe Ser Val Glu Arg Leu Pro Ala Val Val Val Leu Lys Pro
115 120 125

Asp Gly Asp Val Leu Thr Arg Asp Gly Ala Asp Glu Ile Gln Arg Leu
130 135 140

Gly Thr Ala Cys Phe Ala Asn Trp Gln Glu Ala Ala Glu Val Leu Asp
145 150 155 160

Arg Asn Phe Gln Leu Pro Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
165 170 175

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
180 185 190

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala
195 200

<210> 72
<211> 218
<212> PRT
<213> Canis familiaris

<400> 72

Met Ala Ser Leu Phe Ser Gly Arg Val Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Leu Asp Thr Glu Ala Glu Leu Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ser Cys Pro Gln Cys Gln
35 40 45

Ala Phe Ala Pro Ile Leu Arg Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Leu Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Pro Thr Glu Glu Gln Gln Asp Leu Phe Leu Arg Asp Met Pro Lys
85 90 95

Lys Trp Leu Phe Leu Pro Phe Glu Asp Asp Leu Arg Arg Asp Leu Gly
100 105 110

Arg Arg Phe Ser Val Glu Arg Leu Pro Ala Val Val Val Leu Lys Pro
115 120 125

Gly Gly Asp Val Leu Ser Arg Asp Ala Thr Asp Glu Ile Arg Arg Leu
130 135 140

Gly Pro Ala Cys Phe Ala Asn Trp Gln Glu Ala Ala Glu Val Leu Asp
145 150 155 160

Arg Asn Phe Leu Gln Pro Glu Asp Leu Asp Asp Pro Ala Pro Arg Ser
165 170 175

Leu Thr Glu Pro Leu Arg Arg Cys Lys Tyr Arg Val Asp Arg Glu Ala
180 185 190

Arg Gly Lys Arg Gly Pro Gly Gly Gly Ser Gln Pro Glu Gly Gly Arg
195 200 205

Gly Ala Glu Gly Gly Ala Gly Asp Leu Phe
210 215

<210> 73
<211> 218
<212> PRT
<213> Bos taurus

<400> 73

Met Ala Ser Leu Phe Ser Gly Arg Val Leu Ile Arg Asn Asn Ser Asp
1 5 10 15

Gln Asp Glu Leu Asp Thr Glu Ala Glu Leu Ser Arg Arg Leu Glu Asn
20 25 30

Arg Leu Val Leu Leu Phe Phe Gly Ala Gly Ser Cys Pro Glu Cys Gln
35 40 45

Ala Phe Ala Pro Ile Leu Arg Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Leu Arg Ala Ala Gln Val Ala Leu Val Tyr Val Ser Gln
65 70 75 80

Asp Pro Thr Glu Glu Gln Gln Asp Leu Phe Leu Arg Asp Met Pro Glu
85 90 95

Lys Trp Leu Phe Leu Pro Phe Glu Asp Asp Leu Arg Arg Asp Leu Gly
100 105 110

Arg Gln Phe Ser Val Glu Arg Leu Pro Ala Val Val Val Leu Lys Pro
115 120 125

Ser Gly Asp Val Leu Thr Leu Asp Ala Ala Asp Glu Ile Arg Arg Leu
130 135 140

Gly Pro Ala Cys Phe Ala Asn Trp Gln Glu Ala Ala Glu Val Leu Asp
145 150 155 160

Arg Ser Phe Leu Gln Pro Glu Asp Leu Asp Asp Pro Ala Pro Arg Ser
165 170 175

Leu Thr Glu Pro Leu Arg Arg Cys Lys Tyr Arg Val Asp Pro Ala Ala
180 185 190

Arg Arg Ala Arg Gly Arg Gly Arg Ala Gly Gly Ser Gly Gln Glu Gly
195 200 205

Glu Ala Glu Gly Glu Ala Ala Gly Leu Phe
210 215

<210> 74
<211> 207
<212> PRT
<213> Gallus gallus

<400> 74

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

Arg Asp Glu Val Glu Thr Glu Arg Glu Arg Cys Ser Ala Leu Glu Asn
20 25 30

Arg Val Met Leu Leu Tyr Phe Gly Ala Ala Glu Cys Pro Arg Cys Gln
35 40 45

Ser Phe Ala Pro Arg Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Glu Arg Ala Ser Gln Leu Cys Leu Val Tyr Val Ser Arg
65 70 75 80

Asp Ala Thr Ala Gln Gln Glu Glu Ala Phe Leu Arg Ser Met Pro Arg
85 90 95

Arg Trp Leu Ser Leu Pro Phe Arg Asp Glu Phe Lys Arg Glu Leu Glu
100 105 110

Leu Arg Phe Val Val Ser Glu Val Pro Arg Val Val Val Leu Lys Pro
115 120 125

Asn Gly Asp Val Ile Val Gly Asn Ala Val Asp Glu Ile Thr Ser Met
130 135 140

Gly Pro Ala Cys Phe Gln Asn Trp Gln Glu Ala Ala Glu Leu Val Asp
145 150 155 160

Arg Asn Phe Arg Leu Ala Glu Asp Phe Asp Glu Cys Ala Arg Arg Ser
165 170 175

Ile Thr Asp Pro Leu Arg Arg Leu Lys Tyr Lys Leu Gly Lys Gly Glu
180 185 190

Glu Pro Arg Ser Glu Glu Gln Lys Glu Asp Gly Asp Glu Ser Ser
195 200 205

<210> 75
<211> 215
<212> PRT
<213> Xenopus laevis

<400> 75

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

Gln Asp Glu Leu Asp Thr Glu Arg Glu Ile Trp Glu Arg Leu Glu Asn
20 25 30

Arg Val Ile Leu Leu Phe Phe Ala Lys Ser Arg Ser Ser Gln Cys Gln
35 40 45

Glu Phe Ala Pro Leu Leu Lys Asp Phe Phe Val Arg Leu Thr Asp Glu
50 55 60

Phe Tyr Val Asp Arg Ser Ser Gln Leu Ala Leu Val Tyr Val Ser Leu
65 70 75 80

Asp Gln Ser Glu Glu Glu Gln Glu Arg Phe Leu Lys Asp Met Pro Lys
85 90 95

Arg Trp Leu Phe Val Pro Phe Lys Asp Glu Glu Phe Arg Arg Asn Leu
100 105 110

Glu Ala Gln Phe Ser Val Ser Arg Val Pro Val Leu Val Val Leu Lys
115 120 125

Pro Ser Gly His Val Ile Ser Phe Asn Ala Val Asp Glu Val Val Arg
130 135 140

Leu Gly Pro Pro Cys Phe Lys Asn Trp Gln Glu Val Ser Glu Ile Ile
145 150 155 160

Asp Arg Ser Phe Leu Leu Pro Glu Phe Thr Asp Asp Arg Ala Gly Arg
165 170 175

Ser Met Thr Asp Pro Ile Arg Arg Ile Lys Tyr Lys Asp Glu Thr Thr
180 185 190

Asn Glu Lys Lys Lys Arg Lys His Cys Asp Asp Glu Asp Glu Gly Gly
195 200 205

Gly Gly Gly Thr Glu Phe Phe
210 215

<210> 76
<211> 180
<212> PRT
<213> Tetraodon nigroviridis

<400> 76

Met Val Asp Leu Phe Leu Asn Arg Val Leu Val Glu Asn Asn Trp Asp
1 5 10 15

Gln Asp Gln Leu Asn Thr Glu Arg Glu Ile Val Gly Ile Leu Glu Asn
20 25 30

Arg Ile Leu Leu Leu Phe Phe Ala Ser Ala Ser Cys Gln Lys Cys Gln
35 40 45

Asp Phe Leu Pro Ile Leu Asn Asn Phe Phe Lys Arg Leu Lys Asp Pro
50 55 60

Ala His Ile Glu Tyr Pro Lys Leu Leu Ala Leu Ile Phe Ile Ser Leu
65 70 75 80

Asp Gln Ser Glu Glu Gln Gln Glu Arg Phe Leu Lys Glu Leu His Lys
85 90 95

Lys Val Leu Phe Leu Ala Phe Asp Asp Pro Tyr Arg Gln Glu Leu Gln
100 105 110

Ala Met Phe Glu Val Lys Glu Leu Pro Thr Val Val Val Leu Arg Pro
115 120 125

Asp Gly Ser Val Leu Ala Ala Asn Ala Ala Gln Asp Ile Cys Ser Tyr
130 135 140

Gly Ser Glu Cys Phe Arg Asp Trp Gln Glu Ser Ala Glu Leu Ile Glu
145 150 155 160

Arg Thr Phe Met Leu Asn Glu Glu Phe Asp Asn Leu Asn Leu Arg Thr
165 170 175

Ser Ala Thr Pro
180

<210> 77
<211> 169
<212> PRT
<213> Tetraodon nigroviridis

<400> 77

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

Arg Asp Glu Leu Asp Thr Glu Arg Glu Ile Val Ala Arg Leu Gln Asn
20 25 30

Arg Ile Leu Leu Leu Phe Phe Gly Cys Val Val Ser Arg Ser Cys Gln
35 40 45

Leu Phe Ala Pro Lys Leu Ser Ser Phe Phe Lys Gln Leu Thr Asp Glu
50 55 60

Ala Tyr Val Asp Arg Ser Ala Gln Leu Val Leu Leu Tyr Ile Ser Met
65 70 75 80

Asp Gln Ser Glu Gln Gln Leu Ser Ser Phe Leu Gln Glu Leu Pro Lys
85 90 95

Lys Cys Leu Phe Leu Ala Phe Glu Asp Pro Phe Arg Arg Glu Leu Glu
100 105 110

Ala Met Phe Asn Val Glu Glu Leu Pro Thr Val Val Val Leu Arg Pro
115 120 125

Asp Cys Ser Val Leu Ala Ala Asn Ala Val Glu Glu Ile Leu Arg Leu
130 135 140

Gly Pro Asp Cys Tyr Arg Asn Trp Gln Glu Ala Ala Glu Leu Tyr Arg
145 150 155 160

Gln Glu Leu Pro Asp Gln Arg Arg Leu
165

<210> 78
<211> 215
<212> PRT
<213> Danio rerio

<400> 78

Met Val Asp Leu Phe Leu Gly Lys Val Leu Val Lys Asn Asn Lys Asp
1 5 10 15

Arg Asp Glu Leu Asp Thr Glu Arg Glu Ile Ile Leu Arg Leu Gln Asn
20 25 30

Arg Ile Leu Met Leu Phe Phe Gly Ser Gly Asp Ser Glu Lys Cys Gln
35 40 45

Asp Phe Ala Pro Thr Leu Lys Asp Phe Tyr Lys Lys Leu Thr Asp Glu
50 55 60

Phe Tyr Val Glu Arg Ser Ala Gln Leu Val Leu Leu Tyr Ile Ser Leu
65 70 75 80

Asp Ser Ser Glu Glu Gln Gln Glu Lys Phe Leu Lys Glu Leu Pro Lys
85 90 95

Arg Cys Leu Phe Leu Pro Tyr Glu Asp Pro Tyr Arg Gln Glu Leu Gly
100 105 110

Val Met Phe Glu Val Arg Asp Leu Pro Arg Val Val Val Leu Arg Pro
115 120 125

Asp Cys Ser Val Leu Ser Pro Asn Ala Val Ser Glu Ile Cys Thr Leu
130 135 140

Gly Thr Asp Cys Phe Arg Asn Trp Gln Glu Gly Ala Glu Leu Ile Asp
145 150 155 160

Arg Asn Phe Met Met Asn Glu Glu Phe Asp Glu Gly Lys Met Arg Ser
165 170 175

Met Thr Asp Pro Ile Arg Arg Ile Lys Tyr Lys Val Glu Asp Glu Lys
180 185 190

Lys Lys Lys Lys Lys Arg Asp Asp Asp Asp Asp Asp Asp Asp Gly Gly
195 200 205

Gly Gly Gly Gly Pro Trp Gly
210 215