

820 Sequence listing_ST25.txt
SEQUENCE LISTING

<110> Deutsches Zentrum für Neurodegenerative Erkrankungen e.V. (DZNE)
<120> Dipeptide-repeat proteins as therapeutic target in neurogenerative diseases
<130> 820-1
<160> 49
<170> PatentIn version 3.5
<210> 1
<211> 888
<212> DNA
<213> Homo sapiens

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<220>
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<222> (321)..(327)
<223> /note="hexanucleotide ggggcc is repeated n-times"

<400> 1
acgtaacctta cgggtgtcccg ctaggaaaga gaggtgctgc aaacagcgac aagttccgcc 60
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ggggcggggt ctagcaagag cagggtgtggg tttaggaggt gtgtgttttt gtttttccca 180
ccctctctcc ccactacttg ctctcacagt actcgctgag ggtgaacaag aaaagacctg 240
ataaagatta accagaagaa aacaaggagg gaaacaaccg cagcctgtag caagctctgg 300
aactcaggag tcgcgcgcta gggggccggg cgtggtcggg gcgggcccgg gggcggggcc 360
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gaggcgcggg tagaagcggg ggctctctc agagctcgac gcatttttac tttccctctc 540
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gacctgctgg gagcgctgcc gctgcgggct cgagaaaagg gagcctcggg tactgagagg 780
cctcgcctgg gggaaggccg gagggtgggc ggcgcgcggc ttctgcggac caagtcgggg 840
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<210> 2
<211> 1196
<212> DNA
<213> Homo sapiens

<220>

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<223> /mol_type="DNA" /organism="Homo sapiens"

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<222> (590)..(596)
<223> /note="hexanucleotide ggcctg is repeated n-times"

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ggctcgtccc cgagtagggg acggaacgc ctgggtccc gggacgtgg ggcaggggtc      60
tggggcccga ggccacggac gaagcgggaa gccggctagg cagcggcttc tgtctgggat    120
ggacgccgcg cccacgcgg acctcccgcc ccgacttcac ccagctctgc tgcccgtaac    180
tcatatgaca agaacatcag gaaccggact attacccga aagggccttc ccaagtcgtt    240
tcgccgcctg cagtgtcccga ccggggggccg cgcgtccccg gcaaccacgc ccgccgcgc   300
agctgcagag gccggaagag gcccgctcgc ccgcgctcgg caccaccag ccgcgctcc    360
gggcgatacc accctgggcg gccctccaa aggcggaga tgggtgtcgt cccggcctcc    420
gattggtcgg gggggcgggg gcgtggcctc tggagcctgg ttccgcgcgc cggagcgcgc   480
tagccgcatt gcgagccgaa cccgggagct ggcgccatgg tgaggagtgg ttgcggggcg    540
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ccggacgccg cccccgaacg attaaagcag aagctgggat gtggggccca ggtatcagca  1020
tattttaaga gtttccaagg ctgagaaccg ctgcttgact gcgccgcaga ggcaggaggg   1080
agggaaggaa accacttagc ctctttctcc cccaggtgg aggagtctgt gctcaacctg   1140
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<210> 3
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<213> Homo sapiens

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<400> 3
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Trp Ser Gly Arg Ala Arg Gly Arg Ala Arg Gly Gly Ala Ala Val Ala
1      5      10     15

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Val Pro Ala Pro Ala Ala Ala Glu Ala Gln Ala Val Ala Ser Gly
20 25 30

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Gly Arg Gly Arg Gly Gly Pro Gly Gly Gly Pro Gly Ala Gly Leu Arg
1 5 10 15

Leu Arg Cys Leu Arg Pro Arg Arg Arg Arg Arg Arg Trp Arg Val
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Gly Glu

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Gly Val Val Gly Ala Gly Pro Gly Ala Gly Pro Gly Arg Gly Cys Gly
1 5 10 15

Cys Gly Ala Cys Ala Arg Gly Gly Gly Gly Ala Gly Gly Gly Glu Trp
20 25 30

Val Ser Glu Glu Ala Ala Ser Trp Arg Val Ala Val Trp Gly Ser Ala
35 40 45

Ala Gly Lys Arg Arg Gly
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<210> 6
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820 Sequence listing_ST25.txt

<400> 6

Ser Ala Arg Leu Leu Ser Ser Arg Ala Cys Tyr Arg Leu Arg Leu Phe
1 5 10 15

Pro Ser Leu Phe Ser Ser Gly
20

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<213> Homo sapiens

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<222> (1)..(6)
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Pro Leu Ala Arg Asp Ser
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<210> 8
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<212> PRT
<213> Homo sapiens

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<222> (1)..(106)
<223> /mol_type="protein" /organism="Homo sapiens"

<400> 8

Arg Leu Arg Leu Arg Leu Pro Trp Glu Arg Val Pro Ala Asp Ala Glu
1 5 10 15

Val Ala Leu Thr Leu Ala Pro Arg Leu Pro Phe Gln Val Leu Leu His
20 25 30

Val Leu Phe Glu His Ala Val Gly Tyr Ala Leu Leu Ala Leu Glu Ile
35 40 45

Ser Leu Leu Gln Pro Gln Val Gly Glu Ile Arg Gly Leu Leu Trp Arg
50 55 60

Pro Arg Arg Pro Ser Ser Arg Gly Ser Gln His Ala Gln Arg Ala Pro
65 70 75 80

Thr Trp Pro Ala Glu Arg Phe Gly Ala Gly Arg Ala Trp Lys Ala Leu
85 90 95

Asp Pro Gly Val Phe Thr Leu Thr His Gly
100 105

820 Sequence listing_ST25.txt

<210> 9
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<220>
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 <222> (1)..(20)
 <223> /mol_type="protein" /organism="Homo sapiens"

<400> 9

Ala Cys Ala Cys Ala Cys Ala Cys Pro Gly Asn Gly Phe Arg Gln Thr
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Leu Arg Leu Arg
 20

<210> 10
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Pro Ala Pro Ala Pro Ala Pro Ala Leu Gly Thr Gly Ser Gly Arg Arg
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<210> 11
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<400> 11

Ala Leu Ser Ala Ala Arg Thr Gln Ala Glu Thr Pro Thr Val Ala Ser
 1 5 10 15

Pro Ala Pro Arg Asn His Ser Ser Pro Trp Arg Gln Leu Pro Gly Ser
 20 25 30

Ala Arg Asn Ala Ala Ser Ala Leu Arg Arg Ala Glu Pro Gly Ser Ala
 35 40 45

Pro Ala Pro Pro Thr Asn Arg Arg Pro Gly Thr Thr Pro Ser Pro Ala
 50 55 60

820 Sequence listing_ST25.txt

Phe Gly Gly Ala Ala Gln Gly Gly Ile Ala Arg Ser Ala Gly Trp Val
65 70 75 80

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

Gly Gly Arg Gly Cys Arg Gly Arg Ala Ala Pro Gly Arg Ala Leu Gln
100 105 110

Ala Ala Lys Arg Leu Gly Lys Ala Leu Ser Gly
115 120

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<211> 36
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<222> (1)..(36)
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<400> 12

Pro Val Cys Gly Pro Asn Ala Gly Arg Asn Pro His Arg Arg Val Ala
1 5 10 15

Arg Ala Pro Gln Pro Leu Leu Thr Met Ala Pro Ala Pro Gly Phe Gly
20 25 30

Ser Gln Cys Gly
35

<210> 13
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<212> PRT
<213> Homo sapiens

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<400> 13

Pro Cys Leu Arg Pro Glu Arg Arg Pro Lys Pro Pro Pro Ser Arg Arg
1 5 10 15

Pro Arg Pro Ala Thr Thr Pro His His Gly Ala Ser Ser Arg Val Arg
20 25 30

Leu Ala Met Arg Leu Ala Arg Ser Gly Ala Arg Asn Gln Ala Pro Glu
35 40 45

Ala Thr Pro Pro Pro Pro Arg Pro Ile Gly Gly Arg Gly Arg His His
50 55 60

820 Sequence listing_ST25.txt

Leu Arg Pro Leu Glu Gly Pro Pro Arg Val Val Ser Pro Gly Ala Arg
65 70 75 80

Ala Gly Trp Cys Arg Ala Arg Ala Ser Gly Pro Phe Pro Ala Ser Ala
85 90 95

Ala Ala Arg Ala Gly Val Val Ala Gly Asp Ala Arg Pro Pro Val Gly
100 105 110

His Cys Arg Arg Arg Asn Asp Leu Gly Arg Pro Phe Arg Gly Asn Ser
115 120 125

Pro Val Pro Asp Val Leu Val Ile
130 135

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<213> Homo sapiens

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Gln Ala Leu Glu Leu Arg Ser Arg Ala Leu
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<400> 15

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

Pro Pro Pro Pro Pro Pro Pro Gly Ser Pro Gly Pro Gly Cys Arg
20 25 30

Gln Phe His Gln Ser Leu Glu Ala Lys Ala Arg His Pro Ala Ser Val
35 40 45

Arg Glu Met Arg Gly Lys Val Lys Met Arg Arg Ala Leu Arg Arg Ala
50 55 60

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

Pro Ala Arg Met Pro Pro Pro His Ser Pro Thr Arg His Arg Leu Arg
85 90 95

Leu Arg Arg Arg Gly Arg Arg His Arg Asn Arg Ser Pro Ala Pro Gly
100 105 110

Pro Pro Pro Gly Pro Pro Arg Pro Arg
115 120

<210> 16
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<213> Homo sapiens

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<222> (1)..(25)
<223> /mol_type="protein" /organism="Homo sapiens"
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Arg Leu Thr Arg Arg Lys Gln Gly Gly Lys Gln Pro Gln Pro Val Ala
1 5 10 15

Ser Ser Gly Thr Gln Glu Ser Arg Ala
20 25

<210> 17
<211> 59
<212> PRT
<213> Homo sapiens

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<222> (1)..(59)
<223> /mol_type="protein" /organism="Homo sapiens"
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Gly Glu Pro Pro Leu Leu Pro Ala Pro Leu Pro Gly Ser Arg Thr Pro
1 5 10 15

Asn Ser His Pro Pro Gly Cys Arg Leu Leu Thr His Pro Leu Ala Thr
20 25 30

Ala Cys Ala Ser Ala Ala Ala Gly Ala Gly Thr Ala Thr Ala Ala Pro
35 40 45

Pro Arg Ala Arg Pro Arg Ala Arg Pro Asp His
50 55

<210> 18
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820 Sequence listing_ST25.txt

<212> PRT
<213> Homo sapiens

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Ser Pro Arg Arg Gln Gly Pro Ser Arg Val Pro Ser Glu Pro Arg Leu
1 5 10 15

Gly Pro Gln Lys Pro Arg Ala Ala His Pro Pro Ala Phe Pro Gln Ala
20 25 30

Arg Pro Leu Ser Thr Arg Gly Ser Leu Phe Ser Ser Pro Gln Arg Gln
35 40 45

Arg Ser Gln Arg Val Pro Gly Lys Glu Thr Ala Arg Val Leu Arg Ala
50 55 60

Gly Lys Gln Ala Arg Met Gln Ala Ile Pro Pro Val Ala Arg Gly Glu
65 70 75 80

Ser Pro Thr Pro Ser Phe Gly Gln Arg Asn Glu Arg Glu Ser Lys Asn
85 90 95

Ala Ser Ser Ser Glu Glu Ser Pro Arg Phe Tyr Pro Arg Leu Phe Pro
100 105 110

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

Thr His Ser Pro Pro Pro Ala Pro Pro Pro Pro Arg Ala Gln Ala Pro
130 135 140

Gln Pro Gln Pro Arg Pro Gly Pro Ala Pro Gly Pro Ala Pro Thr Thr
145 150 155 160

<210> 19
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<212> PRT
<213> Homo sapiens

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Gly Val Val Ala Gly Arg Gly Arg Arg Asp Gly Gly Gly Phe Gly Leu
1 5 10 15

820 Sequence listing_ST25.txt

Arg Ser Gly Arg Arg Gln
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<211> 134
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<213> Homo sapiens

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<222> (1)..(134)
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Gln Glu His Gln Glu Pro Asp Tyr Tyr Pro Glu Arg Ala Phe Pro Ser
1 5 10 15

Arg Phe Ala Ala Cys Ser Ala Arg Pro Gly Ala Ala Arg Pro Arg Gln
20 25 30

Pro Arg Pro Pro Ala Gln Leu Gln Arg Pro Glu Lys Ala Arg Ser Pro
35 40 45

Ala Leu Gly Thr Thr Gln Pro Ala Leu Arg Ala Ile Pro Pro Trp Ala
50 55 60

Ala Pro Pro Lys Ala Gly Asp Gly Val Val Pro Gly Leu Arg Leu Val
65 70 75 80

Gly Gly Ala Gly Ala Trp Pro Leu Glu Pro Gly Ser Ala Arg Arg Ser
85 90 95

Ala Leu Ala Ala Leu Arg Ala Glu Pro Gly Ser Trp Arg His Gly Glu
100 105 110

Glu Trp Leu Arg Gly Ala Gly Asp Ala Thr Val Gly Val Ser Ala Cys
115 120 125

Val Arg Ala Ala Asp Arg
130

<210> 21
<211> 36
<212> PRT
<213> Homo sapiens

<220>
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Pro His Cys Glu Pro Asn Pro Gly Ala Gly Ala Met Val Arg Ser Gly
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820 Sequence listing_ST25.txt

Cys Gly Ala Arg Ala Thr Arg Arg Trp Gly Phe Arg Pro Ala Phe Gly
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Pro Gln Thr Gly
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Gly Ser Ala Gly Pro Pro Lys Glu Pro Thr Asp Leu Thr His Leu Arg
1 5 10 15

Leu Gln Gln Thr Asp Leu Leu His Phe Leu Gln Arg Gln Gln Arg Val
20 25 30

Ala Asp Arg Val Leu Lys Gln His Val Gln Gln His Leu Glu Arg Glu
35 40 45

Pro Gly Arg Glu Arg Gln Arg Asn Leu Ser Val Cys Arg Asn Pro Phe
50 55 60

Pro Gly Gln
65

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<222> (1)..(53)
<223> /mol_type="protein" /organism="Homo sapiens"
<400> 23

Ser Pro Pro Leu Pro Ser Ala Pro Ala Ala Arg Ser Arg Pro Arg Ala
1 5 10 15

Gln Thr Ala Arg Ala Thr Ala Pro Gly Thr Gly Ala Gly Ala Arg Ala
20 25 30

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

820 Sequence listing_ST25.txt

Gly Ala Gly Ala Gly
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<222> (1)..(41)
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<400> 24

Pro Thr Ala Cys Ser Asn Ser Thr Cys Asn Ser Thr Trp Asn Gly Ser
1 5 10 15

Arg Gly Ala Ser Val Asn Ala Thr Ser Ala Ser Ala Gly Thr Arg Ser
20 25 30

Gln Gly Arg Arg Arg Arg Arg Arg Arg
35 40

<210> 25
<211> 47
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<222> (1)..(47)
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<220>
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<222> (13)..(14)
<223> dipeptide GA is repeated m-times

<400> 25

Gln Ala Leu Glu Leu Arg Ser Arg Ala Leu Gly Ala Gly Ala Gly Ala
1 5 10 15

Trp Ser Gly Arg Ala Arg Gly Arg Ala Arg Gly Gly Ala Ala Val Ala
20 25 30

Val Pro Ala Pro Ala Ala Ala Glu Ala Gln Ala Val Ala Ser Gly
35 40 45

<210> 26
<211> 40
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<223> /mol_type="protein" /organism="Homo sapiens"

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<221> REPEAT

<222> (3)..(4)

<223> dipeptide GP is repeated o-times

<400> 26

Gly Pro Gly Pro Gly Pro Gly Arg Gly Arg Gly Gly Pro Gly Gly Gly
1 5 10 15

Pro Gly Ala Gly Leu Arg Leu Arg Cys Leu Arg Pro Arg Arg Arg Arg
20 25 30

Arg Arg Arg Trp Arg Val Gly Glu
35 40

<210> 27

<211> 128

<212> PRT

<213> Homo sapiens

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<221> SOURCE

<222> (1)..(128)

<223> /mol_type="protein" /organism="Homo sapiens"

<220>

<221> REPEAT

<222> (125)..(126)

<223> dipeptide GP is repeated o-times

<400> 27

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

Pro Pro Pro Pro Pro Pro Pro Gly Ser Pro Gly Pro Gly Cys Arg
20 25 30

Gln Phe His Gln Ser Leu Glu Ala Lys Ala Arg His Pro Ala Ser Val
35 40 45

Arg Glu Met Arg Gly Lys Val Lys Met Arg Arg Ala Leu Arg Arg Ala
50 55 60

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

Pro Ala Arg Met Pro Pro Pro His Ser Pro Thr Arg His Arg Leu Arg
85 90 95

Leu Arg Arg Arg Gly Arg Arg His Arg Asn Arg Ser Pro Ala Pro Gly
100 105 110

Pro Pro Pro Gly Pro Pro Arg Pro Arg Pro Gly Pro Gly Pro Gly Pro
Seite 13

115

<210> 28
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<220>
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<220>
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<222> (29)..(30)
<223> dipeptide GR is repeated p-times

<400> 28

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

Ser Ser Gly Thr Gln Glu Ser Arg Ala Arg Gly Arg Gly Arg Gly Arg
20 25 30

Gly Val Val Gly Ala Gly Pro Gly Ala Gly Pro Gly Arg Gly Cys Gly
35 40 45

Cys Gly Ala Cys Ala Arg Gly Gly Gly Gly Ala Gly Gly Gly Glu Trp
50 55 60

Val Ser Glu Glu Ala Ala Ser Trp Arg Val Ala Val Trp Gly Ser Ala
65 70 75 80

Ala Gly Lys Arg Arg Gly
85

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<220>
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<220>
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<222> (62)..(63)
<223> dipeptide AP is repeated q-times

<400> 29

Gly Glu Pro Pro Leu Leu Pro Ala Pro Leu Pro Gly Ser Arg Thr Pro
1 5 10 15

Asn Ser His Pro Pro Gly Cys Arg Leu Leu Thr His Pro Leu Ala Thr
Seite 14

20

25

30

Ala Cys Ala Ser Ala Ala Ala Gly Ala Gly Thr Ala Thr Ala Ala Pro
35 40 45

Pro Arg Ala Arg Pro Arg Ala Arg Pro Asp His Ala Pro Ala Pro Ala
50 55 60

Pro Ser Ala Arg Leu Leu Ser Ser Arg Ala Cys Tyr Arg Leu Arg Leu
65 70 75 80

Phe Pro Ser Leu Phe Ser Ser Gly
85

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<213> Homo sapiens

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<220>
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<222> (186)..(187)
<223> dipeptide PR is repeated r-times

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Gly Pro Gln Lys Pro Arg Ala Ala His Pro Pro Ala Phe Pro Gln Ala
20 25 30

Arg Pro Leu Ser Thr Arg Gly Ser Leu Phe Ser Ser Pro Gln Arg Gln
35 40 45

Arg Ser Gln Arg Val Pro Gly Lys Glu Thr Ala Arg Val Leu Arg Ala
50 55 60

Gly Lys Gln Gly Arg Gly Gln Ile Pro Ile Pro Cys Pro Cys Ala Ala
65 70 75 80

Ala Ala Ala Ala Ala Ala Gly Lys Pro Gly Ala Arg Met Gln Ala Ile
85 90 95

Pro Pro Val Ala Arg Gly Glu Ser Pro Thr Pro Ser Phe Gly Gln Arg
100 105 110

Asn Glu Arg Glu Ser Lys Asn Ala Ser Ser Ser Glu Glu Ser Pro Arg
115 120 125

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Phe Tyr Pro Arg Leu Phe Pro Ala Ala Glu Pro Gln Thr Ala Thr Arg
130 135 140

Gln Asp Ala Ala Ser Ser Leu Thr His Ser Pro Pro Pro Ala Pro Pro
145 150 155 160

Pro Pro Arg Ala Gln Ala Pro Gln Pro Gln Pro Arg Pro Gly Pro Ala
165 170 175

Pro Gly Pro Ala Pro Thr Thr Pro Arg Pro Arg Pro Arg Pro Leu Ala
180 185 190

Arg Asp Ser
195

<210> 31
<211> 139
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<213> Homo sapiens

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<223> /mol_type="protein" /organism="Homo sapiens"

<220>
<221> REPEAT
<222> (25)..(26)
<223> dipeptide GL is repeated s-times

<400> 31

Gly Val Val Ala Gly Arg Gly Arg Arg Asp Gly Gly Gly Phe Gly Leu
1 5 10 15

Arg Ser Gly Arg Arg Gln Gly Leu Gly Leu Gly Leu Arg Leu Arg Leu
20 25 30

Arg Leu Pro Trp Glu Arg Val Pro Ala Asp Ala Glu Val Ala Leu Thr
35 40 45

Leu Ala Pro Arg Leu Pro Phe Gln Val Leu Leu His Val Leu Phe Glu
50 55 60

His Ala Val Gly Tyr Ala Leu Leu Ala Leu Lys Glu Val Glu Glu Ile
65 70 75 80

Ser Leu Leu Gln Pro Gln Val Gly Glu Ile Arg Gly Leu Leu Trp Arg
85 90 95

Pro Arg Arg Pro Ser Ser Arg Gly Ser Gln His Ala Gln Arg Ala Pro
100 105 110

Thr Trp Pro Ala Glu Arg Phe Gly Ala Gly Gly Arg Ala Trp Lys Ala
Seite 16

115

Leu Asp Pro Gly Val Phe Thr Leu Thr His Gly
130 135

<210> 32
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<212> PRT
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<220>
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<220>
<221> REPEAT
<222> (137)..(138)
<223> dipeptide AW i repeated t-times

<400> 32

Gln Glu His Gln Glu Pro Asp Tyr Tyr Pro Glu Arg Ala Phe Pro Ser
1 5 10 15

Arg Phe Ala Ala Cys Ser Ala Arg Pro Gly Ala Ala Arg Pro Arg Gln
20 25 30

Pro Arg Pro Pro Ala Gln Leu Gln Arg Pro Glu Lys Ala Arg Ser Pro
35 40 45

Ala Leu Gly Thr Thr Gln Pro Ala Leu Arg Ala Ile Pro Pro Trp Ala
50 55 60

Ala Pro Pro Lys Ala Gly Asp Gly Val Val Pro Gly Leu Arg Leu Val
65 70 75 80

Gly Gly Ala Gly Ala Trp Pro Leu Glu Pro Gly Ser Ala Arg Arg Ser
85 90 95

Ala Leu Ala Ala Leu Arg Ala Glu Pro Gly Ser Trp Arg His Gly Glu
100 105 110

Glu Trp Leu Arg Gly Ala Gly Asp Ala Thr Val Gly Val Ser Ala Cys
115 120 125

Val Arg Ala Ala Asp Arg Ala Trp Ala Trp Ala Trp Ala Cys Ala Cys
130 135 140

Ala Cys Ala Cys Pro Gly Asn Gly Phe Arg Gln Thr Leu Arg Leu Arg
145 150 155 160

<210> 33
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<212> PRT

820 Sequence listing_ST25.txt

<213> Homo sapiens

<220>

<221> SOURCE

<222> (1)..(58)

<223> /mol_type="protein" /organism="Homo sapiens"

<220>

<221> REPEAT

<222> (39)..(40)

<223> dipeptide PG is repeated u-times

<400> 33

Pro His Cys Glu Pro Asn Pro Gly Ala Gly Ala Met Val Arg Ser Gly
1 5 10 15

Cys Gly Ala Arg Ala Thr Arg Arg Trp Gly Phe Arg Pro Ala Phe Gly
20 25 30

Pro Gln Thr Gly Pro Gly Pro Gly Pro Gly Pro Ala Pro Ala Pro Ala
35 40 45

Pro Ala Leu Gly Thr Gly Ser Gly Arg Arg
50 55

<210> 34

<211> 199

<212> PRT

<213> Homo sapiens

<220>

<221> SOURCE

<222> (1)..(199)

<223> /mol_type="protein" /organism="Homo sapiens"

<220>

<221> REPEAT

<222> (70)..(71)

<223> dipeptide AQ is repeated w-times

<400> 34

Gly Ser Ala Gly Pro Pro Lys Glu Pro Thr Asp Leu Thr His Leu Arg
1 5 10 15

Leu Gln Gln Thr Asp Leu Leu His Phe Leu Gln Arg Gln Gln Arg Val
20 25 30

Ala Asp Arg Val Leu Lys Gln His Val Gln Gln His Leu Glu Arg Glu
35 40 45

Pro Gly Arg Glu Arg Gln Arg Asn Leu Ser Val Cys Arg Asn Pro Phe
50 55 60

Pro Gly Gln Ala Gln Ala Gln Ala Gln Ala Leu Ser Ala Ala Arg Thr
65 70 75 80

820 Sequence listing_ST25.txt

Gln Ala Glu Thr Pro Thr Val Ala Ser Pro Ala Pro Arg Asn His Ser
85 90 95

Ser Pro Trp Arg Gln Leu Pro Gly Ser Ala Arg Asn Ala Ala Ser Ala
100 105 110

Leu Arg Arg Ala Glu Pro Gly Ser Arg Gly His Ala Pro Ala Pro Pro
115 120 125

Thr Asn Arg Arg Pro Gly Thr Thr Pro Ser Pro Ala Phe Gly Gly Ala
130 135 140

Ala Gln Gly Gly Ile Ala Arg Ser Ala Gly Trp Val Val Pro Ser Ala
145 150 155 160

Gly Glu Arg Ala Phe Ser Gly Leu Cys Ser Cys Ala Gly Gly Arg Gly
165 170 175

Cys Arg Gly Arg Ala Ala Pro Gly Arg Ala Leu Gln Ala Ala Lys Arg
180 185 190

Leu Gly Lys Ala Leu Ser Gly
195

<210> 35
<211> 94
<212> PRT
<213> Homo sapiens

<220>
<221> SOURCE
<222> (1)..(94)
<223> /mol_type="protein" /organism="Homo sapiens"

<220>
<221> REPEAT
<222> (56)..(57)
<223> dipeptide GP is repeated x-times

<400> 35

Ser Pro Pro Leu Pro Ser Ala Pro Ala Ala Arg Ser Arg Pro Arg Ala
1 5 10 15

Gln Thr Ala Arg Ala Thr Ala Pro Gly Thr Gly Ala Gly Ala Arg Ala
20 25 30

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

Gly Ala Gly Ala Gly Gly Pro Gly Pro Gly Pro Val Cys Gly Pro Asn
50 55 60

Ala Gly Arg Asn Pro His Arg Arg Val Ala Arg Ala Pro Gln Pro Leu

Leu Thr Met Ala Pro Ala Pro Gly Phe Gly Ser Gln Cys Gly
85 90

<210> 36
<211> 183
<212> PRT
<213> Homo sapiens

<220>
<221> SOURCE
<222> (1)..(183)
<223> /mol_type="protein" /organism="Homo sapiens"

<220>
<221> REPEAT
<222> (44)..(45)
<223> dipeptide PR is repeated y-times

<400> 36

Pro Thr Ala Cys Ser Asn Ser Thr Cys Asn Ser Thr Trp Asn Gly Ser
1 5 10 15

Arg Gly Ala Ser Val Asn Ala Thr Ser Ala Ser Ala Gly Thr Arg Ser
20 25 30

Gln Gly Arg Arg Arg Arg Arg Arg Arg Pro Arg Pro Arg Pro Arg Pro
35 40 45

Cys Leu Arg Pro Glu Arg Arg Pro Lys Pro Pro Pro Ser Arg Arg Pro
50 55 60

Arg Pro Ala Thr Thr Pro His His Gly Ala Ser Ser Arg Val Arg Leu
65 70 75 80

Ala Met Arg Leu Ala Arg Ser Gly Ala Arg Asn Gln Ala Pro Glu Ala
85 90 95

Thr Pro Pro Pro Pro Arg Pro Ile Gly Gly Arg Gly Arg His His Leu
100 105 110

Arg Pro Leu Glu Gly Pro Pro Arg Val Val Ser Pro Gly Ala Arg Ala
115 120 125

Gly Trp Cys Arg Ala Arg Ala Ser Gly Pro Phe Pro Ala Ser Ala Ala
130 135 140

Ala Arg Ala Gly Val Val Ala Gly Asp Ala Arg Pro Pro Val Gly His
145 150 155 160

Cys Arg Arg Arg Asn Asp Leu Gly Arg Pro Phe Arg Gly Asn Ser Pro
165 170 175

820 Sequeunce listing_ST25.txt

Val Pro Asp Val Leu Val Ile
180

<210> 37
<211> 20
<212> DNA
<213> Homo sapiens

<400> 37
caattccacc agtcgctaga 20

<210> 38

<400> 38
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<210> 39
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<212> DNA
<213> Homo sapiens

<400> 39
aagaggcgcg ggtagaag 18

<210> 40
<211> 19
<212> DNA
<213> Homo sapiens

<400> 40
agtcgctaga ggcgaaagc 19

<210> 41
<211> 21
<212> DNA
<213> Homo sapiens

<400> 41
actggaatgg ggatcgagc a 21

<210> 42
<211> 27
<212> DNA
<213> Homo sapiens

<400> 42
accctgatct tccattctct ctgtgcc 27

<210> 43
<211> 19
<212> DNA
<213> Homo sapiens

<400> 43
ctgcggttgc ggtgcctgc 19

<210> 44
<211> 20
<212> DNA
<213> Homo sapiens

820 Sequeunce listing_ST25.txt

<400> 44
agctggagat ggcggtgggc 20

<210> 45
<211> 23
<212> DNA
<213> Homo sapiens

<400> 45
tgaacaaaag acggaaggtg ctg 23

<210> 46
<211> 23
<212> DNA
<213> Homo sapiens

<400> 46
tctgatagga tgtgttggtt gca 23

<210> 47
<211> 22
<212> PRT
<213> Homo sapiens

<400> 47
Gly Gln Ser Arg Gly Gln Ser Arg Gly Arg Gly Arg Gly Arg Gly Arg
1 5 10 15

Gly Arg Gly Lys Gly Lys
20

<210> 48
<211> 20
<212> DNA
<213> Homo sapiens

<400> 48
agtactcgct gaggggtgaac 20

<210> 49
<211> 44
<212> DNA
<213> Homo sapiens

<400> 49
cgtacgcatt ccagtttgag agccccggcc ccggccccgg cccc 44