SEQUENCE LISTING

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<120> Kv1.3 antagonists and methods of use

<130> JBI5021WOPCT

<140> To Be Assigned
<141> 2014-01-24

<150> 61/757389
<151> 2013-01-28

<150> 61/756777
<151> 2013-01-25

<160> 433

<170> PatentIn version 3.5

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<212> PRT
<213> Odontobuthus doriae

<400> 1

Gly Val Pro Thr Asp Val Lys Cys Arg Gly Ser Pro Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
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<210> 2
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<212> PRT
<213> Orthochirus scrobiculosus

<400> 2

Gly Val Ile Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Leu Glu
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 3

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Glu Lys
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
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Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
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Cys Asp Cys Thr Pro Lys
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<400> 5

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Val Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

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<400> 6

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Ala Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 7

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Glu
35

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<400> 8

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Leu Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
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<400> 9

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

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

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<400> 10

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met His Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

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<400> 11

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Asp Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 12

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Glu Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
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Gly Val Pro Thr Asp Val Lys Cys Glu Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 14

Leu Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<212> PRT
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<400> 15

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Asp Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
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<210> 16
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<212> PRT
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<400> 16

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Asp Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 17

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

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 18
<211> 38
<212> PRT
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<400> 18

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Arg Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 19
<211> 38
<212> PRT
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<400> 19

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Lys Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 20

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Leu Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 21
<211> 38
<212> PRT
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<220>
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<400> 21

Gly Val Pro Thr Asp Val Lys Cys Ala Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys

35

<210> 22
<211> 38
<212> PRT
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<400> 22

Gly Val Pro Ile Asp Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 23
<211> 38
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<220>
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<400> 23

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Glu
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 24

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<400> 24

Gly Val Pro Thr Asp Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 25
<211> 38
<212> PRT
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<400> 25

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys Val Cys Thr Pro Lys
35

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<400> 26

Gly Val Pro Ile Asp Val Lys Cys Arg Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<220>
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<400> 27

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Ala Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 28
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<400> 28

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His Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1               5                   10                  15


Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20                  25                  30


Cys His Cys Thr Pro Lys
        35


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<213>  Artificial sequence

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<400>  29

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Gln Lys
1               5                   10                  15


Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20                  25                  30


Cys His Cys Thr Pro Lys
        35


<210>  30
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<400>  30

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Glu Gln Cys Leu Lys
1               5                   10                  15
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 31
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<400> 31

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Val Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 32
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<212> PRT
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<400> 32

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
35

<210> 33
<211> 38
<212> PRT
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<400> 33

Gly Val Pro Thr Asp Val Glu Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 34
<211> 38
<212> PRT
<213> Artificial sequence

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<400> 34

Gly Val Pro Thr Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 35
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<220>
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<400> 35

Gly Val Pro Ile Asp Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<220>
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<400> 36

Gly Val Ile Thr Asp Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 37

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Leu
35

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<400> 38

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys His Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 39
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<400> 39

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Leu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 40

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys Gln Cys Thr Pro Lys
35

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<400> 41

Val Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 42
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<400> 42

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 43
<211> 38
<212> PRT
<213> Artificial sequence

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<400> 43

Gly Val Pro Thr Asp Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 44

Gly Val Pro Ile Asn Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 45

Gly Val Pro Thr Asp Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys

35

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<213> Artificial sequence

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<400> 46

Gly Val Pro Ile Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 47
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<400> 47

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Gln Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<400> 48

Gly Val Pro Thr Asp Val Asp Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 49
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<400> 49

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Asp
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<220>
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<400> 50

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Leu Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 51
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<212> PRT
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<400> 51

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Val
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

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<211> 38
<212> PRT
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<400> 52

Asp Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 53
<211> 38
<212> PRT
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<220>
<223> Odk2 variant

<400> 53

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Asp Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

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<211> 38
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<400> 54

Gln Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

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<211> 38
<212> PRT
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<400> 55

Gly Val Pro Ile Asn Val Lys Cys Lys Gly Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 56
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<220>
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<400> 56

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Asp Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
        35

<210> 57
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<400> 57

Gly Val Pro Thr Asp Val Gln Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 58
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<400> 58

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr His Lys
        35

<210> 59
<211> 38
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<220>
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<400> 59

Gly Val Pro Thr Asp Val Lys Cys Gln Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 60
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 60

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Asp Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 61
<211> 38
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 61

Gly Val Pro Thr Asp Val Ala Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 62
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 62

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro His
35

<210> 63
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 63

Gly Val Pro Thr Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 64
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 64

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Asp
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 65
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<212> PRT
<213> Artificial sequence

<220>
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<400> 65

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Val Lys

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 66
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<213> Artificial sequence

<220>
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<400> 66

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Gln
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 67
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<212> PRT
<213> Artificial sequence

<220>
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<400> 67

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly His

20 25 30

Cys His Cys Thr Pro Lys
35

<210> 68
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 68

Gly Val Pro Thr Asp Ala Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 69
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<212> PRT
<213> Artificial sequence

<220>
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<400> 69

Gly Val Pro Ile Asp Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys

35

<210> 70
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<220>
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<400> 70

Gly Val Pro Thr Asp Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 71
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<212> PRT
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<223> Odk2 variant

<400> 71

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 72

<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 72

Gly Val Ile Thr Asp Val Lys Cys Arg Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 73
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 73

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 74
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 74

Gly Val Pro Thr Asp Val Leu Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 75
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 75

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Val Lys
        35

<210> 76
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 76

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Lys Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 77
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 77

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Arg Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 78
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 78

Gly Val Pro Gln Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 79
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 79

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala Glu Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 80
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 80

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1   5   10   15

Pro Cys Lys Asp Ala His Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 81
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 81

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Ala Lys
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 82
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 82

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 83
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 83

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 84
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 84

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 85
<211> 38
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 85

Gly Val Pro Thr Asn Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 86
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 86

Gly Val Ile Ile Asp Val Lys Cys Arg Gly Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys Asn Cys Thr Pro Lys
35

<210> 87
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 87

Gly Val Pro Thr Asn Val Lys Cys Arg Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 88
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 88

Gly Val Pro Thr Asn Val Lys Cys Lys Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 89
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 89

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Pro Gln Cys Ile Gln

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 90
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 90

Gly Val Pro Ile Asn Val Lys Cys Arg Ile Ser Pro Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 91
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 91

Ala Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys
35

<210> 92
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 92

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 93
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 93

Gly Val Val Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys

35

<210> 94
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 94

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Gln
35

<210> 95
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 95

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Glu Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 96

<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 96

Gly Val Pro Glu Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 97
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 97

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 98
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 98

Gly Val Pro Thr Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Gln
1   5   10   15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 99
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 99

Gly Val Pro Thr Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 100
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 100

Gly Val Pro Ile Asn Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 101
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 101

Gly Val Pro Ile Asn Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 102
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 102

Gly Val Pro Ile Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 103
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 103

Gly Val Pro Thr Asn Val Lys Cys Arg Ile Ser Arg Gln Cys Ile Gln
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 104
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 104

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Gln
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 105
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 105

Gly Val Ile Thr Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 106
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 106

Gly Val Pro Thr Asp Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Lys Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys
        35

<210> 107
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 107

Gly Val Pro Ile Asp Val Lys Cys Arg Ile Ser Pro Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 108
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 108

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu His
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 109
<211> 38
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 109

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Gln Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 110
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 110

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Leu Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 111
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 111

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Leu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys
35

<210> 112
<211> 38
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 112

Ala Ser Leu Asp Thr Thr Ala Glu Asn Gln Ala Lys Asn Glu His Leu
1 5 10 15

Gln Lys Glu Asn Glu Arg Leu Leu Arg Asp Trp Asn Asp Val Gln Gly
20 25 30

Arg Phe Glu Lys Gly Ser
35

<210> 113
<211> 30
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 113

Ala Ser Glu Lys Asn Lys Arg Ser Thr Pro Tyr Ile Glu Arg Ala Glu

1 5 10 15

Lys Asn Lys Arg Ser Thr Pro Tyr Ile Glu Arg Ala Gly Ser
20 25 30

<210> 114
<211> 43
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 114

Ala Ser Glu Lys Asn Lys Arg Ser Thr Pro Tyr Ile Glu Arg Ala Glu
1 5 10 15

Lys Asn Lys Arg Ser Thr Pro Tyr Ile Glu Arg Ala Glu Lys Asn Lys
20 25 30

Arg Ser Thr Pro Tyr Ile Glu Arg Ala Gly Ser
35 40

<210> 115
<211> 24
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 115

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

Ala Pro Ala Pro Ala Pro Gly Ser
20

<210> 116

<211> 44
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 116

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

Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro
20 25 30

Ala Pro Ala Pro Ala Pro Ala Pro Ala Pro Gly Ser
35 40

<210> 117
<211> 26
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 117

Ala Ser Ala Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala
1 5 10 15

Ala Lys Glu Ala Ala Ala Lys Ala Gly Ser
20 25

<210> 118
<211> 46
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 118

Ala Ser Ala Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala
1 5 10 15

Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala
20 25 30

Lys Glu Ala Ala Ala Lys Glu Ala Ala Ala Lys Ala Gly Ser
35 40 45

<210> 119
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 119

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1 5 10 15

Ser Gly Gly Gly Gly Ser
20

<210> 120
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 120

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1 5 10 15

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25 30

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        35   40

<210> 121
<211> 62
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 121

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1   5   10   15

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
            20   25   30

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
        35   40   45

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
    50   55   60

<210> 122
<211> 82
<212> PRT
<213> Artificial sequence

<220>
<223> Linker

<400> 122

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1   5   10   15

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
            20   25   30

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
35 40 45

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
50 55 60

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
65 70 75 80

Gly Ser

<210> 123
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 123

His Ala Ala Gly
1

<210> 124
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 124

Arg Arg Pro Thr
1

<210> 125
<211> 4
<212> PRT

<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 125

Ala Ser Lys Pro
1

<210> 126
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 126

Pro Lys Pro Gln
1

<210> 127
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 127

Gln Asp Gln Thr
1

<210> 128
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 128

Ala His Arg Pro
1

<210> 129
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 129

Gln Pro Thr His
1

<210> 130
<211> 4
<212> PRT
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<220>
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<400> 130

Arg Glu Gln Thr
1

<210> 131
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 131

Pro Pro Lys Pro
1

<210> 132

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

<220>
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<400> 132

Lys Gln Gly Ala
1

<210> 133
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 133

Thr Arg Pro Ala
1

<210> 134
<211> 4
<212> PRT
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<220>
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<400> 134

Ala Pro His Lys
1

<210> 135
<211> 4
<212> PRT
<213> Artificial sequence

<220>
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<400> 135

Arg Thr Glu His
1

<210> 136
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 136

Pro Thr His Thr
1

<210> 137
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 137

Arg Ala Glu Lys
1

<210> 138
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 138

Pro Ala Pro Ala
1

<210> 139
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 139

Ser His Arg Pro
1

<210> 140
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 140

Ser His Arg Pro
1

<210> 141
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 141

Pro Pro Thr Arg
1

<210> 142
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 142

His His Thr Thr
1

<210> 143
<211> 4
<212> PRT
<213> Artificial sequence

<220>
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<400> 143

His Arg Pro Ala
1

<210> 144
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 144

Lys Ala His Pro
1

<210> 145
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 145

Gln Thr Thr Gln

1

<210> 146
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 146

Pro Thr Pro Thr
1

<210> 147
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 147

Thr Gln Ala Pro
1

<210> 148
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 148

Arg Lys Pro His
1

<210> 149
<211> 4
<212> PRT

<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 149

His Thr Pro Pro
1

<210> 150
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 150

Thr Lys Pro Pro
1

<210> 151
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 151

Pro Arg Pro Thr
1

<210> 152
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 152

Lys Gln Thr Ala
1

<210> 153
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 153

Pro His Thr Pro
1

<210> 154
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 154

His Thr Pro Pro
1

<210> 155
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 155

His Ala Lys Pro
1

<210> 156

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

<220>
<223> C-terminal peptide extension

<400> 156

Thr Arg Arg Pro
1

<210> 157
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 157

Pro Thr Thr Pro
1

<210> 158
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 158

Arg Gln His Ala
1

<210> 159
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 159

Pro Thr Arg Pro
1

<210> 160
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 160

Pro Ala Pro His
1

<210> 161
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 161

Ala Asp Lys Pro
1

<210> 162
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 162

Pro His His Gln
1

<210> 163
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> C-terminal peptide extension

<400> 163

Gly Arg Arg Thr
1

<210> 164
<211> 4
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Asn His Arg Pro
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Asn His Gln Gly
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Thr Ala Pro Pro
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Arg His Pro His
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Pro Ser Arg Pro

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Pro Gln His Gln
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Pro Thr Gln His
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His Thr Lys Pro
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Arg Lys Lys Pro
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His Asn Arg Pro
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Pro Glu Lys Pro
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Arg Ala Gln Thr
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Pro Ala Ala Thr
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Arg Thr Glu Gln
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Glu Pro Arg Pro
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Thr Ala Thr His
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Ala Arg Pro Asp
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Ala His Pro His
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Ala Ala Pro Ser
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Arg Thr Arg Pro
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Thr Arg Arg Pro
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Arg Thr Pro Pro

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Glu Lys Pro Thr
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Gly His Thr Ala
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Pro Thr Lys Pro
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Pro Thr Thr Pro
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Thr Gly His Thr
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Gly Gly Pro Gln
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His Arg Arg Gln
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His Asn Ala Pro
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Asn Arg Arg Pro
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Gln Pro Gln Asp
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Ala Thr Arg Pro
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Asn Arg Pro Pro
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Arg Arg Arg Pro
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Ala His Arg His
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Ala Gln Arg Pro
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Thr Ser Asp Thr
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Arg Arg Pro Gly
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Gln Ser Lys Ala
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Ala Gly Pro Arg
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Arg Ser Arg Thr
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Arg His Lys Arg
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Asn Ala Ala Lys

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Ala Pro His Thr
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Gly Gly Lys Arg
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Arg Arg Glu Pro
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His Thr Arg Thr
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Asn His Arg Thr
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Pro Asn Arg Thr
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Pro Lys Thr Ala
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Thr Arg Arg Pro
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Arg His Asn Thr
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Thr Asp Ala Arg
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His Arg Gln Gln
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Asn Gln Arg Thr
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Arg Pro Arg His
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His Asn Glu Thr
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Ala Arg Asn Ala
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Thr Thr Arg Thr
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Ala Arg Arg Asn
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Ala Ser Asp Asn
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His Glu Arg Thr
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Thr Pro His Arg
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Arg Arg Thr Ala
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Asn Thr Arg Thr
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Pro Thr Thr Arg

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Gln Arg Asn Gly
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Ala His Arg Asn
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Pro Arg Ser Ala
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Gln Arg Gln Ser
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Gln Arg Arg Lys
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Ala Arg Ala Lys
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Arg Thr Arg Gln
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Ala Lys Arg Asp
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Asp Asp Gly Ala
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Arg Asp Lys Thr
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His Arg Arg Lys
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Arg Gln Thr Arg
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Pro Asn Arg Asp
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His Arg His Lys
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His Arg Asn Arg
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Arg Ala Lys Arg
1

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Gln Arg Thr Arg
1

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Ala Thr Arg His
1

<210> 260
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Ala Arg Arg Ser
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Ala Lys Thr Arg
1

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Asn Ala Arg Gln
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Asn Arg Gln Arg
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Pro Thr Asn Ala
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Thr Arg Thr Asp

1

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Ala Asp Thr Arg
1

<210> 267
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<400> 267

Thr Ser Arg Gln
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<210> 268
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<400> 268

Pro Arg Asn Thr
1

<210> 269
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<220>
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<400> 269

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Ala Ala Gly
35 40

<210> 270
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 270

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Arg Pro Thr
35 40

<210> 271
<211> 42
<212> PRT
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<220>
<223> Odk2 variant

<400> 271

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Ser Lys Pro
35 40

<210> 272
<211> 42
<212> PRT
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<220>
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<400> 272

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Lys Pro Gln
35 40

<210> 273
<211> 42
<212> PRT
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<220>
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<400> 273

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Asp Gln Thr
35 40

<210> 274
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<400> 274

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala His Arg Pro
35 40

<210> 275
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<400> 275

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys Gln Pro Thr His
35 40

<210> 276
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<400> 276

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Glu Gln Thr
35 40

<210> 277
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<212> PRT
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<220>
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<400> 277

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Pro Lys Pro

35 40

<210> 278
<211> 42
<212> PRT
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<220>
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<400> 278

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Lys Gln Gly Ala
35 40

<210> 279
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<400> 279

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
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Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Arg Pro Ala
35 40

<210> 280

<211> 42
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<220>
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<400> 280

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Pro His Lys
35 40

<210> 281
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<212> PRT
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<400> 281

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Thr Glu His
35 40

<210> 282
<211> 42
<212> PRT
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<220>
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<400> 282

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Pro Thr His Thr
        35   40

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<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 283

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Arg Ala Glu Lys
        35   40

<210> 284
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 284

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20 25 30

Cys His Cys Thr Pro Lys Pro Ala Pro Ala
        35 40

<210> 285
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 285

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20 25 30

Cys His Cys Thr Pro Lys Ser His Arg Pro
        35 40

<210> 286
<211> 42
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<220>
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<400> 286

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ser His Arg Pro
35 40

<210> 287
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 287

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Pro Thr Arg
35 40

<210> 288
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 288

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His His Thr Thr
35 40

<210> 289
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 289

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Arg Pro Ala
35 40

<210> 290
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 290

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Lys Ala His Pro
35 40

<210> 291
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 291

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Thr Thr Gln
35 40

<210> 292
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 292

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Pro Thr
35 40

<210> 293
<211> 42
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 293

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Gln Ala Pro
35 40

<210> 294
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 294

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Lys Pro His
35 40

<210> 295
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 295

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Thr Pro Pro
35 40

<210> 296
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 296

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Lys Pro Pro
35 40

<210> 297
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 297

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Arg Pro Thr
35 40

<210> 298
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 298

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Lys Gln Thr Ala
35 40

<210> 299
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 299

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys Pro His Thr Pro
35 40

<210> 300
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 300

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Thr Pro Pro
35 40

<210> 301
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 301

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Ala Lys Pro

35 40

<210> 302
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 302

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Arg Arg Pro
35 40

<210> 303
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 303

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Thr Pro
35 40

<210> 304

<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 304

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Gln His Ala
35 40

<210> 305
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 305

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Arg Pro
35 40

<210> 306
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 306

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Pro Ala Pro His
        35   40

<210> 307
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 307

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Ala Asp Lys Pro
        35   40

<210> 308
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 308

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro His His Gln
35 40

<210> 309
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 309

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gly Arg Arg Thr
35 40

<210> 310
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 310

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Pro Asp Ala
35 40

<210> 311
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 311

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn His Arg Pro
35 40

<210> 312
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 312

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn His Gln Gly
35 40

<210> 313
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 313

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Ala Pro Pro
35 40

<210> 314
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 314

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg His Pro His
35 40

<210> 315
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 315

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Ser Arg Pro
35 40

<210> 316
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 316

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Gln His Gln
35 40

<210> 317
<211> 42
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 317

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Gln His
35 40

<210> 318
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 318

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Thr Lys Pro
35 40

<210> 319
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 319

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Lys Lys Pro
35 40

<210> 320
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 320

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Asn Arg Pro
35 40

<210> 321
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 321

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Glu Lys Pro
35 40

<210> 322
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 322

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Ala Gln Thr
35 40

<210> 323
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 323

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys Pro Ala Ala Thr
35 40

<210> 324
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 324

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Thr Glu Gln
35 40

<210> 325
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 325

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Pro Ala Lys

35 40

<210> 326
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 326

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Glu Pro Arg Pro
35 40

<210> 327
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 327

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Ala Thr His
35 40

<210> 328

<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 328

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Arg Pro Asp
35 40

<210> 329
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 329

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala His Pro His
35 40

<210> 330
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 330

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Ala Ala Pro Ser
        35   40

<210> 331
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 331

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Arg Pro Arg Pro
        35   40

<210> 332
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 332

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Pro Asp Lys Pro
        35   40

<210> 333
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 333

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Thr Pro His Pro
        35   40

<210> 334
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 334

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Thr Arg Pro
35 40

<210> 335
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 335

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Gln Gln His
35 40

<210> 336
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 336

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Arg Arg Pro
35 40

<210> 337
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 337

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Arg Arg Pro
35 40

<210> 338
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 338

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Gln Pro Pro
35 40

<210> 339
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 339

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Thr Pro Pro
35 40

<210> 340
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 340

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Glu Lys Pro Thr
35 40

<210> 341
<211> 42
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 341

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gly His Thr Ala
35 40

<210> 342
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 342

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Lys Pro
35 40

<210> 343
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 343

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Thr Pro
35 40

<210> 344
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 344

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Gly His Thr
35 40

<210> 345
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 345

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gly Gly Pro Gln
35 40

<210> 346
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 346

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Arg Arg Gln
35 40

<210> 347
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 347

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys His Asn Ala Pro
35 40

<210> 348
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 348

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Gln Pro Gln
35 40

<210> 349
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 349

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Arg Arg Pro

35 40

<210> 350
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 350

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Ala Ala Pro
35 40

<210> 351
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 351

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Pro Gln Asp
35 40

<210> 352

<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 352

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Thr Arg Pro
35 40

<210> 353
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 353

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Arg Pro Pro
35 40

<210> 354
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 354

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Arg Arg Pro
35 40

<210> 355
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 355

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala His Arg His
35 40

<210> 356
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 356

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Ala Gln Arg Pro
        35   40

<210> 357
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 357

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Thr Ser Asp Thr
        35   40

<210> 358
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 358

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Arg Pro Gly
35 40

<210> 359
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 359

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Ser Lys Ala
35 40

<210> 360
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 360

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Gly Pro Arg
35 40

<210> 361
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 361

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Ser Arg Thr
35 40

<210> 362
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 362

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg His Lys Arg
35 40

<210> 363
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 363

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Ala Ala Lys
35 40

<210> 364
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 364

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Pro His Thr
35 40

<210> 365
<211> 42
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 365

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gly Gly Lys Arg
35 40

<210> 366
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 366

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Arg Glu Pro
35 40

<210> 367
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 367

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Thr Arg Thr
35 40

<210> 368
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 368

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn His Arg Thr
35 40

<210> 369
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 369

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Asn Arg Thr
35 40

<210> 370
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 370

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Lys Thr Ala
35 40

<210> 371
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 371

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys Thr Arg Arg Pro
35 40

<210> 372
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 372

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg His Asn Thr
35 40

<210> 373
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 373

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Asp Ala Arg

35 40

<210> 374
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 374

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Arg Gln Gln
35 40

<210> 375
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 375

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Gln Arg Thr
35 40

<210> 376

<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 376

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Pro Arg His
35 40

<210> 377
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 377

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Asn Glu Thr
35 40

<210> 378
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 378

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Ala Arg Asn Ala
        35   40

<210> 379
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 379

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1   5   10   15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
            20   25   30

Cys His Cys Thr Pro Lys Thr Thr Arg Thr
        35   40

<210> 380
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 380

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Arg Arg Asn
35 40

<210> 381
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 381

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Gly Arg Lys
35 40

<210> 382
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 382

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Ser Asp Asn
35 40

<210> 383
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 383

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Glu Arg Thr
35 40

<210> 384
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 384

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Pro His Arg
35 40

<210> 385
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 385

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Arg Thr Ala
35 40

<210> 386
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 386

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Thr Arg Thr
35 40

<210> 387
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 387

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Thr Arg
35 40

<210> 388
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 388

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Arg Asn Gly
35 40

<210> 389
<211> 42
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 389

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala His Arg Asn
35 40

<210> 390
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 390

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Arg Ser Ala
35 40

<210> 391
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 391

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Arg Gln Ser
35 40

<210> 392
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 392

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Arg Arg Lys
35 40

<210> 393
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 393

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Arg Ala Lys
35 40

<210> 394
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 394

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Thr Arg Gln
35 40

<210> 395
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 395

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys

20 25 30

Cys His Cys Thr Pro Lys Ala Lys Arg Asp
35 40

<210> 396
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 396

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asp Asp Gly Ala
35 40

<210> 397
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 397

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Asp Lys Thr

35 40

<210> 398
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 398

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Arg Arg Lys
35 40

<210> 399
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 399

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Gln Thr Arg
35 40

<210> 400

<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 400

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Asn Arg Asp
35 40

<210> 401
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 401

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Arg His Lys
35 40

<210> 402
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 402

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys His Arg Asn Arg
35 40

<210> 403
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 403

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Arg Ala Lys Arg
35 40

<210> 404
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 404

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gln Arg Thr Arg
35 40

<210> 405
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 405

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Thr Arg His
35 40

<210> 406
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 406

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Arg Arg Ser
35 40

<210> 407
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 407

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Lys Thr Arg
35 40

<210> 408
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 408

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Ala Arg Gln
35 40

<210> 409
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 409

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Asn Arg Gln Arg
35 40

<210> 410
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 410

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Thr Asn Ala
35 40

<210> 411
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 411

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Arg Thr Asp
35 40

<210> 412
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 412

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Asp Thr Arg
35 40

<210> 413
<211> 42
<212> PRT

<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 413

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Ser Arg Gln
35 40

<210> 414
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 414

Gly Val Pro Ile Asn Val Lys Cys Lys Ile Ser Arg Gln Cys Ile Glu
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Pro Arg Asn Thr
35 40

<210> 415
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 415

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Glu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala His Arg His
35 40

<210> 416
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 416

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Glu Lys
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Thr Gly Arg Lys
35 40

<210> 417
<211> 42
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<400> 417

Gly Val Pro Thr Asp Val Lys Cys Arg Ile Ser Arg Gln Cys Glu Lys

1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Ala Arg Arg Asn
35 40

<210> 418
<211> 575
<212> PRT
<213> Homo sapiens

<400> 418

Met Asp Glu Arg Leu Ser Leu Leu Arg Ser Pro Pro Pro Pro Ser Ala
1 5 10 15

Arg His Arg Ala His Pro Pro Gln Arg Pro Ala Ser Ser Gly Gly Ala
20 25 30

His Thr Leu Val Asn His Gly Tyr Ala Glu Pro Ala Ala Gly Arg Glu
35 40 45

Leu Pro Pro Asp Met Thr Val Val Pro Gly Asp His Leu Leu Glu Pro
50 55 60

Glu Val Ala Asp Gly Gly Gly Ala Pro Pro Gln Gly Gly Cys Gly Gly
65 70 75 80

Gly Gly Cys Asp Arg Tyr Glu Pro Leu Pro Pro Ser Leu Pro Ala Ala
85 90 95

Gly Glu Gln Asp Cys Cys Gly Glu Arg Val Val Ile Asn Ile Ser Gly
100 105 110

Leu Arg Phe Glu Thr Gln Leu Lys Thr Leu Cys Gln Phe Pro Glu Thr
115 120 125

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Leu Leu Gly Asp Pro Lys Arg Arg Met Arg Tyr Phe Asp Pro Leu Arg
    130                 135                 140

Asn Glu Tyr Phe Phe Asp Arg Asn Arg Pro Ser Phe Asp Ala Ile Leu
145                 150                 155                 160

Tyr Tyr Tyr Gln Ser Gly Gly Arg Ile Arg Arg Pro Val Asn Val Pro
                165                 170                 175

Ile Asp Ile Phe Ser Glu Glu Ile Arg Phe Tyr Gln Leu Gly Glu Glu
            180                 185                 190

Ala Met Glu Lys Phe Arg Glu Asp Glu Gly Phe Leu Arg Glu Glu Glu
        195                 200                 205

Arg Pro Leu Pro Arg Arg Asp Phe Gln Arg Gln Val Trp Leu Leu Phe
    210                 215                 220

Glu Tyr Pro Glu Ser Ser Gly Pro Ala Arg Gly Ile Ala Ile Val Ser
225                 230                 235                 240

Val Leu Val Ile Leu Ile Ser Ile Val Ile Phe Cys Leu Glu Thr Leu
                245                 250                 255

Pro Glu Phe Arg Asp Glu Lys Asp Tyr Pro Ala Ser Thr Ser Gln Asp
            260                 265                 270

Ser Phe Glu Ala Ala Gly Asn Ser Thr Ser Gly Ser Arg Ala Gly Ala
        275                 280                 285

Ser Ser Phe Ser Asp Pro Phe Phe Val Val Glu Thr Leu Cys Ile Ile
    290                 295                 300

Trp Phe Ser Phe Glu Leu Leu Val Arg Phe Phe Ala Cys Pro Ser Lys
305                 310                 315                 320
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Ala Thr Phe Ser Arg Asn Ile Met Asn Leu Ile Asp Ile Val Ala Ile
                325                 330                 335

Ile Pro Tyr Phe Ile Thr Leu Gly Thr Glu Leu Ala Glu Arg Gln Gly
            340                 345                 350

Asn Gly Gln Gln Ala Met Ser Leu Ala Ile Leu Arg Val Ile Arg Leu
        355                 360                 365

Val Arg Val Phe Arg Ile Phe Lys Leu Ser Arg His Ser Lys Gly Leu
    370                 375                 380

Gln Ile Leu Gly Gln Thr Leu Lys Ala Ser Met Arg Glu Leu Gly Leu
385                 390                 395                 400

Leu Ile Phe Phe Leu Phe Ile Gly Val Ile Leu Phe Ser Ser Ala Val
                405                 410                 415

Tyr Phe Ala Glu Ala Asp Asp Pro Thr Ser Gly Phe Ser Ser Ile Pro
            420                 425                 430

Asp Ala Phe Trp Trp Ala Val Val Thr Met Thr Thr Val Gly Tyr Gly
        435                 440                 445

Asp Met His Pro Val Thr Ile Gly Gly Lys Ile Val Gly Ser Leu Cys
    450                 455                 460

Ala Ile Ala Gly Val Leu Thr Ile Ala Leu Pro Val Pro Val Ile Val
465                 470                 475                 480

Ser Asn Phe Asn Tyr Phe Tyr His Arg Glu Thr Glu Gly Glu Glu Gln
                485                 490                 495

Ser Gln Tyr Met His Val Gly Ser Cys Gln His Leu Ser Ser Ser Ala
            500                 505                 510
```

Glu Glu Leu Arg Lys Ala Arg Ser Asn Ser Thr Leu Ser Lys Ser Glu
515 520 525

Tyr Met Val Ile Glu Glu Gly Gly Met Asn His Ser Ala Phe Pro Gln
530 535 540

Thr Pro Phe Lys Thr Gly Asn Ser Thr Ala Thr Cys Thr Thr Asn Asn
545 550 555 560

Asn Pro Asn Ser Cys Val Asn Ile Lys Lys Ile Phe Thr Asp Val
565 570 575

<210> 419
<211> 499
<212> PRT
<213> Homo sapiens

<400> 419

Met Thr Val Ala Thr Gly Asp Pro Ala Asp Glu Ala Ala Ala Leu Pro
1 5 10 15

Gly His Pro Gln Asp Thr Tyr Asp Pro Glu Ala Asp His Glu Cys Cys
20 25 30

Glu Arg Val Val Ile Asn Ile Ser Gly Leu Arg Phe Glu Thr Gln Leu
35 40 45

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

Arg Met Arg Tyr Phe Asp Pro Leu Arg Asn Glu Tyr Phe Phe Asp Arg
65 70 75 80

Asn Arg Pro Ser Phe Asp Ala Ile Leu Tyr Tyr Tyr Gln Ser Gly Gly
85 90 95

```
Arg Leu Arg Arg Pro Val Asn Val Pro Leu Asp Ile Phe Ser Glu Glu
            100                 105                 110

Ile Arg Phe Tyr Glu Leu Gly Glu Glu Ala Met Glu Met Phe Arg Glu
        115                 120                 125

Asp Glu Gly Tyr Ile Lys Glu Glu Glu Arg Pro Leu Pro Glu Asn Glu
    130                 135                 140

Phe Gln Arg Gln Val Trp Leu Leu Phe Glu Tyr Pro Glu Ser Ser Gly
145                 150                 155                 160

Pro Ala Arg Ile Ile Ala Ile Val Ser Val Met Val Ile Leu Ile Ser
                165                 170                 175

Ile Val Ser Phe Cys Leu Glu Thr Leu Pro Ile Phe Arg Asp Glu Asn
            180                 185                 190

Glu Asp Met His Gly Ser Gly Val Thr Phe His Thr Tyr Ser Asn Ser
        195                 200                 205

Thr Ile Gly Tyr Gln Gln Ser Thr Ser Phe Thr Asp Pro Phe Phe Ile
    210                 215                 220

Val Glu Thr Leu Cys Ile Ile Trp Phe Ser Phe Glu Phe Leu Val Arg
225                 230                 235                 240

Phe Phe Ala Cys Pro Ser Lys Ala Gly Phe Phe Thr Asn Ile Met Asn
                245                 250                 255

Ile Ile Asp Ile Val Ala Ile Ile Pro Tyr Phe Ile Thr Leu Gly Thr
            260                 265                 270

Glu Leu Ala Glu Lys Pro Glu Asp Ala Gln Gln Gly Gln Gln Ala Met
        275                 280                 285
```

```
Ser Leu Ala Ile Leu Arg Val Ile Arg Leu Val Arg Val Phe Arg Ile
    290                 295                 300

Phe Lys Leu Ser Arg His Ser Lys Gly Leu Gln Ile Leu Gly Gln Thr
305                 310                 315                 320

Leu Lys Ala Ser Met Arg Glu Leu Gly Leu Leu Ile Phe Phe Leu Phe
                325                 330                 335

Ile Gly Val Ile Leu Phe Ser Ser Ala Val Tyr Phe Ala Glu Ala Asp
            340                 345                 350

Glu Arg Glu Ser Gln Phe Pro Ser Ile Pro Asp Ala Phe Trp Trp Ala
        355                 360                 365

Val Val Ser Met Thr Thr Val Gly Tyr Gly Asp Met Val Pro Thr Thr
    370                 375                 380

Ile Gly Gly Lys Ile Val Gly Ser Leu Cys Ala Ile Ala Gly Val Leu
385                 390                 395                 400

Thr Ile Ala Leu Pro Val Pro Val Ile Val Ser Asn Phe Asn Tyr Phe
                405                 410                 415

Tyr His Arg Glu Thr Glu Gly Glu Glu Gln Ala Gln Tyr Leu Gln Val
            420                 425                 430

Thr Ser Cys Pro Lys Ile Pro Ser Ser Pro Asp Leu Lys Lys Ser Arg
        435                 440                 445

Ser Ala Ser Thr Ile Ser Lys Ser Asp Tyr Met Glu Ile Gln Glu Gly
    450                 455                 460

Val Asn Asn Ser Asn Glu Asp Phe Arg Glu Glu Asn Leu Lys Thr Ala
465                 470                 475                 480
```

Asn Cys Thr Leu Ala Asn Thr Asn Tyr Val Asn Ile Thr Lys Met Leu
485 490 495

Thr Asp Val

<210> 420
<211> 495
<212> PRT
<213> Homo sapiens

<400> 420

Met Thr Val Met Ser Gly Glu Asn Val Asp Glu Ala Ser Ala Ala Pro
1 5 10 15

Gly His Pro Gln Asp Gly Ser Tyr Pro Arg Gln Ala Asp His Asp Asp
20 25 30

His Glu Cys Cys Glu Arg Val Val Ile Asn Ile Ser Gly Leu Arg Phe
35 40 45

Glu Thr Gln Leu Lys Thr Leu Ala Gln Phe Pro Asn Thr Leu Leu Gly
50 55 60

Asn Pro Lys Lys Arg Met Arg Tyr Phe Asp Pro Leu Arg Asn Glu Tyr
65 70 75 80

Phe Phe Asp Arg Asn Arg Pro Ser Phe Asp Ala Ile Leu Tyr Tyr Tyr
85 90 95

Gln Ser Gly Gly Arg Leu Arg Arg Pro Val Asn Val Pro Leu Asp Met
100 105 110

Phe Ser Glu Glu Ile Lys Phe Tyr Glu Leu Gly Glu Glu Ala Met Glu
115 120 125

```
Lys Phe Arg Glu Asp Glu Gly Phe Ile Lys Glu Glu Glu Arg Pro Leu
    130                 135                 140

Pro Glu Lys Glu Tyr Gln Arg Gln Val Trp Leu Leu Phe Glu Tyr Pro
145                 150                 155                 160

Glu Ser Ser Gly Pro Ala Arg Val Ile Ala Ile Val Ser Val Met Val
                165                 170                 175

Ile Leu Ile Ser Ile Val Ile Phe Cys Leu Glu Thr Leu Pro Glu Leu
            180                 185                 190

Lys Asp Asp Lys Asp Phe Thr Gly Thr Val His Arg Ile Asp Asn Thr
        195                 200                 205

Thr Val Ile Tyr Asn Ser Asn Ile Phe Thr Asp Pro Phe Phe Ile Val
    210                 215                 220

Glu Thr Leu Cys Ile Ile Trp Phe Ser Phe Glu Leu Val Val Arg Phe
225                 230                 235                 240

Phe Ala Cys Pro Ser Lys Thr Asp Phe Phe Lys Asn Ile Met Asn Phe
                245                 250                 255

Ile Asp Ile Val Ala Ile Ile Pro Tyr Phe Ile Thr Leu Gly Thr Glu
            260                 265                 270

Ile Ala Glu Gln Glu Gly Asn Gln Lys Gly Glu Gln Ala Thr Ser Leu
        275                 280                 285

Ala Ile Leu Arg Val Ile Arg Leu Val Arg Val Phe Arg Ile Phe Lys
    290                 295                 300

Leu Ser Arg His Ser Lys Gly Leu Gln Ile Leu Gly Gln Thr Leu Lys
305                 310                 315                 320
```

```
Ala Ser Met Arg Glu Leu Gly Leu Leu Ile Phe Phe Leu Phe Ile Gly
                325                 330                 335

Val Ile Leu Phe Ser Ser Ala Val Tyr Phe Ala Glu Ala Glu Glu Ala
            340                 345                 350

Glu Ser His Phe Ser Ser Ile Pro Asp Ala Phe Trp Trp Ala Val Val
        355                 360                 365

Ser Met Thr Thr Val Gly Tyr Gly Asp Met Tyr Pro Val Thr Ile Gly
    370                 375                 380

Gly Lys Ile Val Gly Ser Leu Cys Ala Ile Ala Gly Val Leu Thr Ile
385                 390                 395                 400

Ala Leu Pro Val Pro Val Ile Val Ser Asn Phe Asn Tyr Phe Tyr His
                405                 410                 415

Arg Glu Thr Glu Gly Glu Glu Gln Ala Gln Leu Leu His Val Ser Ser
            420                 425                 430

Pro Asn Leu Ala Ser Asp Ser Asp Leu Ser Arg Arg Ser Ser Ser Thr
        435                 440                 445

Met Ser Lys Ser Glu Tyr Met Glu Ile Glu Glu Asp Met Asn Asn Ser
    450                 455                 460

Ile Ala His Tyr Arg Gln Val Asn Ile Arg Thr Ala Asn Cys Thr Thr
465                 470                 475                 480

Ala Asn Gln Asn Cys Val Asn Lys Ser Lys Leu Leu Thr Asp Val
                485                 490                 495
```

<210> 421
<211> 613
<212> PRT
<213> Homo sapiens

<400> 421

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

Arg Gly Gly Asp Glu Ala Arg Ala Gly Cys Gly Gln Ala Thr Gly Gly
            20                  25                  30

Glu Leu Gln Cys Pro Pro Thr Ala Gly Leu Ser Asp Gly Pro Lys Glu
        35                  40                  45

Pro Ala Pro Lys Gly Arg Gly Ala Gln Arg Asp Ala Asp Ser Gly Val
    50                  55                  60

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

Leu Pro Glu Glu Leu Pro Arg Pro Arg Arg Pro Pro Pro Glu Asp Glu
                85                  90                  95

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

Gly Thr Ala Ser Leu His His Gln Arg Val His Ile Asn Ile Ser Gly
        115                 120                 125

Leu Arg Phe Glu Thr Gln Leu Gly Thr Leu Ala Gln Phe Pro Asn Thr
    130                 135                 140

Leu Leu Gly Asp Pro Ala Lys Arg Leu Arg Tyr Phe Asp Pro Leu Arg
145                 150                 155                 160

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

Tyr Tyr Tyr Gln Ser Gly Gly Arg Leu Arg Arg Pro Val Asn Val Ser
```

```
            180                 185                 190

Leu Asp Val Phe Ala Asp Glu Ile Arg Phe Tyr Gln Leu Gly Asp Glu
        195                 200                 205

Ala Met Glu Arg Phe Arg Glu Asp Glu Gly Phe Ile Lys Glu Glu Glu
    210                 215                 220

Lys Pro Leu Pro Arg Asn Glu Phe Gln Arg Gln Val Trp Leu Ile Phe
225                 230                 235                 240

Glu Tyr Pro Glu Ser Ser Gly Ser Ala Arg Ala Ile Ala Ile Val Ser
                245                 250                 255

Val Leu Val Ile Leu Ile Ser Ile Ile Thr Phe Cys Leu Glu Thr Leu
            260                 265                 270

Pro Glu Phe Arg Asp Glu Arg Glu Leu Leu Arg His Pro Pro Ala Pro
        275                 280                 285

His Gln Pro Pro Ala Pro Ala Pro Gly Ala Asn Gly Ser Gly Val Met
    290                 295                 300

Ala Pro Pro Ser Gly Pro Thr Val Ala Pro Leu Leu Pro Arg Thr Leu
305                 310                 315                 320

Ala Asp Pro Phe Phe Ile Val Glu Thr Thr Cys Val Ile Trp Phe Thr
                325                 330                 335

Phe Glu Leu Leu Val Arg Phe Phe Ala Cys Pro Ser Lys Ala Gly Phe
            340                 345                 350

Ser Arg Asn Ile Met Asn Ile Ile Asp Val Val Ala Ile Phe Pro Tyr
        355                 360                 365

Phe Ile Thr Leu Gly Thr Glu Leu Ala Glu Gln Gln Pro Gly Gly Gly
```

```
    370                 375                 380

Gly Gly Gly Gln Asn Gly Gln Gln Ala Met Ser Leu Ala Ile Leu Arg
385                 390                 395                 400

Val Ile Arg Leu Val Arg Val Phe Arg Ile Phe Lys Leu Ser Arg His
                405                 410                 415

Ser Lys Gly Leu Gln Ile Leu Gly Lys Thr Leu Gln Ala Ser Met Arg
            420                 425                 430

Glu Leu Gly Leu Leu Ile Phe Phe Leu Phe Ile Gly Val Ile Leu Phe
        435                 440                 445

Ser Ser Ala Val Tyr Phe Ala Glu Ala Asp Asn Gln Gly Thr His Phe
    450                 455                 460

Ser Ser Ile Pro Asp Ala Phe Trp Trp Ala Val Val Thr Met Thr Thr
465                 470                 475                 480

Val Gly Tyr Gly Asp Met Arg Pro Ile Thr Val Gly Gly Lys Ile Val
                485                 490                 495

Gly Ser Leu Cys Ala Ile Ala Gly Val Leu Thr Ile Ala Leu Pro Val
            500                 505                 510

Pro Val Ile Val Ser Asn Phe Asn Tyr Phe Tyr His Arg Glu Thr Asp
        515                 520                 525

His Glu Glu Pro Ala Val Leu Lys Glu Glu Gln Gly Thr Gln Ser Gln
    530                 535                 540

Gly Pro Gly Leu Asp Arg Gly Val Gln Arg Lys Val Ser Gly Ser Arg
545                 550                 555                 560

Gly Ser Phe Cys Lys Ala Gly Gly Thr Leu Glu Asn Ala Asp Ser Ala
```

565 570 575

Arg Arg Gly Ser Cys Pro Leu Glu Lys Cys Asn Val Lys Ala Lys Ser
580 585 590

Asn Val Asp Leu Arg Arg Ser Leu Tyr Ala Leu Cys Leu Asp Thr Ser
595 600 605

Arg Glu Thr Asp Leu
610

<210> 422
<211> 525
<212> PRT
<213> Rattus norvegius

<400> 422

Met Thr Val Val Pro Gly Asp His Leu Leu Glu Pro Glu Ala Ala Gly
1 5 10 15

Gly Gly Gly Gly Asp Pro Pro Gln Gly Gly Cys Val Ser Gly Gly Gly
20 25 30

Cys Asp Arg Tyr Glu Pro Leu Pro Pro Ala Leu Pro Ala Ala Gly Glu
35 40 45

Gln Asp Cys Cys Gly Glu Arg Val Val Ile Asn Ile Ser Gly Leu Arg
50 55 60

Phe Glu Thr Gln Leu Lys Thr Leu Cys Gln Phe Pro Glu Thr Leu Leu
65 70 75 80

Gly Asp Pro Lys Arg Arg Met Arg Tyr Phe Asp Pro Leu Arg Asn Glu
85 90 95

Tyr Phe Phe Asp Arg Asn Arg Pro Ser Phe Asp Ala Ile Leu Tyr Tyr
100 105 110

```
Tyr Gln Ser Gly Gly Arg Ile Arg Arg Pro Val Asn Val Pro Ile Asp
        115                 120                 125

Ile Phe Ser Glu Glu Ile Arg Phe Tyr Gln Leu Gly Glu Glu Ala Met
    130                 135                 140

Glu Lys Phe Arg Glu Asp Glu Gly Phe Leu Arg Glu Glu Glu Arg Pro
145                 150                 155                 160

Leu Pro Arg Arg Asp Phe Gln Arg Gln Val Trp Leu Leu Phe Glu Tyr
                165                 170                 175

Pro Glu Ser Ser Gly Pro Ala Arg Gly Ile Ala Ile Val Ser Val Leu
            180                 185                 190

Val Ile Leu Ile Ser Ile Val Ile Phe Cys Leu Glu Thr Leu Pro Glu
        195                 200                 205

Phe Arg Asp Glu Lys Asp Tyr Pro Ala Ser Pro Ser Gln Asp Val Phe
    210                 215                 220

Glu Ala Ala Asn Asn Ser Thr Ser Gly Ala Ser Ser Gly Ala Ser Ser
225                 230                 235                 240

Phe Ser Asp Pro Phe Phe Val Val Glu Thr Leu Cys Ile Ile Trp Phe
                245                 250                 255

Ser Phe Glu Leu Leu Val Arg Phe Phe Ala Cys Pro Ser Lys Ala Thr
            260                 265                 270

Phe Ser Arg Asn Ile Met Asn Leu Ile Asp Ile Val Ala Ile Ile Pro
        275                 280                 285

Tyr Phe Ile Thr Leu Gly Thr Glu Leu Ala Glu Arg Gln Gly Asn Gly
    290                 295                 300
```

```
Gln Gln Ala Met Ser Leu Ala Ile Leu Arg Val Ile Arg Leu Val Arg
305                 310                 315                 320

Val Phe Arg Ile Phe Lys Leu Ser Arg His Ser Lys Gly Leu Gln Ile
                325                 330                 335

Leu Gly Gln Thr Leu Lys Ala Ser Met Arg Glu Leu Gly Leu Leu Ile
            340                 345                 350

Phe Phe Leu Phe Ile Gly Val Ile Leu Phe Ser Ser Ala Val Tyr Phe
        355                 360                 365

Ala Glu Ala Asp Asp Pro Ser Ser Gly Phe Asn Ser Ile Pro Asp Ala
    370                 375                 380

Phe Trp Trp Ala Val Val Thr Met Thr Thr Val Gly Tyr Gly Asp Met
385                 390                 395                 400

His Pro Val Thr Ile Gly Gly Lys Ile Val Gly Ser Leu Cys Ala Ile
                405                 410                 415

Ala Gly Val Leu Thr Ile Ala Leu Pro Val Pro Val Ile Val Ser Asn
            420                 425                 430

Phe Asn Tyr Phe Tyr His Arg Glu Thr Glu Gly Glu Glu Gln Ala Gln
        435                 440                 445

Tyr Met His Val Gly Ser Cys Gln His Leu Ser Ser Ser Ala Glu Glu
    450                 455                 460

Leu Arg Lys Ala Arg Ser Asn Ser Thr Leu Ser Lys Ser Glu Tyr Met
465                 470                 475                 480

Val Ile Glu Glu Gly Gly Met Asn His Ser Ala Phe Pro Gln Thr Pro
                485                 490                 495
```

Phe Lys Thr Gly Asn Ser Thr Ala Thr Cys Thr Thr Asn Asn Asn Pro
500 505 510

Asn Ser Cys Val Asn Ile Lys Lys Ile Phe Thr Asp Val
515 520 525

<210> 423
<211> 495
<212> PRT
<213> Rattus norvegius

<400> 423

Met Thr Val Met Ser Gly Glu Asn Ala Asp Glu Ala Ser Ala Ala Pro
1 5 10 15

Gly His Pro Gln Asp Gly Ser Tyr Pro Arg Gln Ala Asp His Asp Asp
20 25 30

His Glu Cys Cys Glu Arg Val Val Ile Asn Ile Ser Gly Leu Arg Phe
35 40 45

Glu Thr Gln Leu Lys Thr Leu Ala Gln Phe Pro Asn Thr Leu Leu Gly
50 55 60

Asn Pro Lys Lys Arg Met Arg Tyr Phe Asp Pro Leu Arg Asn Glu Tyr
65 70 75 80

Phe Phe Asp Arg Asn Arg Pro Ser Phe Asp Ala Ile Leu Tyr Tyr Tyr
85 90 95

Gln Ser Gly Gly Arg Leu Arg Arg Pro Val Asn Val Pro Leu Asp Met
100 105 110

Phe Ser Glu Glu Ile Lys Phe Tyr Glu Leu Gly Glu Glu Ala Met Glu
115 120 125

```
Lys Phe Arg Glu Asp Glu Gly Phe Ile Lys Glu Glu Glu Arg Pro Leu
    130                 135                 140


Pro Glu Lys Glu Tyr Gln Arg Gln Val Trp Leu Leu Phe Glu Tyr Pro
145                 150                 155                 160


Glu Ser Ser Gly Pro Ala Arg Val Ile Ala Ile Val Ser Val Met Val
                165                 170                 175


Ile Leu Ile Ser Ile Val Ile Phe Cys Leu Glu Thr Leu Pro Glu Leu
            180                 185                 190


Lys Asp Asp Lys Asp Phe Thr Gly Thr Ile His Arg Ile Asp Asn Thr
        195                 200                 205


Thr Val Ile Tyr Thr Ser Asn Ile Phe Thr Asp Pro Phe Phe Ile Val
    210                 215                 220


Glu Thr Leu Cys Ile Ile Trp Phe Ser Phe Glu Leu Val Val Arg Phe
225                 230                 235                 240


Phe Ala Cys Pro Ser Lys Thr Asp Phe Phe Lys Asn Ile Met Asn Phe
                245                 250                 255


Ile Asp Ile Val Ala Ile Ile Pro Tyr Phe Ile Thr Leu Gly Thr Glu
            260                 265                 270


Ile Ala Glu Gln Glu Gly Asn Gln Lys Gly Glu Gln Ala Thr Ser Leu
        275                 280                 285


Ala Ile Leu Arg Val Ile Arg Leu Val Arg Val Phe Arg Ile Phe Lys
    290                 295                 300


Leu Ser Arg His Ser Lys Gly Leu Gln Ile Leu Gly Gln Thr Leu Lys
305                 310                 315                 320
```

```
Ala Ser Met Arg Glu Leu Gly Leu Leu Ile Phe Phe Leu Phe Ile Gly
                325                 330                 335


Val Ile Leu Phe Ser Ser Ala Val Tyr Phe Ala Glu Ala Glu Glu Ala
            340                 345                 350


Glu Ser His Phe Ser Ser Ile Pro Asp Ala Phe Trp Trp Ala Val Val
        355                 360                 365


Ser Met Thr Thr Val Gly Tyr Gly Asp Met Tyr Pro Val Thr Ile Gly
    370                 375                 380


Gly Lys Ile Val Gly Ser Leu Cys Ala Ile Ala Gly Val Leu Thr Ile
385                 390                 395                 400


Ala Leu Pro Val Pro Val Ile Val Ser Asn Phe Asn Tyr Phe Tyr His
                405                 410                 415


Arg Glu Thr Glu Gly Glu Glu Gln Ala Gln Leu Leu His Val Ser Ser
            420                 425                 430


Pro Asn Leu Ala Ser Asp Ser Asp Leu Ser Arg Arg Ser Ser Ser Thr
        435                 440                 445


Ile Ser Lys Ser Glu Tyr Met Glu Ile Glu Glu Asp Met Asn Asn Ser
    450                 455                 460


Ile Ala His Tyr Arg Gln Ala Asn Ile Arg Thr Gly Asn Cys Thr Ala
465                 470                 475                 480


Thr Asp Gln Asn Cys Val Asn Lys Ser Lys Leu Leu Thr Asp Val
                485                 490                 495


<210>  424
<211>  575
<212>  PRT
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<213> Papio cynocephalus

<400> 424

```
Met Asp Glu His Leu Ser Leu Leu Arg Ser Pro Pro Pro Pro Ser Ala
1               5                  10                  15

Arg His Arg Ala His Pro Ala Gln Arg Pro Ala Ser Ser Gly Gly Ala
            20                  25                  30

His Thr Leu Val Asn Pro Gly Tyr Ala Glu Pro Ala Ala Gly Pro Glu
        35                  40                  45

Leu Pro Pro Asp Met Thr Val Val Pro Gly Asp His Leu Leu Glu Pro
    50                  55                  60

Glu Val Ala Asp Gly Gly Gly Ala Pro Pro Gln Gly Gly Cys Gly Gly
65                  70                  75                  80

Gly Gly Cys Asp Arg Tyr Glu Pro Leu Pro Pro Ser Leu Pro Ala Ala
                85                  90                  95

Gly Glu Gln Asp Cys Cys Gly Glu Arg Val Val Ile Asn Ile Ser Gly
            100                 105                 110

Leu Arg Phe Glu Thr Gln Leu Lys Thr Leu Cys Gln Phe Pro Glu Thr
        115                 120                 125

Leu Leu Gly Asp Pro Lys Arg Arg Met Arg Tyr Phe Asp Pro Leu Arg
    130                 135                 140

Asn Glu Tyr Phe Phe Asp Arg Asn Arg Pro Ser Phe Asp Ala Ile Leu
145                 150                 155                 160

Tyr Tyr Tyr Gln Ser Gly Gly Arg Ile Arg Arg Pro Val Asn Val Pro
                165                 170                 175
```

```
Ile Asp Ile Phe Ser Glu Glu Ile Arg Phe Tyr Gln Leu Gly Glu Glu
            180                 185                 190


Ala Met Glu Lys Phe Arg Glu Asp Glu Gly Phe Leu Arg Glu Glu Glu
        195                 200                 205


Arg Pro Leu Pro Arg Arg Asp Phe Gln Arg Gln Val Trp Leu Leu Phe
    210                 215                 220


Glu Tyr Pro Glu Ser Ser Gly Pro Ala Arg Gly Ile Ala Ile Val Ser
225                 230                 235                 240


Val Leu Val Ile Leu Ile Ser Ile Val Ile Phe Cys Leu Glu Thr Leu
                245                 250                 255


Pro Glu Phe Arg Asp Glu Lys Asp Tyr Pro Ala Ser Pro Ser Gln Asp
            260                 265                 270


Ser Phe Asp Ala Ala Gly Asn Ser Thr Ser Gly Ala Ala Ala Gly Ala
        275                 280                 285


Ser Ser Phe Ser Asp Pro Phe Phe Val Val Glu Thr Leu Cys Ile Ile
    290                 295                 300


Trp Phe Ser Phe Glu Leu Leu Val Arg Phe Phe Ala Cys Pro Ser Lys
305                 310                 315                 320


Ala Thr Phe Ser Arg Asn Ile Met Asn Leu Ile Asp Ile Val Ala Ile
                325                 330                 335


Ile Pro Tyr Phe Ile Thr Leu Gly Thr Glu Leu Ala Glu Arg Gln Gly
            340                 345                 350


Asn Gly Gln Gln Ala Met Ser Leu Ala Ile Leu Arg Val Ile Arg Leu
        355                 360                 365
```

```
Val Arg Val Phe Arg Ile Phe Lys Leu Ser Arg His Ser Lys Gly Leu
    370                 375                 380

Gln Ile Leu Gly Gln Thr Leu Lys Ala Ser Met Arg Glu Leu Gly Leu
385                 390                 395                 400

Leu Ile Phe Phe Leu Phe Ile Gly Val Ile Leu Phe Ser Ser Ala Val
                405                 410                 415

Tyr Phe Ala Glu Ala Asp Asp Pro Thr Ser Gly Phe Ser Ser Ile Pro
            420                 425                 430

Asp Ala Phe Trp Trp Ala Val Val Thr Met Thr Thr Val Gly Tyr Gly
        435                 440                 445

Asp Met His Pro Val Thr Ile Gly Gly Lys Ile Val Gly Ser Leu Cys
    450                 455                 460

Ala Ile Ala Gly Val Leu Thr Ile Ala Leu Pro Val Pro Val Ile Val
465                 470                 475                 480

Ser Asn Phe Asn Tyr Phe Tyr His Arg Glu Thr Glu Gly Glu Glu Gln
                485                 490                 495

Ala Gln Tyr Met His Val Gly Ser Cys Gln His Leu Ser Ser Ser Ala
            500                 505                 510

Glu Glu Leu Arg Lys Ala Arg Ser Asn Ser Thr Leu Ser Lys Ser Glu
        515                 520                 525

Tyr Met Val Ile Glu Glu Gly Gly Met Asn His Ser Ala Phe Pro Gln
    530                 535                 540

Thr Pro Phe Lys Thr Gly Asn Ser Thr Ala Thr Cys Thr Thr Asn Asn
545                 550                 555                 560
```

Asn Pro Asn Ser Cys Val Asn Ile Lys Lys Ile Phe Thr Asp Val
565 570 575

<210> 425
<211> 282
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 fusion protein

<400> 425

Gly Val Pro Thr Asp Val Lys Cys Arg Gly Ser Pro Gln Cys Ile Gln
1 5 10 15

Pro Cys Lys Asp Ala Gly Met Arg Phe Gly Lys Cys Met Asn Gly Lys
20 25 30

Cys His Cys Thr Pro Lys Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
35 40 45

Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Cys Pro Pro Cys
50 55 60

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

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
85 90 95

Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp
100 105 110

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
115 120 125

Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
130 135 140

```
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
145                 150                 155                 160


Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
                165                 170                 175


Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu
            180                 185                 190


Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
        195                 200                 205


Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
    210                 215                 220


Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
225                 230                 235                 240


Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn
                245                 250                 255


Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
            260                 265                 270


Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
        275                 280


<210>  426
<211>  48
<212>  PRT
<213>  Artificial sequence

<220>
<223>  Odk2 variant


<220>
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<221> VARIANT
<222> (4)..(4)
<223> Xaa may be Ile, Thr, Qln or Glu

<220>
<221> VARIANT
<222> (5)..(5)
<223> Xaa may be Asn or Asp

<220>
<221> misc_feature
<222> (7)..(7)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> VARIANT
<222> (9)..(9)
<223> Xaa may be Lys, Arg, Glu, Ala or Qln

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> VARIANT
<222> (15)..(15)
<223> Xaa may be Ile, Glu, Leu, Asp, Qln, His, val, Lys or Ala

<220>
<221> VARIANT
<222> (16)..(16)
<223> Xaa may be Glu, Lys, Leu, Qln, Asp, Val or His

<220>
<221> misc_feature
<222> (21)..(21)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (24)..(24)
<223> Xaa can be any naturally occurring amino acid

<400> 426

Gly Val Pro Xaa Ala Ala Xaa Ala Ala Val Lys Cys Xaa Ala Ala Ile
1 5 10 15

Ser Arg Gln Cys Xaa Ala Ala Xaa Ala Ala Pro Cys Lys Asp Ala Gly
            20   25   30

Met Arg Phe Gly Lys Cys Met Asn Gly Lys Cys His Cys Thr Pro Lys
        35   40   45

<210> 427
<211> 48
<212> PRT
<213> Artificial sequence

<220>
<223> Odk2 variant

<220>
<221> VARIANT
<222> (4)..(4)
<223> Xaa may be Ile or Thr

<220>
<221> VARIANT
<222> (5)..(5)
<223> Xaa may be Asn or Asp

<220>
<221> misc_feature
<222> (7)..(7)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> VARIANT
<222> (9)..(9)
<223> Xaa may be Lys or Arg

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa can be any naturally occurring amino acid

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