

## SEQUENCE LISTING

<110> Ablynx N.V.

<120> Amino acid sequences directed against Fc receptors and polypeptides comprising the same for the treatment of FcR-related diseases and disorders.

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<170> PatentIn version 3.4

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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys  
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Thr Ala Ser  
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50 Asn Arg Gly Tyr Leu His Met Asn Asn Leu Thr Pro Glu Asp Thr Ala  
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys  
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40 Asn Thr Val Trp Leu His Gly Ser Thr Leu Lys Pro Glu Asp Thr Ala  
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Xaa Xaa Xaa Trp Tyr Arg Gln Gly Pro Gly Asn Glu Arg Glu Leu Val  
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Met Asp Tyr Thr Lys  
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Gln Thr Val Tyr Leu His Met Asn Ser Leu Arg Pro Glu Asp Thr Gly  
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Xaa Xaa Xaa Trp Tyr Arg Gln Tyr Pro Gly Lys Gln Arg Ala Leu Val  
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ala Arg Asp Ser Thr Lys  
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Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Thr Asp Asn Ala Lys  
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Asn Thr Val His Leu Leu Met Asn Arg Val Asn Ala Glu Asp Thr Ala  
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Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys  
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Arg Ala Ile Tyr Leu Gln Met Asn Asn Leu Lys Pro Asp Asp Thr Ala  
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 35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ala Arg Glu Asn Ala Gly  
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Asn Met Val Tyr Leu Gln Met Asn Asn Leu Lys Pro Asp Asp Thr Ala  
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Xaa Xaa Xaa Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Val Phe Leu  
 35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Ser Ala Lys  
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Asn Met Met Tyr Leu Gln Met Asn Asn Leu Lys Pro Gln Asp Thr Ala  
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50 55 60

Asp Thr Val Leu Leu Glu Met Asn Phe Leu Lys Pro Glu Asp Thr Ala  
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                           35                          40                          45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Val Ser Arg Asp Ser Ala Glu  
                           50                          55                          60

50   Asn Thr Val Ala Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala  
       65                          70                          75                          80

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Xaa Xaa Xaa Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Ala Val  
 35 40 45

40 Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Tyr Ala Gly  
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Asn Thr Ala Phe Leu Gln Met Asp Ser Leu Lys Pro Glu Asp Thr Gly  
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Xaa Xaa Xaa Trp Phe Arg Arg Ala Pro Gly Lys Glu Arg Glu Phe Val
35          40          45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Val Ser Arg Asp Asn Gly Lys
50          55          60

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Asn Thr Ala Tyr Leu Arg Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
65          70          75          80

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    Xaa Xaa Xaa Trp Val Arg Gln Ala Pro Gly Lys Val Leu Glu Trp Val
        35             40             45

30 Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
    50             55             60

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20          20          25          30

Xaa Xaa Xaa Trp Val Arg Gln Ala Pro Gly Lys Ala Glu Glu Trp Val
          35          40          45

Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys
          50          55          60

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

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    50             55             60

    Asn Thr Leu Tyr Leu Glu Met Asn Ser Leu Ser Pro Glu Asp Thr Ala
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35 40 45

Ala Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys  
50 55 60

20 Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala  
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Gly Xaa Xaa Xaa Xaa Xaa Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys  
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Xaa Xaa Xaa Trp Val Arg Gln Ala Pro Gly Lys Ala Glu Glu Trp Val  
           35                          40                          45

Ser Xaa Xaa Xaa Xaa Xaa Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys  
      50                          55                          60

10

Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Gly Pro Glu Asp Thr Ala  
  65                          70                          75                          80

Met Tyr Tyr Cys Gln Arg Xaa Xaa Xaa Xaa Xaa Arg Gly Gln Gly Thr  
                           85                          90                          95

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Gln Val Thr Val Ser Ser  
                           100

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<220>  
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<400> 23

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

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

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<400> 24

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Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Thr Gly Asp  
  1                          5                          10                          15

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

<210> 25

<211> 30  
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 <213> Artificial Sequence

<220>  
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<400> 25

10 Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

<210> 26

20 <211> 30  
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<220>  
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<400> 26

30 Ala Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Glu  
 1 5 10 15

Ser Leu Gly Leu Ser Cys Val Ala Ser Gly Arg Asp Phe Val  
 20 25 30

<210> 27

40 <211> 30  
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 <213> Artificial Sequence

<220>  
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<400> 27

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

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

<210> 28

<211> 30  
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 <213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW1 sequence

<400> 28

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

10 Ser Leu Arg Leu Ser Cys Ala Ala Ser Glu Thr Ile Leu Ser  
20 25 30

<210> 29

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

20 <223> KERE-class Nanobody FW1 sequence

<400> 29

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

Ser Leu Asn Leu Ser Cys Val Ala Ser Gly Asn Thr Phe Asn  
20 25 30

30

<210> 30

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW1 sequence

<400> 30

40

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

Ser Leu Gln Leu Ser Cys Ser Ala Pro Gly Phe Thr Leu Asp  
20 25 30

50

<210> 31

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW1 sequence

<400> 31

Ala Gln Glu Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Asn  
20 25 30

10 <210> 32  
<211> 22  
<212> PRT  
<213> Artificial Sequence

<220>  
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<400> 32

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

Ser Cys Ala Ala Ser Gly  
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30 <210> 33  
<211> 22  
<212> PRT  
<213> Artificial Sequence

<220>  
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<400> 33

Val Asp Ser Gly Gly Gly Leu Val Gln Ala Gly Asp Ser Leu Lys Leu  
1 5 10 15

40 Ser Cys Ala Leu Thr Gly  
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<210> 34  
<211> 22  
<212> PRT  
<213> Artificial Sequence

50 <220>  
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<400> 34

Val Asp Ser Gly Gly Gly Leu Val Gln Ala Gly Asp Ser Leu Arg Leu  
1 5 10 15

Ser Cys Ala Ala Ser Gly  
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<210> 35  
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<220>  
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<400> 35

Val Asp Ser Gly Gly Gly Leu Val Glu Ala Gly Gly Ser Leu Arg Leu  
 1 5 10 15

Ser Cys Gln Val Ser Glu  
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<210> 36  
 <211> 22  
 <212> PRT  
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<220>  
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<400> 36

Gln Asp Ser Gly Gly Gly Ser Val Gln Ala Gly Gly Ser Leu Lys Leu  
 1 5 10 15

Ser Cys Ala Ala Ser Gly  
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<210> 37  
 <211> 22  
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<220>  
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<400> 37

Val Gln Ser Gly Gly Arg Leu Val Gln Ala Gly Asp Ser Leu Arg Leu  
 1 5 10 15

Ser Cys Ala Ala Ser Glu  
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<210> 38  
 <211> 22  
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<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW1 sequence

<400> 38

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

Ser Cys Ala Ser Ser Thr  
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<210> 39

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW1 sequence

<400> 39

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

Ser Cys Val Ala Ser Gly  
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<210> 40

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW1 sequence

<400> 40

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

Ser Cys Ser Ala Ser Val  
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<210> 41

<211> 14

<212> PRT

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<220>

<223> KERE-class Nanobody FW2 sequence

<400> 41

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala  
1 5 10

<210> 42

<211> 14

<212> PRT

10 <213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW2 sequence

<400> 42

Trp Phe Arg Gln Thr Pro Gly Arg Glu Arg Glu Phe Val Ala  
1 5 10

20

<210> 43

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW2 sequence

<400> 43

30

Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Met Val Ala  
1 5 10

<210> 44

<211> 14

<212> PRT

<213> Artificial Sequence

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<220>

<223> KERE-class Nanobody FW2 sequence

<400> 44

Trp Tyr Arg Gln Gly Pro Gly Lys Gln Arg Glu Leu Val Ala  
1 5 10

50

<210> 45

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> KERE-class Nanobody FW2 sequence

<400> 45

Trp Ile Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser

1 5 10

<210> 46  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

10 <220>  
 <223> KERE-class Nanobody FW2 sequence

<400> 46

Trp Phe Arg Glu Ala Pro Gly Lys Glu Arg Glu Gly Ile Ser  
 1 5 10

20 <210> 47  
 <211> 14  
 <212> PRT  
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<220>  
 <223> KERE-class Nanobody FW2 sequence

<400> 47

30 Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Asp Leu Val Ala  
 1 5 10

<210> 48  
 <211> 14  
 <212> PRT  
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<220>  
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40 <400> 48

Trp Phe Arg Gln Ala Pro Gly Lys Gln Arg Glu Glu Val Ser  
 1 5 10

50 <210> 49  
 <211> 14  
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<220>  
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<400> 49

Trp Phe Arg Gln Pro Pro Gly Lys Val Arg Glu Phe Val Gly  
 1 5 10

<210> 50  
 <211> 32  
 <212> PRT  
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<220>  
 <223> KERE-class Nanobody FW3 sequence

<400> 50

10

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Arg Cys Tyr Phe  
 20 25 30

20

<210> 51  
 <211> 32  
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<220>  
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<400> 51

30

Arg Phe Ala Ile Ser Arg Asp Asn Asn Lys Asn Thr Gly Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

40

<210> 52  
 <211> 32  
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<220>  
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<400> 52

Arg Phe Thr Val Ala Arg Asn Asn Ala Lys Asn Thr Val Asn Leu Glu  
 1 5 10 15

50

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 53  
 <211> 32  
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<220>  
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<400> 53

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

10 Met Asn Asn Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 54  
 <211> 32  
 <212> PRT  
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<220>  
 20 <223> KERE-class Nanobody FW3 sequence

<400> 54

Arg Leu Thr Ile Ser Arg Asp Asn Ala Val Asp Thr Met Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

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<210> 55  
 <211> 32  
 <212> PRT  
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<220>  
 <223> KERE-class Nanobody FW3 sequence

40 <400> 55

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asp Asn Val Lys Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Ala  
 20 25 30

50 <210> 56  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> KERE-class Nanobody FW3 sequence

<400> 56

Arg Phe Thr Ile Ser Lys Asp Ser Gly Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Thr Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

10 <210> 57  
 <211> 32  
 <212> PRT  
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 <220>  
 <223> KERE-class Nanobody FW3 sequence  
  
 <400> 57

20 Arg Phe Thr Ile Ser Arg Asp Ser Ala Lys Asn Met Met Tyr Leu Gln  
 1 5 10 15

Met Asn Asn Leu Lys Pro Gln Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

30 <210> 58  
 <211> 32  
 <212> PRT  
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 <220>  
 <223> KERE-class Nanobody FW3 sequence  
  
 <400> 58

Arg Phe Thr Ile Ser Arg Glu Asn Asp Lys Ser Thr Val Tyr Leu Gln  
 1 5 10 15

40 Leu Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 59  
 <211> 32  
 <212> PRT  
 <213> Artificial Sequence  
  
 50 <220>  
 <223> KERE-class Nanobody FW3 sequence  
  
 <400> 59

Arg Phe Thr Ile Ser Arg Asp Tyr Ala Gly Asn Thr Ala Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys Ala Thr

20

25

30

<210> 60  
 <211> 11  
 <212> PRT  
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10 <220>  
 <223> KERE-class Nanobody FW4 sequence

<400> 60

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 1 5 10

<210> 61  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

20 <220>  
 <223> KERE-class Nanobody FW4 sequence

<400> 61

Trp Gly Lys Gly Thr Leu Val Thr Val Ser Ser  
 1 5 10

30

<210> 62  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> KERE-class Nanobody FW4 sequence

40 <400> 62

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

<210> 63  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence

50

<220>  
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<400> 63

Trp Gly Leu Gly Thr Gln Val Thr Ile Ser Ser  
 1 5 10



<210> 64  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> GLEW-class Nanobody FW1 sequence

<400> 64

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

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

<210> 65  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

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<220>  
 <223> GLEW-class Nanobody FW1 sequence

<400> 65

30

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

Ser Leu Arg Leu Ser Cys Ala Ala Phe Gly Phe Ile Phe Lys  
 20 25 30

<210> 66  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

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<220>  
 <223> GLEW-class Nanobody FW1 sequence

<400> 66

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

50

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

<210> 67  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> GLEW-class Nanobody FW1 sequence

<400> 67

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

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

<210> 68  
 <211> 30  
 <212> PRT  
 <213> Artificial Sequence

20 <220>  
 <223> GLEW-class Nanobody FW1 sequence

<400> 68

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

Ser Leu Thr Leu Ser Cys Val Phe Ser Gly Ser Thr Phe Ser  
 20 25 30

30

<210> 69  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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40 <400> 69

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

Ser Cys Ala Ala Ser Gly  
 20

50 <210> 70  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<400> 70

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

Ser Cys Val Ala Ser Gly  
 20

10 <210> 71  
 <211> 22  
 <212> PRT  
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<220>  
 <223> GLEW-class Nanobody FW1 sequence  
 <400> 71

20 Val Glu Ser Gly Gly Gly Leu Ala Leu Pro Gly Gly Ser Leu Thr Leu  
 1 5 10 15

Ser Cys Val Phe Ser Gly  
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30 <210> 72  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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 <400> 72

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

40 <210> 73  
 <211> 14  
 <212> PRT  
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<220>  
 <223> GLEW-class Nanobody FW2 sequence  
 <400> 73

50 Trp Val Arg Arg Pro Pro Gly Lys Gly Leu Glu Trp Val Ser  
 1 5 10

<210> 74  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> GLEW-class Nanobody FW2 sequence

<400> 74

Trp Val Arg Gln Ala Pro Gly Met Gly Leu Glu Trp Val Ser  
 1 5 10

10 <210> 75  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> GLEW-class Nanobody FW2 sequence

<400> 75

20 Trp Val Arg Gln Ala Pro Gly Lys Glu Pro Glu Trp Val Ser  
 1 5 10

<210> 76  
 <211> 14  
 <212> PRT  
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30 <220>  
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<400> 76

Trp Val Arg Gln Ala Pro Gly Lys Asp Gln Glu Trp Val Ser  
 1 5 10

40 <210> 77  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<400> 77

50 Trp Val Arg Gln Ala Pro Gly Lys Ala Glu Glu Trp Val Ser  
 1 5 10

<210> 78  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence

<220>  
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<400> 78

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala  
1 5 10

<210> 79

<211> 14

<212> PRT

10 <213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW2 sequence

<400> 79

Trp Val Arg Gln Ala Pro Gly Arg Ala Thr Glu Trp Val Ser  
1 5 10

20

<210> 80

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW3 sequence

<400> 80

30

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Val Lys  
20 25 30

40

<210> 81

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW3 sequence

<400> 81

50

Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Thr Leu Tyr Leu Gln  
1 5 10 15

Met Asp Ser Leu Ile Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg  
20 25 30

<210> 82

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW3 sequence

<400> 82

Arg Phe Thr Ser Ser Arg Asp Asn Ala Lys Ser Thr Leu Tyr Leu Gln  
1 5 10 15

Met Asn Asp Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg  
20 25 30

<210> 83

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW3 sequence

<400> 83

Arg Phe Ile Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

Met Asn Ser Leu Gly Pro Glu Asp Thr Ala Met Tyr Tyr Cys Gln Arg  
20 25 30

<210> 84

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW3 sequence

<400> 84

Arg Phe Thr Ala Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

Met Asn Ser Leu Lys Ser Glu Asp Thr Ala Arg Tyr Tyr Cys Ala Arg  
20 25 30

<210> 85

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW3 sequence

<400> 85

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

Met Asp Asp Leu Gln Ser Glu Asp Thr Ala Met Tyr Tyr Cys Gly Arg  
20 25 30

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<210> 86  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
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<400> 86

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Gly Ser Gln Gly Thr Gln Val Thr Val Ser Ser  
1 5 10

<210> 87  
<211> 11  
<212> PRT  
<213> Artificial Sequence

30

<220>  
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<400> 87

Leu Arg Gly Gly Thr Gln Val Thr Val Ser Ser  
1 5 10

40

<210> 88  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> GLEW-class Nanobody FW4 sequence

<400> 88

50

Arg Gly Gln Gly Thr Leu Val Thr Val Ser Ser  
1 5 10

<210> 89  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> GLEW-class Nanobody FW4 sequence

<400> 89

Arg Ser Arg Gly Ile Gln Val Thr Val Ser Ser  
1 5 10

<210> 90

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW4 sequence

<400> 90

Trp Gly Lys Gly Thr Gln Val Thr Val Ser Ser  
1 5 10

<210> 91

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> GLEW-class Nanobody FW4 sequence

<400> 91

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
1 5 10

<210> 92

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> P,R,S 103-class Nanobody FW1 sequence

<400> 92

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

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

<210> 93

<211> 30

<212> PRT

<213> Artificial Sequence

<220>



<223> P,R,S 103-class Nanobody FW1 sequence

<400> 93

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

10 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asp Phe Gly  
20 25 30

<210> 94

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

20 <223> P,R,S 103-class Nanobody FW1 sequence

<400> 94

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

Ser Leu Arg Leu Ser Cys Ala Ala Phe Gly Phe Ile Phe Lys  
20 25 30

30

<210> 95

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> P,R,S 103-class Nanobody FW1 sequence

<400> 95

40

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Arg Thr Ile Val Ser  
20 25 30

50

<210> 96

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> P,R,S 103-class Nanobody FW1 sequence

<400> 96

Gln Glu His Leu Val Glu Ser Gly Gly Gly Leu Val Asp Ile Gly Gly

1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Glu Arg Ile Phe Ser  
20 25 30

<210> 97  
<211> 30  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 97

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

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

<210> 98  
<211> 30  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 98

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

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

<210> 99  
<211> 30  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> P,R,S 103-class Nanobody FW1 sequence

<400> 99

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

Ser Leu Thr Leu Ser Cys Val Phe Ser Gly Ser Thr Phe Ser  
20 25 30

10 <210> 100  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> P,R,S 103-class Nanobody FW1 sequence  
  
 <400> 100  
  
 Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu  
 1 5 10 15  
  
 Ser Cys Ala Ala Ser Gly  
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 30 Ala Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Lys Leu  
 1 5 10 15  
  
 Ser Cys Ala Ala Ser Arg  
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 50 Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala  
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 <223> P,R,S 103-class Nanobody FW2 sequence

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

<210> 104

<211> 14

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<223> P,R,S 103-class Nanobody FW2 sequence

<400> 104

Trp Val Arg Arg Pro Pro Gly Lys Gly Leu Glu Trp Val Ser  
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<210> 105

<211> 14

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<220>

<223> P,R,S 103-class Nanobody FW2 sequence

<400> 105

Trp Ile Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser  
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<210> 106

<211> 14

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<223> P,R,S 103-class Nanobody FW2 sequence

<400> 106

Trp Val Arg Gln Tyr Pro Gly Lys Glu Pro Glu Trp Val Ser  
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<211> 14

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<223> P,R,S 103-class Nanobody FW2 sequence

<400> 107

Trp Phe Arg Gln Pro Pro Gly Lys Glu His Glu Phe Val Ala  
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Trp Tyr Arg Gln Ala Pro Gly Lys Arg Thr Glu Leu Val Ala  
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30 Trp Leu Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val Ser  
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Trp Leu Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val Gly  
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Trp Val Arg Gln Ala Pro Gly Lys Ala Glu Glu Phe Val Ser  
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 <223> P,R,S 103-class Nanobody FW3 sequence

10 <400> 112

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

20 <210> 113

<211> 32  
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<400> 113

30 Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Thr Leu Tyr Leu Gln  
 1 5 10 15

Met Asp Ser Leu Ile Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Arg  
 20 25 30

40 <210> 114

<211> 32  
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<400> 114

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

50 Met Asn Asn Leu Lys Thr Glu Asp Thr Gly Val Tyr Trp Cys Gly Ala  
 20 25 30

<210> 115  
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<400> 115

Arg Phe Thr Ile Ser Ser Asp Ser Asn Arg Asn Met Ile Tyr Leu Gln  
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Met Asn Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
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<210> 116  
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<220>  
 <223> P,R,S 103-class Nanobody FW3 sequence

<400> 116

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Met Leu Tyr Leu His  
 1 5 10 15

30

Leu Asn Asn Leu Lys Ser Glu Asp Thr Ala Val Tyr Tyr Cys Arg Arg  
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<210> 117  
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<220>  
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<400> 117

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Thr Val Tyr Leu Arg  
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Leu Asn Ser Leu Asn Pro Glu Asp Thr Ala Val Tyr Ser Cys Asn Leu  
 20 25 30

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<210> 118  
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<400> 118

Arg Phe Lys Ile Ser Arg Asp Asn Ala Lys Lys Thr Leu Tyr Leu Gln  
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Met Asn Ser Leu Gly Pro Glu Asp Thr Ala Met Tyr Tyr Cys Gln Arg  
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10 <210> 119  
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 <223> P,R,S 103-class Nanobody FW3 sequence  
  
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20 Arg Phe Thr Val Ser Arg Asp Asn Gly Lys Asn Thr Ala Tyr Leu Arg  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Asp Tyr Tyr Cys Ala Val  
 20 25 30

30 <210> 120  
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 <223> P,R,S 103-class Nanobody FW4 sequence  
  
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40 Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 1 5 10

<210> 121  
 <211> 11  
 <212> PRT  
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 <223> P,R,S 103-class Nanobody FW4 sequence

50 <400> 121

Leu Arg Gly Gly Thr Gln Val Thr Val Ser Ser  
 1 5 10

<210> 122  
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<220>  
 <223> P,R,S 103-class Nanobody FW4 sequence

<400> 122

Gly Asn Lys Gly Thr Leu Val Thr Val Ser Ser  
 1 5 10

10

<210> 123  
 <211> 11  
 <212> PRT  
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 <223> P,R,S 103-class Nanobody FW4 sequence

<400> 123

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Ser Ser Pro Gly Thr Gln Val Thr Val Ser Ser  
 1 5 10

<210> 124  
 <211> 11  
 <212> PRT  
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<220>  
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<400> 124

Ser Ser Gln Gly Thr Leu Val Thr Val Ser Ser  
 1 5 10

40

<210> 125  
 <211> 11  
 <212> PRT  
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 <223> P,R,S 103-class Nanobody FW4 sequence

<400> 125

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Arg Ser Arg Gly Ile Gln Val Thr Val Ser Ser  
 1 5 10

<210> 126  
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<400> 126

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

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

10 <210> 127  
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<400> 127

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

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

<210> 128  
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 <212> PRT  
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<400> 128

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

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

40 <210> 129  
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<400> 129

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

50 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser  
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<400> 130

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser  
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<400> 131

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
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20 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser  
 20 25 30

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30 <400> 132

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

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

40 <210> 133  
 <211> 30  
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<400> 133

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

50 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser  
 20 25 30

<210> 134  
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&lt;400&gt; 134

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Ala Phe Asn  
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10

<210> 135  
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&lt;400&gt; 135

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

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

<210> 136  
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&lt;400&gt; 136

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
 20 25 30

40

<210> 137  
 <211> 30  
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&lt;400&gt; 137

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

50

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
 20 25 30

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&lt;400&gt; 138

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
 20 25 30

10

&lt;210&gt; 139

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 139

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

20

Ser Leu Arg Leu Ser Cys Glu Asp Ser Gly Arg Thr Phe Gly  
 20 25 30

&lt;210&gt; 140

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; -

30

&lt;400&gt; 140

Glu Val Gln Leu Val Lys Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

40

&lt;210&gt; 141

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 141

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

50

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp  
 20 25 30

&lt;210&gt; 142

&lt;211&gt; 30

&lt;212&gt; PRT

<213> -

<400> 142

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

10 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp  
20 25 30

<210> 143

<211> 30

<212> PRT

<213> -

<400> 143

20 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp  
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<211> 30

30 <212> PRT

<213> -

<400> 144

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

40 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser  
20 25 30

<210> 145

<211> 30

<212> PRT

<213> -

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50 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
1 5 10 15

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

<210> 146

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&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 146

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

10 Ser Leu Arg Leu Ser Cys Val Ala Ser Glu Arg Thr Phe Ser  
 20 25 30

&lt;210&gt; 147

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 147

20 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp  
 20 25 30

&lt;210&gt; 148

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 148

30 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ala Gln Pro Gly Gly  
 1 5 10 15

40 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser  
 20 25 30

&lt;210&gt; 149

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 149

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser  
 20 25 30

&lt;210&gt; 150

<211> 30  
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<400> 150

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
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Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Ile Leu Arg  
 20 25 30

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20 <400> 151

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

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

30 <210> 152  
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<400> 152

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Leu Ser  
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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp  
 20 25 30



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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

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

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

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<400> 156

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

<210> 157  
 <211> 30  
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 <213> -

<400> 157

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

<210> 158  
 <211> 30  
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 <213> -

<400> 158

10    Glu Val Gln Leu Val Glu Ser Val Gly Gly Leu Val Gln Thr Gly Gly  
       1                    5                    10                    15

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

<210> 159  
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<400> 159

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1                    5                    10                    15

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

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<400> 160

40    Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
       1                    5                    10                    15

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

<210> 161  
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<400> 161

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
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Ser Leu Thr Leu Ser Cys Val Ala Ser Gly Arg Thr Phe Ser  
                   20                    25                    30

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<400> 162

10 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

<210> 163  
 <211> 30  
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<400> 163

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

<210> 164  
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40 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

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Ser Tyr Ala Met Asn  
 1 5

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Ser Tyr Ala Met Asn  
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Ser Tyr Ala Met Asn  
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Ser Tyr Ala Met Asn  
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Ser Tyr Ala Met Asn  
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Ser Tyr Ala Met Thr  
 1 5

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Ile Tyr Ala Val Gly  
1 5

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Ile Tyr Ala Val Gly  
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Tyr Tyr Ala Met Gly  
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30 <211> 5

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Asn Tyr Val Met Gly  
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Tyr Tyr Ala Ile Gly  
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Tyr Tyr Ala Ile Gly  
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10 Tyr Tyr Asp Ile Gly  
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20 Asp Tyr Ile Met Gly  
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Ser Val Thr Met Gly  
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Asp Tyr Ala Ile Gly  
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Asp Tyr Ala Ile Gly  
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Asp Tyr Ala Ile Gly  
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Thr Tyr Ala Met Ala  
1 5

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Ile Tyr Thr Met Gly  
1 5

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40 Tyr Tyr Asp Leu Ala Ala Arg Ala  
1 5

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50 Asp Tyr Ala Ile Gly  
1 5

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Ser Tyr Trp Met Tyr  
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Arg Tyr Gly Met Tyr  
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Glu Tyr Asn Met Gly  
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Ser Tyr Ala Met Thr  
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Thr Asn Asp Met Gly  
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Asp Tyr Ala Ile Gly  
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10 Ala Tyr Gly Met Gly  
 1 5

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20 Ser Gly Gly Met Gly  
 1 5

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<400> 195

30 Ala Tyr Gly Met Gly  
 1 5

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40 <400> 196

Asn Tyr Gly Met Gly  
 1 5

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50 <400> 197

Ser Gly Gly Met Gly  
 1 5

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Ala Asn Gly Met Gly  
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Asn Tyr Gly Met Gly  
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Ala Tyr Gly Met Gly  
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Asn Tyr Gly Met Gly  
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Asn Tyr Gly Met Gly  
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Ala Tyr Gly Met Gly  
1 5

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10 <400> 204

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser  
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Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val Ala  
 1 5 10

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Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val Lys  
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Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val Lys  
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Gly

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Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val Lys  
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Gly

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&lt;400&gt; 246

Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

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&lt;400&gt; 247

30 Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

40 <210> 248  
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&lt;400&gt; 248

Glu Ile Thr Asn Gly Gly Gly Arg Thr Ser Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

50 <210> 249  
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&lt;400&gt; 249

Asp Ile Arg Met Met Leu Gly Ser Thr Thr Tyr Ala Asp Ser Val Lys

1                      5                      10                      15

Gly

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          <212> PRT  
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<400> 250

Asp Ile Arg Met Met Leu Gly Ser Thr Thr Tyr Ala Asp Ser Val Lys  
 1                      5                      10                      15

20      Gly

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<400> 251

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          1                      5                      10                      15

Gly

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          <213> -

<400> 252

Ala Ile Ser Trp Ser Gly Val Thr Thr Tyr His Tyr Ser Ala Asp Ser  
 1                      5                      10                      15

50      Val Lys Gly

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          <212> PRT  
          <213> -

<400> 253

Cys Thr Ser Ser Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

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<400> 254

Cys Ile Ser Ser Ser Asp Met Ser Asp Gly Ile Thr Tyr Tyr Ala Asp  
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20 Ser Val Lys Gly  
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<400> 255

30 Cys Thr Ser Ser Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

40 <210> 256  
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<400> 256

Ala Ile Ser Trp Thr Gly Asp Ser Thr Tyr Tyr Lys Tyr Tyr Ser Asp  
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50 Ser Ala Lys Gly  
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<210> 257  
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Ala Ile Ser Trp Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

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Cys Ile Ser Ser Arg Asp Gly Ile Thr Tyr Tyr Ala Asp Ser Val Lys  
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20 Gly

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Cys Ile Ser Ser Arg Asp Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys  
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Gly

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Cys Ile Asn Asn Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys  
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50 Gly

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&lt;400&gt; 261

Ala Ile Ser Trp Ser Ser Asp Met Thr Tyr Tyr Leu Asp Ser Val Lys  
 1 5 10 15

Gly

10

<210> 262  
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Ala Leu Arg Trp Ser Gly Gly Ser Thr Tyr Thr Phe Tyr Ala Asp Ser  
 1 5 10 15

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Val Lys Gly

<210> 263  
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&lt;400&gt; 263

Ala Ser Thr Trp Asn Gly Gly Tyr Thr Tyr Tyr Val Asp Ser Val Lys  
 1 5 10 15

Gly

40

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&lt;400&gt; 264

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

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Gly

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<400> 265

Ala Ile Ser Thr Gly Gly Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15

Gly

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Thr Ile Asn Ser Gly Gly Asp Tyr Ile Ile Tyr Ala Asp Ser Val Lys  
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Gly

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

Gly

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Gly

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Arg Ile Ser Arg Gly Ser Ser Thr Ile Tyr Thr Glu Ser Val Lys Gly  
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Cys Ile Ser Ser Arg Asp Gly Met Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15

20 Gly

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

Asp

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Ser Ile Val Trp Ile Gly Gly Arg Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15

50 Gly

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Ser Ile Asn Trp Gly Asp Gly Asn Thr Tyr Tyr Ala Asn Ser Val Lys  
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Asp

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Ser Ile Asn Trp Gly Asn Gly Lys Thr Tyr Tyr Ala Asn Ser Val Lys  
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Ala Ile Val Trp Ile Gly Gly Arg Thr Tyr Tyr Ala Asp Ser Val Lys  
 1 5 10 15

Gly

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

50 Asp

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Ser Ile Asn Trp Gly Asn Gly Lys Thr Tyr Tyr Ala Asn Pro Val Lys  
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Asp

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Ser Ile Asn Trp Lys Asp Gly Phe Thr Tyr Tyr Ala Asn Ser Val Lys  
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Asp

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Ser Ile Asn Trp Gly Asp Gly Asn Thr Tyr Tyr Ala Asn Ser Val Lys  
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Asp

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Ser Ile Asn Trp Gly Asn Gly Lys Thr Tyr Tyr Ala Asn Ser Val Lys  
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Asp

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Ser Ile Asn Trp Lys Asp Gly Phe Thr Tyr Tyr Ala Asn Ser Val Lys  
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Asp

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Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
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Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Lys Phe  
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<210> 283

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<212> PRT

<213> -

<400> 283

Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

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

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

10 Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Lys Phe  
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<213> -

<400> 286

20 Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Lys Phe  
20 25 30

<210> 287

<211> 32

30 <212> PRT

<213> -

<400> 287

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
1 5 10 15

40 Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg  
20 25 30

<210> 288

<211> 32

<212> PRT

<213> -

<400> 288

50 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Thr Val Tyr Leu Gln  
1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Val  
20 25 30

<210> 289

<211> 32

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 289

Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Arg	Thr	Val	Tyr	Leu	Gln
1				5					10					15	

10	Met	Asn	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Val
			20						25					30		

&lt;210&gt; 290

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 290

20	Arg	Phe	Thr	Ile	Ser	Arg	Ser	Asn	Ala	Lys	Asn	Thr	Val	Tyr	Leu	Gln
	1				5					10					15	

	Met	Ser	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Ala
				20					25					30		

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	<213>	-

&lt;400&gt; 291

	Arg	Phe	Thr	Thr	Ser	Arg	Asp	Asn	Asp	Arg	Asn	Thr	Ala	His	Leu	Gln
	1				5					10					15	

40	Met	Asn	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Ala
			20						25					30		

&lt;210&gt; 292

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 292

50	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Thr	Val	Tyr	Leu	Gln
	1				5					10					15	

	Met	Asn	Ser	Leu	Lys	Pro	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Thr
				20					25					30		

&lt;210&gt; 293

<211> 32  
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Arg Phe Thr Ser Ser Arg Asp Asn Val Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

<210> 294  
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<400> 294

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

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<210> 295  
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<400> 295

Arg Phe Thr Ala Ser Arg Asp Asn Ala Lys Asn Thr Ala Tyr Leu Gln  
 1 5 10 15

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Met Asn Gly Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 296  
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<400> 296

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 297  
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<400> 297

10 Arg Phe Thr Ile Ser Ser Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 298  
 <211> 32  
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<400> 298

Arg Phe Thr Ile Ser Ser Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

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<210> 299  
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<400> 299

Arg Phe Thr Ile Ser Ser Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

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



&lt;210&gt; 301

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 301

10 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Ser Glu Asp Thr Ala Ile Tyr Tyr Cys Gly Met  
 20 25 30

&lt;210&gt; 302

&lt;211&gt; 32

&lt;212&gt; PRT

20 <213> -

&lt;400&gt; 302

Arg Phe Thr Val Ser Thr Asp Asp Ala Gly Asp Thr Met Tyr Leu Gln  
 1 5 10 15

30 Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

&lt;210&gt; 303

&lt;211&gt; 32

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 303

40 Arg Phe Thr Ile Ser Ser Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr His Cys Ala Ala  
 20 25 30

&lt;210&gt; 304

&lt;211&gt; 32

&lt;212&gt; PRT

50 <213> -

&lt;400&gt; 304

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Arg Tyr Tyr Cys Ala Arg  
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<210> 305  
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<400> 305

10 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Glu  
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<210> 306  
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<400> 306

Arg Phe Thr Ile Ser Arg Asp Asp Thr Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

30 Met Asn Ser Leu Asn Pro Glu Asp Thr Gly Val Tyr His Cys Ala Ala  
 20 25 30

<210> 307  
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<400> 307

40 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln  
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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Lys  
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<210> 308  
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<400> 308

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala

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<210> 309  
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<400> 309

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Arg Phe Thr Ile Ser Ser Asp Asn Ala Arg Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 310  
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<400> 310

Arg Phe Ala Ile Ser Lys Asp His Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

30 Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Ala  
 20 25 30

<210> 311  
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<400> 311

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

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Thr Tyr Tyr Cys Ala Asp  
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10 <400> 313

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 20 25 30

20 <210> 314  
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 20 25 30

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 20 25 30

50 <210> 316  
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<400> 317

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Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys Ala Ala  
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<400> 319

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Arg Phe Ala Ile Ser Lys Asp His Ala Lys Asn Thr Val Tyr Leu Gln  
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 <223> CDR 3 only contains 3 amino acid residues (GGT). The "X" at  
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       sequence comprises at least 4 amino acid residues

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30 <210> 322  
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<210> 328  
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<400> 328

Arg Ser Ser Arg Gln Thr Thr Glu Tyr Asp Tyr  
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Asp Ser Ile Tyr Arg Thr Ser Lys Asp Tyr Asn Tyr  
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Arg Thr Phe Arg Ile Asp Tyr Asp Pro Arg Thr Ala Ser Thr Tyr Asn  
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Tyr

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Val Val Pro Ser Asp Pro Ile Ile Tyr Tyr Thr Asp Tyr Val Asp Tyr  
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50 Asp Tyr

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<210> 338

<211> 15

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50 Ala Tyr

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Ser Asp Pro Asn Asp Tyr  
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Tyr

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Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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Trp Gly Gln Gly Ile Gln Val Thr Val Ser Ser  
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Gly Ser Gln Gly Thr Gln Val Thr Val Ser Ser  
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Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30

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Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45

Ser Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val  
 50 55 60

20

Lys Gly Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
 65 70 75 80

Leu Gln Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Lys Phe Gly Gly Thr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 100 105 110

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&lt;210&gt; 400

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 400

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

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45

50

Ser Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val  
 50 55 60

Lys Gly Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
 65 70 75 80

Leu Gln Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys

85

90

95

Lys Phe Gly Gly Thr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 100 105 110

&lt;210&gt; 401

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 401

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45

Ser Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val  
 50 55 60

Lys Gly Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
 65 70 75 80

Leu Gln Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Lys Phe Gly Gly Thr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 100 105 110

&lt;210&gt; 402

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 402

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
 20 25 30

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45

Ser Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
65 70 75 80

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Leu Gln Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Lys Phe Gly Gly Thr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
100 105 110

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Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

40

Ser Val Ile Ser Ser Ser Gly Asp Phe Thr Ser Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Phe Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
65 70 75 80

Leu Gln Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

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Lys Phe Gly Gly Thr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
100 105 110

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<400> 404



Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly  
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 20 25 30  
 10 Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45  
 Ser Glu Ile Thr Asn Gly Gly Gly Arg Thr Ser Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
 65 70 75 80  
 20 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Arg Gly Asp Arg Ser Trp Phe Arg Val Gln Gly Glu Asn Val Tyr  
 100 105 110  
 30 Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
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 Ala Val Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Phe Val  
 35 40 45  
 50 Ala Asp Ile Arg Met Met Leu Gly Ser Thr Thr Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Thr Val Tyr  
 65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                     85                    90                    95

Ala Val Arg Ser Ser Arg Gln Thr Thr Glu Tyr Asp Tyr Trp Gly Gln  
                     100                    105                    110

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                     115                    120

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20 <400> 406

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Ile Tyr  
                     20                    25                    30

30 Ala Val Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Phe Val  
                     35                    40                    45

Ala Asp Ile Arg Met Met Leu Gly Ser Thr Thr Tyr Ala Asp Ser Val  
                     50                    55                    60

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

40 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                     85                    90                    95

Ala Val Arg Ser Ser Arg Gln Thr Thr Glu Tyr Asp Tyr Trp Gly Gln  
                     100                    105                    110

50 Gly Thr Gln Val Thr Val Ser Ser  
                     115                    120

<210> 407  
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 35 40 45  
 Ala Val Ile Asn Trp Ser Gly Gly Thr Thr Ser Tyr Ala Asp Ser Val  
 50 55 60  
 Lys Gly Arg Phe Thr Ile Ser Arg Ser Asn Ala Lys Asn Thr Val Tyr  
 65 70 75 80  
 20 Leu Gln Met Ser Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Ala Asp Ser Ile Tyr Arg Thr Ser Lys Asp Tyr Asn Tyr Trp Gly  
 100 105 110  
 30 Gln Gly Thr Gln Val Thr Val Ser Ser  
 115 120  
 <210> 408  
 <211> 127  
 <212> PRT  
 <213> -  
 <400> 408  
 40 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly  
 1 5 10 15  
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Asn Tyr  
 20 25 30  
 Val Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
 35 40 45  
 50 Ala Ala Ile Ser Trp Ser Gly Val Thr Thr Tyr His Tyr Ser Ala Asp  
 50 55 60  
 Ser Val Lys Gly Arg Phe Thr Thr Ser Arg Asp Asn Asp Arg Asn Thr  
 65 70 75 80

Ala His Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr  
                             85                            90                            95

Tyr Cys Ala Ala Arg Gly Arg Thr Gly Ser Asp Pro Arg Lys Gly Asp  
                             100                            105                            110

10 Asp Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
                             115                            120                            125

<210> 409

<211> 129

<212> PRT

<213> -

<400> 409

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
                             20                            25                            30

Ala Ile Gly Trp Phe Arg Arg Ala Pro Gly Lys Glu Arg Glu Gly Val  
                             35                            40                            45

30

Ser Cys Thr Ser Ser Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
     50                            55                            60

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

40 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                             85                            90                            95

Ala Thr Thr Phe Gly Asp Ala Cys Thr Val Val Ala Gly Ile Pro Asp  
                             100                            105                            110

Gln Tyr Asp Phe Gly Ser Trp Gly Gln Gly Thr Gln Val Thr Val Ser  
                             115                            120                            125

50

Ser

<210> 410

<211> 132

<212> PRT

<213> -

&lt;400&gt; 410

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
 20 25 30

10

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
 35 40 45

Ser Cys Ile Ser Ser Ser Asp Met Ser Asp Gly Ile Thr Tyr Tyr Ala  
 50 55 60

20

Asp Ser Val Lys Gly Arg Phe Thr Ser Ser Arg Asp Asn Val Lys Asn  
 65 70 75 80

Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val  
 85 90 95

Tyr Tyr Cys Ala Thr Thr Phe Gly Asp Ala Cys Thr Val Val Ala Gly  
 100 105 110

30

Ile Pro Asp Gln Ala Asp Phe Asp Ser Trp Gly Gln Gly Thr Gln Val  
 115 120 125

Thr Val Ser Ser  
 130

40

<210> 411  
 <211> 129  
 <212> PRT  
 <213> -

&lt;400&gt; 411

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

50

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
 20 25 30

Asp Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
 35 40 45

Ser Cys Thr Ser Ser Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val

50

55

60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

10

Ala Thr Thr Phe Gly Asp Ala Cys Thr Val Val Ala Gly Ile Pro Asp  
100 105 110

Gln Tyr Asp Phe Gly Ser Trp Gly Gln Gly Thr Gln Val Thr Val Ser  
115 120 125

20 Ser

&lt;210&gt; 412

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; -

&lt;400&gt; 412

30

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

Ser Leu Arg Leu Ser Cys Glu Asp Ser Gly Arg Thr Phe Gly Asp Tyr  
20 25 30

40

Ile Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Phe Val  
35 40 45

Ala Ala Ile Ser Trp Thr Gly Asp Ser Thr Tyr Tyr Lys Tyr Tyr Ser  
50 55 60

Asp Ser Ala Lys Gly Arg Phe Thr Ala Ser Arg Asp Asn Ala Lys Asn  
65 70 75 80

50

Thr Ala Tyr Leu Gln Met Asn Gly Leu Lys Pro Glu Asp Thr Ala Val  
85 90 95

Tyr Tyr Cys Ala Ala Arg Thr Phe Arg Ile Asp Tyr Asp Pro Arg Thr  
100 105 110

Ala Ser Thr Tyr Asn Tyr Trp Gly Gln Gly Ile Gln Val Thr Val Ser

115

120

125

Ser

10 <210> 413  
 <211> 127  
 <212> PRT  
 <213> -

&lt;400&gt; 413

Glu Val Gln Leu Val Lys Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

Thr Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Asp Phe Val  
 35 40 45

Ala Ala Ile Ser Trp Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
 50 55 60

30 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr  
 65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

40 Ala Ala Val Val Pro Ser Asp Pro Ile Ile Tyr Tyr Thr Asp Tyr Val  
 100 105 110

Asp Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 115 120 125

50 <210> 414  
 <211> 124  
 <212> PRT  
 <213> -

&lt;400&gt; 414

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr  
 20 25 30

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
35 40 45

Ser Cys Ile Ser Ser Arg Asp Gly Ile Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

10

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

20

Ala Ala Asp Leu Val Gly Ser Phe Pro Cys Pro Val Ala Ala Tyr Asp  
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

<210> 415

<211> 124

<212> PRT

30

<213> -

<400> 415

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr  
20 25 30

40

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
35 40 45

Ser Cys Ile Ser Ser Arg Asp Gly Thr Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

50

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Ala Asp Leu Val Gly Ser Phe Pro Cys Pro Val Ala Ala Tyr Asp  
100 105 110



Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

<210> 416  
<211> 124  
<212> PRT  
<213> -

10

<400> 416

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr  
20 25 30

20

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
35 40 45

Ser Cys Ile Asn Asn Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

30

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Ala Asp Phe Val Gly Gly Ser Tyr Cys Leu Phe Pro Thr Tyr Asn  
100 105 110

40

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

<210> 417  
<211> 123  
<212> PRT  
<213> -

50

<400> 417

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Thr Tyr  
20 25 30

Ala Met Ala Trp Phe Arg Gln Ala Pro Gly Lys Asp Arg Glu Phe Val  
35 40 45

Ala Ala Ile Ser Trp Ser Ser Asp Met Thr Tyr Tyr Leu Asp Ser Val  
50 55 60

10 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Phe  
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Ser Gly Ala Tyr Tyr Ala Gly Ser Ser Thr Ser Pro Tyr Asn Tyr  
100 105 110

20 Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

<210> 418  
<211> 129  
<212> PRT  
<213> -

30 <400> 418

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Thr Ile Tyr  
20 25 30

40 Thr Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Ala Arg Glu Phe Ile  
35 40 45

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

50 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr  
65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Ser Glu Asp Thr Ala Ile Tyr  
85 90 95

Tyr Cys Gly Met Val Asp Pro Arg Ala Pro Tyr Met Arg Pro Asp Ser  
100 105 110

Thr Asp Ser Tyr Ala Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser  
 115 120 125

Ser

10 <210> 419  
 <211> 128  
 <212> PRT  
 <213> -

<400> 419

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

20 Ser Leu Arg Leu Ser Cys Val Ala Ser Glu Arg Thr Phe Ser Tyr Tyr  
 20 25 30

Asp Leu Ala Ala Arg Ala Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg  
 35 40 45

30 Glu Leu Val Ser Ala Ser Thr Trp Asn Gly Gly Tyr Thr Tyr Tyr Val  
 50 55 60

Asp Ser Val Lys Gly Arg Phe Thr Val Ser Thr Asp Asp Ala Gly Asp  
 65 70 75 80

Thr Met Tyr Leu Gln Met Asn Ser Leu Glu Pro Glu Asp Thr Ala Val  
 85 90 95

40 Tyr Tyr Cys Ala Ala Arg Arg Ala Tyr Ser Ser Asp Leu His Asp Tyr  
 100 105 110

Arg Thr Phe Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 115 120 125

50 <210> 420  
 <211> 124  
 <212> PRT  
 <213> -

<400> 420

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr  
20 25 30

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Trp Val  
35 40 45

10 Ser Cys Ile Ser Arg Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr His Cys  
85 90 95

20 Ala Ala Asp Ala Ile Gly Ser Phe Pro Cys Pro Ala Gly Val Tyr Asp  
100 105 110

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

30 <210> 421  
<211> 131  
<212> PRT  
<213> -

<400> 421

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

40 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Ser Tyr  
20 25 30

Trp Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Ala Ile Ser Thr Gly Gly Gly Gly Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

50 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Arg Tyr Tyr Cys  
85 90 95

Ala Arg Asp Glu Ala Pro Thr Phe Asp Tyr Ser Gly Asn Tyr Ala Tyr  
 100 105 110

Thr Gly Ser Asp Pro Asn Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr  
 115 120 125

10 Val Ser Ser  
 130

<210> 422  
 <211> 130  
 <212> PRT  
 <213> -

<400> 422

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Arg Tyr  
 20 25 30

30 Gly Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val  
 35 40 45

Ser Thr Ile Asn Ser Gly Gly Asp Tyr Ile Ile Tyr Ala Asp Ser Val  
 50 55 60

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

40 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Ala Glu Gly Tyr Arg Gly Ser Glu Trp Pro Pro Pro Ala Phe Thr Leu  
 100 105 110

50 Gln Arg Ala Asp Phe Ala Ser Trp Gly Gln Gly Thr Gln Val Thr Val  
 115 120 125

Ser Ser  
 130

<210> 423  
 <211> 126  
 <212> PRT  
 <213> -

&lt;400&gt; 423

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

Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Ile Leu Arg Glu Tyr  
20 25 30

10

Asn Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Ile Val  
35 40 45

Ala Ala Ile Ala Trp Thr Gly Thr Asn Ser Tyr Tyr Val Asp Ser Val  
50 55 60

20

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Thr Lys Asn Thr Val Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Asn Pro Glu Asp Thr Gly Val Tyr His Cys  
85 90 95

Ala Ala Glu Gly Tyr Val Ser Asn Phe Pro Arg Ser Ser Ala Asp Glu  
100 105 110

30

Tyr Asp Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120 125

&lt;210&gt; 424

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; -

40

&lt;400&gt; 424

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr  
20 25 30

50

Ala Met Thr Trp Val Arg Gln Gly Leu Gly Lys Gly Leu Glu Trp Val  
35 40 45

Ser Ile Ile Ser Gly Asn Gly Gly Ser Thr Ser Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr

65

70

75

80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                     85                    90                    95

Ala Lys Trp Asp Gly Leu Gly Thr Leu Pro Gly Ser Gln Gly Thr Gln  
                     100                    105                    110

10

Val Thr Val Ser Ser  
                     115

<210> 425  
 <211> 124  
 <212> PRT  
 <213> -

20

<400> 425

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Leu Ser Thr Asn  
                     20                    25                    30

30

Asp Met Gly Trp Tyr Arg Gln Ala Pro Gly Asn Gln Arg Glu Leu Val  
                     35                    40                    45

Ala Arg Ile Ser Arg Gly Ser Ser Thr Ile Tyr Thr Glu Ser Val Lys  
                     50                    55                    60

40

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn  
                     85                    90                    95

Ala Asp Met Leu Pro Ser Asp Leu Ser His Gly Tyr Tyr Tyr Arg Asp  
                     100                    105                    110

50

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
                     115                    120

<210> 426  
 <211> 124  
 <212> PRT  
 <213> -

&lt;400&gt; 426

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr  
20 25 30

10

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
35 40 45

Ser Cys Ile Ser Ser Arg Asp Gly Met Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

20

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

Ala Ala Asp Leu Val Gly Ser Phe Pro Cys Pro Val Ala Ala Tyr Asp  
100 105 110

30

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

&lt;210&gt; 427

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; -

40

&lt;400&gt; 427

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

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

50

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35 40 45

Ala Ser Ile Asn Trp Gly Gly Gly Asn Thr Tyr Tyr Ala Asn Ser Val  
50 55 60

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



Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95

Ala Ala Val Ser Ser Asn Thr Glu Ile Phe Asp Thr Trp Gly Gln Gly  
100 105 110

10

Ile Gln Val Thr Val Ser Ser  
115

<210> 428  
<211> 119  
<212> PRT  
<213> -

20

<400> 428

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

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

30

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35 40 45

Ala Ser Ile Val Trp Ile Gly Gly Arg Thr Tyr Tyr Ala Asp Ser Val  
50 55 60

Lys Gly Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys Ser Thr Val Thr  
65 70 75 80

40

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Thr Tyr Tyr Cys  
85 90 95

Ala Asp Gly Asp Leu Ala Thr Gly Thr Tyr Asp Tyr Trp Gly Gln Gly  
100 105 110

50

Thr Gln Val Thr Val Ser Ser  
115

<210> 429  
<211> 119  
<212> PRT  
<213> -

<400> 429

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

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

10 Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35 40 45

Ala Ser Ile Asn Trp Gly Asp Gly Asn Thr Tyr Tyr Ala Asn Ser Val  
50 55 60

20 Lys Asp Arg Phe Ala Ile Ser Lys Asp His Ala Lys Asn Thr Val Tyr  
65 70 75 80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95

Ala Ala Val Ser Ser Asn Thr Glu Ile Phe Asp Thr Trp Gly Gln Gly  
100 105 110

30 Ile Gln Val Thr Val Ser Ser  
115

<210> 430

<211> 119

<212> PRT

<213> -

<400> 430

40 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

Ser Leu Thr Leu Ser Cys Val Ala Ser Gly Arg Thr Phe Asn Asn Tyr  
20 25 30

50 Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35 40 45

Ala Ser Ile Asn Trp Gly Asn Gly Lys Thr Tyr Tyr Ala Asn Ser Val  
50 55 60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
                   85                  90                  95

Ala Ala Val Ser Ser Asn Thr Glu Thr Phe Asp Thr Trp Gly Gln Gly  
                   100                  105                  110

10 Ile Gln Val Thr Val Ser Ser  
                   115

<210> 431  
 <211> 119  
 <212> PRT  
 <213> -

20 <400> 431

Glu Val Gln Leu Val Glu Ser Val Gly Gly Leu Val Gln Thr Gly Gly  
   1                  5                  10                  15

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

30 Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
                   35                  40                  45

Ala Ala Ile Val Trp Ile Gly Gly Arg Thr Tyr Tyr Ala Asp Ser Val  
                   50                  55                  60

Lys Gly Arg Phe Thr Ile Ser Gly Asp Asn Ala Lys Ser Thr Val Thr  
   65                  70                  75                  80

40 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
                   85                  90                  95

Ala Asp Gly Asp Leu Ala Thr Gly Thr Tyr Asp Tyr Trp Gly Gln Gly  
                   100                  105                  110

50 Thr Gln Val Thr Val Ser Ser  
                   115

<210> 432  
 <211> 119  
 <212> PRT  
 <213> -

<400> 432

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

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

10 Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35 40 45

Ala Ser Ile Ala Trp Gly Asp Gly Asn Thr Tyr Tyr Ala Asn Ser Val  
50 55 60

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

20 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
85 90 95

Ala Ala Val Ser Ser Asn Ser Glu Thr Phe Asp Thr Trp Gly Gln Gly  
100 105 110

30 Ile Gln Val Thr Val Ser Ser  
115

<210> 433

<211> 119

<212> PRT

<213> -

<400> 433

40 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1 5 10 15

Ser Leu Thr Leu Ser Cys Val Ala Ser Gly Arg Thr Phe Asn Asn Tyr  
20 25 30

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35 40 45

50 Ala Ser Ile Asn Trp Gly Asn Gly Lys Thr Tyr Tyr Ala Asn Pro Val  
50 55 60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
                   85                  90                  95

Ala Ala Val Ser Ser Asn Thr Glu Thr Phe Asp Thr Trp Gly Gln Gly  
                   100                  105                  110

10 Ile Gln Val Thr Val Ser Ser  
                   115

<210> 434

<211> 119

<212> PRT

<213> -

<400> 434

20 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
     1                  5                  10                  15

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

30 Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
                   35                  40                  45

Ala Ser Ile Asn Trp Lys Asp Gly Phe Thr Tyr Tyr Ala Asn Ser Val  
                   50                  55                  60

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

40 Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
                   85                  90                  95

Ala Ala Val Ser Ser Asn Thr Glu Ile Phe Asp Ile Trp Gly Gln Gly  
                   100                  105                  110

50 Ile Gln Val Thr Val Ser Ser  
                   115

<210> 435

<211> 119

<212> PRT

<213> -

<400> 435

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp

1                    5                    10                    15

Ser Leu Thr Leu Ser Cys Val Ala Ser Gly Arg Thr Phe Ser Asn Tyr  
20                    25                    30

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35                    40                    45

10

Ala Ser Ile Asn Trp Gly Asp Gly Asn Thr Tyr Tyr Ala Asn Ser Val  
50                    55                    60

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

20

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
85                    90                    95

Ala Ala Val Ser Ser Asn Thr Glu Ile Phe Asp Thr Trp Gly Gln Gly  
100                    105                    110

Ile Gln Val Thr Val Ser Ser  
115

30

<210> 436  
<211> 119  
<212> PRT  
<213> -

<400> 436

40

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
1                    5                    10                    15

Ser Leu Thr Leu Ser Cys Val Ala Ser Gly Arg Thr Phe Asn Asn Tyr  
20                    25                    30

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
35                    40                    45

50

Ala Ser Ile Asn Trp Gly Asn Gly Lys Thr Tyr Tyr Ala Asn Ser Val  
50                    55                    60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys

85

90

95

Ala Ala Val Ser Ser Asn Thr Glu Thr Phe Asp Thr Trp Gly Gln Gly  
 100 105 110

Ile Gln Val Thr Val Ser Ser  
 115

10

<210> 437  
 <211> 119  
 <212> PRT  
 <213> -  
 <400> 437

20

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Asp  
 1 5 10 15

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

Gly Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val  
 35 40 45

30

Ala Ser Ile Asn Trp Lys Asp Gly Phe Thr Tyr Tyr Ala Asn Ser Val  
 50 55 60

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

40

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Leu Tyr Tyr Cys  
 85 90 95

Ala Ala Val Ser Ser Asn Thr Glu Ile Phe Asp Ile Trp Gly Gln Gly  
 100 105 110

Ile Gln Val Thr Val Ser Ser  
 115

50

<210> 438  
 <211> 30  
 <212> PRT  
 <213> -  
 <400> 438

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
 20 25 30

<210> 439  
 <211> 30  
 <212> PRT  
 <213> -

10

<400> 439

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

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

20

<210> 440  
 <211> 30  
 <212> PRT  
 <213> -

<400> 440

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

30

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

<210> 441  
 <211> 30  
 <212> PRT  
 <213> -

40

<400> 441

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
 20 25 30

50

<210> 442  
 <211> 30  
 <212> PRT  
 <213> -

<400> 442

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly



1                      5                      10                      15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
20                      25                      30

10  
<210> 443  
<211> 30  
<212> PRT  
<213> -

<400> 443

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

20 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
20                      25                      30

<210> 444  
<211> 30  
<212> PRT  
<213> -

<400> 444

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp  
20                      25                      30

40  
<210> 445  
<211> 5  
<212> PRT  
<213> -

<400> 445

Tyr Tyr Ala Ile Gly  
1                      5

50  
<210> 446  
<211> 5  
<212> PRT  
<213> -

<400> 446

Ala Asn Arg Met Ala  
1                      5

<210> 447  
 <211> 5  
 <212> PRT  
 <213> -

<400> 447

Ile Ser Thr Met Gly  
 1 5

10

<210> 448  
 <211> 5  
 <212> PRT  
 <213> -

<400> 448

Tyr Tyr Ala Ile Gly  
 1 5

20

<210> 449  
 <211> 5  
 <212> PRT  
 <213> -

<400> 449

Tyr Tyr Ala Ile Gly  
 1 5

30

<210> 450  
 <211> 5  
 <212> PRT  
 <213> -

<400> 450

Tyr Tyr Ala Ile Gly  
 1 5

40

<210> 451  
 <211> 5  
 <212> PRT  
 <213> -

<400> 451

Tyr Tyr Ala Ile Gly  
 1 5

50

<210> 452  
 <211> 14  
 <212> PRT  
 <213> -

<400> 452

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser  
1 5 10

<210> 453

<211> 14

<212> PRT

<213> -

<400> 453

Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Asp Leu Val Ala  
1 5 10

<210> 454

<211> 14

<212> PRT

<213> -

<400> 454

Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val Ala  
1 5 10

<210> 455

<211> 14

<212> PRT

<213> -

<400> 455

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser  
1 5 10

<210> 456

<211> 14

<212> PRT

<213> -

<400> 456

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser  
1 5 10

<210> 457

<211> 14

<212> PRT

<213> -

<400> 457

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser

140

1 5 10

<210> 458  
<211> 14  
<212> PRT  
<213> -

<400> 458

10

Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val Ser  
1 5 10

<210> 459  
<211> 17  
<212> PRT  
<213> -

20 <400> 459

Cys Ile Ser Ser Ser Asp Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15

Gly

30 <210> 460  
<211> 16  
<212> PRT  
<213> -

<400> 460

Thr Ile Asn Ser Gly Gly Gly Thr Asn Tyr Val Asp Ser Val Lys Gly  
1 5 10 15

40

<210> 461  
<211> 16  
<212> PRT  
<213> -

<400> 461

Ala Ile Ser Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys Gly  
1 5 10 15

50

<210> 462  
<211> 17  
<212> PRT  
<213> -

<400> 462

Cys Ile Ser Ser Ser Asp Ser Ser Thr Tyr Tyr Asp Glu Ser Val Glu

141

1 5 10 15

Gly

10 <210> 463  
<211> 17  
<212> PRT  
<213> -

<400> 463

Cys Ile Ser Ser Ser Asp Gly Thr Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15

20 Gly

<210> 464  
<211> 17  
<212> PRT  
<213> -

<400> 464

30 Cys Ile Ser Ser Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys  
1 5 10 15

Gly

40 <210> 465  
<211> 17  
<212> PRT  
<213> -

<400> 465

Cys Ile Ser Ser Ser Asp Ser Ser Thr Tyr Tyr Asp Glu Ser Val Glu  
1 5 10 15

50 Gly

<210> 466  
<211> 32  
<212> PRT  
<213> -

<400> 466

Arg Phe Thr Ile Ser Arg Asp Asn Ala Glu Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

10 <210> 467  
 <211> 32  
 <212> PRT  
 <213> -

<400> 467

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Gly Thr Val Tyr Leu Gln  
 1 5 10 15

20 Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Thr  
 20 25 30

<210> 468  
 <211> 32  
 <212> PRT  
 <213> -

<400> 468

30 Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala  
 20 25 30

40 <210> 469  
 <211> 32  
 <212> PRT  
 <213> -

<400> 469

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

50 Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

<210> 470  
 <211> 32  
 <212> PRT  
 <213> -

<400> 470

Arg Phe Thr Ile Ser Arg Asp Asn Ala Glu Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

10 <210> 471  
 <211> 32  
 <212> PRT  
 <213> -

<400> 471

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

20 Met Asn Arg Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

<210> 472  
 <211> 32  
 <212> PRT  
 <213> -

30 <400> 472

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln  
 1 5 10 15

Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Thr  
 20 25 30

40 <210> 473  
 <211> 18  
 <212> PRT  
 <213> -

<400> 473

Asp Trp Thr Arg Gly Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr Pro Arg  
 1 5 10 15

50 Asn Tyr

<210> 474  
 <211> 14  
 <212> PRT  
 <213> -

<400> 474

Arg Asp Ala Arg Asp Leu Pro Trp Gly Arg Thr Arg Asp Tyr  
1 5 10

<210> 475

<211> 15

<212> PRT

<213> -

10

<400> 475

Glu Ser Gly Leu Ala Tyr Gly Leu Gly Thr Arg Leu Phe Asp Tyr  
1 5 10 15

<210> 476

<211> 18

<212> PRT

<213> -

20

<400> 476

Asp Trp Ile Arg Glu Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr Pro Arg  
1 5 10 15

Asn Tyr

30

<210> 477

<211> 18

<212> PRT

<213> -

<400> 477

40 Asp Trp Thr Arg Gly Cys Thr Tyr Arg Ser Gly Thr Tyr Tyr Pro Arg  
1 5 10 15

Asn Tyr

<210> 478

<211> 18

<212> PRT

<213> -

50

<400> 478

Asp Trp Thr Arg Gly Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr Pro Arg  
1 5 10 15

Asn Tyr



<210> 479  
 <211> 18  
 <212> PRT  
 <213> -

<400> 479

10

Asp Trp Ile Arg Glu Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr Pro Arg  
 1 5 10 15

Asn Tyr

<210> 480  
 <211> 11  
 <212> PRT  
 <213> -

20

<400> 480

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

<210> 481  
 <211> 11  
 <212> PRT  
 <213> -

30

<400> 481

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 1 5 10

<210> 482  
 <211> 11  
 <212> PRT  
 <213> -

40

<400> 482

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 1 5 10

50

<210> 483  
 <211> 11  
 <212> PRT  
 <213> -

<400> 483

Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser

1 5 10

<210> 484  
 <211> 11  
 <212> PRT  
 <213> -

<400> 484

10

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

<210> 485  
 <211> 11  
 <212> PRT  
 <213> -

20 <400> 485

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

<210> 486  
 <211> 11  
 <212> PRT  
 <213> -

30

<400> 486

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

<210> 487  
 <211> 127  
 <212> PRT  
 <213> -

40

<400> 487

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
 20 25 30

50

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
 35 40 45

Ser Cys Ile Ser Ser Ser Asp Gly Thr Thr Tyr Tyr Ala Asp Ser Val  
 50 55 60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95

10 Ala Thr Asp Trp Thr Arg Gly Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr  
100 105 110

Pro Arg Asn Tyr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120 125

20 <210> 488  
<211> 122  
<212> PRT  
<213> -

<400> 488

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

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

Arg Met Ala Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Asp Leu Val  
35 40 45

Ala Thr Ile Asn Ser Gly Gly Gly Thr Asn Tyr Val Asp Ser Val Lys  
50 55 60

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn  
85 90 95

50 Thr Arg Asp Ala Arg Asp Leu Pro Trp Gly Arg Thr Arg Asp Tyr Trp  
100 105 110

Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

<210> 489  
<211> 123  
<212> PRT  
<213> -

&lt;400&gt; 489

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr Phe Ser Ile Ser  
20 25 30

10

Thr Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Gln Arg Glu Leu Val  
35 40 45

Ala Ala Ile Ser Ser Gly Gly Ser Thr Asn Tyr Ala Asp Ser Val Lys  
50 55 60

20

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

Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn  
85 90 95

Ala Glu Ser Gly Leu Ala Tyr Gly Leu Gly Thr Arg Leu Phe Asp Tyr  
100 105 110

30

Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
115 120

&lt;210&gt; 490

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; -

40

&lt;400&gt; 490

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
20 25 30

50

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
35 40 45

Ser Cys Ile Ser Ser Ser Asp Ser Ser Thr Tyr Tyr Asp Glu Ser Val  
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr

65

70

75

80

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                   85                  90                  95

Ala Thr Asp Trp Ile Arg Glu Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr  
                   100                  105                  110

10

Pro Arg Asn Tyr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
                   115                  120                  125

<210> 491  
 <211> 127  
 <212> PRT  
 <213> -

20

<400> 491

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
                   20                  25                  30

30

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
                   35                  40                  45

Ser Cys Ile Ser Ser Ser Asp Gly Thr Thr Tyr Tyr Ala Asp Ser Val  
                   50                  55                  60

40

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                   85                  90                  95

Ala Thr Asp Trp Thr Arg Gly Cys Thr Tyr Arg Ser Gly Thr Tyr Tyr  
                   100                  105                  110

50

Pro Arg Asn Tyr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
                   115                  120                  125

<210> 492  
 <211> 127  
 <212> PRT  
 <213> -

&lt;400&gt; 492

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
 20 25 30

10

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
 35 40 45

Ser Cys Ile Ser Ser Ser Asp Gly Ser Thr Tyr Tyr Ala Asp Ser Val  
 50 55 60

20

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

Leu Gln Met Asn Arg Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95

Ala Thr Asp Trp Thr Arg Gly Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr  
 100 105 110

30

Pro Arg Asn Tyr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
 115 120 125

&lt;210&gt; 493

&lt;211&gt; 127

&lt;212&gt; PRT

&lt;213&gt; -

40

&lt;400&gt; 493

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Tyr Tyr  
 20 25 30

50

Ala Ile Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Gly Val  
 35 40 45

Ser Cys Ile Ser Ser Ser Asp Ser Ser Thr Tyr Tyr Asp Glu Ser Val  
 50 55 60

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

Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys  
                   85                  90                  95

Ala Thr Asp Trp Ile Arg Glu Cys Thr Tyr Arg Ser Gly Ser Tyr Tyr  
                   100                  105                  110

10

Pro Arg Asn Tyr Arg Gly Gln Gly Thr Gln Val Thr Val Ser Ser  
                   115                  120                  125