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<120> Antibodies and polypeptides directed against CD127

<130> B12201A

<150> EP 16306655.8
<151> 2016-12-09

<160> 96

<170> PatentIn version 3.5

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

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

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

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

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

Ala Arg Pro Leu Ser Ala His Tyr Gly Phe Asn Tyr Phe Asp Tyr Trp
100 105 110

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

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Ser Ala Asn Thr Leu His Ile Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Tyr Asp Tyr Pro Leu
85 90 95

Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

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Asp Arg Val Thr Ile Thr Cys Arg Thr Ser Glu Asp Ile Tyr Gln Gly
20 25 30

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

Tyr Ser Ala Asn Thr Leu His Ile Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Tyr Tyr Asp Tyr Pro Leu
                85                  90                  95

Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
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1               5                   10                  15

Asp Arg Val Thr Ile Thr Cys Arg Thr Ser Glu Asp Ile Tyr Gln Gly
            20                  25                  30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Leu
        35                  40                  45

Tyr Ser Ala Asn Thr Leu His Ile Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
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Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Tyr Tyr Asp Tyr Pro Leu
                85                  90                  95


Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1               5                   10                  15


Asp Arg Val Thr Ile Thr Cys Arg Thr Ser Glu Asp Ile Tyr Gln Gly
            20                  25                  30


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


Tyr Ser Ala Asn Thr Leu His Ile Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Asp Tyr Pro Leu
                85                  90                  95


Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


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Asp Arg Val Thr Ile Thr Cys Arg Thr Ser Glu Asp Ile Tyr Gln Gly
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Leu
35 40 45

Tyr Ser Ala Asn Thr Leu His Ile Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Asp Tyr Pro Leu
85 90 95

Ala Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

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ccaggcaagg gactggagtg ggtgtctact atttctgcca gtggcctgag gacctactat 180

cctgacagtg tcaagggaag gttcacaatc tcacgggata acgctaaaaa ttccctgtac 240

ctgcagatga acagcctgag agccgaagac accgctgtgt actattgcgc tcgcccactg 300

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ggccaggccc cgcggctgtt gatctactcc gcgaacacct tgcacatcgg catcccggcg 180

cgcttctcgg ggtcagggag cggcaccgag ttcaccctga ccatctcgtc gctccagagc 240

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gggaccaagg tggagatcaa g 321

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atcacctgcc ggacgtccga ggatatctac cagggcctcg cctggtacca gcagaagccg 120

ggcaaggccc ccaaactgct ggtctacagc gcgaacaccc tccacatcgg cgtccccagc 180

cggttcagcg gctccggctc gggaacggac tacaccctca cgatctcgtc cctgcagccg 240

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ggcaccaagg tcgagatcaa g 321

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ggcaaggccc ccaaactgct gctctacagc gcgaacaccc tccacatcgg cgtccccagc 180

cggttcagcg gctccggctc gggaacggac tacaccctca cgatctcgtc cctgcagccg 240

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ggcaccaagg tcgagatcaa g 321

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atcacctgcc ggacgtccga ggatatctac cagggcctcg cctggtacca gcagaagccg 120

ggcaaggccc ccaaactgct ggtctacagc gcgaacaccc tccacatcgg cgtccccagc 180

cggttcagcg gctccggctc gggaacggac tacaccctca cgatctcgtc cctgcagccg 240

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ggcaccaagg tcgagatcaa g 321

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ggcaaggccc ccaaactgct gctctacagc gcgaacaccc tccacatcgg cgtccccagc 180

cggttcagcg gctccggctc gggaacggac tacaccctca cgatctcgtc cctgcagccg 240

gaagacttcg ccacctacta ctgccagcag tattacgact acccgctggc gttcggtggc 300

ggcaccaagg tcgagatcaa g 321

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Lys Lys Phe Leu Leu Ile Gly Lys Ser Asn Ile Cys Val Lys Val
20 25 30

<210> 20
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Tyr Glu Ile Lys Val Arg Ser Ile Pro Asp His Tyr Phe Lys Gly Phe
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Trp Ser Glu Trp Ser Pro Ser Tyr Tyr Phe Arg Thr Pro Glu Ile
20 25 30

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Met Thr Ile Leu Gly Thr Thr Phe Gly Met Val Phe Ser Leu Leu Gln
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Val Val Ser Gly Glu Ser Gly Tyr Ala Gln Asn Gly Asp Leu Glu Asp
20 25 30

Ala Glu Leu Asp Asp Tyr Ser Phe Ser Cys Tyr Ser Gln Leu Glu Val
35 40 45

Asn Gly Ser Gln His Ser Leu Thr Cys Ala Phe Glu Asp Pro Asp Val
50 55 60

Asn Thr Thr Asn Leu Glu Phe Glu Ile Cys Gly Ala Leu Val Glu Val
65 70 75 80

Lys Cys Leu Asn Phe Arg Lys Leu Gln Glu Ile Tyr Phe Ile Glu Thr
85 90 95

Lys Lys Phe Leu Leu Ile Gly Lys Ser Asn Ile Cys Val Lys Val Gly
100 105 110

Glu Lys Ser Leu Thr Cys Lys Lys Ile Asp Leu Thr Thr Ile Val Lys
115 120 125

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

Asp Phe Val Val Thr Phe Asn Thr Ser His Leu Gln Lys Lys Tyr Val
145 150 155 160

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Lys Val Leu Met His Asp Val Ala Tyr Arg Gln Glu Lys Asp Glu Asn
                165                 170                 175

Lys Trp Thr His Val Asn Leu Ser Ser Thr Lys Leu Thr Leu Leu Gln
            180                 185                 190

Arg Lys Leu Gln Pro Ala Ala Met Tyr Glu Ile Lys Val Arg Ser Ile
        195                 200                 205

Pro Asp His Tyr Phe Lys Gly Phe Trp Ser Glu Trp Ser Pro Ser Tyr
    210                 215                 220

Tyr Phe Arg Thr Pro Glu Ile Asn Asn Ser Ser Gly Glu Met Asp Pro
225                 230                 235                 240

Ile Leu Leu Thr Ile Ser Ile Leu Ser Phe Phe Ser Val Ala Leu Leu
                245                 250                 255

Val Ile Leu Ala Cys Val Leu Trp Lys Lys Arg Ile Lys Pro Ile Val
            260                 265                 270

Trp Pro Ser Leu Pro Asp His Lys Lys Thr Leu Glu His Leu Cys Lys
        275                 280                 285

Lys Pro Arg Lys Asn Leu Asn Val Ser Phe Asn Pro Glu Ser Phe Leu
    290                 295                 300

Asp Cys Gln Ile His Arg Val Asp Asp Ile Gln Ala Arg Asp Glu Val
305                 310                 315                 320

Glu Gly Phe Leu Gln Asp Thr Phe Pro Gln Gln Leu Glu Glu Ser Glu
                325                 330                 335

Lys Gln Arg Leu Gly Gly Asp Val Gln Ser Pro Asn Cys Pro Ser Glu
            340                 345                 350
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Asp Val Val Ile Thr Pro Glu Ser Phe Gly Arg Asp Ser Ser Leu Thr
355 360 365

Cys Leu Ala Gly Asn Val Ser Ala Cys Asp Ala Pro Ile Leu Ser Ser
370 375 380

Ser Arg Ser Leu Asp Cys Arg Glu Ser Gly Lys Asn Gly Pro His Val
385 390 395 400

Tyr Gln Asp Leu Leu Leu Ser Leu Gly Thr Thr Asn Ser Thr Leu Pro
405 410 415

Pro Pro Phe Ser Leu Gln Ser Gly Ile Leu Thr Leu Asn Pro Val Ala
420 425 430

Gln Gly Gln Pro Ile Leu Thr Ser Leu Gly Ser Asn Gln Glu Glu Ala
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Tyr Val Thr Met Ser Ser Phe Tyr Gln Asn Gln
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<400> 22

Glu Ser Gly Tyr Ala Gln Asn Gly Asp Leu Glu Asp Ala Glu Leu Asp
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Asp Tyr Ser Phe Ser Cys Tyr Ser Gln Leu Glu Val Asn Gly Ser Gln
20 25 30

His Ser Leu Thr Cys Ala Phe Glu Asp Pro Asp Val Asn Thr Thr Asn
35 40 45

```
Leu Glu Phe Glu Ile Cys Gly Ala Leu Val Glu Val Lys Cys Leu Asn
    50                  55                  60

Phe Arg Lys Leu Gln Glu Ile Tyr Phe Ile Glu Thr Lys Lys Phe Leu
65                  70                  75                  80

Leu Ile Gly Lys Ser Asn Ile Cys Val Lys Val Gly Glu Lys Ser Leu
                85                  90                  95

Thr Cys Lys Lys Ile Asp Leu Thr Thr Ile Val Lys Pro Glu Ala Pro
            100                 105                 110

Phe Asp Leu Ser Val Ile Tyr Arg Glu Gly Ala Asn Asp Phe Val Val
        115                 120                 125

Thr Phe Asn Thr Ser His Leu Gln Lys Lys Tyr Val Lys Val Leu Met
    130                 135                 140

His Asp Val Ala Tyr Arg Gln Glu Lys Asp Glu Asn Lys Trp Thr His
145                 150                 155                 160

Val Asn Leu Ser Ser Thr Lys Leu Thr Leu Leu Gln Arg Lys Leu Gln
                165                 170                 175

Pro Ala Ala Met Tyr Glu Ile Lys Val Arg Ser Ile Pro Asp His Tyr
            180                 185                 190

Phe Lys Gly Phe Trp Ser Glu Trp Ser Pro Ser Tyr Tyr Phe Arg Thr
        195                 200                 205

Pro Glu Ile Asn Asn Ser Ser Gly Glu Met Asp
    210                 215
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Phe Ile Glu Thr Lys Lys Phe
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Asp Leu Ser Val Ile Tyr
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Phe Lys Gly Phe
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Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
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Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65                  70                  75                  80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

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

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    130                 135                 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145                 150                 155                 160

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    210                 215                 220
```

```
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240


Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255


Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270


Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285


Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300


Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320


Leu Ser Leu Ser Pro Gly Lys
                325
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Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1               5                   10                  15


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


Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
        35                  40                  45
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Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
    50                  55                  60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65                  70                  75                  80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
                85                  90                  95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
            100                 105
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<400> 28

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Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
1               5                   10                  15

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

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
        35                  40                  45

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
    50                  55                  60

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
65                  70                  75                  80

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
                85                  90                  95
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Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

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tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 180

ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg cacgaagacc 240

tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagag agttgagtcc 300

aaatatggtc ccccatgccc accatgccca gcacctgagt tcctgggggg accatcagtc 360

ttcctgttcc ccccaaaacc caaggacact ctcatgatct cccggacccc tgaggtcacg 420

tgcgtggtgg tggacgtgag ccaggaagac cccgaggtcc agttcaactg gtacgtggat 480

ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagttcaa cagcacgtac 540

cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaacggcaa ggagtacaag 600

tgcaaggtct ccaacaaagg cctcccgtcc tccatcgaga aaaccatctc caaagccaaa 660

gggcagcccc gagagccaca ggtgtacacc ctgcccccat cccaggagga gatgaccaag 720

aaccaggtca gcctgacctg cctggtcaaa ggcttctacc ccagcgacat cgccgtggag 780

tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc 840

gacggctcct tcttcctcta cagcaggcta accgtggaca agagcaggtg gcaggagggg 900

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ctctccctgt ctccgggtaa atga 984

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tggaaggtgg acaacgccct ccagtcgggc aacagtcagg agagcgtcac ggagcaggac 180

tccaaggact cgacatactc cctgtcctcg acgctgacct tgagcaaagc cgattacgag 240

aagcacaagg tgtacgcgtg cgaggtgacc catcagggcc tgtcctcccc ggtgaccaag 300

tccttcaacc ggggcgaatg ctgat 325

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accgcctccg tcgtgtgcct gctcaacaac ttctaccccc gcgaggcgaa ggtgcagtgg 120

aaggtggaca acgccctcca gtcgggcaac agtcaggaga gcgtcacgga gcaggactcc 180

aaggactcga catactccct gtcctcgacg ctgaccttga gcaaagccga ttacgagaag 240

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

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Thr Lys Leu Thr Leu Leu Gln Arg
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Thr Leu Leu Gln Arg Lys Leu Gln Pro Ala Ala Met Tyr Glu Ile
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<400> 36

Leu Val Glu Val Lys Cys Leu Asn Phe Arg
1 5 10

<210> 37
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<400> 37

Ile Cys Gly Ala Leu Val Glu Val Lys Cys Leu Asn Phe Arg
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<210> 38
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<400> 38

Leu Val Glu Val Lys Cys Leu Asn Phe Arg Lys
1 5 10

<210> 39
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Lys Lys Phe Leu Leu Ile Gly
1 5

<210> 40
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<400> 40

Lys Lys Phe Leu Leu Ile Gly Lys Ser Asn Ile
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<210> 41
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Phe Ile Glu Thr Lys Lys Phe Leu Leu Ile Gly
1 5 10

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<400> 42

Cys Leu Asn Phe Arg
1 5

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<400> 43

Phe Ile Glu Thr Lys Lys Phe
1 5

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<400> 44

Glu Ser Gly Tyr Ala Gln Asn Gly Asp Leu Glu Asp Ala Glu Leu
1 5 10 15

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<400> 45

Ala Gln Asn Gly Asp Leu Glu Asp Ala Glu Leu Asp Asp Tyr Ser
1 5 10 15

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<400> 46

Asp Leu Glu Asp Ala Glu Leu Asp Asp Tyr Ser Phe Ser Cys Tyr
1 5 10 15

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<400> 47

Ala Glu Leu Asp Asp Tyr Ser Phe Ser Cys Tyr Ser Gln Leu Glu
1 5 10 15

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<400> 48

Asp Tyr Ser Phe Ser Cys Tyr Ser Gln Leu Glu Val Asn Gly Ser
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<400> 49

Ser Cys Tyr Ser Gln Leu Glu Val Asn Gly Ser Gln His Ser Leu
1 5 10 15

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<400> 50

Gln Leu Glu Val Asn Gly Ser Gln His Ser Leu Thr Cys Ala Phe
1   5   10   15

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<400> 51

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

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<400> 52

His Ser Leu Thr Cys Ala Phe Glu Asp Pro Asp Val Asn Thr Thr
1   5   10   15

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<400> 53

Cys Ala Phe Glu Asp Pro Asp Val Asn Thr Thr Asn Leu Glu Phe
1   5   10   15

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<400> 54

Asp Pro Asp Val Asn Thr Thr Asn Leu Glu Phe Glu Ile Cys Gly
1 5 10 15

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<400> 55

Asn Thr Thr Asn Leu Glu Phe Glu Ile Cys Gly Ala Leu Val Glu
1 5 10 15

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<400> 56

Leu Glu Phe Glu Ile Cys Gly Ala Leu Val Glu Val Lys Cys Leu
1 5 10 15

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<400> 57

Ile Cys Gly Ala Leu Val Glu Val Lys Cys Leu Asn Phe Arg Lys
1 5 10 15

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<400> 58

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

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<400> 59

Lys Cys Leu Asn Phe Arg Lys Leu Gln Glu Ile Tyr Phe Ile Glu
1 5 10 15

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<400> 60

Phe Arg Lys Leu Gln Glu Ile Tyr Phe Ile Glu Thr Lys Lys Phe
1 5 10 15

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<400> 61

Gln Glu Ile Tyr Phe Ile Glu Thr Lys Lys Phe Leu Leu Ile Gly
1 5 10 15

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<400> 62

Phe Ile Glu Thr Lys Lys Phe Leu Leu Ile Gly Lys Ser Asn Ile
1 5 10 15

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<400> 63

Lys Lys Phe Leu Leu Ile Gly Lys Ser Asn Ile Cys Val Lys Val
1 5 10 15

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<400> 64

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

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<400> 65

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

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<400> 66

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

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<400> 67

Glu Lys Ser Leu Thr Cys Lys Lys Ile Asp Leu Thr Thr Ile Val
1 5 10 15

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<400> 68

Thr Cys Lys Lys Ile Asp Leu Thr Thr Ile Val Lys Pro Glu Ala
1 5 10 15

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<400> 69

Ile Asp Leu Thr Thr Ile Val Lys Pro Glu Ala Pro Phe Asp Leu
1 5 10 15

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<400> 70

Thr Ile Val Lys Pro Glu Ala Pro Phe Asp Leu Ser Val Ile Tyr
1 5 10 15

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<400> 71

Pro Glu Ala Pro Phe Asp Leu Ser Val Ile Tyr Arg Glu Gly Ala
1 5 10 15

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<400> 72

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

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<400> 73

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

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<400> 74

Glu Gly Ala Asn Asp Phe Val Val Thr Phe Asn Thr Ser His Leu
1 5 10 15

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<400> 75

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

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<400> 76

Thr Phe Asn Thr Ser His Leu Gln Lys Lys Tyr Val Lys Val Leu
1   5   10   15

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<400> 77

Ser His Leu Gln Lys Lys Tyr Val Lys Val Leu Met His Asp Val
1   5   10   15

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<400> 78

Lys Lys Tyr Val Lys Val Leu Met His Asp Val Ala Tyr Arg Gln
1   5   10   15

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<400> 79

Lys Val Leu Met His Asp Val Ala Tyr Arg Gln Glu Lys Asp Glu
1 5 10 15

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<400> 80

His Asp Val Ala Tyr Arg Gln Glu Lys Asp Glu Asn Lys Trp Thr
1 5 10 15

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<400> 81

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

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<400> 82

Lys Asp Glu Asn Lys Trp Thr His Val Asn Leu Ser Ser Thr Lys
1 5 10 15

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<400> 83

Lys Trp Thr His Val Asn Leu Ser Ser Thr Lys Leu Thr Leu Leu
1 5 10 15

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<400> 84

Val Asn Leu Ser Ser Thr Lys Leu Thr Leu Leu Gln Arg Lys Leu
1 5 10 15

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<400> 85

Ser Thr Lys Leu Thr Leu Leu Gln Arg Lys Leu Gln Pro Ala Ala
1 5 10 15

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<400> 86

Thr Leu Leu Gln Arg Lys Leu Gln Pro Ala Ala Met Tyr Glu Ile
1 5 10 15

<210> 87
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<400> 87

Arg Lys Leu Gln Pro Ala Ala Met Tyr Glu Ile Lys Val Arg Ser
1 5 10 15

<210> 88
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<400> 88

Pro Ala Ala Met Tyr Glu Ile Lys Val Arg Ser Ile Pro Asp His
1 5 10 15

<210> 89
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<400> 89

Tyr Glu Ile Lys Val Arg Ser Ile Pro Asp His Tyr Phe Lys Gly
1 5 10 15

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<400> 90

Val Arg Ser Ile Pro Asp His Tyr Phe Lys Gly Phe Trp Ser Glu
1 5 10 15

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<400> 91

Pro Asp His Tyr Phe Lys Gly Phe Trp Ser Glu Trp Ser Pro Ser
1 5 10 15

<210> 92
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<400> 92

Phe Lys Gly Phe Trp Ser Glu Trp Ser Pro Ser Tyr Tyr Phe Arg
1 5 10 15

<210> 93
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<400> 93

Trp Ser Glu Trp Ser Pro Ser Tyr Tyr Phe Arg Thr Pro Glu Ile
1 5 10 15

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<400> 94

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

<210> 95
<211> 15
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<400> 95

Tyr Phe Arg Thr Pro Glu Ile Asn Asn Ser Ser Gly Glu Met Asp
1 5 10 15

<210> 96
<211> 8
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<400> 96

Arg Lys Leu Gln Pro Ala Ala Met
1 5