SEQUENCE LISTING

<110> MEDIMMUNE LIMITED

<120> COMBINATION THERAPY FOR NON-SMALL CELL LUNG CANCER POSITIVE FOR EGFR MUTATION

<130> B7IR-200WO1

<140>
<141>

<150> 62/151,739
<151> 2015-04-23

<160> 13

<170> PatentIn version 3.5

<210> 1
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 1

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

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

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

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

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
```

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


Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 2
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      polypeptide"

<400> 2
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 Arg Tyr
            20                  25                  30


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


Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val 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 Glu Gly Gly Trp Phe Gly Glu Leu Ala Phe Asp Tyr Trp Gly
            100                 105                 110
```

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 3
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 3
Gly Phe Thr Phe Ser Arg Tyr Trp Met Ser
1 5 10

<210> 4
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 4
Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val Lys
1 5 10 15

Gly

<210> 5
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 5
Glu Gly Gly Trp Phe Gly Glu Leu Ala Phe Asp Tyr
1 5 10

<210> 6
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 6
Arg Ala Ser Gln Arg Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 7
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 7
Asp Ala Ser Ser Arg Ala Thr
1 5

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 8
Gln Gln Tyr Gly Ser Leu Pro Trp Thr

1 5

<210> 9
<211> 176
<212> PRT
<213> Homo sapiens

<400> 9

```
Met Arg Ile Phe Ala Val Phe Ile Phe Met Thr Tyr Trp His Leu Leu
1               5                  10                  15

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

Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr Pro Lys
        35                  40                  45

Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser Gly Lys
    50                  55                  60

Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn Val Thr
65                  70                  75                  80

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

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

Pro Glu Leu Pro Leu Ala His Pro Pro Asn Glu Arg Thr His Leu Val
        115                 120                 125

Ile Leu Gly Ala Ile Leu Leu Cys Leu Gly Val Ala Leu Thr Phe Ile
    130                 135                 140

Phe Arg Leu Arg Lys Gly Arg Met Met Asp Val Lys Lys Cys Gly Ile
145                 150                 155                 160
```

Gln Asp Thr Asn Ser Lys Lys Gln Ser Asp Thr His Leu Glu Glu Thr
165 170 175

<210> 10
<211> 3349
<212> DNA
<213> Homo sapiens

<400> 10
ggcgcaacgc tgagcagctg gcgcgtcccg cgcggcccca gttctgcgca gcttcccgag 60

gctccgcacc agccgcgctt ctgtccgcct gcagggcatt ccagaaagat gaggatattt 120

gctgtcttta tattcatgac ctactggcat ttgctgaacg ccccatacaa caaaatcaac 180

caaagaattt tggttgtgga tccagtcacc tctgaacatg aactgacatg tcaggctgag 240

ggctacccca aggccgaagt catctggaca agcagtgacc atcaagtcct gagtggtaag 300

accaccacca ccaattccaa gagagaggag aagcttttca atgtgaccag cacactgaga 360

atcaacacaa caactaatga gattttctac tgcactttta ggagattaga tcctgaggaa 420

aaccatacag ctgaattggt catcccagaa ctacctctgg cacatcctcc aaatgaaagg 480

actcacttgg taattctggg agccatctta ttatgccttg gtgtagcact gacattcatc 540

ttccgtttaa gaaaagggag aatgatggat gtgaaaaaat gtggcatcca agatacaaac 600

tcaaagaagc aaagtgatac acatttggag gagacgtaat ccagcattgg aacttctgat 660

cttcaagcag ggattctcaa cctgtggttt aggggttcat cggggctgag cgtgacaaga 720

ggaaggaatg ggcccgtggg atgcaggcaa tgtgggactt aaaaggccca agcactgaaa 780

atggaacctg gcgaaagcag aggaggagaa tgaagaaaga tggagtcaaa cagggagcct 840

ggagggagac cttgatactt tcaaatgcct gaggggctca tcgacgcctg tgacagggag 900

aaaggatact tctgaacaag gagcctccaa gcaaatcatc cattgctcat cctaggaaga 960

cgggttgaga atccctaatt tgagggtcag ttcctgcaga agtgcccttt gcctccactc 1020

aatgcctcaa tttgttttct gcatgactga gagtctcagt gttggaacgg gacagtattt 1080

atgtatgagt ttttcctatt tattttgagt ctgtgaggtc ttcttgtcat gtgagtgtgg 1140

ttgtgaatga tttcttttga agatatattg tagtagatgt tacaattttg tcgccaaact 1200

aaacttgctg cttaatgatt tgctcacatc tagtaaaaca tggagtattt gtaaggtgct 1260

tggtctcctc tataactaca agtatacatt ggaagcataa agatcaaacc gttggttgca 1320

taggatgtca cctttattta acccattaat actctggttg acctaatctt attctcagac 1380

ctcaagtgtc tgtgcagtat ctgttccatt taaatatcag ctttacaatt atgtggtagc 1440

ctacacacat aatctcattt catcgctgta accaccctgt tgtgataacc actattattt 1500

tacccatcgt acagctgagg aagcaaacag attaagtaac ttgcccaaac cagtaaatag 1560

cagacctcag actgccaccc actgtccttt tataatacaa tttacagcta tattttactt 1620

taagcaattc ttttattcaa aaaccattta ttaagtgccc ttgcaatatc aatcgctgtg 1680

ccaggcattg aatctacaga tgtgagcaag acaaagtacc tgtcctcaag gagctcatag 1740

tataatgagg agattaacaa gaaaatgtat tattacaatt tagtccagtg tcatagcata 1800

aggatgatgc gaggggaaaa cccgagcagt gttgccaaga ggaggaaata ggccaatgtg 1860

gtctgggacg gttggatata cttaaacatc ttaataatca gagtaatttt catttacaaa 1920

gagaggtcgg tacttaaaat aaccctgaaa aataacactg gaattccttt tctagcatta 1980

tatttattcc tgatttgcct ttgccatata atctaatgct tgtttatata gtgtctggta 2040

ttgtttaaca gttctgtctt ttctatttaa atgccactaa attttaaatt catacctttc 2100

catgattcaa aattcaaaag atcccatggg agatggttgg aaaatctcca cttcatcctc 2160

caagccattc aagtttcctt tccagaagca actgctactg cctttcattc atatgttctt 2220

ctaaagatag tctacatttg gaaatgtatg ttaaaagcac gtatttttaa aatttttttc 2280

ctaaatagta acacattgta tgtctgctgt gtactttgct atttttattt attttagtgt 2340

ttcttatata gcagatggaa tgaatttgaa gttcccaggg ctgaggatcc atgccttctt 2400

tgtttctaag ttatctttcc catagctttt cattatcttt catatgatcc agtatatgtt 2460

aaatatgtcc tacatataca tttagacaac caccatttgt taagtatttg ctctaggaca 2520

gagtttggat ttgtttatgt ttgctcaaaa ggagacccat gggctctcca gggtgcactg 2580

agtcaatcta gtcctaaaaa gcaatcttat tattaactct gtatgacaga atcatgtctg 2640

gaacttttgt tttctgcttt ctgtcaagta taaacttcac tttgatgctg tacttgcaaa 2700

atcacatttt ctttctggaa attccggcag tgtaccttga ctgctagcta ccctgtgcca 2760

gaaaagcctc attcgttgtg cttgaaccct tgaatgccac cagctgtcat cactacacag 2820

ccctcctaag aggcttcctg gaggtttcga gattcagatg ccctgggaga tcccagagtt 2880

tcctttccct cttggccata ttctggtgtc aatgacaagg agtaccttgg ctttgccaca 2940

tgtcaaggct gaagaaacag tgtctccaac agagctcctt gtgttatctg tttgtacatg 3000

tgcatttgta cagtaattgg tgtgacagtg ttctttgtgt gaattacagg caagaattgt 3060

ggctgagcaa ggcacatagt ctactcagtc tattcctaag tcctaactcc tccttgtggt 3120

gttggatttg taaggcactt tatccctttt gtctcatgtt tcatcgtaaa tggcataggc 3180

agagatgata cctaattctg catttgattg tcacttttg tacctgcatt aatttaataa 3240

aatattctta tttattttgt tacttggtac accagcatgt ccattttctt gtttattttg 3300

tgtttaataa aatgttcagt ttaacatccc agtggagaaa gttaaaaaa 3349

<210> 11
<211> 1210
<212> PRT
<213> Homo sapiens

<400> 11
Met Arg Pro Ser Gly Thr Ala Gly Ala Ala Leu Leu Ala Leu Leu Ala
1 5 10 15

Ala Leu Cys Pro Ala Ser Arg Ala Leu Glu Glu Lys Lys Val Cys Gln
20 25 30

Gly Thr Ser Asn Lys Leu Thr Gln Leu Gly Thr Phe Glu Asp His Phe
35 40 45

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

```
Leu Glu Ile Thr Tyr Val Gln Arg Asn Tyr Asp Leu Ser Phe Leu Lys
65                  70                  75                  80

Thr Ile Gln Glu Val Ala Gly Tyr Val Leu Ile Ala Leu Asn Thr Val
                85                  90                  95

Glu Arg Ile Pro Leu Glu Asn Leu Gln Ile Ile Arg Gly Asn Met Tyr
            100                 105                 110

Tyr Glu Asn Ser Tyr Ala Leu Ala Val Leu Ser Asn Tyr Asp Ala Asn
        115                 120                 125

Lys Thr Gly Leu Lys Glu Leu Pro Met Arg Asn Leu Gln Glu Ile Leu
    130                 135                 140

His Gly Ala Val Arg Phe Ser Asn Asn Pro Ala Leu Cys Asn Val Glu
145                 150                 155                 160

Ser Ile Gln Trp Arg Asp Ile Val Ser Ser Asp Phe Leu Ser Asn Met
                165                 170                 175

Ser Met Asp Phe Gln Asn His Leu Gly Ser Cys Gln Lys Cys Asp Pro
            180                 185                 190

Ser Cys Pro Asn Gly Ser Cys Trp Gly Ala Gly Glu Glu Asn Cys Gln
        195                 200                 205

Lys Leu Thr Lys Ile Ile Cys Ala Gln Gln Cys Ser Gly Arg Cys Arg
    210                 215                 220

Gly Lys Ser Pro Ser Asp Cys Cys His Asn Gln Cys Ala Ala Gly Cys
225                 230                 235                 240

Thr Gly Pro Arg Glu Ser Asp Cys Leu Val Cys Arg Lys Phe Arg Asp
                245                 250                 255
```

```
Glu Ala Thr Cys Lys Asp Thr Cys Pro Pro Leu Met Leu Tyr Asn Pro
            260                 265                 270

Thr Thr Tyr Gln Met Asp Val Asn Pro Glu Gly Lys Tyr Ser Phe Gly
        275                 280                 285

Ala Thr Cys Val Lys Lys Cys Pro Arg Asn Tyr Val Val Thr Asp His
    290                 295                 300

Gly Ser Cys Val Arg Ala Cys Gly Ala Asp Ser Tyr Glu Met Glu Glu
305                 310                 315                 320

Asp Gly Val Arg Lys Cys Lys Lys Cys Glu Gly Pro Cys Arg Lys Val
                325                 330                 335

Cys Asn Gly Ile Gly Ile Gly Glu Phe Lys Asp Ser Leu Ser Ile Asn
            340                 345                 350

Ala Thr Asn Ile Lys His Phe Lys Asn Cys Thr Ser Ile Ser Gly Asp
        355                 360                 365

Leu His Ile Leu Pro Val Ala Phe Arg Gly Asp Ser Phe Thr His Thr
    370                 375                 380

Pro Pro Leu Asp Pro Gln Glu Leu Asp Ile Leu Lys Thr Val Lys Glu
385                 390                 395                 400

Ile Thr Gly Phe Leu Leu Ile Gln Ala Trp Pro Glu Asn Arg Thr Asp
                405                 410                 415

Leu His Ala Phe Glu Asn Leu Glu Ile Ile Arg Gly Arg Thr Lys Gln
            420                 425                 430

His Gly Gln Phe Ser Leu Ala Val Val Ser Leu Asn Ile Thr Ser Leu
        435                 440                 445
```

```
Gly Leu Arg Ser Leu Lys Glu Ile Ser Asp Gly Asp Val Ile Ile Ser
    450                 455                 460

Gly Asn Lys Asn Leu Cys Tyr Ala Asn Thr Ile Asn Trp Lys Lys Leu
465                 470                 475                 480

Phe Gly Thr Ser Gly Gln Lys Thr Lys Ile Ile Ser Asn Arg Gly Glu
                485                 490                 495

Asn Ser Cys Lys Ala Thr Gly Gln Val Cys His Ala Leu Cys Ser Pro
            500                 505                 510

Glu Gly Cys Trp Gly Pro Glu Pro Arg Asp Cys Val Ser Cys Arg Asn
        515                 520                 525

Val Ser Arg Gly Arg Glu Cys Val Asp Lys Cys Asn Leu Leu Glu Gly
    530                 535                 540

Glu Pro Arg Glu Phe Val Glu Asn Ser Glu Cys Ile Gln Cys His Pro
545                 550                 555                 560

Glu Cys Leu Pro Gln Ala Met Asn Ile Thr Cys Thr Gly Arg Gly Pro
                565                 570                 575

Asp Asn Cys Ile Gln Cys Ala His Tyr Ile Asp Gly Pro His Cys Val
            580                 585                 590

Lys Thr Cys Pro Ala Gly Val Met Gly Glu Asn Asn Thr Leu Val Trp
        595                 600                 605

Lys Tyr Ala Asp Ala Gly His Val Cys His Leu Cys His Pro Asn Cys
    610                 615                 620

Thr Tyr Gly Cys Thr Gly Pro Gly Leu Glu Gly Cys Pro Thr Asn Gly
625                 630                 635                 640
```

```
Pro Lys Ile Pro Ser Ile Ala Thr Gly Met Val Gly Ala Leu Leu Leu
                645                 650                 655

Leu Leu Val Val Ala Leu Gly Ile Gly Leu Phe Met Arg Arg Arg His
            660                 665                 670

Ile Val Arg Lys Arg Thr Leu Arg Arg Leu Leu Gln Glu Arg Glu Leu
        675                 680                 685

Val Glu Pro Leu Thr Pro Ser Gly Glu Ala Pro Asn Gln Ala Leu Leu
    690                 695                 700

Arg Ile Leu Lys Glu Thr Glu Phe Lys Lys Ile Lys Val Leu Gly Ser
705                 710                 715                 720

Gly Ala Phe Gly Thr Val Tyr Lys Gly Leu Trp Ile Pro Glu Gly Glu
                725                 730                 735

Lys Val Lys Ile Pro Val Ala Ile Lys Glu Leu Arg Glu Ala Thr Ser
            740                 745                 750

Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met Ala Ser
        755                 760                 765

Val Asp Asn Pro His Val Cys Arg Leu Leu Gly Ile Cys Leu Thr Ser
    770                 775                 780

Thr Val Gln Leu Ile Thr Gln Leu Met Pro Phe Gly Cys Leu Leu Asp
785                 790                 795                 800

Tyr Val Arg Glu His Lys Asp Asn Ile Gly Ser Gln Tyr Leu Leu Asn
                805                 810                 815

Trp Cys Val Gln Ile Ala Lys Gly Met Asn Tyr Leu Glu Asp Arg Arg
            820                 825                 830
```

```
Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys Thr Pro
        835                 840                 845

Gln His Val Lys Ile Thr Asp Phe Gly Leu Ala Lys Leu Leu Gly Ala
    850                 855                 860

Glu Glu Lys Glu Tyr His Ala Glu Gly Gly Lys Val Pro Ile Lys Trp
865                 870                 875                 880

Met Ala Leu Glu Ser Ile Leu His Arg Ile Tyr Thr His Gln Ser Asp
                885                 890                 895

Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe Gly Ser
            900                 905                 910

Lys Pro Tyr Asp Gly Ile Pro Ala Ser Glu Ile Ser Ser Ile Leu Glu
        915                 920                 925

Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp Val Tyr
    930                 935                 940

Met Ile Met Val Lys Cys Trp Met Ile Asp Ala Asp Ser Arg Pro Lys
945                 950                 955                 960

Phe Arg Glu Leu Ile Ile Glu Phe Ser Lys Met Ala Arg Asp Pro Gln
                965                 970                 975

Arg Tyr Leu Val Ile Gln Gly Asp Glu Arg Met His Leu Pro Ser Pro
            980                 985                 990

Thr Asp Ser Asn Phe Tyr Arg Ala  Leu Met Asp Glu Glu  Asp Met Asp
        995                 1000                1005

Asp Val  Val Asp Ala Asp Glu  Tyr Leu Ile Pro Gln  Gln Gly Phe
    1010                1015                1020
```

```
Phe Ser  Ser Pro Ser Thr Ser  Arg Thr Pro Leu Leu  Ser Ser Leu
    1025                1030                1035

Ser Ala  Thr Ser Asn Asn Ser  Thr Val Ala Cys Ile  Asp Arg Asn
    1040                1045                1050

Gly Leu  Gln Ser Cys Pro Ile  Lys Glu Asp Ser Phe  Leu Gln Arg
    1055                1060                1065

Tyr Ser  Ser Asp Pro Thr Gly  Ala Leu Thr Glu Asp  Ser Ile Asp
    1070                1075                1080

Asp Thr  Phe Leu Pro Val Pro  Glu Tyr Ile Asn Gln  Ser Val Pro
    1085                1090                1095

Lys Arg  Pro Ala Gly Ser Val  Gln Asn Pro Val Tyr  His Asn Gln
    1100                1105                1110

Pro Leu  Asn Pro Ala Pro Ser  Arg Asp Pro His Tyr  Gln Asp Pro
    1115                1120                1125

His Ser  Thr Ala Val Gly Asn  Pro Glu Tyr Leu Asn  Thr Val Gln
    1130                1135                1140

Pro Thr  Cys Val Asn Ser Thr  Phe Asp Ser Pro Ala  His Trp Ala
    1145                1150                1155

Gln Lys  Gly Ser His Gln Ile  Ser Leu Asp Asn Pro  Asp Tyr Gln
    1160                1165                1170

Gln Asp  Phe Phe Pro Lys Glu  Ala Lys Pro Asn Gly  Ile Phe Lys
    1175                1180                1185

Gly Ser  Thr Ala Glu Asn Ala  Glu Tyr Leu Arg Val  Ala Pro Gln
    1190                1195                1200
```

Ser Ser Glu Phe Ile Gly Ala
    1205   1210

<210> 12
<211> 5616
<212> DNA
<213> Homo sapiens

<400> 12
ccccggcgca gcgcggccgc agcagcctcc gccccccgca cggtgtgagc gcccgacgcg 60

gccgaggcgg ccggagtccc gagctagccc cggcggccgc cgccgcccag accggacgac 120

aggccacctc gtcggcgtcc gcccgagtcc ccgcctcgcc gccaacgcca caaccaccgc 180

gcacggcccc ctgactccgt ccagtattga tcgggagagc cggagcgagc tcttcgggga 240

gcagcgatgc gaccctccgg gacggccggg gcagcgctcc tggcgctgct ggctgcgctc 300

tgcccggcga gtcgggctct ggaggaaaag aaagtttgcc aaggcacgag taacaagctc 360

acgcagttgg gcacttttga agatcatttt ctcagcctcc agaggatgtt caataactgt 420

gaggtggtcc ttgggaattt ggaaattacc tatgtgcaga ggaattatga tctttccttc 480

ttaaagacca tccaggaggt ggctggttat gtcctcattg ccctcaacac agtggagcga 540

attcctttgg aaaacctgca gatcatcaga ggaaatatgt actacgaaaa ttcctatgcc 600

ttagcagtct tatctaacta tgatgcaaat aaaaccggac tgaaggagct gcccatgaga 660

aatttacagg aaatcctgca tggcgccgtg cggttcagca acaaccctgc cctgtgcaac 720

gtggagagca tccagtggcg ggacatagtc agcagtgact ttctcagcaa catgtcgatg 780

gacttccaga accacctggg cagctgccaa aagtgtgatc caagctgtcc caatgggagc 840

tgctggggtg caggagagga gaactgccag aaactgacca aaatcatctg tgcccagcag 900

tgctccgggc gctgccgtgg caagtccccc agtgactgct gccacaacca gtgtgctgca 960

ggctgcacag gcccccggga gagcgactgc ctggtctgcc gcaaattccg agacgaagcc 1020

acgtgcaagg acacctgccc cccactcatg ctctacaacc ccaccacgta ccagatggat 1080

gtgaaccccg agggcaaata cagctttggt gccacctgcg tgaagaagtg tccccgtaat 1140

tatgtggtga cagatcacgg ctcgtgcgtc cgagcctgtg gggccgacag ctatgagatg 1200

gaggaagacg gcgtccgcaa gtgtaagaag tgcgaagggc cttgccgcaa agtgtgtaac 1260

ggaataggta ttggtgaatt taaagactca ctctccataa atgctacgaa tattaaacac 1320

ttcaaaaact gcacctccat cagtggcgat ctccacatcc tgccggtggc atttaggggt 1380

gactccttca cacatactcc tcctctggat ccacaggaac tggatattct gaaaaccgta 1440

aaggaaatca cagggttttt gctgattcag gcttggcctg aaaacaggac ggacctccat 1500

gcctttgaga acctagaaat catacgcggc aggaccaagc aacatggtca gttttctctt 1560

gcagtcgtca gcctgaacat aacatccttg ggattacgct ccctcaagga gataagtgat 1620

ggagatgtga taatttcagg aaacaaaaat ttgtgctatg caaatacaat aaactggaaa 1680

aaactgtttg ggacctccgg tcagaaaacc aaaattataa gcaacagagg tgaaaacagc 1740

tgcaaggcca caggccaggt ctgccatgcc ttgtgctccc ccgagggctg ctggggcccg 1800

gagcccaggg actgcgtctc ttgccggaat gtcagccgag gcagggaatg cgtggacaag 1860

tgcaaccttc tggagggtga gccaagggag tttgtggaga actctgagtg catacagtgc 1920

cacccagagt gcctgcctca ggccatgaac atcacctgca caggacgggg accagacaac 1980

tgtatccagt gtgcccacta cattgacggc ccccactgcg tcaagacctg cccggcagga 2040

gtcatgggag aaaacaacac cctggtctgg aagtacgcag acgccggcca tgtgtgccac 2100

ctgtgccatc caaactgcac ctacggatgc actgggccag gtcttgaagg ctgtccaacg 2160

aatgggccta agatcccgtc catcgccact gggatggtgg gggccctcct cttgctgctg 2220

gtggtggccc tggggatcgg cctcttcatg cgaaggcgcc acatcgttcg gaagcgcacg 2280

ctgcggaggc tgctgcagga gagggagctt gtggagcctc ttacacccag tggagaagct 2340

cccaaccaag ctctcttgag gatcttgaag gaaactgaat tcaaaaagat caaagtgctg 2400

ggctccggtg cgttcggcac ggtgtataag ggactctgga tcccagaagg tgagaaagtt 2460

aaaattcccg tcgctatcaa ggaattaaga gaagcaacat ctccgaaagc caacaaggaa 2520

atcctcgatg aagcctacgt gatggccagc gtggacaacc cccacgtgtg ccgcctgctg 2580

ggcatctgcc tcacctccac cgtgcagctc atcacgcagc tcatgccctt cggctgcctc 2640

ctggactatg tccgggaaca caaagacaat attggctccc agtacctgct caactggtgt 2700

gtgcagatcg caaagggcat gaactacttg gaggaccgtc gcttggtgca ccgcgacctg 2760

gcagccagga acgtactggt gaaaacaccg cagcatgtca agatcacaga ttttgggctg 2820

gccaaactgc tgggtgcgga agagaaagaa taccatgcag aaggaggcaa agtgcctatc 2880

aagtggatgg cattggaatc aattttacac agaatctata cccaccagag tgatgtctgg 2940

agctacgggg tgaccgtttg ggagttgatg acctttggat ccaagccata tgacggaatc 3000

cctgccagcg agatctcctc catcctggag aaaggagaac gcctccctca gccacccata 3060

tgtaccatcg atgtctacat gatcatggtc aagtgctgga tgatagacgc agatagtcgc 3120

ccaaagttcc gtgagttgat catcgaattc tccaaaatgg cccgagaccc ccagcgctac 3180

cttgtcattc agggggatga aagaatgcat ttgccaagtc ctacagactc caacttctac 3240

cgtgccctga tggatgaaga agacatggac gacgtggtgg atgccgacga gtacctcatc 3300

ccacagcagg gcttcttcag cagcccctcc acgtcacgga ctcccctcct gagctctctg 3360

agtgcaacca gcaacaattc caccgtggct tgcattgata gaaatgggct gcaaagctgt 3420

cccatcaagg aagacagctt cttgcagcga tacagctcag accccacagg cgccttgact 3480

gaggacagca tagacgacac cttcctccca gtgcctgaat acataaacca gtccgttccc 3540

aaaaggcccg ctggctctgt gcagaatcct gtctatcaca atcagcctct gaaccccgcg 3600

cccagcagag acccacacta ccaggacccc cacagcactg cagtgggcaa ccccgagtat 3660

ctcaacactg tccagcccac ctgtgtcaac agcacattcg acagccctgc ccactgggcc 3720

cagaaaggca gccaccaaat tagcctggac aaccctgact accagcagga cttctttccc 3780

aaggaagcca agccaaatgg catctttaag ggctccacag ctgaaaatgc agaataccta 3840

agggtcgcgc cacaaagcag tgaatttatt ggagcatgac cacggaggat agtatgagcc 3900

ctaaaaatcc agactctttc gatacccagg accaagccac agcaggtcct ccatcccaac 3960

agccatgccc gcattagctc ttagacccac agactggttt tgcaacgttt acaccgacta 4020

gccaggaagt acttccacct cgggcacatt ttgggaagtt gcattccttt gtcttcaaac 4080

tgtgaagcat ttacagaaac gcatccagca agaatattgt ccctttgagc agaaatttat 4140

ctttcaaaga ggtatatttg aaaaaaaaaa aaagtatatg tgaggatttt tattgattgg 4200

ggatcttgga gtttttcatt gtcgctattg atttttactt caatgggctc ttccaacaag 4260

gaagaagctt gctggtagca cttgctaccc tgagttcatc caggcccaac tgtgagcaag 4320

gagcacaagc cacaagtctt ccagaggatg cttgattcca gtggttctgc ttcaaggctt 4380

ccactgcaaa acactaaaga tccaagaagg ccttcatggc cccagcaggc cggatcggta 4440

ctgtatcaag tcatggcagg tacagtagga taagccactc tgtcccttcc tgggcaaaga 4500

agaaacggag gggatggaat tcttccttag acttactttt gtaaaaatgt ccccacggta 4560

cttactcccc actgatggac cagtggtttc cagtcatgag cgttagactg acttgtttgt 4620

cttccattcc attgttttga aactcagtat gctgcccctg tcttgctgtc atgaaatcag 4680

caagagagga tgacacatca aataataact cggattccag cccacattgg attcatcagc 4740

atttggacca atagcccaca gctgagaatg tggaatacct aaggatagca ccgcttttgt 4800

tctcgcaaaa acgtatctcc taatttgagg ctcagatgaa atgcatcagg tcctttgggg 4860

catagatcag aagactacaa aaatgaagct gctctgaaat ctcctttagc catcacccca 4920

acccccaaa attagtttgt gttacttatg gaagatagtt ttctcctttt acttcacttc 4980

aaaagctttt tactcaaaga gtatatgttc cctccaggtc agctgccccc aaacccctc 5040

cttacgcttt gtcacacaaa aagtgtctct gccttgagtc atctattcaa gcacttacag 5100

ctctggccac aacagggcat tttacaggtg cgaatgacag tagcattatg agtagtgtgg 5160

aattcaggta gtaaatatga aactagggtt tgaaattgat aatgctttca caacatttgc 5220

agatgtttta gaaggaaaaa agttccttcc taaaataatt tctctacaat tggaagattg 5280

gaagattcag ctagttagga gcccaccttt tttcctaatc tgtgtgtgcc ctgtaacctg 5340

actggttaac agcagtcctt tgtaaacagt gttttaaact ctcctagtca atatccaccc 5400

catccaattt atcaaggaag aaatggttca gaaaatattt tcagcctaca gttatgttca 5460

gtcacacaca catacaaaat gttccttttg cttttaaagt aatttttgac tcccagatca 5520

gtcagagccc ctacagcatt gttaagaaag tatttgattt ttgtctcaat gaaaataaaa 5580

ctatattcat ttccactcta aaaaaaaaaa aaaaaa 5616

<210> 13
<211> 5
<212> PRT
<213> Homo sapiens

<400> 13
Glu Leu Arg Glu Ala
1 5