1005_004_PCT_SL
SEQUENCE LISTING

<110> PRONUTRIA, INC.

<120> CHARGED NUTRITIVE PROTEINS AND METHODS

<130> 1005.004-PCT

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<150> 61/615,816
<151> 2012-03-26

<160> 609

<170> PatentIn version 3.5

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<212> PRT
<213> Pisum sativum

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

Gly Glu Lys Glu Glu Lys Arg His Gly Glu Trp Arg Pro Ser Tyr Glu
50 55 60

Lys Glu Glu His Glu Glu Glu Lys Gln Lys Tyr Arg Tyr Gln Arg Glu
65 70 75 80

Lys Lys Glu Gln Lys Glu Val Gln Pro Gly Arg Glu Arg Trp Glu Arg
85 90 95

Glu Glu Asp Glu Glu Gln Val Glu Glu Glu Trp Arg Gly Ser Gln Arg
100 105 110

Arg Glu Asp Pro Glu Glu Arg Ala Arg Leu Arg His Arg Glu Glu Arg
115 120 125

Thr Lys Arg Asp Arg Arg His Gln Arg Glu Gly Glu Glu Glu Glu Arg
130 135 140

Ser Ser Glu Ser Gln Glu His Arg Asn Pro Phe Leu Phe Lys Ser Asn
145 150 155 160

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Lys Phe Leu Thr Leu Phe Glu Asn Glu Asn Gly His Ile Arg Arg Leu
                165                 170                 175

Gln Arg Phe Asp Lys Arg Ser Asp Leu Phe Glu Asn Leu Gln Asn Tyr
            180                 185                 190

Arg Leu Val Glu Tyr Arg Ala Lys Pro His Thr Ile Phe Leu Pro Gln
        195                 200                 205

His Ile Asp Ala Asp Leu Ile Leu Val Val Leu Asn Gly Lys Ala Ile
    210                 215                 220

Leu Thr Val Leu Ser Pro Asn Asp Arg Asn Ser Tyr Asn Leu Glu Arg
225                 230                 235                 240

Gly Asp Thr Ile Lys Ile Pro Ala Gly Thr Thr Ser Tyr Leu Val Asn
                245                 250                 255

Gln Asp Asp Glu Glu Asp Leu Arg Val Val Asp Phe Val Ile Pro Val
            260                 265                 270

Asn Arg Pro Gly Lys Phe Glu Ala Phe Gly Leu Ser Glu Asn Lys Asn
        275                 280                 285

Gln Tyr Leu Arg Gly Phe Ser Lys Asn Ile Leu Glu Ala Ser Leu Asn
    290                 295                 300

Thr Lys Tyr Glu Thr Ile Glu Lys Val Leu Leu Glu Glu Gln Glu Lys
305                 310                 315                 320

Lys Pro Gln Gln Leu Arg Asp Arg Lys Arg Thr Gln Gln Gly Glu Glu
                325                 330                 335

Arg Asp Ala Ile Ile Lys Val Ser Arg Glu Gln Ile Glu Glu Leu Arg
            340                 345                 350

Lys Leu Ala Lys Ser Ser Ser Lys Lys Ser Leu Pro Ser Glu Phe Glu
        355                 360                 365

Pro Phe Asn Leu Arg Ser His Lys Pro Glu Tyr Ser Asn Lys Phe Gly
    370                 375                 380

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

Leu Asp Ile Leu Val Ser Cys Val Glu Ile Asn Lys Gly Ala Leu Met
                405                 410                 415
```

```
Leu Pro His Tyr Asn Ser Arg Ala Ile Val Val Leu Leu Val Asn Glu
            420                 425                 430

Gly Lys Gly Asn Leu Glu Leu Leu Gly Leu Lys Asn Glu Gln Gln Glu
        435                 440                 445

Arg Glu Asp Arg Lys Glu Arg Asn Asn Glu Val Gln Arg Tyr Glu Ala
    450                 455                 460

Arg Leu Ser Pro Gly Asp Val Val Ile Ile Pro Ala Gly His Pro Val
465                 470                 475                 480

Ala Ile Ser Ala Ser Ser Asn Leu Asn Leu Leu Gly Phe Gly Ile Asn
                485                 490                 495

Ala Lys Asn Asn Gln Arg Asn Phe Leu Ser Gly Ser Asp Asp Asn Val
            500                 505                 510

Ile Ser Gln Ile Glu Asn Pro Val Lys Glu Leu Thr Phe Pro Gly Ser
        515                 520                 525

Ser Gln Glu Val Asn Arg Leu Ile Lys Asn Gln Lys Gln Ser His Phe
    530                 535                 540

Ala Ser Ala Glu Pro Glu Gln Lys Glu Glu Glu Ser Gln Arg Lys Arg
545                 550                 555                 560

Ser Pro Leu Ser Ser Val Leu Asp Ser Phe Tyr
                565                 570


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Met Gly Glu Arg Lys Gly Ile Pro Met Ala Leu Gly Leu Leu Ala Met
1               5                   10                  15

Ile Leu Phe Phe Ile Ala Ser Ser Ser Ser His Leu Val Arg Ala Ser
            20                  25                  30

Asp Asp Ala Asp Asp Ala Ile Phe Tyr Glu Ser Phe Asp Glu Asp Phe
        35                  40                  45

Asp Gly Arg Trp Ile Val Ser Asp Lys Glu Asp Tyr Asn Gly Val Trp
    50                  55                  60
```

```
Lys His Ala Lys Ser Asp Gly His Asp Asp Tyr Gly Leu Leu Val Ser
65                  70                  75                  80

Glu Gln Ala Arg Lys Tyr Ala Ile Val Lys Glu Leu Ala Glu Ser Val
                85                  90                  95

Ser Leu Lys Asp Gly Thr Val Val Leu Gln Phe Glu Thr Arg Leu Gln
            100                 105                 110

Asn Gly Leu Glu Cys Gly Gly Ala Tyr Ile Lys Tyr Leu Arg Pro Gln
        115                 120                 125

Glu Ser Gly Trp Lys Pro Lys Glu Phe Asp Asn Glu Ser Pro Tyr Ser
    130                 135                 140

Ile Met Phe Gly Pro Asp Lys Cys Gly Ala Thr Asn Lys Val His Phe
145                 150                 155                 160

Ile Phe Lys His Lys Asn Pro Lys Ser Gly Glu Tyr Val Glu His His
                165                 170                 175

Leu Lys Tyr Pro Pro Ser Val Pro Ser Asp Lys Leu Thr His Val Tyr
            180                 185                 190

Thr Ala Ile Leu Lys Pro Asp Asn Glu Leu Gln Ile Leu Ile Asp Gly
        195                 200                 205

Glu Glu Lys Lys Lys Ala Asn Phe Leu Ser Ser Glu Asp Phe Glu Pro
    210                 215                 220

Pro Leu Ile Pro Ser Lys Thr Ile Pro Asp Pro Asp Asp Lys Lys Pro
225                 230                 235                 240

Glu Asp Trp Asp Glu Arg Ala Lys Ile Pro Asp Pro Ser Ala Val Lys
                245                 250                 255

Pro Asp Asp Trp Asp Glu Asp Ala Pro Met Glu Ile Leu Asp Glu Glu
            260                 265                 270

Ala Glu Lys Pro Glu Gly Trp Leu Asp Asp Glu Pro Glu Glu Ile Asp
        275                 280                 285

Asp Pro Glu Ala Thr Lys Pro Glu Asp Trp Asp Asp Glu Glu Asp Gly
    290                 295                 300

Glu Trp Glu Ala Pro Lys Ile Glu Asn Pro Lys Cys Glu Ala Ala Pro
305                 310                 315                 320
```

```
Gly Cys Gly Glu Trp Lys Arg Pro Thr Lys Arg Asn Pro Ala Tyr Lys
                325                 330                 335

Gly Lys Trp Ser Ala Pro Tyr Ile Asp Asn Pro Ser Tyr Lys Gly Ile
            340                 345                 350

Trp Lys Pro Arg Glu Ile Pro Asn Pro Glu Tyr Phe Glu Leu Ala Lys
        355                 360                 365

Pro Asp Phe Glu Pro Ile Ala Ala Ile Gly Ile Glu Ile Trp Thr Met
    370                 375                 380

Gln Asp Gly Ile Leu Phe Asp Asn Val Leu Ile Ala Asn Asp Asp Lys
385                 390                 395                 400

Val Ala Glu Ser Tyr Arg Glu Thr Thr Trp Lys Pro Lys Phe Thr Val
                405                 410                 415

Glu Lys Asp Lys Leu Lys Ala Glu Glu Glu Ala Ala Thr Gly Ser Asp
            420                 425                 430

Gly Ile Ser Gly Phe Gln Lys Lys Val Phe Asp Leu Leu Tyr Lys Ile
        435                 440                 445

Ala Asp Ile Pro Phe Leu Ser Glu His Lys Ser Lys Ile Phe Asp Leu
    450                 455                 460

Ile Glu Lys Ala Glu Lys Gln Pro Asn Leu Thr Ile Gly Ile Leu Val
465                 470                 475                 480

Ala Val Val Val Val Phe Val Ser Ile Phe Phe Arg Leu Ile Phe Gly
                485                 490                 495

Gly Lys Lys Pro Ala Lys Val Glu Lys Lys Pro Glu Arg Thr Glu Ala
            500                 505                 510

Ser Asn Asn Gln Gly Ser Gly Glu Asn Glu Glu Asn Lys Glu Lys Glu
        515                 520                 525

Lys Gln Lys Glu Glu Ala Ser Asn Ala Ala Arg Arg Arg Pro Arg Arg
    530                 535                 540

Glu Thr
545
```

<210> 3

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<213> Pisum sativum

<400> 3

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Met Val Asp Arg Lys Glu Ile Pro Leu Ala Met Gly Leu Leu Ala Val
1               5                  10                  15

Leu Leu Phe Phe Val Ala Ser Ser Ser Ser Phe His Leu Val Arg Ala
            20                  25                  30

Ser Asp Glu Val Asp Asp Ala Ile Phe Tyr Glu Ser Phe Asp Glu Asp
        35                  40                  45

Phe Asp Asn Arg Trp Ile Val Ser Gly Lys Glu Glu Tyr Asn Gly Val
    50                  55                  60

Trp Lys His Ser Lys Ser Glu Gly His Asp Asp Phe Gly Leu Leu Val
65                  70                  75                  80

Ser Glu Pro Ala Arg Lys Tyr Ala Ile Val Lys Glu Leu Asp Ala Pro
                85                  90                  95

Val Ser Leu Lys Asp Gly Thr Val Val Leu Gln Phe Glu Thr Arg Leu
            100                 105                 110

Gln Asn Gly Leu Glu Cys Gly Gly Ala Tyr Ile Lys Tyr Leu Gln Thr
        115                 120                 125

Gln Glu Ser Gly Trp Lys Pro Lys Gly Phe Asp Asn Glu Ser Gly Tyr
    130                 135                 140

Ser Ile Met Phe Gly Pro Asp Arg Cys Gly Ala Thr Asn Lys Val His
145                 150                 155                 160

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

His Leu Lys Phe Pro Pro Ser Val Pro Ser Asp Lys Leu Ser His Val
            180                 185                 190

Tyr Thr Ala Val Leu Lys Asp Asp Asn Glu Val Ser Ile Leu Ile Asp
        195                 200                 205

Gly Glu Glu Lys Lys Lys Ala Asn Phe Leu Ser Ser Glu Asp Phe Glu
    210                 215                 220

Pro Ala Leu Ile Pro Ser Lys Thr Ile Pro Asp Pro Asp Asp Lys Lys
225                 230                 235                 240
```

```
Pro Glu Asp Trp Asp Glu Arg Ala Lys Ile Pro Asp Pro Glu Ala Val
                245                 250                 255

Lys Pro Glu Asp Trp Asp Glu Asp Ala Pro Arg Glu Ile Ile Asp Glu
            260                 265                 270

Glu Ala Glu Lys Pro Glu Pro Trp Leu Asp His Glu Pro Glu Val Asp
        275                 280                 285

Asp Pro Glu Ala Lys Pro Glu Asp Trp Asp Asp Glu Glu Asp Gly Glu
    290                 295                 300

Trp Glu Ala Pro Lys Ile Glu Asn Pro Lys Cys Glu Ala Ala Pro Gly
305                 310                 315                 320

Cys Gly Glu Trp Lys Arg Pro Thr Lys Ser Asn Pro Ala Tyr Lys Gly
                325                 330                 335

Lys Trp Ser Ala Pro Tyr Ile Asp Asn Pro Asn Tyr Lys Gly Ile Trp
            340                 345                 350

Lys Pro Gln Glu Ile Pro Asn Pro Glu Tyr Phe Glu Leu Glu Lys Pro
        355                 360                 365

Asp Phe Glu Pro Ile Ala Ala Ile Gly Ile Glu Ile Trp Thr Met Gln
    370                 375                 380

Asp Gly Ile Leu Phe Asp Asn Val Leu Ile Ala Lys Asp Asp Lys Ile
385                 390                 395                 400

Ala Glu Ser Tyr Arg Glu Thr Thr Trp Lys Pro Lys Phe Asn Ile Glu
                405                 410                 415

Lys Glu Lys Gln Lys His Glu Glu Glu Ala Ala Ala Ala Ala Ala Ala
            420                 425                 430

Arg Ser Glu Ser Glu Gly Ile Ala Gly Ile Gln Lys Lys Ala Phe Asp
        435                 440                 445

Leu Leu Tyr Lys Ile Ala Asp Ile Ala Phe Leu Ser Gly Gln Lys Glu
    450                 455                 460

Lys Ile Ile Glu Ile Ile Glu Lys Gly Glu Lys Gln Pro Asn Leu Thr
465                 470                 475                 480

Ile Gly Ile Ile Val Ser Val Val Ile Val Phe Val Ser Ile Phe Phe
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485 490 495

Arg Leu Ile Phe Gly Gly Lys Lys Pro Ala Asn Val Glu Ala Asn Val
500 505 510

Glu Lys Lys Lys Thr Asn Thr Glu Thr Thr Ser Lys Gln Asp Gly Gly
515 520 525

Glu Lys Glu Asp Asn Lys Glu Lys Glu Glu Thr Ala Asn Pro Pro Arg
530 535 540

Arg Arg Pro Lys Arg Asp Asn
545 550

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<213> Glycine max

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Met Arg Leu Gln Gln Leu Asn Leu Phe Phe Leu Leu Leu Cys Val Ala
1 5 10 15

Lys Ala Asn Gly Ser Leu Leu Pro Phe Met Asp Pro Pro Ile Thr Leu
20 25 30

Leu Ala Asp Leu Trp Ser Asp Arg Phe Pro Asp Pro Phe Arg Val Leu
35 40 45

Glu His Ile Pro Phe Gly Val Asp Lys Asp Glu Ala Ser Met Ala Met
50 55 60

Ser Pro Ala Arg Val Asp Trp Lys Glu Thr Pro Glu Gly His Val Ile
65 70 75 80

Met Leu Asp Val Pro Gly Leu Lys Arg Glu Glu Ile Lys Val Glu Val
85 90 95

Glu Glu Asn Arg Val Leu Arg Val Ser Gly Glu Arg Lys Lys Glu Glu
100 105 110

Glu Lys Lys Gly Asp His Trp His Arg Val Glu Arg Ser Tyr Gly Lys
115 120 125

Phe Trp Arg Gln Phe Arg Leu Pro Gln Asn Val Asp Leu Asp Ser Val
130 135 140

Lys Ala Lys Leu Glu Asn Gly Val Leu Thr Leu Thr Leu Asp Lys Leu
145 150 155 160

```
Ser Pro Gly Lys Ile Lys Gly Pro Arg Val Val Ser Ile Ala Gly Glu
                165                 170                 175

Asp His Gln Gln Gly Asn Leu Asn Asn Asp Gly Ala Lys Gln Glu Leu
            180                 185                 190
```

<210> 5
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<212> PRT
<213> Sus scrofa

<400> 5

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Met Arg Ala Leu Trp Val Leu Gly Leu Cys Cys Val Leu Leu Thr Phe
1               5                   10                  15

Gly Ser Val Arg Ala Glu Asp Glu Val Asp Val Asp Gly Thr Val Glu
            20                  25                  30

Glu Asp Leu Gly Lys Ser Arg Glu Gly Ser Arg Thr Asp Asp Glu Val
        35                  40                  45

Val Gln Arg Glu Glu Glu Ala Ile Gln Leu Asp Gly Leu Asn Ala Ser
    50                  55                  60

Gln Ile Arg Glu Leu Arg Glu Lys Ser Glu Lys Phe Ala Phe Gln Ala
65                  70                  75                  80

Glu Val Asn Arg Met Met Lys Leu Ile Ile Asn Ser Leu Tyr Lys Asn
                85                  90                  95

Lys Glu Ile Phe Leu Arg Glu Leu Ile Ser Asn Ala Ser Asp Ala Leu
            100                 105                 110

Asp Lys Ile Arg Leu Ile Ser Leu Thr Asp Glu Asn Ala Leu Ala Gly
        115                 120                 125

Asn Glu Glu Leu Thr Val Lys Ile Lys Cys Asp Lys Glu Lys Asn Leu
    130                 135                 140

Leu His Val Thr Asp Thr Gly Val Gly Met Thr Arg Glu Glu Leu Val
145                 150                 155                 160

Lys Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Ser Glu Phe Leu Asn
                165                 170                 175

Lys Met Ala Glu Ala Gln Glu Asp Gly Gln Ser Thr Ser Glu Leu Ile
            180                 185                 190
```

```
Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Phe Leu Val Ala Asp Lys
        195                 200                 205

Val Ile Val Thr Ser Lys His Asn Asn Asp Thr Gln His Ile Trp Glu
    210                 215                 220

Ser Asp Ser Asn Glu Phe Ser Val Ile Ala Asp Pro Arg Gly Asn Thr
225                 230                 235                 240

Leu Gly Arg Gly Thr Thr Ile Thr Leu Val Leu Lys Glu Glu Ala Ser
                245                 250                 255

Asp Tyr Leu Glu Leu Asp Thr Ile Lys Asn Leu Val Lys Lys Tyr Ser
            260                 265                 270

Gln Phe Ile Asn Phe Pro Ile Tyr Val Trp Ser Ser Lys Thr Glu Thr
        275                 280                 285

Val Glu Glu Pro Met Glu Glu Glu Glu Ala Ala Lys Glu Glu Lys Glu
    290                 295                 300

Glu Ser Asp Asp Glu Ala Ala Val Glu Glu Glu Glu Glu Glu Lys Lys
305                 310                 315                 320

Pro Lys Thr Lys Lys Val Glu Lys Thr Val Trp Asp Trp Glu Leu Met
                325                 330                 335

Asn Asp Ile Lys Pro Ile Trp Gln Arg Pro Ser Lys Glu Val Glu Asp
            340                 345                 350

Asp Glu Tyr Lys Ala Phe Tyr Lys Ser Phe Ser Lys Glu Ser Asp Asp
        355                 360                 365

Pro Met Ala Tyr Ile His Phe Thr Ala Glu Gly Glu Val Thr Phe Lys
    370                 375                 380

Ser Ile Leu Phe Val Pro Thr Ser Ala Pro Arg Gly Leu Phe Asp Glu
385                 390                 395                 400

Tyr Gly Ser Lys Lys Ser Asp Tyr Ile Lys Leu Tyr Val Arg Arg Val
                405                 410                 415

Phe Ile Thr Asp Asp Phe His Asp Met Met Pro Lys Tyr Leu Asn Phe
            420                 425                 430

Val Lys Gly Val Val Asp Ser Asp Asp Leu Pro Leu Asn Val Ser Arg
        435                 440                 445
```

```
Glu Thr Leu Gln Gln His Lys Leu Leu Lys Val Ile Arg Lys Lys Leu
    450                 455                 460

Val Arg Lys Thr Leu Asp Met Ile Lys Lys Ile Ala Asp Glu Lys Tyr
465                 470                 475                 480

Asn Asp Thr Phe Trp Lys Glu Phe Gly Thr Asn Ile Lys Leu Gly Val
                485                 490                 495

Ile Glu Asp His Ser Asn Arg Thr Arg Leu Ala Lys Leu Leu Arg Phe
            500                 505                 510

Gln Ser Ser His His Pro Ser Asp Ile Thr Ser Leu Asp Gln Tyr Val
        515                 520                 525

Glu Arg Met Lys Glu Lys Gln Asp Lys Ile Tyr Phe Met Ala Gly Ser
    530                 535                 540

Ser Arg Lys Glu Ala Glu Ser Ser Pro Phe Val Glu Arg Leu Leu Lys
545                 550                 555                 560

Lys Gly Tyr Glu Val Ile Tyr Leu Thr Glu Pro Val Asp Glu Tyr Cys
                565                 570                 575

Ile Gln Ala Leu Pro Glu Phe Asp Gly Lys Arg Phe Gln Asn Val Ala
            580                 585                 590

Lys Glu Gly Val Lys Phe Asp Glu Ser Glu Lys Ser Lys Glu Asn Arg
        595                 600                 605

Glu Ala Val Glu Lys Glu Phe Glu Pro Leu Leu Asn Trp Met Lys Asp
    610                 615                 620

Lys Ala Leu Lys Asp Lys Ile Glu Lys Ala Val Val Ser Gln Arg Leu
625                 630                 635                 640

Thr Glu Ser Pro Cys Ala Leu Val Ala Ser Gln Tyr Gly Trp Ser Gly
                645                 650                 655

Asn Met Glu Arg Ile Met Lys Ala Gln Ala Tyr Gln Thr Gly Lys Asp
            660                 665                 670

Ile Ser Thr Asn Tyr Tyr Ala Ser Gln Lys Lys Thr Phe Glu Ile Asn
        675                 680                 685

Pro Arg His Pro Leu Ile Arg Asp Met Leu Arg Arg Val Lys Glu Asp
```

690 695 700

Glu Asp Asp Lys Thr Val Ser Asp Leu Ala Val Val Leu Phe Glu Thr
705 710 715 720

Ala Thr Leu Arg Ser Gly Tyr Leu Leu Pro Asp Thr Lys Ala Tyr Gly
725 730 735

Asp Arg Ile Glu Arg Met Leu Arg Leu Ser Leu Asn Ile Asp Pro Asp
740 745 750

Ala Lys Val Glu Glu Glu Pro Glu Glu Glu Pro Glu Glu Thr Thr Glu
755 760 765

Asp Thr Thr Glu Asp Thr Glu Gln Asp Asp Asp Glu Glu Met Asp Ala
770 775 780

Gly Ala Asp Glu Glu Glu Gln Glu Thr Ser Glu Thr Ser Thr Ala Glu
785 790 795 800

Lys Asp Glu Leu

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<213> Pisum sativum

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Met Ser Leu Lys Pro Leu Asn Met Leu Leu Val Pro Phe Leu Leu Leu
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Ile Leu Ala Ala Asp Phe Pro Leu Lys Ala Lys Ala Ser Leu Leu Pro
20 25 30

Phe Ile Asp Ser Pro Asn Thr Leu Leu Ser Asp Leu Trp Ser Asp Arg
35 40 45

Phe Pro Asp Pro Phe Arg Val Leu Glu Gln Ile Pro Tyr Gly Val Glu
50 55 60

Lys His Glu Pro Ser Ile Thr Leu Ser His Ala Arg Val Asp Trp Lys
65 70 75 80

Glu Thr Pro Glu Gly His Val Ile Met Val Asp Val Pro Gly Leu Lys
85 90 95

Lys Asp Asp Ile Lys Ile Glu Val Glu Glu Asn Arg Val Leu Arg Val
100 105 110

```
Ser Gly Glu Arg Lys Lys Glu Glu Asp Lys Lys Gly Asp His Trp His
        115                 120                 125

Arg Val Glu Arg Ser Tyr Gly Lys Phe Trp Arg Gln Phe Lys Leu Pro
    130                 135                 140

Gln Asn Val Asp Leu Asp Ser Val Lys Ala Lys Met Glu Asn Gly Val
145                 150                 155                 160

Leu Thr Leu Thr Leu His Lys Leu Ser His Asp Lys Ile Lys Gly Pro
                165                 170                 175

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

Asn Asp Glu Leu Lys
        195


<210> 7
<211> 1939
<212> PRT
<213> Sus scrofa

<400> 7
Met Ser Ser Asp Gln Glu Met Ala Ile Phe Gly Glu Ala Ala Pro Tyr
1               5                   10                  15

Leu Arg Lys Ser Glu Lys Glu Arg Ile Glu Ala Gln Asn Lys Pro Phe
            20                  25                  30

Asp Ala Lys Thr Ser Val Phe Val Ala Glu Pro Lys Glu Ser Phe Val
        35                  40                  45

Lys Gly Thr Val Gln Ser Arg Glu Gly Gly Lys Val Thr Val Lys Thr
    50                  55                  60

Glu Ala Gly Ala Thr Leu Thr Val Lys Glu Asp Gln Val Phe Pro Met
65                  70                  75                  80

Asn Pro Pro Lys Phe Asp Lys Ile Glu Asp Met Ala Met Met Thr His
                85                  90                  95

Leu His Glu Pro Ala Val Leu Tyr Asn Leu Lys Glu Arg Tyr Ala Ala
            100                 105                 110

Trp Met Ile Tyr Thr Tyr Ser Gly Leu Phe Cys Val Thr Val Asn Pro
        115                 120                 125
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```
Tyr Lys Trp Leu Pro Val Tyr Asn Ala Glu Val Val Thr Ala Tyr Arg
    130                 135                 140

Gly Lys Lys Arg Gln Glu Ala Pro Pro His Ile Phe Ser Ile Ser Asp
145                 150                 155                 160

Asn Ala Tyr Gln Phe Met Leu Thr Asp Arg Glu Asn Gln Ser Ile Leu
                165                 170                 175

Ile Thr Gly Glu Ser Gly Ala Gly Lys Thr Val Asn Thr Lys Arg Val
            180                 185                 190

Ile Gln Tyr Phe Ala Thr Ile Ala Val Thr Gly Glu Lys Lys Lys Glu
        195                 200                 205

Glu Pro Thr Ser Gly Lys Met Gln Gly Thr Leu Glu Asp Gln Ile Ile
    210                 215                 220

Ser Ala Asn Pro Leu Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg
225                 230                 235                 240

Asn Asp Asn Ser Ser Arg Phe Gly Lys Phe Ile Arg Ile His Phe Gly
                245                 250                 255

Thr Thr Gly Lys Leu Ala Ser Ala Asp Ile Glu Thr Tyr Leu Leu Glu
            260                 265                 270

Lys Ser Arg Val Thr Phe Gln Leu Lys Ala Glu Arg Ser Tyr His Ile
        275                 280                 285

Phe Tyr Gln Ile Met Ser Asn Lys Lys Pro Glu Leu Ile Glu Met Leu
    290                 295                 300

Leu Ile Thr Thr Asn Pro Tyr Asp Tyr Ala Phe Val Ser Gln Gly Glu
305                 310                 315                 320

Ile Thr Val Pro Ser Ile Asp Asp Gln Glu Glu Leu Met Ala Thr Asp
                325                 330                 335

Ser Ala Ile Glu Ile Leu Gly Phe Thr Ser Asp Glu Arg Val Ser Ile
            340                 345                 350

Tyr Lys Leu Thr Gly Ala Val Met His Tyr Gly Asn Leu Lys Phe Lys
        355                 360                 365

Gln Lys Gln Arg Glu Glu Gln Ala Glu Pro Asp Gly Thr Glu Val Ala
    370                 375                 380
```

```
Asp Lys Ala Ala Tyr Leu Gln Gly Leu Asn Ser Ala Asp Leu Leu Lys
385                 390                 395                 400

Ala Leu Cys Tyr Pro Arg Val Lys Val Gly Asn Glu Phe Val Thr Lys
                405                 410                 415

Gly Gln Thr Val Gln Gln Val Tyr Asn Ala Val Gly Ala Leu Ala Lys
            420                 425                 430

Ala Val Tyr Asp Lys Met Phe Leu Trp Met Val Thr Arg Ile Asn Gln
        435                 440                 445

Gln Leu Asp Thr Lys Gln Pro Arg Gln Tyr Phe Ile Gly Val Leu Asp
    450                 455                 460

Ile Ala Gly Phe Glu Ile Phe Asp Phe Asn Ser Leu Glu Gln Leu Cys
465                 470                 475                 480

Ile Asn Phe Thr Asn Glu Lys Leu Gln Gln Phe Phe Asn His His Met
                485                 490                 495

Phe Val Leu Glu Gln Glu Glu Tyr Lys Lys Glu Gly Ile Glu Trp Glu
            500                 505                 510

Phe Ile Asp Phe Gly Met Asp Leu Ala Ala Cys Ile Glu Leu Ile Glu
        515                 520                 525

Lys Pro Met Gly Ile Phe Ser Ile Leu Glu Glu Glu Cys Met Phe Pro
    530                 535                 540

Lys Ala Thr Asp Thr Ser Phe Lys Asn Lys Leu Tyr Glu Gln His Leu
545                 550                 555                 560

Gly Lys Ser Asn Asn Phe Gln Lys Pro Lys Pro Ala Lys Gly Lys Val
                565                 570                 575

Glu Ala His Phe Ser Leu Ile His Tyr Ala Gly Thr Val Asp Tyr Asn
            580                 585                 590

Ile Thr Gly Trp Leu Asp Lys Asn Lys Asp Pro Leu Asn Glu Thr Val
        595                 600                 605

Val Gly Leu Tyr Gln Lys Ser Ser Val Lys Thr Leu Ala Phe Leu Phe
    610                 615                 620

Thr Gly Ala Ala Gly Ala Asp Ala Glu Ala Gly Gly Gly Lys Lys Gly
```

625 630 635 640

Gly Lys Lys Lys Gly Ser Ser Phe Gln Thr Val Ser Ala Leu Phe Arg
645 650 655

Glu Asn Leu Asn Lys Leu Met Thr Asn Leu Arg Ser Thr His Pro His
660 665 670

Phe Val Arg Cys Ile Ile Pro Asn Glu Thr Lys Thr Pro Gly Ala Met
675 680 685

Glu His Glu Leu Val Leu His Gln Leu Arg Cys Asn Gly Val Leu Glu
690 695 700

Gly Ile Arg Ile Cys Arg Lys Gly Phe Pro Ser Arg Ile Leu Tyr Ala
705 710 715 720

Asp Phe Lys Gln Arg Tyr Lys Val Leu Asn Ala Ser Ala Ile Pro Glu
725 730 735

Gly Gln Phe Ile Asp Ser Lys Lys Ala Ser Glu Lys Leu Leu Gly Ser
740 745 750

Ile Asp Ile Asp His Thr Gln Tyr Lys Phe Gly His Thr Lys Val Phe
755 760 765

Phe Lys Ala Gly Leu Leu Gly Leu Leu Glu Glu Met Arg Asp Glu Lys
770 775 780

Leu Ala Gln Leu Ile Thr Arg Thr Gln Ala Arg Cys Arg Gly Phe Leu
785 790 795 800

Ala Arg Val Glu Tyr Gln Lys Met Val Glu Arg Arg Glu Ser Ile Phe
805 810 815

Cys Ile Gln Tyr Asn Ile Arg Ala Phe Met Asn Val Lys His Trp Pro
820 825 830

Trp Met Lys Leu Tyr Phe Lys Ile Lys Pro Leu Leu Lys Ser Ala Glu
835 840 845

Thr Glu Lys Glu Met Ala Asn Met Lys Glu Glu Phe Glu Lys Thr Lys
850 855 860

Glu Ser Leu Ala Lys Ala Glu Ala Lys Arg Lys Glu Leu Glu Glu Lys
865 870 875 880

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Met Val Ala Leu Met Gln Glu Lys Asn Asp Leu Gln Leu Gln Val Gln
                885                 890                 895

Ala Glu Ala Asp Ser Leu Ala Asp Ala Glu Glu Arg Cys Asp Gln Leu
            900                 905                 910

Ile Lys Thr Lys Ile Gln Leu Glu Ala Lys Ile Lys Glu Val Thr Glu
        915                 920                 925

Arg Ala Glu Asp Glu Glu Glu Ile Asn Ala Glu Leu Thr Ala Lys Lys
    930                 935                 940

Arg Lys Leu Glu Asp Glu Cys Ser Glu Leu Lys Lys Asp Ile Asp Asp
945                 950                 955                 960

Leu Glu Leu Thr Leu Ala Lys Val Glu Lys Glu Lys His Ala Thr Glu
                965                 970                 975

Asn Lys Val Lys Asn Leu Thr Glu Glu Met Ala Gly Leu Asp Glu Thr
            980                 985                 990

Ile Ala Lys Leu Thr Lys Glu Lys  Lys Ala Leu Gln Glu  Ala His Gln
        995                 1000                1005

Gln Thr  Leu Asp Asp Leu Gln  Ala Glu Glu Asp Lys  Val Asn Thr
    1010                1015                1020

Leu Thr  Lys Ala Lys Thr Lys  Leu Glu Gln Gln Val  Asp Asp Leu
    1025                1030                1035

Glu Gly  Ser Leu Glu Gln Glu  Lys Lys Leu Arg Met  Asp Leu Glu
    1040                1045                1050

Arg Ala  Lys Arg Lys Leu Glu  Gly Asp Leu Lys Leu  Ala Gln Glu
    1055                1060                1065

Ser Thr  Met Asp Ile Glu Asn  Asp Lys Gln Gln Leu  Asp Glu Lys
    1070                1075                1080

Leu Lys  Lys Lys Glu Phe Glu  Met Ser Asn Leu Gln  Ser Lys Ile
    1085                1090                1095

Glu Asp  Glu Gln Ala Leu Ala  Met Gln Leu Gln Lys  Lys Ile Lys
    1100                1105                1110

Glu Leu  Gln Ala Arg Ile Glu  Glu Leu Glu Glu Glu  Ile Glu Ala
    1115                1120                1125
```

```
Glu Arg  Ala Ser Arg Ala Lys  Ala Glu Lys Gln Arg  Ser Asp Leu
    1130                1135                1140

Ser Arg  Glu Leu Glu Glu Ile  Ser Glu Arg Leu Glu  Glu Ala Gly
    1145                1150                1155

Gly Ala  Thr Ser Ala Gln Ile  Glu Met Asn Lys Lys  Arg Glu Ala
    1160                1165                1170

Glu Phe  Gln Lys Met Arg Arg  Asp Leu Glu Glu Ala  Thr Leu Gln
    1175                1180                1185

His Glu  Ala Thr Ala Ala Thr  Leu Arg Lys Lys His  Ala Asp Ser
    1190                1195                1200

Val Ala  Glu Leu Gly Glu Gln  Ile Asp Asn Leu Gln  Arg Val Lys
    1205                1210                1215

Gln Lys  Leu Glu Lys Glu Lys  Ser Glu Met Lys Met  Glu Ile Asp
    1220                1225                1230

Asp Leu  Ala Ser Asn Met Glu  Thr Val Ser Lys Ala  Lys Gly Asn
    1235                1240                1245

Leu Glu  Lys Met Cys Arg Thr  Leu Glu Asp Gln Leu  Ser Glu Leu
    1250                1255                1260

Lys Thr  Lys Glu Glu Glu Gln  Gln Arg Leu Ile Asn  Asp Leu Thr
    1265                1270                1275

Ala Gln  Arg Ala Arg Leu Gln  Thr Glu Ser Gly Glu  Tyr Ser Arg
    1280                1285                1290

Gln Leu  Asp Glu Lys Asp Thr  Leu Val Ser Gln Leu  Ser Arg Gly
    1295                1300                1305

Lys Gln  Ala Phe Thr Gln Gln  Ile Glu Glu Leu Lys  Arg Gln Leu
    1310                1315                1320

Glu Glu  Glu Ile Lys Ala Lys  Ser Ala Leu Ala His  Ala Val Gln
    1325                1330                1335

Ser Ser  Arg His Asp Cys Asp  Leu Leu Arg Glu Gln  Tyr Glu Glu
    1340                1345                1350

Glu Gln  Glu Ala Lys Ala Glu  Leu Gln Arg Ala Met  Ser Lys Ala
    1355                1360                1365
```

```
Asn Ser  Glu Val Ala Gln Trp  Arg Thr Lys Tyr Glu  Thr Asp Ala
    1370                 1375                 1380

Ile Gln  Arg Thr Glu Glu Leu  Glu Glu Ala Lys Lys  Lys Leu Ala
    1385                 1390                 1395

Gln Arg  Leu Gln Asp Ala Glu  Glu His Val Glu Ala  Val Asn Ala
    1400                 1405                 1410

Lys Cys  Ala Ser Leu Glu Lys  Thr Lys Gln Arg Leu  Gln Asn Glu
    1415                 1420                 1425

Val Glu  Asp Leu Met Ile Asp  Val Glu Arg Ser Asn  Ala Ala Cys
    1430                 1435                 1440

Ala Ala  Leu Asp Lys Lys Gln  Arg Asn Phe Asp Lys  Ile Leu Ala
    1445                 1450                 1455

Glu Trp  Lys Gln Lys Tyr Glu  Glu Thr His Ala Glu  Leu Glu Ala
    1460                 1465                 1470

Ser Gln  Lys Glu Ser Arg Ser  Leu Ser Thr Glu Leu  Phe Lys Val
    1475                 1480                 1485

Lys Asn  Ala Tyr Glu Glu Ser  Leu Asp Gln Leu Glu  Thr Leu Lys
    1490                 1495                 1500

Arg Glu  Asn Lys Asn Leu Gln  Gln Glu Ile Ser Asp  Leu Thr Glu
    1505                 1510                 1515

Gln Ile  Ala Glu Gly Gly Lys  Arg Ile His Glu Leu  Glu Lys Ile
    1520                 1525                 1530

Lys Lys  Gln Val Glu Gln Glu  Lys Ser Glu Ile Gln  Ala Ala Leu
    1535                 1540                 1545

Glu Glu  Ala Glu Ala Ser Leu  Glu His Glu Glu Gly  Lys Ile Leu
    1550                 1555                 1560

Arg Ile  Gln Leu Glu Leu Asn  Gln Val Lys Ser Glu  Val Asp Arg
    1565                 1570                 1575

Lys Ile  Ala Glu Lys Asp Glu  Glu Ile Asp Gln Leu  Lys Arg Asn
    1580                 1585                 1590

His Val  Arg Val Val Glu Ser  Met Gln Ser Met Leu  Asp Ala Glu
```

1595 1600 1605

Ile Arg Ser Arg Asn Asp Ala Ile Arg Leu Lys Lys Lys Met Glu
1610 1615 1620

Gly Asp Leu Asn Glu Met Glu Ile Gln Leu Asn His Ala Asn Arg
1625 1630 1635

Met Ala Ala Glu Ala Leu Arg Asn Tyr Arg Asn Thr Gln Gly Ile
1640 1645 1650

Leu Lys Asp Thr Gln Ile His Leu Asp Asp Ala Leu Arg Ser Gln
1655 1660 1665

Glu Asp Leu Lys Glu Gln Leu Ala Met Val Glu Arg Arg Ala Asn
1670 1675 1680

Leu Leu Gln Ala Glu Ile Glu Glu Leu Arg Ala Thr Leu Glu Gln
1685 1690 1695

Thr Glu Arg Ser Arg Lys Val Ala Glu Gln Glu Leu Leu Asp Ala
1700 1705 1710

Ser Glu Arg Val Gln Leu Leu His Thr Gln Asn Thr Ser Leu Ile
1715 1720 1725

Asn Thr Lys Lys Lys Leu Glu Thr Asp Ile Ser Gln Ile Gln Gly
1730 1735 1740

Glu Met Glu Asp Ile Ile Gln Glu Ala Arg Asn Ala Glu Glu Lys
1745 1750 1755

Ala Lys Lys Ala Ile Thr Asp Ala Ala Met Met Ala Glu Glu Leu
1760 1765 1770

Lys Lys Glu Gln Asp Thr Ser Ala His Leu Glu Arg Met Lys Lys
1775 1780 1785

Asn Leu Glu Gln Thr Val Lys Asp Leu Gln His Arg Leu Asp Glu
1790 1795 1800

Ala Glu Gln Leu Ala Leu Lys Gly Gly Lys Lys Gln Ile Gln Lys
1805 1810 1815

Leu Glu Ala Arg Val Arg Glu Leu Glu Gly Glu Val Glu Ser Glu
1820 1825 1830

```
Gln Lys  Arg Asn Val Glu Thr  Val Lys Gly Leu Arg  Lys His Glu
    1835                 1840                 1845

Arg Arg  Val Lys Glu Leu Thr  Tyr Gln Thr Glu Glu  Asp Arg Lys
    1850                 1855                 1860

Asn Ile  Leu Arg Leu Gln Asp  Leu Val Asp Lys Leu  Gln Ala Lys
    1865                 1870                 1875

Val Lys  Ser Tyr Lys Arg Gln  Ala Glu Glu Ala Glu  Glu Gln Ser
    1880                 1885                 1890

Asn Val  Asn Leu Ser Lys Phe  Arg Lys Leu Gln His  Glu Leu Glu
    1895                 1900                 1905

Glu Ala  Glu Glu Arg Ala Asp  Ile Ala Glu Ser Gln  Val Asn Lys
    1910                 1915                 1920

Leu Arg  Val Lys Ser Arg Glu  Val His Thr Lys Ile  Ile Ser Glu
    1925                 1930                 1935

Glu
```

<210> 8
<211> 1939
<212> PRT
<213> Sus scrofa

<400> 8

```
Met Ser Ser Asp Gln Glu Met Ala Ile Phe Gly Glu Ala Ala Pro Tyr
1               5                  10                  15

Leu Arg Lys Ser Glu Lys Glu Arg Ile Glu Ala Gln Asn Arg Pro Phe
            20                  25                  30

Asp Ala Lys Thr Ser Val Phe Val Ala Glu Pro Lys Glu Ser Phe Val
        35                  40                  45

Lys Gly Thr Ile Gln Ser Arg Glu Gly Gly Lys Val Thr Val Lys Thr
    50                  55                  60

Glu Ala Gly Ala Thr Leu Thr Val Lys Glu Asp Gln Val Phe Pro Met
65                  70                  75                  80

Asn Pro Pro Lys Phe Asp Lys Ile Glu Asp Met Ala Met Met Thr His
                85                  90                  95

Leu His Glu Pro Gly Val Leu Tyr Asn Leu Lys Glu Arg Tyr Ala Ala
```

```
            100                 105                 110

Trp Met Ile Tyr Thr Tyr Ser Gly Leu Phe Cys Val Thr Val Asn Pro
        115                 120                 125

Tyr Lys Trp Leu Pro Val Tyr Asn Pro Glu Val Val Thr Ala Tyr Arg
    130                 135                 140

Gly Lys Lys Arg Gln Glu Ala Pro Pro His Ile Phe Ser Ile Ser Asp
145                 150                 155                 160

Asn Ala Tyr Gln Phe Met Leu Thr Asp Arg Glu Asn Gln Ser Ile Leu
                165                 170                 175

Ile Thr Gly Glu Ser Gly Ala Gly Lys Thr Val Asn Thr Lys Arg Val
            180                 185                 190

Ile Gln Tyr Phe Ala Thr Ile Ala Val Thr Gly Glu Lys Lys Lys Glu
        195                 200                 205

Glu Pro Thr Ser Gly Lys Met Gln Gly Thr Leu Glu Asp Gln Ile Ile
    210                 215                 220

Ser Ala Asn Pro Leu Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg
225                 230                 235                 240

Asn Asp Asn Ser Ser Arg Phe Gly Lys Phe Ile Arg Ile His Phe Gly
                245                 250                 255

Thr Thr Gly Lys Leu Ala Ser Ala Asp Ile Glu Thr Tyr Leu Leu Glu
            260                 265                 270

Lys Ser Arg Val Thr Phe Gln Leu Lys Ala Glu Arg Ser Tyr His Ile
        275                 280                 285

Phe Tyr Gln Ile Thr Ser Asn Arg Lys Pro Glu Leu Ile Glu Met Leu
    290                 295                 300

Leu Ile Thr Thr Asn Pro Tyr Asp Tyr Pro Phe Ile Ser Gln Gly Glu
305                 310                 315                 320

Ile Ser Val Ala Ser Ile Asp Asp Gln Glu Glu Leu Ile Ala Thr Asp
                325                 330                 335

Ser Ala Ile Asp Ile Leu Gly Phe Thr Asn Glu Glu Lys Val Ser Ile
            340                 345                 350
```

```
Tyr Lys Leu Thr Gly Ala Val Met His Tyr Gly Asn Leu Lys Phe Lys
        355                 360                 365

Gln Lys Gln Arg Glu Glu Gln Ala Glu Pro Asp Gly Thr Glu Val Ala
    370                 375                 380

Asp Lys Ala Ala Tyr Leu Gln Ser Leu Asn Ser Ala Asp Leu Leu Lys
385                 390                 395                 400

Ala Leu Cys Tyr Pro Arg Val Lys Val Gly Asn Glu Tyr Val Thr Lys
                405                 410                 415

Gly Gln Thr Val Glu Gln Val Thr Asn Ala Val Gly Ala Leu Ala Lys
            420                 425                 430

Ala Val Tyr Glu Lys Met Phe Leu Trp Met Val Thr Arg Ile Asn Gln
        435                 440                 445

Gln Leu Asp Thr Lys Gln Pro Arg Gln Tyr Phe Ile Gly Val Leu Asp
    450                 455                 460

Ile Ala Gly Phe Glu Ile Phe Asp Phe Asn Ser Leu Glu Gln Leu Cys
465                 470                 475                 480

Ile Asn Phe Thr Asn Glu Lys Leu Gln Gln Phe Phe Asn His His Met
                485                 490                 495

Phe Val Leu Glu Gln Glu Glu Tyr Lys Arg Glu Gly Ile Glu Trp Thr
            500                 505                 510

Phe Ile Asp Phe Gly Met Asp Leu Ala Ala Cys Ile Glu Leu Ile Glu
        515                 520                 525

Lys Pro Met Gly Ile Phe Ser Ile Leu Glu Glu Glu Cys Met Phe Pro
    530                 535                 540

Lys Ala Thr Asp Thr Ser Phe Lys Asn Lys Leu Tyr Glu Gln His Leu
545                 550                 555                 560

Gly Lys Ser Ala Asn Phe Gln Lys Pro Lys Pro Ala Lys Gly Lys Val
                565                 570                 575

Glu Ala His Phe Ser Leu Ile His Tyr Ala Gly Thr Val Asp Tyr Asn
            580                 585                 590

Ile Thr Gly Trp Leu Asp Lys Asn Lys Asp Pro Leu Asn Asp Thr Val
        595                 600                 605
```

```
Val Gly Leu Tyr Gln Lys Ser Ala Leu Lys Thr Leu Ala Phe Leu Phe
    610                 615                 620

Ser Gly Ala Gln Thr Gly Glu Ala Glu Ala Gly Gly Thr Lys Lys Gly
625                 630                 635                 640

Gly Lys Lys Lys Gly Ser Ser Phe Gln Thr Val Ser Ala Leu Phe Arg
                645                 650                 655

Glu Asn Leu Asn Lys Leu Met Thr Asn Leu Arg Ser Thr His Pro His
            660                 665                 670

Phe Val Arg Cys Ile Ile Pro Asn Glu Thr Lys Thr Pro Gly Ala Met
        675                 680                 685

Glu His Glu Leu Val Leu His Gln Leu Arg Cys Asn Gly Val Leu Glu
    690                 695                 700

Gly Ile Arg Ile Cys Arg Lys Gly Phe Pro Ser Arg Ile Leu Tyr Ala
705                 710                 715                 720

Asp Phe Lys Gln Arg Tyr Lys Val Leu Asn Ala Ser Ala Ile Pro Glu
                725                 730                 735

Gly Gln Tyr Ile Asp Ser Lys Lys Ala Ser Glu Lys Leu Leu Ala Ser
            740                 745                 750

Ile Asp Ile Asp His Thr Gln Tyr Lys Phe Gly His Thr Lys Val Phe
        755                 760                 765

Phe Lys Ala Gly Leu Leu Gly Leu Leu Glu Glu Met Arg Asp Asp Lys
    770                 775                 780

Leu Ala Gln Leu Ile Thr Arg Thr Gln Ala Arg Cys Arg Gly Phe Leu
785                 790                 795                 800

Ala Arg Val Glu Tyr Gln Lys Met Val Glu Arg Arg Glu Ser Ile Phe
                805                 810                 815

Cys Ile Gln Tyr Asn Ile Arg Ala Phe Met Asn Val Lys His Trp Pro
            820                 825                 830

Trp Met Lys Leu Phe Phe Lys Ile Lys Pro Leu Leu Lys Ser Ala Glu
        835                 840                 845

Ser Glu Lys Glu Met Ala Thr Met Lys Glu Glu Phe Gln Lys Thr Lys
    850                 855                 860
```

```
Asp Glu Leu Ala Lys Ser Glu Ala Lys Arg Lys Glu Leu Glu Glu Lys
865                 870                 875                 880

Met Val Thr Leu Leu Lys Glu Lys Asn Asp Leu Gln Leu Gln Val Gln
                885                 890                 895

Ala Glu Ala Glu Gly Leu Ala Asp Ala Glu Glu Arg Cys Asp Gln Leu
            900                 905                 910

Ile Lys Thr Lys Ile Gln Leu Glu Ala Lys Ile Lys Glu Val Thr Glu
        915                 920                 925

Arg Ala Glu Asp Glu Glu Glu Ile Asn Ala Glu Leu Thr Ala Lys Lys
    930                 935                 940

Arg Lys Leu Glu Asp Glu Cys Ser Glu Leu Lys Lys Asp Ile Asp Asp
945                 950                 955                 960

Leu Glu Leu Thr Leu Ala Lys Val Glu Lys Glu Lys His Ala Thr Glu
                965                 970                 975

Asn Lys Val Lys Asn Leu Thr Glu Glu Met Ala Gly Leu Asp Glu Thr
            980                 985                 990

Ile Ala Lys Leu Thr Lys Glu Lys  Lys Ala Leu Gln Glu  Ala His Gln
        995                 1000                1005

Gln Thr  Leu Asp Asp Leu Gln  Ala Glu Glu Asp Lys  Val Asn Thr
    1010                1015                1020

Leu Thr  Lys Ala Lys Thr Lys  Leu Glu Gln Gln Val  Asp Asp Leu
    1025                1030                1035

Glu Gly  Ser Leu Glu Gln Glu  Lys Lys Leu Arg Met  Asp Leu Glu
    1040                1045                1050

Arg Ala  Lys Arg Lys Leu Glu  Gly Asp Leu Lys Leu  Ala Gln Glu
    1055                1060                1065

Ser Ile  Met Asp Ile Glu Asn  Glu Lys Gln Gln Leu  Asp Glu Lys
    1070                1075                1080

Leu Lys  Lys Lys Glu Phe Glu  Ile Ser Asn Leu Gln  Ser Lys Ile
    1085                1090                1095

Glu Asp  Glu Gln Ala Leu Ala  Ile Gln Leu Gln Lys  Lys Ile Lys
```

```
    1100                1105                1110

Glu Leu  Gln Ala Arg Ile Glu  Glu Leu Glu Glu Glu  Ile Glu Ala
    1115                1120                1125

Glu Arg  Ala Ser Arg Ala Lys  Ala Glu Lys Gln Arg  Ser Asp Leu
    1130                1135                1140

Ser Arg  Glu Leu Glu Glu Ile  Ser Glu Arg Leu Glu  Glu Ala Gly
    1145                1150                1155

Gly Ala  Thr Ser Ala Gln Ile  Glu Met Asn Lys Lys  Arg Glu Ala
    1160                1165                1170

Glu Phe  Gln Lys Met Arg Arg  Asp Leu Glu Glu Ala  Thr Leu Gln
    1175                1180                1185

His Glu  Ala Thr Ala Ala Ala  Leu Arg Lys Lys His  Ala Asp Ser
    1190                1195                1200

Val Ala  Glu Leu Gly Glu Gln  Ile Asp Asn Leu Gln  Arg Val Lys
    1205                1210                1215

Gln Lys  Leu Glu Lys Glu Lys  Ser Glu Met Lys Met  Glu Ile Asp
    1220                1225                1230

Asp Leu  Ala Ser Asn Met Glu  Thr Val Ser Lys Ala  Lys Gly Asn
    1235                1240                1245

Leu Glu  Lys Met Cys Arg Thr  Leu Glu Asp Gln Leu  Ser Glu Leu
    1250                1255                1260

Lys Ser  Lys Glu Glu Glu Gln  Gln Arg Leu Ile Asn  Asp Leu Thr
    1265                1270                1275

Ala Gln  Arg Gly Arg Leu Gln  Thr Glu Ser Gly Glu  Phe Ser Arg
    1280                1285                1290

Gln Leu  Asp Glu Lys Glu Ala  Leu Val Ser Gln Leu  Ser Arg Gly
    1295                1300                1305

Lys Gln  Ala Tyr Thr Gln Gln  Ile Glu Glu Leu Lys  Arg Gln Leu
    1310                1315                1320

Glu Glu  Glu Ile Lys Ala Lys  Asn Ala Leu Ala His  Ala Leu Gln
    1325                1330                1335
```

```
Ser Ser  Arg His Asp Cys Asp  Leu Leu Arg Glu Gln  Tyr Glu Glu
    1340                1345                1350

Glu Gln  Glu Ser Lys Ala Glu  Leu Gln Arg Ala Leu  Ser Lys Ala
    1355                1360                1365

Asn Thr  Glu Val Ala Gln Trp  Arg Thr Lys Tyr Glu  Thr Asp Ala
    1370                1375                1380

Ile Gln  Arg Thr Glu Glu Leu  Glu Glu Ala Lys Lys  Lys Leu Ala
    1385                1390                1395

Gln Arg  Leu Gln Ala Ala Glu  Glu His Val Glu Ala  Val Asn Ala
    1400                1405                1410

Lys Cys  Ala Ser Leu Glu Lys  Thr Lys Gln Arg Leu  Gln Asn Glu
    1415                1420                1425

Val Glu  Asp Leu Met Leu Asp  Val Glu Arg Thr Asn  Ala Ala Cys
    1430                1435                1440

Ala Ala  Leu Asp Lys Lys Gln  Arg Asn Phe Asp Lys  Ile Leu Ala
    1445                1450                1455

Glu Trp  Lys Gln Lys Tyr Glu  Glu Thr His Ala Glu  Leu Glu Ala
    1460                1465                1470

Ser Gln  Lys Glu Ala Arg Ser  Leu Gly Thr Glu Leu  Phe Lys Met
    1475                1480                1485

Lys Asn  Ala Tyr Glu Glu Ser  Leu Asp Gln Leu Glu  Thr Leu Lys
    1490                1495                1500

Arg Glu  Asn Lys Asn Leu Gln  Gln Glu Ile Ser Asp  Leu Thr Glu
    1505                1510                1515

Gln Ile  Ala Glu Gly Gly Lys  Arg Ile His Glu Leu  Glu Lys Ile
    1520                1525                1530

Lys Lys  Gln Val Glu Gln Glu  Lys Ser Glu Ile Gln  Ala Ala Leu
    1535                1540                1545

Glu Glu  Ala Glu Ala Ser Leu  Glu His Glu Glu Gly  Lys Ile Leu
    1550                1555                1560

Arg Ile  Gln Leu Glu Leu Asn  Gln Val Lys Ser Glu  Val Asp Arg
    1565                1570                1575
```

```
Lys Ile  Ala Glu Lys Asp Glu  Glu Ile Asp Gln Leu  Lys Arg Asn
    1580                1585                1590

His Val  Arg Val Val Glu Ser  Met Gln Ser Met Leu  Asp Ala Glu
    1595                1600                1605

Ile Arg  Ser Arg Asn Asp Ala  Ile Arg Leu Lys Lys  Lys Met Glu
    1610                1615                1620

Gly Asp  Leu Asn Glu Met Glu  Ile Gln Leu Asn His  Ala Asn Arg
    1625                1630                1635

Met Ala  Ala Glu Ala Leu Arg  Asn Tyr Arg Asn Thr  Gln Gly Ile
    1640                1645                1650

Leu Lys  Asp Thr Gln Ile His  Leu Asp Asp Ala Leu  Arg Gly Gln
    1655                1660                1665

Glu Asp  Leu Lys Glu Gln Leu  Ala Met Val Glu Arg  Arg Ala Asn
    1670                1675                1680

Leu Leu  Gln Ala Glu Ile Glu  Glu Leu Arg Ala Thr  Leu Glu Gln
    1685                1690                1695

Thr Glu  Arg Ser Arg Lys Val  Ala Glu Gln Glu Leu  Leu Asp Ala
    1700                1705                1710

Ser Glu  Arg Val Gln Leu Leu  His Thr Gln Asn Thr  Ser Leu Ile
    1715                1720                1725

Asn Thr  Lys Lys Lys Leu Glu  Thr Asp Ile Ser Gln  Met Gln Gly
    1730                1735                1740

Glu Met  Glu Asp Ile Leu Gln  Glu Ala Arg Asn Ala  Glu Glu Lys
    1745                1750                1755

Ala Lys  Lys Ala Ile Thr Asp  Ala Ala Met Met Ala  Glu Glu Leu
    1760                1765                1770

Lys Lys  Glu Gln Asp Thr Ser  Ala His Leu Glu Arg  Met Lys Lys
    1775                1780                1785

Asn Met  Glu Gln Thr Val Lys  Asp Leu Gln His Arg  Leu Asp Glu
    1790                1795                1800

Ala Glu  Gln Leu Ala Leu Lys  Gly Gly Lys Lys Gln  Ile Gln Lys
    1805                1810                1815
```

```
Leu Glu  Ala Arg Val Arg Glu  Leu Glu Gly Glu Val  Glu Ser Glu
    1820                1825                1830

Gln Lys  Arg Asn Ala Glu Ala  Val Lys Gly Leu Arg  Lys His Glu
    1835                1840                1845

Arg Arg  Val Lys Glu Leu Thr  Tyr Gln Thr Glu Glu  Asp Arg Lys
    1850                1855                1860

Asn Ile  Leu Arg Leu Gln Asp  Leu Val Asp Lys Leu  Gln Ala Lys
    1865                1870                1875

Val Lys  Ser Tyr Lys Arg Gln  Ala Glu Glu Ala Glu  Glu Gln Ser
    1880                1885                1890

Asn Thr  Asn Leu Ser Lys Phe  Arg Lys Leu Gln His  Glu Leu Glu
    1895                1900                1905

Glu Ala  Glu Glu Arg Ala Asp  Ile Ala Glu Ser Gln  Val Asn Lys
    1910                1915                1920

Leu Arg  Val Lys Ser Arg Glu  Val His Thr Lys Val  Ile Ser Glu
    1925                1930                1935

Glu
```

<210> 9
<211> 573
<212> PRT
<213> Zea mays

<400> 9

```
Met Val Ser Ala Arg Ile Val Val Leu Leu Ala Val Leu Leu Cys Ala
1               5                  10                  15

Ala Ala Ala Val Ala Ser Ser Trp Glu Asp Asp Asn His His His His
            20                  25                  30

Gly Gly His Lys Ser Gly Arg Cys Val Arg Arg Cys Glu Asp Arg Pro
        35                  40                  45

Trp His Gln Arg Pro Arg Cys Leu Glu Gln Cys Arg Glu Glu Glu Arg
    50                  55                  60

Glu Lys Arg Gln Glu Arg Ser Arg His Glu Ala Asp Asp Arg Ser Gly
65                  70                  75                  80
```

```
Glu Gly Ser Ser Glu Asp Glu Arg Glu Arg Glu Gln Glu Lys Glu Glu
                85                  90                  95

Lys Gln Lys Asp Arg Arg Pro Tyr Val Phe Asp Arg Arg Ser Phe Arg
            100                 105                 110

Arg Val Val Arg Ser Glu Gln Gly Ser Leu Arg Val Leu Arg Pro Phe
        115                 120                 125

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

Val Leu Glu Ala Asn Pro Arg Ser Phe Val Val Pro Ser His Thr Asp
145                 150                 155                 160

Ala His Cys Ile Gly Tyr Val Ala Glu Gly Glu Gly Val Val Thr Thr
                165                 170                 175

Ile Glu Asn Gly Glu Arg Arg Ser Tyr Thr Ile Lys Gln Gly His Val
            180                 185                 190

Phe Val Ala Pro Ala Gly Ala Val Thr Tyr Leu Ala Asn Thr Asp Gly
        195                 200                 205

Arg Lys Lys Leu Val Ile Thr Lys Ile Leu His Thr Ile Ser Val Pro
    210                 215                 220

Gly Glu Phe Gln Phe Phe Phe Gly Pro Gly Gly Arg Asn Pro Glu Ser
225                 230                 235                 240

Phe Leu Ser Ser Phe Ser Lys Ser Ile Gln Arg Ala Ala Tyr Lys Thr
                245                 250                 255

Ser Ser Asp Arg Leu Glu Arg Leu Phe Gly Arg His Gly Gln Asp Lys
            260                 265                 270

Gly Ile Ile Val Arg Ala Thr Glu Glu Gln Thr Arg Glu Leu Arg Arg
        275                 280                 285

His Ala Ser Glu Gly Gly His Gly Pro His Trp Pro Leu Pro Pro Phe
    290                 295                 300

Gly Glu Ser Arg Gly Pro Tyr Ser Leu Leu Asp Gln Arg Pro Ser Ile
305                 310                 315                 320

Ala Asn Gln His Gly Gln Leu Tyr Glu Ala Asp Ala Arg Ser Phe His
                325                 330                 335
```

```
Asp Leu Ala Glu His Asp Val Ser Val Ser Phe Ala Asn Ile Thr Ala
            340                 345                 350

Gly Ser Met Ser Ala Pro Leu Tyr Asn Thr Arg Ser Phe Lys Ile Ala
        355                 360                 365

Tyr Val Pro Asn Gly Lys Gly Tyr Ala Glu Ile Val Cys Pro His Arg
    370                 375                 380

Gln Ser Gln Gly Gly Glu Ser Glu Arg Glu Arg Gly Lys Gly Arg Arg
385                 390                 395                 400

Ser Glu Glu Glu Glu Glu Ser Ser Glu Glu Gln Glu Glu Val Gly Gln
                405                 410                 415

Gly Tyr His Thr Ile Arg Ala Arg Leu Ser Pro Gly Thr Ala Phe Val
            420                 425                 430

Val Pro Ala Gly His Pro Phe Val Ala Val Ala Ser Arg Asp Ser Asn
        435                 440                 445

Leu Gln Ile Val Cys Phe Glu Val His Ala Asp Arg Asn Glu Lys Val
    450                 455                 460

Phe Leu Ala Gly Ala Asp Asn Val Leu Gln Lys Leu Asp Arg Val Ala
465                 470                 475                 480

Lys Ala Leu Ser Phe Ala Ser Lys Ala Glu Glu Val Asp Glu Val Leu
                485                 490                 495

Gly Ser Arg Arg Glu Lys Gly Phe Leu Pro Gly Pro Lys Glu Ser Gly
            500                 505                 510

Gly His Glu Glu Arg Glu Gln Glu Glu Glu Glu Arg Glu Glu Arg His
        515                 520                 525

Gly Gly Arg Gly Glu Arg Glu Arg His Gly Arg Glu Glu Arg Glu Lys
    530                 535                 540

Glu Glu Glu Glu Arg Glu Gly Arg His Gly Arg Gly Arg Arg Glu Glu
545                 550                 555                 560

Val Ala Glu Thr Leu Leu Arg Met Val Thr Ala Arg Met
                565                 570
```

<210> 10

<211> 1937
<212> PRT
<213> Sus scrofa

<400> 10

```
Met Ser Ser Asp Gln Glu Met Ala Ile Phe Gly Glu Ala Ala Pro Tyr
1               5                  10                  15

Leu Arg Lys Ser Glu Lys Glu Arg Ile Glu Ala Gln Asn Lys Pro Phe
            20                  25                  30

Asp Ala Lys Thr Ser Val Phe Val Ala Glu Pro Lys Glu Ser Phe Val
        35                  40                  45

Lys Gly Thr Val Gln Ser Arg Glu Gly Gly Lys Val Thr Val Lys Thr
    50                  55                  60

Glu Ala Gly Ala Thr Leu Thr Val Lys Glu Asp Gln Val Phe Pro Met
65                  70                  75                  80

Asn Pro Pro Lys Phe Asp Lys Ile Glu Asp Met Ala Met Met Thr His
                85                  90                  95

Leu His Glu Pro Ala Val Leu Tyr Asn Leu Lys Glu Arg Tyr Ala Ala
            100                 105                 110

Trp Met Ile Tyr Thr Tyr Ser Gly Leu Phe Cys Val Thr Val Asn Pro
        115                 120                 125

Tyr Lys Trp Leu Pro Val Tyr Asn Ala Glu Val Val Thr Ala Tyr Arg
    130                 135                 140

Gly Lys Lys Arg Gln Glu Ala Pro Pro His Ile Phe Ser Ile Ser Asp
145                 150                 155                 160

Asn Ala Tyr Gln Phe Met Leu Thr Asp Arg Glu Asn Gln Ser Ile Leu
                165                 170                 175

Ile Thr Gly Glu Ser Gly Ala Gly Lys Thr Val Asn Thr Lys Arg Val
            180                 185                 190

Ile Gln Tyr Phe Ala Thr Ile Ala Val Thr Gly Glu Lys Lys Lys Glu
        195                 200                 205

Glu Pro Thr Pro Gly Lys Met Gln Gly Thr Leu Glu Asp Gln Ile Ile
    210                 215                 220

Ser Ala Asn Pro Leu Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg
225                 230                 235                 240
```

```
Asn Asp Asn Ser Ser Arg Phe Gly Lys Phe Ile Arg Ile His Phe Gly
                245                 250                 255

Thr Thr Gly Lys Leu Ala Ser Ala Asp Ile Glu Thr Tyr Leu Leu Glu
            260                 265                 270

Lys Ser Arg Val Thr Phe Gln Leu Lys Ala Glu Arg Ser Tyr His Ile
        275                 280                 285

Phe Tyr Gln Ile Met Ser Asn Lys Lys Pro Glu Leu Ile Glu Met Leu
    290                 295                 300

Leu Ile Thr Thr Asn Pro Tyr Asp Tyr Ala Phe Val Ser Gln Gly Glu
305                 310                 315                 320

Ile Thr Val Pro Ser Ile Asp Asp Gln Glu Glu Leu Met Ala Thr Asp
                325                 330                 335

Ser Ala Ile Glu Ile Leu Gly Phe Thr Ser Asp Glu Arg Val Ser Ile
            340                 345                 350

Tyr Lys Leu Thr Gly Ala Val Met His Tyr Gly Asn Leu Lys Phe Lys
        355                 360                 365

Gln Lys Gln Arg Glu Glu Gln Ala Glu Pro Asp Gly Thr Glu Val Ala
    370                 375                 380

Asp Lys Ala Ala Tyr Leu Gln Gly Leu Asn Ser Ala Asp Leu Leu Lys
385                 390                 395                 400

Ala Leu Cys Tyr Pro Arg Val Lys Val Gly Asn Glu Phe Val Thr Lys
                405                 410                 415

Gly Gln Thr Val Gln Gln Val Tyr Asn Ala Val Gly Ala Leu Ala Lys
            420                 425                 430

Ala Val Tyr Asp Lys Met Phe Leu Trp Met Val Thr Arg Ile Asn Gln
        435                 440                 445

Gln Leu Asp Thr Lys Gln Pro Arg Gln Tyr Phe Ile Gly Val Leu Asp
    450                 455                 460

Ile Ala Gly Phe Glu Ile Phe Asp Phe Asn Ser Leu Glu Gln Leu Cys
465                 470                 475                 480

Ile Asn Phe Thr Asn Glu Lys Leu Gln Gln Phe Phe Asn His His Met
```

485 490 495

Phe Val Leu Glu Gln Glu Glu Tyr Lys Lys Glu Gly Ile Glu Trp Glu
500 505 510

Phe Ile Asp Phe Gly Met Asp Leu Ala Ala Cys Ile Glu Leu Ile Glu
515 520 525

Lys Pro Met Gly Ile Phe Ser Ile Leu Glu Glu Glu Cys Met Phe Pro
530 535 540

Lys Ala Thr Asp Thr Ser Phe Lys Asn Lys Leu Tyr Glu Gln His Leu
545 550 555 560

Gly Lys Ser Asn Asn Phe Gln Lys Pro Lys Pro Ala Lys Gly Lys Ala
565 570 575

Glu Ala His Phe Ser Leu Ile His Tyr Ala Gly Thr Val Asp Tyr Asn
580 585 590

Ile Thr Gly Trp Leu Asp Lys Asn Lys Asp Pro Leu Asn Glu Thr Val
595 600 605

Val Gly Leu Tyr Gln Lys Ser Ser Val Lys Thr Leu Ala Phe Leu Phe
610 615 620

Ala Glu Arg Gln Ser Ser Glu Glu Gly Gly Thr Lys Lys Gly Gly Lys
625 630 635 640

Lys Lys Gly Ser Ser Phe Gln Thr Val Ser Ala Leu Phe Arg Glu Asn
645 650 655

Leu Asn Lys Leu Met Thr Asn Leu Arg Ser Thr His Pro His Phe Val
660 665 670

Arg Cys Ile Ile Pro Asn Glu Thr Lys Thr Pro Gly Ala Met Glu His
675 680 685

Glu Leu Val Leu His Gln Leu Arg Cys Asn Gly Val Leu Glu Gly Ile
690 695 700

Arg Ile Cys Arg Lys Gly Phe Pro Ser Arg Ile Leu Tyr Ala Asp Phe
705 710 715 720

Lys Gln Arg Tyr Lys Val Leu Asn Ala Ser Ala Ile Pro Glu Gly Gln
725 730 735

```
Phe Ile Asp Ser Lys Lys Ala Ser Glu Lys Leu Leu Gly Ser Ile Asp
            740                 745                 750

Ile Asp His Thr Gln Tyr Lys Phe Gly His Thr Lys Val Phe Phe Lys
        755                 760                 765

Ala Gly Leu Leu Gly Thr Leu Glu Glu Met Arg Asp Glu Lys Leu Ala
    770                 775                 780

Gln Leu Ile Thr Arg Thr Gln Ala Met Cys Arg Gly Phe Leu Met Arg
785                 790                 795                 800

Val Glu Phe Arg Lys Met Met Glu Arg Arg Glu Ser Ile Phe Cys Ile
                805                 810                 815

Gln Tyr Asn Ile Arg Ala Phe Met Asn Val Lys His Trp Pro Trp Met
            820                 825                 830

Lys Leu Tyr Phe Lys Ile Lys Pro Leu Leu Lys Ser Ala Glu Thr Glu
        835                 840                 845

Lys Glu Met Ala Asn Met Lys Glu Glu Phe Glu Lys Thr Lys Glu Asp
    850                 855                 860

Leu Ala Lys Ser Glu Ala Lys Arg Lys Glu Leu Glu Glu Lys Met Val
865                 870                 875                 880

Ala Leu Met Gln Glu Lys Asn Asp Leu Gln Leu Gln Val Gln Ala Glu
                885                 890                 895

Ala Asp Gly Leu Ala Asp Ala Glu Glu Arg Cys Asp Gln Leu Ile Lys
            900                 905                 910

Thr Lys Ile Gln Leu Glu Ala Lys Ile Lys Glu Val Thr Glu Arg Ala
        915                 920                 925

Glu Asp Glu Glu Glu Ile Asn Ala Glu Leu Thr Ala Lys Lys Arg Lys
    930                 935                 940

Leu Glu Asp Glu Cys Ser Glu Leu Lys Lys Asp Ile Asp Asp Leu Glu
945                 950                 955                 960

Leu Thr Leu Ala Lys Val Glu Lys Glu Lys His Ala Thr Glu Asn Lys
                965                 970                 975

Val Lys Asn Leu Thr Glu Glu Met Ala Gly Leu Asp Glu Asn Ile Ala
            980                 985                 990
```

```
Lys Leu Thr Lys Glu Lys Lys Ala  Leu Gln Glu Ala His  Gln Gln Thr
        995                 1000                1005

Leu Asp  Asp Leu Gln Ala Glu  Glu Asp Lys Val Asn  Thr Leu Thr
    1010                1015                1020

Lys Ala  Lys Thr Lys Leu Glu  Gln Gln Val Asp Asp  Leu Glu Gly
    1025                1030                1035

Ser Leu  Glu Gln Glu Lys Lys  Leu Arg Met Asp Leu  Glu Arg Ala
    1040                1045                1050

Lys Arg  Lys Leu Glu Gly Asp  Leu Lys Leu Ala Gln  Glu Ser Thr
    1055                1060                1065

Met Asp  Ile Glu Asn Asp Lys  Gln Gln Leu Asp Glu  Lys Leu Lys
    1070                1075                1080

Lys Lys  Glu Phe Glu Met Ser  Asn Leu Gln Ser Lys  Ile Glu Asp
    1085                1090                1095

Glu Gln  Ala Leu Ala Met Gln  Leu Gln Lys Lys Ile  Lys Glu Leu
    1100                1105                1110

Gln Ala  Arg Thr Glu Glu Leu  Glu Glu Glu Ile Glu  Ala Glu Arg
    1115                1120                1125

Ala Ser  Arg Ala Lys Ala Glu  Lys Gln Arg Ser Asp  Leu Ser Arg
    1130                1135                1140

Glu Leu  Glu Glu Ile Ser Glu  Arg Leu Glu Glu Ala  Gly Gly Ala
    1145                1150                1155

Thr Ser  Ala Gln Ile Glu Met  Asn Lys Lys Arg Glu  Ala Glu Phe
    1160                1165                1170

Gln Lys  Met Arg Arg Asp Leu  Glu Glu Ala Thr Leu  Gln His Glu
    1175                1180                1185

Ala Thr  Ala Ala Ala Leu Arg  Lys Lys His Ala Asp  Ser Val Ala
    1190                1195                1200

Glu Leu  Gly Glu Gln Ile Asp  Asn Leu Gln Arg Val  Lys Gln Lys
    1205                1210                1215

Leu Glu  Lys Glu Lys Ser Glu  Leu Lys Met Glu Ile  Asp Asp Leu
    1220                1225                1230
```

```
Ala Ser  Asn Met Glu Thr Val  Ser Lys Ala Lys Gly  Asn Leu Glu
    1235                 1240                 1245

Lys Met  Cys Arg Thr Leu Glu  Asp Gln Leu Ser Glu  Val Lys Thr
    1250                 1255                 1260

Lys Glu  Glu Glu His Gln Arg  Leu Ile Asn Glu Leu  Ser Ala Gln
    1265                 1270                 1275

Lys Ala  Arg Leu Gln Thr Glu  Ser Gly Glu Phe Ser  Arg Gln Leu
    1280                 1285                 1290

Asp Glu  Lys Glu Ala Leu Val  Ser Gln Leu Ser Arg  Gly Lys Gln
    1295                 1300                 1305

Ala Phe  Thr Gln Gln Ile Glu  Glu Leu Lys Arg Gln  Leu Glu Glu
    1310                 1315                 1320

Glu Thr  Lys Ala Lys Ser Ala  Leu Ala His Ala Val  Gln Ser Ser
    1325                 1330                 1335

Arg His  Asp Cys Asp Leu Leu  Arg Glu Gln Tyr Glu  Glu Glu Gln
    1340                 1345                 1350

Glu Ala  Lys Ala Glu Leu Gln  Arg Ala Met Ser Lys  Ala Asn Ser
    1355                 1360                 1365

Glu Val  Ala Gln Trp Arg Thr  Lys Tyr Glu Thr Asp  Ala Ile Gln
    1370                 1375                 1380

Arg Thr  Glu Glu Leu Glu Glu  Ala Lys Lys Lys Leu  Ala Gln Arg
    1385                 1390                 1395

Leu Gln  Asp Ala Glu Glu His  Val Glu Ala Val Asn  Ala Lys Cys
    1400                 1405                 1410

Ala Ser  Leu Glu Lys Thr Lys  Gln Arg Leu Gln Asn  Glu Val Glu
    1415                 1420                 1425

Asp Leu  Met Leu Asp Val Glu  Arg Ser Asn Ala Ala  Cys Ala Ala
    1430                 1435                 1440

Leu Asp  Lys Lys Gln Arg Asn  Phe Asp Lys Ile Leu  Ala Glu Trp
    1445                 1450                 1455

Lys His  Lys Tyr Glu Glu Thr  Gln Ala Glu Leu Glu  Ala Ser Gln
```

```
    1460                1465                1470

Lys Glu  Ser Arg Ser Leu Ser  Thr Glu Leu Phe Lys  Val Lys Asn
    1475                1480                1485

Ala Tyr  Glu Glu Ser Leu Asp  Gln Leu Glu Thr Leu  Lys Arg Glu
    1490                1495                1500

Asn Lys  Asn Leu Gln Gln Glu  Ile Ser Asp Leu Thr  Glu Gln Ile
    1505                1510                1515

Ala Glu  Gly Gly Lys His Ile  His Glu Leu Glu Lys  Val Lys Lys
    1520                1525                1530

Gln Ile  Glu Gln Glu Lys Ser  Glu Leu Gln Ala Ala  Leu Glu Glu
    1535                1540                1545

Ala Glu  Ala Ser Leu Glu His  Glu Glu Gly Lys Ile  Leu Arg Ile
    1550                1555                1560

Gln Leu  Glu Leu Asn Gln Val  Lys Ser Glu Ile Asp  Arg Lys Ile
    1565                1570                1575

Ala Glu  Lys Asp Glu Glu Ile  Asp Gln Met Lys Arg  Asn His Ile
    1580                1585                1590

Arg Val  Val Glu Ser Met Gln  Ser Thr Leu Asp Ala  Glu Ile Arg
    1595                1600                1605

Ser Arg  Asn Asp Ala Leu Arg  Ile Lys Lys Lys Met  Glu Gly Asp
    1610                1615                1620

Leu Asn  Glu Met Glu Ile Gln  Leu Asn His Ala Asn  Arg Gln Ala
    1625                1630                1635

Thr Glu  Ala Ile Arg Asn Leu  Arg Asn Thr Gln Gly  Val Leu Lys
    1640                1645                1650

Asp Thr  Gln Leu His Leu Asp  Asp Ala Ile Arg Gly  Gln Asp Asp
    1655                1660                1665

Leu Lys  Glu Gln Leu Ala Met  Val Glu Arg Arg Ala  Asn Leu Met
    1670                1675                1680

Gln Ala  Glu Ile Glu Glu Leu  Arg Ala Ser Leu Glu  Gln Thr Glu
    1685                1690                1695
```

```
Arg Ser  Arg Arg Val Ala Glu  Gln Glu Leu Leu Asp  Ala Ser Glu
    1700                1705                1710

Arg Val  Gln Leu Leu His Thr  Gln Asn Thr Ser Leu  Ile Asn Thr
    1715                1720                1725

Lys Lys  Lys Leu Glu Thr Asp  Ile Ser Gln Ile Gln  Gly Glu Met
    1730                1735                1740

Glu Asp  Ile Val Gln Glu Ala  Arg Asn Ala Glu Glu  Lys Ala Lys
    1745                1750                1755

Lys Ala  Ile Thr Asp Ala Ala  Met Met Ala Glu Glu  Leu Lys Lys
    1760                1765                1770

Glu Gln  Asp Thr Ser Ala His  Leu Glu Arg Met Lys  Lys Asn Met
    1775                1780                1785

Glu Gln  Thr Val Lys Asp Leu  Gln His Arg Leu Asp  Glu Ala Glu
    1790                1795                1800

Gln Leu  Ala Leu Lys Gly Gly  Lys Lys Gln Ile Gln  Lys Leu Glu
    1805                1810                1815

Ala Arg  Val Arg Glu Leu Glu  Asn Glu Val Glu Asn  Glu Gln Lys
    1820                1825                1830

Arg Asn  Val Glu Ala Val Lys  Gly Leu Arg Lys His  Glu Arg Arg
    1835                1840                1845

Val Lys  Glu Leu Thr Tyr Gln  Thr Glu Glu Asp Arg  Lys Asn Val
    1850                1855                1860

Leu Arg  Leu Gln Asp Leu Val  Asp Lys Leu Gln Ser  Lys Val Lys
    1865                1870                1875

Ala Tyr  Lys Arg Gln Ala Glu  Glu Ala Glu Glu Gln  Ser Asn Val
    1880                1885                1890

Asn Leu  Ser Lys Phe Arg Lys  Leu Gln His Glu Leu  Glu Glu Ala
    1895                1900                1905

Glu Glu  Arg Ala Asp Ile Ala  Glu Ser Gln Val Asn  Lys Leu Arg
    1910                1915                1920

Val Lys  Ser Arg Glu Val His  Thr Lys Val Ile Ser  Glu Glu
    1925                1930                1935
```

<210> 11
<211> 420
<212> PRT
<213> Zea mays

<400> 11
Met Ala Ile Arg Lys Gly Ser Ser Tyr Ala Val Ala Ala Leu Leu Ala
1 5 10 15

Leu Ala Ser Val Ala Ala Val Ala Gly Glu Val Phe Phe Gln Glu Lys
20 25 30

Phe Glu Asp Gly Trp Glu Ser Arg Trp Val Lys Ser Glu Trp Lys Lys
35 40 45

Asp Glu Asn Met Ala Gly Glu Trp Asn His Thr Ser Gly Lys Trp Asn
50 55 60

Gly Asp Ala Glu Asp Lys Gly Ile Gln Thr Ser Glu Asp Tyr Arg Phe
65 70 75 80

Tyr Ala Ile Ser Ala Glu Tyr Pro Glu Phe Ser Asn Lys Asp Lys Thr
85 90 95

Leu Val Leu Gln Phe Ser Val Lys His Glu Gln Lys Leu Asp Cys Gly
100 105 110

Gly Gly Tyr Val Lys Leu Leu Gly Gly Asp Val Asp Gln Lys Thr Leu
115 120 125

Gly Gly Asp Thr Ser Tyr Ser Ile Ile Ser Arg Pro Asp Ile Ser Arg
130 135 140

Tyr Ser Thr Lys Lys Val His Thr Ile Leu Thr Lys Asp Gly Lys Asn
145 150 155 160

His Leu Ile Lys Lys Asp Val Pro Cys Gln Thr Asp Gln Leu Thr His
165 170 175

Val Tyr Thr Phe Ile Ile Arg Pro Asp Ala Thr Tyr Ser Ile Leu Ile
180 185 190

Asp Asn Glu Glu Lys His Thr Gly Ser Ile Tyr Glu His Trp Asp Ile
195 200 205

Leu Pro Pro Lys Lys Ile Lys Asp Pro Glu Ala Lys Lys Pro Glu Asp
210 215 220

```
Trp Asp Asp Lys Glu Tyr Ile Pro Asp Pro Glu Asp Lys Lys Pro Glu
225                 230                 235                 240

Gly Tyr Asp Asp Ile Pro Lys Glu Ile Pro Asp Pro Asp Ala Lys Lys
                245                 250                 255

Pro Glu Asp Trp Asp Asp Glu Glu Asp Gly Glu Trp Thr Ala Pro Thr
            260                 265                 270

Ile Pro Asn Pro Glu Tyr Lys Gly Pro Trp Lys Gln Lys Lys Ile Lys
        275                 280                 285

Asn Pro Asn Tyr Gln Gly Lys Trp Lys Ala Pro Met Ile Asp Asn Pro
    290                 295                 300

Asp Phe Lys Asp Asp Pro Tyr Ile Tyr Ala Phe Asp Ser Leu Lys Tyr
305                 310                 315                 320

Ile Gly Ile Glu Leu Trp Gln Val Lys Ser Gly Thr Leu Phe Asp Asn
                325                 330                 335

Ile Ile Ile Thr Asp Asp Pro Ala Leu Ala Lys Thr Phe Ala Glu Glu
            340                 345                 350

Thr Trp Gly Lys His Lys Glu Ala Glu Lys Ala Ala Phe Asp Glu Ala
        355                 360                 365

Glu Lys Lys Lys Glu Glu Glu Asp Ala Ala Lys Gly Gly Asp Asp Glu
    370                 375                 380

Asp Asp Asp Leu Glu Asp Glu Glu Asp Asp Glu Lys Ala Asp Glu Asp
385                 390                 395                 400

Lys Ala Asp Ser Asp Ala Glu Asp Gly Lys Asp Ser Asp Asp Glu Lys
                405                 410                 415

His Asp Glu Leu
            420
```

<210> 12
<211> 424
<212> PRT
<213> Oryza sativa

<400> 12

```
Met Ala Ile Arg Ala Arg Ser Ser Ser Tyr Ala Ala Ala Ala Val Ala
1               5                   10                  15

Leu Ala Leu Ala Leu Ala Ser Val Ala Ala Val Ala Gly Glu Val Phe
```

```
            20                  25                  30

Phe Gln Glu Lys Phe Glu Asp Gly Trp Glu Ser Arg Trp Val Lys Ser
        35                  40                  45

Glu Trp Lys Lys Asp Glu Asn Met Ala Gly Glu Trp Asn His Thr Ser
    50                  55                  60

Gly Lys Trp Asn Gly Asp Pro Glu Asp Lys Gly Ile Gln Thr Ser Glu
65                  70                  75                  80

Asp Tyr Arg Phe Tyr Ala Ile Ser Ala Glu Tyr Pro Glu Phe Ser Asn
                85                  90                  95

Lys Asp Lys Thr Leu Val Leu Gln Phe Ser Val Lys His Glu Gln Lys
            100                 105                 110

Leu Asp Cys Gly Gly Gly Tyr Val Lys Leu Leu Gly Gly Asp Val Asp
        115                 120                 125

Gln Lys Lys Phe Gly Gly Asp Thr Pro Tyr Ser Ile Met Phe Gly Pro
    130                 135                 140

Asp Ile Cys Gly Tyr Ser Thr Lys Lys Val His Thr Ile Phe Thr Lys
145                 150                 155                 160

Asn Asp Lys Asn His Leu Ile Lys Lys Asp Val Pro Cys Glu Thr Asp
                165                 170                 175

Gln Leu Ser His Val Tyr Thr Leu Ile Ile His Pro Asp Ala Thr Tyr
            180                 185                 190

Thr Ile Leu Ile Asp Asn Val Glu Lys Gln Ser Gly Ser Ile Tyr Glu
        195                 200                 205

His Trp Asp Ile Leu Pro Pro Lys Gln Ile Lys Asp Pro Glu Ala Lys
    210                 215                 220

Lys Pro Glu Asp Trp Asp Asp Lys Glu Tyr Ile Pro Asp Pro Glu Asp
225                 230                 235                 240

Lys Lys Pro Glu Gly Tyr Asp Asp Ile Pro Lys Glu Ile Pro Asp Pro
                245                 250                 255

Asp Ala Lys Lys Pro Glu Asp Trp Asp Asp Glu Glu Asp Gly Glu Trp
            260                 265                 270
```

```
Thr Ala Pro Thr Ile Pro Asn Pro Glu Tyr Lys Gly Pro Trp Lys Gln
        275                 280                 285

Lys Lys Ile Lys Asn Pro Asn Tyr Gln Gly Lys Trp Lys Ala Pro Met
    290                 295                 300

Ile Asp Asn Pro Asp Phe Lys Asp Asp Pro Tyr Ile Tyr Ala Phe Asp
305                 310                 315                 320

Ser Leu Lys Tyr Ile Gly Ile Glu Leu Trp Gln Val Lys Ser Gly Thr
                325                 330                 335

Leu Phe Asp Asn Phe Leu Ile Thr Asp Asp Pro Glu Leu Ala Lys Thr
            340                 345                 350

Phe Ala Glu Glu Thr Trp Gly Lys His Lys Asp Ala Glu Lys Ala Ala
        355                 360                 365

Phe Asp Glu Ala Glu Lys Lys Lys Glu Glu Glu Glu Ala Ala Lys Ala
    370                 375                 380

Gly Glu Asp Asp Asp Asp Leu Asp Asp Glu Asp Ala Glu Asp Glu Asp
385                 390                 395                 400

Lys Ala Asp Glu Lys Ala Asp Ser Asp Ala Glu Asp Gly Lys Asp Ser
                405                 410                 415

Asp Asp Glu Lys His Asp Glu Leu
            420
```

<210> 13
<211> 132
<212> PRT
<213> Sus scrofa

<400> 13

```
Met Ser Asn Lys Phe Leu Gly Thr Trp Lys Leu Val Ser Ser Glu Asn
1               5                   10                  15

Phe Asp Asp Tyr Met Lys Ala Leu Gly Val Gly Leu Ala Thr Arg Lys
            20                  25                  30

Leu Gly Asn Leu Ala Lys Pro Arg Val Ile Ile Ser Lys Lys Gly Asp
        35                  40                  45

Ile Ile Thr Ile Arg Thr Glu Ser Thr Phe Lys Asn Thr Glu Ile Ser
    50                  55                  60

Phe Lys Leu Gly Gln Glu Phe Glu Glu Thr Thr Ala Asp Asn Arg Lys
```

65 70 75 80

Ala Lys Ser Val Val Thr Leu Ala Arg Gly Ser Leu Asn Gln Val Gln
85 90 95

Lys Trp Asp Gly Lys Glu Thr Thr Ile Lys Arg Lys Leu Val Asp Gly
100 105 110

Lys Met Val Val Glu Cys Lys Met Lys Asp Val Val Cys Thr Arg Ile
115 120 125

Tyr Glu Lys Val
130

<210> 14
<211> 149
<212> PRT
<213> Ovis aries

<400> 14
Met Ala Asp Gln Leu Thr Glu Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Thr Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

Asp Phe Pro Glu Phe Leu Thr Met Met Ala Arg Lys Met Lys Asp Thr
65 70 75 80

Asp Ser Glu Glu Glu Ile Arg Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gly Asn Gly Tyr Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Ile Asp Gly Asp Gly Gln Val Asn Tyr Glu Glu Phe Val Gln
130 135 140

Met Met Thr Ala Lys
145

<210> 15
<211> 1935
<212> PRT
<213> Sus scrofa

<400> 15
Met Val Asp Ala Glu Met Ala Ala Phe Gly Glu Ala Ala Pro Tyr Leu
1 5 10 15

Arg Lys Ser Glu Lys Glu Arg Leu Glu Ala Gln Thr Arg Pro Phe Asp
20 25 30

Leu Lys Lys Asp Val Tyr Val Pro Asp Asp Lys Glu Glu Phe Val Lys
35 40 45

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

His Gly Lys Thr Val Thr Val Lys Glu Asp Gln Val Leu Gln Gln Asn
65 70 75 80

Pro Pro Lys Phe Asp Lys Ile Glu Asp Met Ala Met Leu Thr Phe Leu
85 90 95

His Glu Pro Ala Val Leu Tyr Asn Leu Lys Glu Arg Tyr Ala Ser Trp
100 105 110

Met Ile Tyr Thr Tyr Ser Gly Leu Phe Cys Val Thr Ile Asn Pro Tyr
115 120 125

Lys Trp Leu Pro Val Tyr Asn Ala Glu Val Val Ala Ala Tyr Arg Gly
130 135 140

Lys Lys Arg Ser Glu Ala Pro Pro His Ile Phe Ser Ile Ser Asp Asn
145 150 155 160

Ala Tyr Gln Tyr Met Leu Thr Asp Arg Glu Asn Gln Ser Ile Leu Ile
165 170 175

Thr Gly Glu Ser Gly Ala Gly Lys Thr Val Asn Thr Lys Arg Val Ile
180 185 190

Gln Tyr Phe Ala Val Ile Ala Ala Ile Gly Asp Arg Ser Lys Lys Glu
195 200 205

Gln Thr Pro Gly Lys Gly Thr Leu Glu Asp Gln Ile Ile Gln Ala Asn
210 215 220

```
Pro Ala Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn Asp Asn
225                 230                 235                 240

Ser Ser Arg Phe Gly Lys Phe Ile Arg Ile His Phe Gly Ala Thr Gly
                245                 250                 255

Lys Leu Ala Ser Ala Asp Ile Glu Thr Tyr Leu Leu Glu Lys Ser Arg
            260                 265                 270

Val Ile Phe Gln Leu Lys Ala Glu Arg Asp Tyr His Ile Phe Tyr Gln
        275                 280                 285

Ile Leu Ser Asn Lys Lys Pro Glu Leu Leu Asp Met Leu Leu Ile Thr
    290                 295                 300

Asn Asn Pro Tyr Asp Tyr Ala Phe Ile Ser Gln Gly Glu Thr Thr Val
305                 310                 315                 320

Ala Ser Ile Asp Asp Ala Glu Glu Leu Met Ala Thr Asp Asn Ala Phe
                325                 330                 335

Asp Val Leu Gly Phe Thr Ser Glu Glu Lys Asn Ser Met Tyr Lys Leu
            340                 345                 350

Thr Gly Ala Ile Met His Phe Gly Asn Met Lys Phe Lys Leu Lys Gln
        355                 360                 365

Arg Glu Glu Gln Ala Glu Pro Asp Gly Thr Glu Glu Ala Asp Lys Ser
    370                 375                 380

Ala Tyr Leu Met Gly Leu Asn Ser Ala Asp Leu Leu Lys Gly Leu Cys
385                 390                 395                 400

His Pro Arg Val Lys Val Gly Asn Glu Tyr Val Thr Lys Gly Gln Asn
                405                 410                 415

Val Gln Gln Val Met Tyr Ala Thr Gly Ala Leu Ala Lys Ala Val Tyr
            420                 425                 430

Glu Lys Met Phe Asn Trp Met Val Thr Arg Ile Asn Thr Thr Leu Glu
        435                 440                 445

Thr Lys Gln Pro Arg Gln Tyr Phe Ile Gly Val Leu Asp Ile Ala Gly
    450                 455                 460

Phe Glu Ile Phe Asp Phe Asn Ser Phe Glu Gln Leu Cys Ile Asn Phe
465                 470                 475                 480
```

```
Thr Asn Glu Lys Leu Gln Gln Phe Phe Asn His His Met Phe Val Leu
                485                 490                 495

Glu Gln Glu Glu Tyr Lys Lys Glu Gly Ile Glu Trp Glu Phe Ile Asp
            500                 505                 510

Phe Gly Met Asp Leu Gln Ala Cys Ile Asp Leu Ile Glu Lys Pro Met
        515                 520                 525

Gly Ile Met Ser Ile Leu Glu Glu Glu Cys Met Phe Pro Lys Ala Thr
    530                 535                 540

Asp Met Thr Phe Lys Ala Lys Leu Tyr Asp Asn His Leu Gly Lys Ser
545                 550                 555                 560

Asn Asn Phe Gln Lys Pro Arg Asn Ile Lys Gly Arg Pro Glu Ala His
                565                 570                 575

Phe Ala Leu Ile His Tyr Ala Gly Thr Val Asp Tyr Asn Ile Ile Gly
            580                 585                 590

Trp Leu Gln Lys Asn Lys Asp Pro Leu Asn Glu Thr Val Val Asp Leu
        595                 600                 605

Tyr Lys Lys Ser Ser Leu Lys Leu Leu Ser Asn Leu Phe Ala Asn Tyr
    610                 615                 620

Ala Gly Ala Asp Thr Pro Val Glu Lys Gly Lys Gly Lys Ala Lys Lys
625                 630                 635                 640

Gly Ser Ser Phe Gln Thr Val Ser Ala Leu His Arg Glu Asn Leu Asn
                645                 650                 655

Lys Leu Met Thr Asn Leu Arg Ser Thr His Pro His Phe Val Arg Cys
            660                 665                 670

Ile Ile Pro Asn Glu Thr Lys Ser Pro Gly Val Ile Asp Asn Pro Leu
        675                 680                 685

Val Met His Gln Leu Arg Cys Asn Gly Val Leu Glu Gly Ile Arg Ile
    690                 695                 700

Cys Arg Lys Gly Phe Pro Asn Arg Ile Leu Tyr Gly Asp Phe Arg Gln
705                 710                 715                 720

Arg Tyr Arg Ile Leu Asn Pro Ala Ala Ile Pro Glu Gly Gln Phe Ile
```

725 730 735

Asp Ser Arg Lys Gly Ala Glu Lys Leu Leu Gly Ser Leu Asp Ile Asp
740 745 750

His Asn Gln Tyr Lys Phe Gly His Thr Lys Val Phe Phe Lys Ala Gly
755 760 765

Leu Leu Gly Leu Leu Glu Glu Met Arg Asp Glu Arg Leu Ser Arg Ile
770 775 780

Ile Thr Arg Ile Gln Ala Gln Ser Arg Gly Val Leu Ser Arg Met Glu
785 790 795 800

Phe Lys Lys Leu Leu Glu Arg Arg Asp Ser Leu Leu Ile Ile Gln Trp
805 810 815

Asn Ile Arg Ala Phe Met Ser Val Lys Asn Trp Pro Trp Met Lys Leu
820 825 830

Tyr Phe Lys Ile Lys Pro Leu Leu Lys Ser Ala Glu Thr Glu Lys Glu
835 840 845

Met Ala Thr Met Lys Glu Glu Phe Gly Arg Leu Lys Glu Ala Leu Glu
850 855 860

Lys Ser Glu Ala Arg Arg Lys Glu Leu Glu Glu Lys Met Val Ser Leu
865 870 875 880

Leu Gln Glu Lys Asn Asp Leu Gln Leu Gln Val Gln Ala Glu Gln Asp
885 890 895

Asn Leu Ala Asp Ala Glu Glu Arg Cys Asp Gln Leu Ile Lys Asn Lys
900 905 910

Ile Gln Leu Glu Ala Lys Val Lys Glu Met Thr Glu Arg Leu Glu Asp
915 920 925

Glu Glu Glu Met Asn Ala Glu Leu Thr Ala Lys Lys Arg Lys Leu Glu
930 935 940

Asp Glu Cys Ser Glu Leu Lys Arg Asp Ile Asp Asp Leu Glu Leu Thr
945 950 955 960

Leu Ala Lys Val Glu Lys Glu Lys His Ala Thr Glu Asn Lys Val Lys
965 970 975

```
Asn Leu Thr Glu Glu Met Ala Gly Leu Asp Glu Ile Ile Ala Lys Leu
            980                 985                 990

Thr Lys Glu Lys Lys Ala Leu Gln  Glu Ala His Gln Gln  Ala Leu Asp
        995                 1000                1005

Asp Leu  Gln Ala Glu Glu Asp  Lys Val Asn Thr Leu  Thr Lys Ala
    1010                1015                1020

Lys Val  Lys Leu Glu Gln His  Val Asp Asp Leu Glu  Gly Ser Leu
    1025                1030                1035

Glu Gln  Glu Lys Lys Val Arg  Met Asp Leu Glu Arg  Ala Lys Arg
    1040                1045                1050

Lys Leu  Glu Gly Asp Leu Lys  Leu Thr Gln Glu Ser  Ile Met Asp
    1055                1060                1065

Leu Glu  Asn Asp Lys Gln Gln  Leu Asp Glu Arg Leu  Lys Lys Lys
    1070                1075                1080

Asp Phe  Glu Leu Asn Ala Leu  Asn Ala Arg Ile Glu  Asp Glu Gln
    1085                1090                1095

Ala Leu  Gly Ser Gln Leu Gln  Lys Lys Leu Lys Glu  Leu Gln Ala
    1100                1105                1110

Arg Ile  Glu Glu Leu Glu Glu  Glu Leu Glu Ala Glu  Arg Thr Ala
    1115                1120                1125

Arg Ala  Lys Val Glu Lys Leu  Arg Ser Asp Leu Ser  Arg Glu Leu
    1130                1135                1140

Glu Glu  Ile Ser Glu Arg Leu  Glu Glu Ala Gly Gly  Ala Thr Ser
    1145                1150                1155

Val Gln  Ile Glu Met Asn Lys  Lys Arg Glu Ala Glu  Phe Gln Lys
    1160                1165                1170

Met Arg  Arg Asp Leu Glu Glu  Ala Thr Leu Gln His  Glu Ala Thr
    1175                1180                1185

Ala Ala  Ala Leu Arg Lys Lys  His Ala Asp Ser Val  Ala Glu Leu
    1190                1195                1200

Gly Glu  Gln Ile Asp Asn Leu  Gln Arg Val Lys Gln  Lys Leu Glu
    1205                1210                1215
```

```
Lys Glu  Lys Ser Glu Phe Lys  Leu Glu Leu Asp Asp  Val Thr Ser
    1220                 1225                 1230

Asn Met  Glu Gln Ile Ile Lys  Ala Lys Ala Asn Leu  Glu Lys Met
    1235                 1240                 1245

Cys Arg  Thr Leu Glu Asp Gln  Met Asn Glu His Arg  Ser Lys Ala
    1250                 1255                 1260

Glu Glu  Thr Gln Arg Ser Val  Asn Asp Leu Thr Ser  Gln Arg Ala
    1265                 1270                 1275

Lys Leu  Gln Thr Glu Asn Gly  Glu Leu Ser Arg Gln  Leu Asp Glu
    1280                 1285                 1290

Lys Glu  Ala Leu Ile Ser Gln  Leu Thr Arg Gly Lys  Leu Thr Tyr
    1295                 1300                 1305

Thr Gln  Gln Leu Glu Asp Leu  Lys Arg Gln Leu Glu  Glu Glu Val
    1310                 1315                 1320

Lys Ala  Lys Asn Ala Leu Ala  His Ala Leu Gln Ser  Ala Arg His
    1325                 1330                 1335

Asp Cys  Asp Leu Leu Arg Glu  Gln Tyr Glu Glu Glu  Thr Glu Ala
    1340                 1345                 1350

Lys Ala  Glu Leu Gln Arg Val  Leu Ser Lys Ala Asn  Ser Glu Val
    1355                 1360                 1365

Ala Gln  Trp Arg Thr Lys Tyr  Glu Thr Asp Ala Ile  Gln Arg Thr
    1370                 1375                 1380

Glu Glu  Leu Glu Glu Ala Lys  Lys Lys Leu Ala Gln  Arg Leu Gln
    1385                 1390                 1395

Asp Ala  Glu Glu Ala Val Glu  Ala Val Asn Ala Lys  Cys Ser Ser
    1400                 1405                 1410

Leu Glu  Lys Thr Lys His Arg  Leu Gln Asn Glu Ile  Glu Asp Leu
    1415                 1420                 1425

Met Val  Asp Val Glu Arg Ser  Asn Ala Ala Ala Ala  Ala Leu Asp
    1430                 1435                 1440

Lys Lys  Gln Arg Asn Phe Asp  Lys Ile Leu Ala Glu  Trp Lys Gln
    1445                 1450                 1455
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Lys Tyr  Glu Glu Ser Gln Ser  Glu Leu Glu Ser Ser  Gln Lys Glu
    1460                1465                1470

Ala Arg  Ser Leu Ser Thr Glu  Leu Phe Lys Leu Lys  Asn Ala Tyr
    1475                1480                1485

Glu Glu  Ser Leu Glu His Leu  Glu Thr Phe Lys Arg  Glu Asn Lys
    1490                1495                1500

Asn Leu  Gln Glu Glu Ile Ser  Asp Leu Thr Glu Gln  Leu Gly Ser
    1505                1510                1515

Ser Gly  Lys Thr Ile His Glu  Leu Glu Lys Val Arg  Lys Gln Leu
    1520                1525                1530

Glu Ala  Glu Lys Leu Glu Leu  Gln Ser Ala Leu Glu  Glu Ala Glu
    1535                1540                1545

Ala Ser  Leu Glu His Glu Glu  Gly Lys Ile Leu Arg  Ala Gln Leu
    1550                1555                1560

Glu Phe  Asn Gln Ile Lys Ala  Glu Met Glu Arg Lys  Leu Ala Glu
    1565                1570                1575

Lys Asp  Glu Glu Met Glu Gln  Ala Lys Arg Asn His  Leu Arg Val
    1580                1585                1590

Val Asp  Ser Leu Gln Thr Ser  Leu Asp Ala Glu Thr  Arg Ser Arg
    1595                1600                1605

Asn Glu  Ala Leu Arg Val Lys  Lys Lys Met Glu Gly  Asp Leu Asn
    1610                1615                1620

Glu Met  Glu Ile Gln Leu Ser  His Ala Asn Arg Met  Ala Ala Glu
    1625                1630                1635

Ala Gln  Lys Gln Val Lys Ser  Leu Gln Ser Leu Leu  Lys Asp Thr
    1640                1645                1650

Gln Ile  Gln Leu Asp Asp Ala  Val Arg Ala Asn Asp  Asp Leu Lys
    1655                1660                1665

Glu Asn  Ile Ala Ile Val Glu  Arg Arg Asn Asn Leu  Leu Gln Ala
    1670                1675                1680

Glu Leu  Glu Glu Leu Arg Ala  Val Val Glu Gln Thr  Glu Arg Ser
```

1685 1690 1695

Arg Lys Leu Ala Glu Gln Glu Leu Ile Glu Thr Ser Glu Arg Val
1700 1705 1710

Gln Leu Leu His Ser Gln Asn Thr Ser Leu Ile Asn Gln Lys Lys
1715 1720 1725

Lys Met Glu Ala Asp Leu Ser Gln Leu Gln Thr Glu Val Glu Glu
1730 1735 1740

Ala Val Gln Glu Cys Arg Asn Ala Glu Glu Lys Ala Lys Lys Ala
1745 1750 1755

Ile Thr Asp Ala Ala Met Met Ala Glu Glu Leu Lys Lys Glu Gln
1760 1765 1770

Asp Thr Ser Ala His Leu Glu Arg Met Lys Lys Asn Met Glu Gln
1775 1780 1785

Thr Ile Lys Asp Leu Gln His Arg Leu Asp Glu Ala Glu Gln Ile
1790 1795 1800

Ala Leu Lys Gly Gly Lys Lys Gln Leu Gln Lys Leu Glu Ala Arg
1805 1810 1815

Val Arg Glu Leu Glu Asn Glu Leu Glu Ala Glu Gln Lys Arg Asn
1820 1825 1830

Ala Glu Ser Val Lys Gly Met Arg Lys Ser Glu Arg Arg Ile Lys
1835 1840 1845

Glu Leu Thr Tyr Gln Thr Glu Glu Asp Arg Lys Asn Leu Leu Arg
1850 1855 1860

Leu Gln Asp Leu Val Asp Lys Leu Gln Leu Lys Val Lys Ala Tyr
1865 1870 1875

Lys Arg Gln Ala Glu Glu Ala Glu Glu Gln Ala Asn Thr Asn Leu
1880 1885 1890

Ser Lys Phe Arg Lys Val Gln His Glu Leu Asp Glu Ala Glu Glu
1895 1900 1905

Arg Ala Asp Ile Ala Glu Ser Gln Val Asn Lys Leu Arg Ala Lys
1910 1915 1920

Ser Arg Asp Ile Gly Thr Lys Gly Leu Asn Glu Glu
1925 1930 1935

<210> 16
<211> 154
<212> PRT
<213> Zea mays

<400> 16
Met Asp Ala Arg Met Phe Gly Leu Glu Thr Pro Arg Val Ala Ala Leu
1 5 10 15

His His Leu Leu Asp Val Pro Asp Gly Asp Lys Ala Gly Gly Gly Ala
20 25 30

Thr Arg Thr Tyr Val Arg Asp Ala Arg Ala Met Ala Ala Thr Pro Ala
35 40 45

Asp Val Lys Glu Leu Ala Gly Ala Tyr Ala Phe Val Val Asp Met Pro
50 55 60

Gly Leu Ser Thr Gly Asp Ile Arg Val Gln Val Glu Asp Glu Arg Val
65 70 75 80

Leu Val Ile Ser Gly Glu Arg Arg Arg Glu Glu Arg Glu Asp Ala Lys
85 90 95

Tyr Leu Arg Met Glu Arg Arg Met Gly Lys Phe Met Arg Lys Phe Val
100 105 110

Leu Pro Asp Asn Ala Asp Val Asp Lys Val Ala Ala Val Cys Arg Asp
115 120 125

Gly Val Leu Thr Val Thr Val Glu Lys Leu Pro Pro Pro Glu Pro Lys
130 135 140

Lys Pro Lys Thr Ile Glu Ile Lys Val Ala
145 150

<210> 17
<211> 549
<212> PRT
<213> Sus scrofa

<400> 17
Met Ser Ser Phe Tyr Ser Glu Pro Tyr Tyr Ser Thr Ser Tyr Lys Arg
1 5 10 15

Arg Tyr Val Glu Thr Pro Arg Val His Ile Ser Ser Val Arg Ser Gly
20 25 30

```
Tyr Ser Thr Ala Arg Ser Ala Tyr Ser Ser Tyr Ser Ala Pro Val Ser
        35                  40                  45

Ser Ser Leu Ser Val Arg Arg Ser Tyr Ser Ser Ser Ser Gly Leu Met
    50                  55                  60

Pro Ser Leu Glu Asn Leu Asp Leu Ser Gln Val Ala Ala Ile Ser Asn
65                  70                  75                  80

Asp Leu Lys Ser Ile Arg Thr Gln Glu Lys Ala Gln Leu Gln Asp Leu
                85                  90                  95

Asn Asp Arg Phe Ala Ser Phe Ile Glu Arg Val His Glu Leu Glu Gln
            100                 105                 110

Gln Asn Lys Val Leu Glu Ala Gln Leu Leu Val Leu Arg Gln Lys His
        115                 120                 125

Ser Glu Pro Ser Arg Phe Arg Ala Leu Tyr Glu Gln Glu Ile Arg Asp
    130                 135                 140

Leu Arg Leu Ala Ala Glu Asp Ala Thr Asn Glu Lys Gln Ala Leu Gln
145                 150                 155                 160

Gly Glu Arg Glu Gly Leu Glu Glu Thr Leu Arg Asn Leu Gln Ala Arg
                165                 170                 175

Tyr Glu Glu Glu Val Leu Ser Arg Glu Asp Ala Glu Gly Arg Leu Met
            180                 185                 190

Glu Ala Arg Lys Gly Ala Asp Glu Ala Ala Leu Ala Arg Ala Glu Leu
        195                 200                 205

Glu Lys Arg Ile Asp Ser Leu Met Asp Glu Ile Ala Phe Leu Lys Lys
    210                 215                 220

Val His Glu Glu Glu Ile Ala Glu Leu Gln Ala Gln Ile Gln Tyr Ala
225                 230                 235                 240

Gln Ile Ser Val Glu Met Asp Val Ser Ser Lys Pro Asp Leu Ser Ala
                245                 250                 255

Ala Leu Lys Asp Ile Arg Ala Gln Tyr Glu Lys Leu Ala Ala Lys Asn
            260                 265                 270

Met Gln Asn Ala Glu Glu Trp Phe Lys Ser Arg Phe Thr Val Leu Thr
        275                 280                 285
```

```
Glu Ser Ala Ala Lys Asn Thr Asp Ala Val Arg Ala Ala Lys Asp Glu
    290                 295                 300

Val Ser Glu Ser Arg Arg Leu Leu Lys Ala Lys Thr Leu Glu Ile Glu
305                 310                 315                 320

Ala Cys Arg Gly Met Asn Glu Ala Leu Glu Lys Gln Leu Gln Glu Leu
                325                 330                 335

Glu Asp Lys Gln Asn Ala Asp Ile Ser Ala Met Gln Asp Thr Ile Asn
            340                 345                 350

Lys Leu Glu Asn Glu Leu Arg Thr Thr Lys Ser Glu Met Ala Arg Tyr
        355                 360                 365

Leu Lys Glu Tyr Gln Asp Leu Leu Asn Val Lys Met Ala Leu Asp Ile
    370                 375                 380

Glu Ile Ala Ala Tyr Arg Lys Leu Leu Glu Gly Glu Glu Thr Arg Leu
385                 390                 395                 400

Ser Phe Thr Ser Val Gly Ser Leu Thr Thr Gly Tyr Ser Gln Ser Ser
                405                 410                 415

Gln Val Phe Gly Arg Ser Ala Tyr Gly Gly Leu Gln Thr Ser Ser Tyr
            420                 425                 430

Leu Met Ser Thr Arg Ser Phe Pro Ser Tyr Tyr Thr Ser His Val Gln
        435                 440                 445

Glu Glu Gln Ile Glu Val Glu Glu Thr Ile Glu Ala Ala Lys Ala Glu
    450                 455                 460

Glu Ala Lys Asp Glu Pro Pro Ser Glu Gly Glu Ala Glu Glu Glu Gly
465                 470                 475                 480

Lys Glu Lys Glu Glu Ala Glu Ala Glu Ala Glu Ala Glu Glu Glu Gly
                485                 490                 495

Ala Gln Glu Glu Glu Glu Ala Ala Glu Lys Glu Glu Ser Glu Glu Ala
            500                 505                 510

Lys Glu Glu Glu Gly Gly Glu Gly Glu Gln Gly Glu Glu Thr Lys Glu
        515                 520                 525

Ala Glu Glu Glu Glu Lys Lys Asp Glu Gly Ala Gly Glu Glu Gln Ala
```

530 535 540

Thr Lys Lys Lys Asp
545

<210> 18
<211> 175
<212> PRT
<213> Oryza sativa

<400> 18
Met Glu Leu Ser Val Val Gly Gly Glu Pro Leu Leu Ala Val Ala Met
1 5 10 15

Gln Gln Leu Leu Asp Leu Asp Leu Pro Asp Glu Leu Glu Arg Gln Leu
20 25 30

Asn Pro Pro Thr Arg Ala Tyr Val Arg Asp Arg Arg Ala Met Ala Asn
35 40 45

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

Ala Val Asp Met Pro Gly Val Ala Pro Ala Asp Val Arg Val Glu Val
65 70 75 80

Glu Asp Gly Asn Val Leu Ala Ile Ser Gly Glu Arg Arg Arg Pro Ala
85 90 95

Gly Asp Gly Asp Asp Gly Gly Glu Gly Val Lys Tyr Leu Arg Met Glu
100 105 110

Arg Arg Met Gly Lys Phe Met Arg Arg Phe Pro Leu Pro Glu Ser Ala
115 120 125

Asp Leu Asp Gly Val Arg Ala Glu Tyr Lys Asp Gly Val Leu Thr Val
130 135 140

Thr Val Asp Lys Lys Pro Pro Pro Glu Pro Lys Lys Pro Arg Val Val
145 150 155 160

Glu Val Lys Val Ala Gly Ala Gly Glu Pro Lys Gly Lys Gly Lys
165 170 175

<210> 19
<211> 149
<212> PRT
<213> Oryza sativa

<400> 19

Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 20
<211> 158
<212> PRT
<213> Oryza sativa

<400> 20
Met Pro Met Ala Glu Leu Glu Gln Val Phe Arg Arg Tyr Asp Ala Asn
1 5 10 15

Gly Asp Gly Lys Ile Ser Ala Glu Glu Leu Ala Ser Val Leu Arg Ala
20 25 30

Leu Gly Ala Pro Leu Gly Pro Gly Glu Val Arg Arg Met Met Asp Glu
35 40 45

Met Asp Ser Asp Arg Asp Gly Phe Val Asp Leu Ser Glu Phe Ala Ala
50 55 60

Phe His Cys Gly Pro Thr Pro Ala His Gly Gly Lys Gly Gly Asp Ala

65 70 75 80

Lys Asp Gln Glu Ala Ala Ser Glu Ala Glu Leu Arg Glu Ala Phe Arg
85 90 95

Met Tyr Asp Ala Asp Ser Asn Gly Lys Ile Ser Ala Arg Glu Leu His
100 105 110

Arg Val Leu Arg Gln Leu Gly Asp Lys Cys Ser Val Ala Asp Cys Ser
115 120 125

Arg Met Ile Arg Ser Val Asp Ala Asp Gly Asp Gly Cys Val Asn Phe
130 135 140

Asp Glu Phe Lys Lys Met Met Gly Gly Gly Gly Gly Arg Arg
145 150 155

<210> 21
<211> 183
<212> PRT
<213> Oryza sativa

<400> 21
Met Asp His Leu Thr Lys Glu Gln Ile Ala Glu Phe Arg Glu Ala Phe
1 5 10 15

Asn Leu Phe Asp Lys Asp Gly Asp Gly Thr Ile Thr Ser Lys Glu Leu
20 25 30

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

Lys Lys Met Val Glu Glu Val Asp Ala Asp Gly Ser Gly Ser Ile Glu
50 55 60

Phe Glu Glu Phe Leu Gly Leu Leu Ala Arg Lys Leu Arg Asp Thr Gly
65 70 75 80

Ala Glu Asp Asp Ile Arg Glu Ala Phe Arg Val Phe Asp Lys Asp Gln
85 90 95

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

Gly Asp Pro Leu Ser Asp Asp Glu Leu Ala Asp Met Leu His Glu Ala
115 120 125

Asp Ser Asp Gly Asp Gly Gln Ile Asn Tyr Asn Glu Phe Leu Lys Val
130 135 140

```
Met Met Ala Lys Arg Arg Gln Asn Met Met Glu Gly His Gly Ser Gly
145                 150                 155                 160


Gly His Arg Ser Ser Asn Ser His Lys Lys Ser Gly Cys Cys Gly Pro
                165                 170                 175


Asn Ser Ser Cys Thr Ile Leu
            180


<210> 22
<211> 149
<212> PRT
<213> Glycine max

<400> 22
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ala Glu Phe Lys Glu Ala
1               5                   10                  15


Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
            20                  25                  30


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


Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
    50                  55                  60


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


Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
                85                  90                  95


Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110


Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
        115                 120                 125


Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
    130                 135                 140


Val Met Met Ala Lys
145


<210> 23
<211> 149
<212> PRT
```

<213> Spinacia oleracea

<400> 23
Met Ala Glx Glx Leu Thr Asp Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 24
<211> 149
<212> PRT
<213> Oryza sativa

<400> 24
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 25
<211> 149
<212> PRT
<213> Oryza sativa

<400> 25
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Asp Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 26
<211> 149
<212> PRT
<213> Capsicum annuum

<400> 26
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ser Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Asp Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 27
<211> 149
<212> PRT
<213> Solanum tuberosum

<400> 27
Met Ala Asp Gln Leu Thr Glu Asp Gln Ile Ser Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Asp Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 28
<211> 149
<212> PRT
<213> Agaricus bisporus

<400> 28
Met Ala Asp Gln Leu Ser Glu Glu Gln Ile Ser Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Thr Ile Thr Thr Lys Glu
20 25 30

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

Leu Glu Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

Asp Phe Pro Glu Phe Leu Thr Met Met Ala Arg Lys Met Arg Asp Thr
65 70 75 80

```
Asp Ser Glu Glu Glu Ile Lys Glu Ala Phe Lys Val Phe Asp Lys Asp
                85                  90                  95

Gly Asn Gly Tyr Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110

Leu Gly Glu Lys Leu Thr Asp Ser Glu Val Asp Glu Met Ile Arg Glu
        115                 120                 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
    130                 135                 140

Met Met Leu Ser Lys
145
```

<210> 29
<211> 164
<212> PRT
<213> Zea mays

<400> 29

```
Met Asp Ala Val Met Phe Gly Leu Glu Thr Pro Leu Met Ala Ala Leu
1               5                   10                  15

Gln His Leu Leu Asp Val Pro Asp Gly Asp Ala Gly Ala Gly Gly Asp
            20                  25                  30

Asn Lys Thr Gly Ser Gly Gly Ser Ala Thr Arg Thr Tyr Val Arg Asp
        35                  40                  45

Ala Arg Ala Met Ala Ala Thr Pro Ala Asp Val Lys Glu Leu Pro Gly
    50                  55                  60

Ala Tyr Ala Phe Val Val Asp Met Pro Gly Leu Gly Thr Gly Asp Ile
65                  70                  75                  80

Arg Val Gln Val Glu Asp Glu Arg Val Leu Val Val Ser Gly Glu Arg
                85                  90                  95

Arg Arg Glu Glu Arg Glu Asp Asp Ala Lys Tyr Leu Arg Met Glu Arg
            100                 105                 110

Arg Met Gly Lys Phe Met Arg Lys Phe Val Leu Pro Asp Asn Ala Asp
        115                 120                 125

Val Asp Lys Val Ala Ala Val Cys Arg Asp Gly Val Leu Thr Val Thr
    130                 135                 140
```

Val Glu Lys Leu Pro Pro Pro Glu Pro Lys Lys Pro Lys Thr Ile Glu
145 150 155 160

Val Lys Val Ala

<210> 30
<211> 181
<212> PRT
<213> Oryza sativa

<400> 30
Met Ser Asn Thr Thr Glu Lys Lys Met Pro Gln Gln Gln Gln Val Glu
1 5 10 15

Arg Pro Thr Ala Leu Ala Pro Ala Asp Ala Glu Ile Glu Arg Val Phe
20 25 30

Thr Arg Phe Asp Ala Asp Gly Asp Gly Arg Ile Ser Pro Ser Glu Leu
35 40 45

Ala Ala Val Thr Arg Ala Ile Ala Pro Pro Pro Ser Glu Ser Ala Gly
50 55 60

Gly Arg Glu Val Ala Ala Met Met Asn Glu Leu Asp Thr Asp Arg Asp
65 70 75 80

Gly Phe Val Asp Leu Gly Glu Phe Ala Ala Phe His Gly Arg Gly Arg
85 90 95

Gly Asp Ala Glu His Glu Ala Glu Leu Arg Ala Ala Phe Asp Val Tyr
100 105 110

Asp Val Asp Gly Asp Gly Arg Ile Thr Ala Ala Glu Leu Gly Lys Val
115 120 125

Leu Gly Arg Ile Gly Glu Gly Cys Ser Ala Glu Glu Cys Glu Arg Met
130 135 140

Ile Ala Ser Val Asp Val Asp Gly Asp Gly Cys Val Gly Phe Glu Glu
145 150 155 160

Phe Lys Lys Met Met Cys Arg Asp Ala Ala Ala Thr Gly Gly Ala Asp
165 170 175

Lys Ala Lys Thr Glu
180

<210> 31

<211> 317
<212> PRT
<213> Oryza sativa

<400> 31

```
Met Ala Thr Ala Gly Ala Ser Ser Phe Glu Asp Glu Ile Met Glu Ser
1               5                  10                  15

Asp Ile Glu Leu Glu Gly Glu Ala Val Glu Pro Asp Asn Asp Pro Pro
            20                  25                  30

Gln Lys Met Gly Asp Pro Ser Val Glu Val Ser Asp Glu Lys Arg Asp
        35                  40                  45

Gln Ala Gln Leu Cys Lys Asn Lys Gly Val Asp Ala Phe Ser Glu Gly
    50                  55                  60

Lys Leu Asp Glu Ala Ile Glu His Leu Thr Glu Ala Ile Val Leu Asn
65                  70                  75                  80

Pro Thr Ser Ala Ile Ala Tyr Ala Thr Arg Ala Val Ile Phe Val Lys
                85                  90                  95

Ser Lys Lys Pro Asn Ala Ala Ile Arg Asp Ala Asp Ala Ala Leu Lys
            100                 105                 110

Ile Asn Pro Asp Ser Ala Lys Gly Tyr Lys Ser Arg Gly Met Ala Lys
        115                 120                 125

Ala Met Leu Gly Lys Trp Glu Glu Ala Ala Gln Asp Leu Arg Met Ala
    130                 135                 140

Ala Lys Leu Asp Tyr Asp Glu Glu Ile Gly Ala Glu Leu Lys Lys Val
145                 150                 155                 160

Glu Pro Asn Val Leu Lys Ile Glu Glu His Arg Lys Lys Tyr Glu Arg
                165                 170                 175

Leu Arg Lys Glu Arg Asp Ile Lys Lys Ala Glu Met Glu Lys Gln Arg
            180                 185                 190

Lys His Ala Glu Glu Val Ser Ala Ala Ser Ala Ala Leu Lys Asp Gly
        195                 200                 205

Asp Val Ile Ala Ile His Ser Ser Ser Glu Leu Asp Thr Lys Leu Lys
    210                 215                 220

Ala Ala Ser Ser Leu Ser Arg Leu Val Val Leu Tyr Phe Thr Ala Ala
225                 230                 235                 240
```

```
Trp Cys Gly Pro Cys Arg Phe Ile Gly Pro Val Cys Lys Ser Leu Ala
                245                 250                 255

Glu Lys His Arg Asn Val Val Phe Leu Lys Val Asp Ile Asp Glu Leu
            260                 265                 270

Asn Ser Val Ala Tyr Arg Trp Asn Val Ser Ser Val Pro Ser Phe Phe
        275                 280                 285

Phe Val Arg Asn Gly Lys Glu Ile Asp Lys Val Val Gly Ala Asp Lys
    290                 295                 300

Asn Gly Leu Glu Arg Lys Val Ala Gln His Gly Ser Ser
305                 310                 315
```

<210> 32
<211> 172
<212> PRT
<213> Sus scrofa

<400> 32

```
Met Ser Ser Lys Arg Ala Lys Ala Lys Thr Thr Lys Lys Arg Pro Gln
1               5                   10                  15

Arg Ala Thr Ser Asn Val Phe Ala Met Phe Asp Gln Ser Gln Ile Gln
            20                  25                  30

Glu Phe Lys Glu Ala Phe Asn Met Ile Asp Gln Asn Arg Asp Gly Phe
        35                  40                  45

Ile Asp Lys Glu Asp Leu His Asp Met Leu Ala Ser Leu Gly Lys Asn
    50                  55                  60

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

Ile Asn Phe Thr Met Phe Leu Thr Met Phe Gly Glu Lys Leu Asn Gly
                85                  90                  95

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

Glu Ala Ser Gly Phe Ile His Glu Asp His Leu Arg Glu Leu Leu Thr
        115                 120                 125

Thr Met Gly Asp Arg Phe Thr Asp Glu Glu Val Asp Glu Met Tyr Arg
    130                 135                 140
```

```
Glu Ala Pro Ile Asp Lys Lys Gly Asn Phe Asn Tyr Val Glu Phe Thr
145                 150                 155                 160


Arg Ile Leu Lys His Gly Ala Lys Asp Lys Asp Asp
                165                 170


<210> 33
<211> 149
<212> PRT
<213> Zea mays

<400> 33
Met Ala Asp Gln Leu Thr Asp Glu Gln Ile Ala Glu Phe Lys Glu Ala
1               5                   10                  15


Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
            20                  25                  30


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


Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
    50                  55                  60


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


Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
                85                  90                  95


Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110


Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
        115                 120                 125


Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
    130                 135                 140


Val Met Met Ala Lys
145


<210> 34
<211> 161
<212> PRT
<213> Zea mays

<400> 34
Met Asp Gly Arg Met Phe Gly Leu Glu Thr Pro Leu Met Val Ala Leu
1               5                   10                  15
```

```
Gln His Leu Leu Asp Val Pro Asp Gly Asp Ala Gly Ala Gly Gly Asp
            20                  25                  30

Lys Ala Gly Gly Gly Gly Pro Thr Arg Thr Tyr Val Ala Asp Ala Arg
        35                  40                  45

Ala Met Ala Val Thr Pro Ala Asp Val Lys Glu Leu Pro Gly Ala Tyr
    50                  55                  60

Ala Phe Val Val Asp Met Pro Gly Leu Gly Thr Gly Asp Ile Lys Val
65                  70                  75                  80

Gln Val Glu Asp Glu Arg Val Leu Val Ile Ser Gly Glu Arg Arg Arg
                85                  90                  95

Glu Glu Arg Glu Asp Ala Lys Tyr Leu Arg Met Glu Arg Arg Met Gly
            100                 105                 110

Lys Phe Met Arg Lys Phe Val Leu Pro Asp Asn Ala Asp Met Asp Lys
        115                 120                 125

Ile Ser Ala Val Cys Arg Asp Gly Val Leu Thr Val Thr Val Glu Lys
    130                 135                 140

Leu Pro Pro Pro Glu Pro Lys Lys Pro Lys Thr Ile Glu Val Lys Val
145                 150                 155                 160

Ala
```

<210> 35
<211> 149
<212> PRT
<213> Oryza sativa

<400> 35

```
Met Ala Asp Gln Leu Thr Asp Glu Gln Ile Ala Glu Phe Lys Glu Ala
1               5                   10                  15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
            20                  25                  30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
    50                  55                  60
```

```
Asp Phe Pro Glu Phe Leu Asn Leu Met Ala Lys Lys Met Lys Asp Thr
65                  70                  75                  80

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
                85                  90                  95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
        115                 120                 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
    130                 135                 140

Val Met Met Ala Lys
145
```

<210> 36
<211> 149
<212> PRT
<213> Oryza sativa

<400> 36

```
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ala Glu Phe Lys Glu Ala
1               5                   10                  15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
            20                  25                  30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
    50                  55                  60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
                85                  90                  95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Glu Glu Met Ile Arg Glu
        115                 120                 125
```

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Asp Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 37
<211> 183
<212> PRT
<213> Oryza sativa

<400> 37
Met Asp His Leu Thr Lys Glu Gln Ile Ala Glu Phe Arg Glu Ala Phe
1 5 10 15

Asn Leu Phe Asp Lys Asp Gly Asp Gly Thr Ile Thr Ser Lys Glu Leu
20 25 30

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

Lys Lys Met Val Glu Glu Val Asp Ala Asp Gly Ser Gly Ser Ile Glu
50 55 60

Phe Glu Glu Phe Leu Gly Leu Leu Ala Arg Lys Leu Arg Asp Thr Gly
65 70 75 80

Ala Glu Asp Asp Ile Arg Asp Ala Phe Arg Val Phe Asp Lys Asp Gln
85 90 95

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

Ser Asp Pro Leu Ser Asp Asp Glu Leu Ala Asp Met Leu His Glu Ala
115 120 125

Asp Ser Asp Gly Asp Gly Gln Ile Asn Tyr Asn Glu Phe Leu Lys Val
130 135 140

Met Met Ala Lys Arg Arg Gln Asn Met Met Glu Gly His Gly Ser Gly
145 150 155 160

Gly His Arg Ser Ser Asn Ser His Lys Lys Ser Gly Cys Cys Gly Pro
165 170 175

Asn Ser Ser Cys Thr Ile Leu
180

<210> 38

<211> 149
<212> PRT
<213> Oryza sativa

<400> 38
Met Ala Asp Gln Leu Thr Asp Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

Asp Phe Pro Glu Phe Leu Asn Leu Met Ala Lys Lys Met Lys Asp Thr
65 70 75 80

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 39
<211> 187
<212> PRT
<213> Oryza sativa

<400> 39
Met Ala Asp Gln Leu Ser Glu Glu Gln Ile Val Glu Phe Arg Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Ser Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Ser Glu Val Asp Ala Asp Ser Asn Gly Asn Ile
50 55 60

Glu Phe Lys Glu Phe Leu Gly Leu Met Ala Arg Lys Leu Arg Asp Lys
65 70 75 80

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Ala Asn
100 105 110

Ile Gly Glu Arg Leu Thr Asp Glu Glu Val Gly Glu Met Ile Ser Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Cys Met Met Ala Lys Lys Arg Arg Lys Arg Ile Glu Glu Lys Arg Glu
145 150 155 160

His Asp Gly Gly Ser Arg Thr Lys Ser Ala Gly Pro Ser Ala Ala Pro
165 170 175

Ala Ser Lys Arg Gly Gln Lys Cys Val Ile Leu
180 185

<210> 40
<211> 149
<212> PRT
<213> Triticum aestivum

<400> 40
Met Ala Asp Gln Leu Thr Asp Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp

85 90 95

Gln Asp Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 41
<211> 149
<212> PRT
<213> Malus domestica

<400> 41
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ser Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 42
<211> 149
<212> PRT
<213> Solanum lycopersicum

<400> 42
Met Ala Glu Gln Leu Thr Glu Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Ser Glu Val Asp Ala Asp Gln Asn Gly Thr Ile
50 55 60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Lys Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
100 105 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
115 120 125

Ala Asp Ile Asp Gly Asp Gly Gln Val Asn Tyr Glu Glu Phe Val Arg
130 135 140

Met Met Leu Ala Lys
145

<210> 43
<211> 187
<212> PRT
<213> Oryza sativa

<400> 43
Met Ala Asp Gln Leu Ser Glu Glu Gln Ile Gly Glu Phe Arg Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Ser Ile Thr Thr Lys Glu
20 25 30

Leu Gly Thr Val Met Arg Ser Leu Gly Gln Asn Pro Thr Glu Ala Glu

35 40 45

Leu Gln Asp Met Ile Ser Glu Val Asp Thr Asp Ser Asn Gly Asn Ile
50 55 60

Glu Phe Lys Glu Phe Leu Gly Leu Met Ala Arg Lys Leu Arg Asp Lys
65 70 75 80

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
85 90 95

Gln Asn Gly Phe Ile Ser Ala Thr Glu Leu Arg His Val Met Ala Asn
100 105 110

Ile Gly Glu Arg Leu Thr Asp Glu Glu Val Gly Glu Met Ile Ser Glu
115 120 125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
130 135 140

Cys Met Met Ala Lys Lys Arg Arg Lys Arg Ile Glu Glu Lys Arg Asp
145 150 155 160

His Asp Gly Gly Ser Arg Thr Lys Ser Ala Gly Pro Ser Ala Ala Pro
165 170 175

Ala Ser Lys Arg Gly Gln Lys Cys Val Ile Leu
180 185

<210> 44
<211> 149
<212> PRT
<213> Solanum tuberosum

<400> 44
Met Ala Glu Gln Leu Thr Glu Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
20 25 30

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

Leu Gln Asp Met Ile Ser Glu Ala Asp Ala Asp Gln Asn Gly Thr Ile
50 55 60

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

```
Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Lys Val Phe Asp Lys Asp
                85                  90                  95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
        115                 120                 125

Ala Asp Ile Asp Gly Asp Gly Gln Val Asn Tyr Glu Glu Phe Val Arg
    130                 135                 140

Met Met Leu Ala Lys
145
```

<210> 45
<211> 162
<212> PRT
<213> Meleagris gallopavo

<400> 45

```
Pro Ser Met Thr Asp Gln Gln Ala Glu Ala Arg Ala Phe Leu Ser Glu
1               5                   10                  15

Glu Met Ile Ala Glu Phe Lys Ala Ala Phe Asp Met Phe Asp Ala Asp
            20                  25                  30

Gly Gly Gly Asp Ile Ser Thr Lys Glu Leu Gly Thr Val Met Arg Met
        35                  40                  45

Leu Gly Gln Asn Pro Thr Lys Glu Glu Leu Asp Ala Ile Ile Glu Glu
    50                  55                  60

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

Met Met Val Arg Gln Met Lys Glu Asp Ala Lys Gly Lys Ser Glu Glu
                85                  90                  95

Glu Leu Ala Asn Cys Phe Arg Ile Phe Asp Lys Asn Ala Asp Gly Phe
            100                 105                 110

Ile Asp Ile Glu Glu Leu Gly Glu Ile Leu Arg Ala Thr Gly Glu His
        115                 120                 125

Val Thr Glu Glu Glu Ile Glu Asp Leu Met Lys Asp Ser Asp Lys Asn
    130                 135                 140
```

Asn Asp Gly Arg Ile Asp Phe Asp Glu Phe Leu Lys Met Met Glu Gly
145 150 155 160

Val Gln

<210> 46
<211> 202
<212> PRT
<213> Pisum sativum

<400> 46
Met Ala Ser Ser Leu Ala Leu Lys Arg Phe Leu Ser Ser Gly Leu Leu
1 5 10 15

Ser Ser Ser Phe Leu Arg Pro Val Ala Ser Ser Ala Ser Arg Ser Phe
20 25 30

Asn Thr Asn Ala Met Arg Gln Tyr Asp Gln His Ser Asp Asp Arg Asn
35 40 45

Val Asp Val Tyr Arg His Ser Phe Pro Arg Thr Arg Arg Asp Asp Leu
50 55 60

Leu Leu Ser Asp Val Phe Asp Pro Phe Ser Pro Pro Arg Ser Leu Ser
65 70 75 80

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

Ala Ala Ser Arg Arg Gly Trp Asp Ala Arg Glu Thr Glu Asp Ala Leu
100 105 110

Phe Leu Arg Leu Asp Met Pro Gly Leu Gly Lys Glu Asp Val Lys Ile
115 120 125

Ser Val Glu Gln Asn Thr Leu Thr Ile Lys Gly Glu Glu Gly Ala Lys
130 135 140

Glu Ser Glu Glu Lys Glu Lys Ser Gly Arg Arg Phe Ser Ser Arg Ile
145 150 155 160

Asp Leu Pro Glu Lys Leu Tyr Lys Ile Asp Val Ile Lys Ala Glu Met
165 170 175

Lys Asn Gly Val Leu Lys Val Thr Val Pro Lys Met Lys Glu Glu Glu
180 185 190

Arg Asn Asn Val Ile Asn Val Lys Val Asp
195 200

<210> 47
<211> 154
<212> PRT
<213> Oryza sativa

<400> 47
Met Glu Gly Leu Thr Ser Glu Gln Met Val Ala Phe Gln Glu Ala Phe
1 5 10 15

Leu Leu Phe Asp Lys Asn Gly Asp Gly Cys Ile Thr Leu Glu Glu Leu
20 25 30

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

Asn Asp Met Met Arg Glu Val Asp Thr Asp Gly Asn Gly Ile Ile Asp
50 55 60

Phe Gln Glu Phe Leu Ser Leu Ile Ala Arg Lys Met Lys Asp Gly Asp
65 70 75 80

Gly Asp Glu Glu Leu Lys Glu Ala Phe Glu Val Leu Asp Lys Asp Gln
85 90 95

Asn Gly Phe Ile Ser Pro Thr Glu Leu Arg Thr Val Met Thr Asn Leu
100 105 110

Gly Glu Lys Met Thr Asp Glu Glu Val Glu Gln Met Ile Arg Glu Ala
115 120 125

Asp Thr Asp Gly Asp Gly Gln Val Asn Tyr Asp Glu Phe Val Ile Met
130 135 140

Met Lys Asn Ala Glu Arg Lys Ile Ser Gly
145 150

<210> 48
<211> 170
<212> PRT
<213> Oryza sativa

<400> 48
Met Glu Ser His Leu Asn Glu Gln Gln Ile Ser Asp Phe Arg Asp Ala
1 5 10 15

Phe Ser Leu Phe Asp Lys Asn Asn Asp Gly Cys Ile Ser Arg Glu Glu
20 25 30

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

Leu Gln Asp Met Ile Val Ala Val Asp Glu Asp Gly Asn Gly Thr Ile
    50                  55                  60

Glu Phe Asp Glu Phe Leu Ala Ile Met Lys Lys Lys Leu Tyr Glu Asn
65                  70                  75                  80

Asp Lys Gly Asp Asp Glu Glu Glu Leu Arg Lys Ala Phe Arg Ile Phe
                85                  90                  95

Asp Lys Asp Asp Asn Gly Phe Ile Ser Arg Asn Glu Leu Ser Met Val
            100                 105                 110

Met Ala Ser Leu Gly Glu Glu Met Thr Glu Asp Glu Ile Asp Asp Met
        115                 120                 125

Met Lys Ala Ala Asp Ser Asn Asn Asp Gly Gln Val Asp Tyr Glu Glu
    130                 135                 140

Phe Lys Arg Val Met Met Ser Thr Trp Asn Ile Thr Glu Ile Phe Lys
145                 150                 155                 160

Pro His Val Thr Ile Trp Arg Tyr Lys Pro
                165                 170
```

<210> 49
<211> 471
<212> PRT
<213> Sus scrofa

<400> 49

```
Met Ser Gln Ala Tyr Ser Ser Ser Gln Arg Val Ser Ser Tyr Arg Arg
1               5                   10                  15

Thr Phe Gly Gly Ala Pro Ser Phe Pro Leu Gly Ser Pro Leu Ser Ser
            20                  25                  30

Pro Val Phe Pro Arg Ala Gly Phe Gly Thr Lys Gly Ser Ser Ser Ser
        35                  40                  45

Val Thr Ser Arg Val Tyr Gln Val Ser Arg Thr Ser Gly Gly Ala Gly
    50                  55                  60

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

```
Ser Ser Ser Tyr Gly Ala Gly Glu Leu Leu Asp Phe Ser Leu Ala Asp
                85                  90                  95

Ala Val Asn Gln Glu Phe Leu Thr Thr Arg Thr Asn Glu Lys Val Glu
            100                 105                 110

Leu Gln Glu Leu Asn Asp Arg Phe Ala Asn Tyr Ile Glu Lys Val Arg
        115                 120                 125

Phe Leu Glu Gln Gln Asn Ala Ala Leu Ala Ala Glu Val Asn Arg Leu
    130                 135                 140

Lys Gly Arg Glu Pro Thr Arg Val Ala Glu Ile Tyr Glu Glu Glu Leu
145                 150                 155                 160

Arg Glu Leu Arg Arg Gln Val Glu Val Leu Thr Asn Gln Arg Ala Arg
                165                 170                 175

Val Asp Val Glu Arg Asp Asn Leu Leu Asp Asp Leu Gln Arg Leu Lys
            180                 185                 190

Ala Lys Leu Gln Glu Glu Ile Gln Leu Lys Glu Glu Ala Glu Asn Asn
        195                 200                 205

Leu Ala Ala Phe Arg Ala Asp Val Asp Ala Ala Thr Leu Ala Arg Ile
    210                 215                 220

Asp Leu Glu Arg Arg Ile Glu Ser Leu Asn Glu Glu Ile Ala Phe Leu
225                 230                 235                 240

Lys Lys Val His Glu Glu Glu Ile Arg Glu Leu Gln Ala Gln Leu Gln
                245                 250                 255

Glu Gln Gln Val Gln Val Glu Met Asp Met Ser Lys Pro Asp Leu Thr
            260                 265                 270

Ala Ala Leu Arg Asp Ile Arg Ala Gln Tyr Glu Thr Ile Ala Ala Lys
        275                 280                 285

Asn Ile Ser Glu Ala Glu Glu Trp Tyr Lys Ser Lys Val Ser Asp Leu
    290                 295                 300

Thr Gln Ala Ala Asn Lys Asn Asn Asp Ala Leu Arg Gln Ala Lys Gln
305                 310                 315                 320

Glu Met Met Glu Tyr Arg His Gln Ile Gln Ser Tyr Thr Cys Glu Ile
                325                 330                 335
```

```
Asp Ala Leu Lys Gly Thr Asn Asp Ser Leu Met Arg Gln Met Arg Glu
            340                 345                 350

Leu Glu Asp Arg Phe Ala Ser Glu Ala Ser Gly Tyr Gln Asp Asn Ile
        355                 360                 365

Ala Arg Leu Glu Glu Glu Ile Arg His Leu Lys Asp Glu Met Ala Arg
    370                 375                 380

His Leu Arg Glu Tyr Gln Asp Leu Leu Asn Val Lys Met Ala Leu Asp
385                 390                 395                 400

Val Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu Ser Arg
                405                 410                 415

Ile Asn Leu Pro Ile Gln Thr Phe Ser Ala Leu Asn Phe Arg Glu Thr
            420                 425                 430

Ser Pro Glu Gln Arg Gly Ser Glu Val His Thr Lys Lys Thr Val Met
        435                 440                 445

Ile Lys Thr Ile Glu Thr Arg Asp Gly Glu Val Val Ser Glu Ala Thr
    450                 455                 460

Gln Gln Gln His Glu Val Leu
465                 470


<210> 50
<211> 159
<212> PRT
<213> Sus scrofa

<400> 50
Thr Asp Gln Gln Ala Glu Ala Arg Ser Tyr Leu Ser Glu Glu Met Ile
1               5                   10                  15

Ala Glu Phe Lys Ala Ala Phe Asp Met Phe Asp Ala Asp Gly Gly Gly
            20                  25                  30

Asp Ile Ser Val Lys Glu Leu Gly Thr Val Met Arg Met Leu Gly Gln
        35                  40                  45

Thr Pro Thr Lys Glu Glu Leu Asp Ala Ile Ile Glu Glu Val Asp Glu
    50                  55                  60

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

Arg Gln Met Lys Glu Asp Ala Lys Gly Lys Ser Glu Glu Glu Leu Ala
85 90 95

Glu Cys Phe Arg Ile Phe Asp Arg Asn Met Asp Gly Tyr Ile Asp Ala
100 105 110

Glu Glu Leu Ala Glu Ile Phe Arg Ala Ser Gly Glu His Val Thr Asp
115 120 125

Glu Glu Ile Glu Ser Ile Met Lys Asp Gly Asp Lys Asn Asn Asp Gly
130 135 140

Arg Ile Asp Phe Asp Glu Phe Leu Lys Met Met Glu Gly Val Gln
145 150 155

<210> 51
<211> 172
<212> PRT
<213> Oryza sativa

<400> 51
Met Asp Ser Thr Glu Leu Arg Lys Val Phe Lys Met Phe Asp Lys Asn
1 5 10 15

Gly Asp Gly Arg Ile Thr Lys Lys Glu Leu Gly Glu Ser Phe Lys Asn
20 25 30

Phe Gly Ile Phe Ile Pro Asp Asp Glu Leu Asp Ala Thr Met Asp Lys
35 40 45

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

Leu Tyr Arg Ser Ile Leu Gly Asp Asp Ala Ala Gly Arg Ala Pro Arg
65 70 75 80

Thr Ala Ala Ala Ala Ile Gly Gly Glu Gly Gly Ala Pro Asp Asp Glu
85 90 95

Asp Glu Gly Met Arg Glu Ala Phe Asn Val Phe Asp Gln Asn Gly Asp
100 105 110

Gly Phe Ile Thr Val Asp Glu Leu Arg Ser Val Leu Ser Ser Leu Gly
115 120 125

Leu Lys His Gly Arg Thr Ala Asp Asp Cys Arg Arg Met Ile Ser Met
130 135 140

Val Asp Ala Asp Gly Asp Gly Arg Val Asp Phe Lys Glu Phe Lys Gln

145 150 155 160

Met Met Arg Gly Gly Gly Phe Ala Ala Leu Gly Gly
165 170

<210> 52
<211> 204
<212> PRT
<213> Oryza sativa

<400> 52
Met Thr Ser Val Trp Lys Thr Lys Val Leu Thr Gly Leu Asn Lys Leu
1 5 10 15

Phe Asp Lys Asp Gly Lys Lys Ala Ala Ala Ala Glu Phe Leu Lys Ser
20 25 30

Phe Asn Lys Glu Glu Ile Gly Lys Glu Ile Asp Asp Lys Lys Thr Glu
35 40 45

Leu Glu Pro Lys Val Val Glu Val Val Glu Ser Ser Pro Pro Glu Ile
50 55 60

Lys Ala Leu Leu Lys Asp Lys Lys Thr Ala Ser Lys Ile Lys Lys Asn
65 70 75 80

Gly Pro Ala Val Thr Lys Phe Leu Glu Glu Leu Ala Lys Ile Asp Phe
85 90 95

Pro Gly Ala Lys Pro Val Ser Asp Ala Val Ala Lys Ser Gly Thr Thr
100 105 110

Pro Leu Ser Pro Ala Ile Ala Phe Ile Leu Glu Lys Val Ala Pro Phe
115 120 125

Val Pro Lys Glu Glu Pro Lys Pro Glu Pro Glu Ala Glu Ala Ala Ala
130 135 140

Glu Thr Thr Ser Arg Glu Val Ala Val Glu Glu Glu Lys Lys Glu Glu
145 150 155 160

Glu Ala Ala Pro Ala Glu Pro Ala Ala Ala Ala Ala Glu Ala Ala Ala
165 170 175

Pro Ser Thr Glu Val Val Glu Glu Lys Lys Glu Glu Glu Lys Pro Ala
180 185 190

Glu Ala Ala Ala Pro Ala Ala Glu Pro Glu Lys Gln
195 200

<210> 53
<211> 204
<212> PRT
<213> Oryza sativa

<400> 53
Met Thr Ser Val Trp Lys Thr Lys Val Leu Thr Gly Leu Asn Lys Leu
1 5 10 15

Phe Asp Lys Asp Gly Lys Lys Ala Ala Ala Ala Glu Phe Leu Lys Ser
20 25 30

Phe Asn Lys Glu Glu Ile Gly Lys Glu Ile Asp Asp Lys Lys Thr Glu
35 40 45

Leu Glu Pro Lys Val Val Glu Val Val Glu Ser Ser Pro Pro Glu Ile
50 55 60

Lys Ala Leu Leu Lys Asp Lys Lys Thr Ala Ser Lys Ile Lys Lys Asn
65 70 75 80

Gly Pro Ala Val Thr Lys Phe Leu Glu Glu Leu Ala Lys Ile Asp Phe
85 90 95

Pro Gly Ala Lys Pro Val Ser Asp Ala Val Ala Lys Ser Gly Thr Thr
100 105 110

Pro Leu Ser Pro Ala Ile Ala Phe Ile Leu Glu Lys Val Ala Pro Phe
115 120 125

Val Pro Lys Glu Glu Pro Lys Pro Glu Pro Glu Ala Glu Ala Ala Ala
130 135 140

Glu Thr Thr Ser Arg Glu Val Ala Val Glu Glu Glu Lys Lys Glu Glu
145 150 155 160

Glu Ala Ala Pro Ala Glu Pro Ala Ala Ala Ala Ala Glu Ala Ala Ala
165 170 175

Pro Ser Thr Glu Val Val Glu Glu Lys Lys Glu Glu Glu Lys Pro Ala
180 185 190

Glu Ala Ala Ala Pro Ala Ala Glu Pro Glu Lys Gln
195 200

<210> 54
<211> 151
<212> PRT

<213> Oryza sativa

<400> 54
Met Val Ala Ser Asp Glu Phe Arg Arg Val Phe Gly Ser Phe Asp Gln
1 5 10 15

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

Ala Ser Leu Gly Glu Asp Met Pro Asp Glu Glu Val Gln Ala Leu Met
35 40 45

Ala Leu Ala Asp Thr Asp Gly Asp Gly Leu Leu Asp Glu Glu Glu Phe
50 55 60

Val Arg Leu Val Thr Glu Met Glu Ala Asp Gly Asp Glu Glu Glu Asp
65 70 75 80

Asp Asp Asp Glu Thr Cys Arg Cys Leu Arg Glu Ala Phe Ala Met Tyr
85 90 95

Glu Met Glu Gly Arg Gly Cys Ile Thr Pro Leu Ser Leu Lys Leu Met
100 105 110

Leu Ser Lys Leu Gly Thr His Leu Asp Val Ala Glu Cys Gln Ala Met
115 120 125

Ile Cys Arg Phe Asp Met Asn Gly Asp Gly Val Leu Thr Phe Asp Glu
130 135 140

Phe Lys Thr Met Met Met Ala
145 150

<210> 55
<211> 151
<212> PRT
<213> Oryza sativa

<400> 55
Met Val Val Ala Ser Ala Ala Ser Pro Cys Glu Ser Ser Ala Leu Phe
1 5 10 15

Ala Thr Phe Asp His Asp Gly Asp Gly Arg Ile Ser Ala Ala Glu Leu
20 25 30

Arg Leu Cys Met Lys Thr Thr Leu Gly Glu Glu Val Ser Asp Glu Glu
35 40 45

Ala Gly Gln Leu Val Ala Ser Val Asp Ala Asp Gly Asp Gly Leu Leu
50 55 60

Cys Glu Ala Glu Phe Val Arg Leu Val Gln Ala Ala Glu Val Glu Glu
65 70 75 80

Glu Asp Glu Arg Arg Gly Thr Gly Leu Arg Glu Ala Phe Gly Met Tyr
85 90 95

Glu Met Glu Gly Glu Gly Cys Ile Thr Pro Thr Ser Leu Arg Arg Met
100 105 110

Leu Arg Arg Leu Gly Ser Asp Gln Asp Ile Asp Asp Cys Arg Ala Met
115 120 125

Ile Cys Arg Phe Asp Leu Asn Gly Asp Gly Val Leu Ser Phe Asp Glu
130 135 140

Phe Lys Ile Met Met Asn Ala
145 150

<210> 56
<211> 166
<212> PRT
<213> Oryza sativa

<400> 56
Met Ala Glu Val Glu Val Arg Val Arg Gln Glu Gln Val Ala Glu Phe
1 5 10 15

Arg Glu Thr Phe Ala Phe Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr
20 25 30

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

Arg Glu Glu Leu Ala Glu Met Ile Arg Asp Val Asp Val Asp Gly Asn
50 55 60

Gly Thr Ile Glu Phe Ala Glu Phe Leu Ala Leu Met Ala Arg Lys Ala
65 70 75 80

Ser Arg Gly Gly Glu Asn Gly Gly Gly Gly Asp Asp Ser Gly Asp Ala
85 90 95

Ala Asp Glu Glu Leu Arg Glu Ala Phe Lys Val Phe Asp Lys Asp Gln
100 105 110

Asp Gly Leu Ile Ser Ala Ala Glu Leu Arg His Val Met Ile Ser Leu
115 120 125

Gly Glu Lys Leu Thr Asp Glu Glu Val Glu Gln Met Ile Arg Glu Ala
130 135 140

Asp Leu Asp Gly Asp Gly Gln Val Asn Phe Asp Glu Phe Val Arg Met
145 150 155 160

Met Met Leu Ser Asp Gln
165

<210> 57
<211> 164
<212> PRT
<213> Oryza sativa

<400> 57
Met Ser Leu Val Leu Ser Arg Met Leu Leu Asp Arg Phe Phe Pro Gly
1 5 10 15

Ala Gly Gly Val Val Ala Gly Glu Ala Arg Pro Pro Met Asp Trp Arg
20 25 30

Glu Thr Pro Val Ala His Val Phe Glu Met Asp Leu Pro Gly Leu Ala
35 40 45

Lys Asp Gln Val Ala Val Glu Val Val Asp Gly His Ile Leu Arg Val
50 55 60

Arg Ala Gly Gly Glu His Glu Asp Ala Asn Asn Ala Ala Lys Ala Gly
65 70 75 80

Lys Ala Ser Gly Glu Glu Glu Glu Glu Asn Asp Gly Val Arg Trp His
85 90 95

Cys Arg Glu Arg Ala Ala Gly Arg Arg Arg Ala Ala Val Thr Gln Phe
100 105 110

Arg Leu Pro Glu Asp Ala Ala Ala Asp Glu Ala Ser Ala Arg Met Ala
115 120 125

Asp Gly Val Leu Thr Val Thr Val Pro Lys Arg Lys Gly Lys Lys Arg
130 135 140

His Ala Gly Asn Gly Lys Ala Ala Gly Asp Asp Lys Pro Val Cys Cys
145 150 155 160

Arg Phe Trp Pro

<210> 58
<211> 262
<212> PRT
<213> Triticum aestivum

<400> 58

```
Met Glu Asp Glu Arg Ser Thr Gln Ser Tyr Gln Gly Gly Glu Ala Ala
1               5                  10                  15

Glu Gln Val Glu Val Thr Asp Arg Gly Leu Leu Gly Asn Leu Leu Gly
            20                  25                  30

Lys Lys Lys Ala Glu Glu Asp Lys Glu Lys Glu Glu Glu Leu Val Thr
        35                  40                  45

Gly Met Glu Lys Val Ser Val Glu Glu Pro Glu Val Lys Lys Glu Glu
    50                  55                  60

His Glu Asp Gly Glu Lys Lys Glu Thr Leu Phe Ser Lys Leu His Arg
65                  70                  75                  80

Ser Ser Ser Ser Ser Ser Ser Ser Ser Asp Glu Glu Glu Glu Glu Val
                85                  90                  95

Ile Asp Asp Asn Gly Glu Val Ile Lys Arg Lys Lys Lys Lys Gly Leu
            100                 105                 110

Lys Glu Lys Leu Gln Gly Lys Leu Pro Gly His Lys Asp Thr Glu Gly
        115                 120                 125

Glu His Val Thr Gly Leu Pro Ala Pro Ala Ala Pro Ala Ser Val Gln
    130                 135                 140

Thr His Gly Gly His His Asp Thr Asp Val Val Val Glu Lys Ile Asp
145                 150                 155                 160

Gly Asp Val Lys Thr Glu Ala Ala Pro Ala Val Pro Glu Glu Glu Lys
                165                 170                 175

Lys Gly Phe Leu Glu Lys Ile Lys Glu Lys Leu Pro Gly Gly His Lys
            180                 185                 190

Lys Pro Glu Asp Ala Ala Ala Val Pro Val Thr His Ala Ala Pro Ala
        195                 200                 205

Pro Val His Ala Pro Val Pro Ala Pro Glu Glu Val Ser Ser Pro Asp
    210                 215                 220

Ala Lys Glu Lys Lys Gly Leu Leu Gly Lys Ile Met Asp Lys Leu Pro
```

225 230 235 240

Gly Tyr His Lys Thr Gly Glu Glu Asp Lys Ala Ala Ala Ala Thr Gly
245 250 255

Glu His Lys Pro Ser Ala
260

<210> 59
<211> 261
<212> PRT
<213> Ovis aries

<400> 59
Met Asp Met Lys Arg Arg Ile His Leu Glu Leu Arg Asn Arg Thr Pro
1 5 10 15

Ala Ala Val Arg Glu Leu Val Leu Asp Asn Cys Lys Ser Asn Asp Gly
20 25 30

Lys Ile Glu Gly Leu Thr Ala Glu Phe Val Asn Leu Glu Phe Leu Ser
35 40 45

Leu Ile Asn Val Gly Leu Ile Ser Val Ser Asn Leu Pro Lys Leu Pro
50 55 60

Lys Leu Lys Lys Leu Glu Leu Ser Asp Asn Arg Ile Cys Gly Gly Leu
65 70 75 80

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

Gly Asn Lys Leu Lys Asp Ile Gly Thr Leu Glu Pro Leu Lys Lys Leu
100 105 110

Glu Cys Leu Lys Ser Leu Asp Leu Phe Asn Cys Glu Val Thr Asn Leu
115 120 125

Asn Asp Tyr Arg Glu Ser Val Phe Lys Leu Leu Pro Gln Leu Thr Tyr
130 135 140

Leu Asp Gly Tyr Asp Arg Glu Asp Arg Glu Ala Pro Asp Ser Asp Ala
145 150 155 160

Glu Val Asp Gly Val Asp Glu Glu Glu Asp Asp Glu Glu Gly Glu Asn
165 170 175

Glu Asp Lys Glu Glu Asp Glu Asp Gly Glu Glu Glu Glu Phe Asp Asp
180 185 190

```
Glu Glu Asp Asp Asp Glu Asp Glu Asp Val Glu Gly Glu Glu Asp Glu
        195                 200                 205

Asp Lys Val Ser Gly Glu Glu Glu Glu Phe Gly His Asp Gly Glu Ala
    210                 215                 220

Asp Glu Asp Asp Glu Asp Glu Asp Glu Asp Glu Asp Glu Asp Glu Glu
225                 230                 235                 240

Glu Glu Glu Ser Gly Lys Gly Glu Gly Arg Lys Arg Glu Thr Asp Asp
                245                 250                 255

Glu Gly Glu Asp Asp
            260
```

<210> 60
<211> 272
<212> PRT
<213> Oryza sativa

<400> 60

```
Met Ala Asp Ala Ala Ala Pro Gly Glu Asp Asp Ala Ala Trp Glu Arg
1               5                   10                  15

Ala Ile Ala Ala Ala Val Lys Asn Ala Pro Phe Ser Ala Pro Lys Thr
            20                  25                  30

Leu Thr Leu Asp Gly Ala Val Lys Ser Thr Thr Gly Arg Leu Pro Ser
        35                  40                  45

Pro Ser Leu Leu Gly Arg Tyr Pro Ser Leu Glu Glu Leu Ser Val Ala
    50                  55                  60

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

Arg Arg Leu Ser Leu Pro Asp Asn Arg Leu Ser Gly Ala Ala Ser Leu
                85                  90                  95

Ala Ala Val Ala Glu Ser Cys Gly Ala Thr Leu Arg His Leu Asp Leu
            100                 105                 110

Gly Asn Asn Arg Phe Ala Asp Val Ala Glu Leu Ala Pro Leu Ala Pro
        115                 120                 125

His Gly Val Glu Ser Leu Asp Leu Tyr Gln Cys Pro Val Thr Lys Ala
    130                 135                 140
```

```
Lys Gly Tyr Arg Asp Lys Val Phe Ala Leu Ile Pro Ser Leu Lys Phe
145                 150                 155                 160

Leu Asp Gly Met Asp Ala Glu Gly Asn Asp Cys Leu Asp Ser Asp Asp
                165                 170                 175

Glu Glu Asp Glu Glu Glu Asp Glu Gly Glu Glu Gly Glu Gly Glu Gly
            180                 185                 190

Asp Glu Glu Glu Glu Glu Glu Gly Gly Glu Glu Gly Glu Gly Asp Glu
        195                 200                 205

Asp Asp Glu Glu Glu Gly Asp Glu Glu Glu Asp Glu Glu Glu Gly Glu
    210                 215                 220

Glu Glu Ala Glu Asp Glu Glu Asp Glu Ala Gly Ala Asp Glu Glu Asp
225                 230                 235                 240

Glu Ser Lys Val Ala Asn Gly Ser Lys Gly Ser Ser Gly Ser Ala Gln
                245                 250                 255

Pro Asn Lys Arg Lys Arg Asp Ser Glu Asp Asp Ala Asn Gly Asp Asn
            260                 265                 270
```

<210> 61
<211> 211
<212> PRT
<213> Glycine max

<400> 61

```
Met Ala Ser Ser Leu Ile Ala Lys Arg Phe Leu Ser Ser Ser Leu Leu
1               5                   10                  15

Ser Arg Ser Leu Leu Arg Pro Ala Ala Ser Ala Ser His Arg Ser Phe
            20                  25                  30

Asp Thr Asn Ala Met Arg Gln Tyr Asp Asn Arg Ala Asp Asp His Ser
        35                  40                  45

Thr Asp Ile Asp Arg His Ser Glu Arg Ser Phe Pro Ser Thr Ala Arg
    50                  55                  60

Arg Asp Asp Ile Phe Leu Arg Cys Val Gly Ser Ile Phe Ser Asp Ser
65                  70                  75                  80

Glu Phe Glu Pro Gly Ser Glu His Asp Gly Pro Gly His Gly Gln Ser
                85                  90                  95
```

```
Val Pro Leu Arg Val Ala Arg Asp Arg Ser Trp Arg Trp Ser Gly Arg
            100                 105                 110

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

Met Pro Gly Leu Ala Lys Glu Asp Val Lys Ile Ser Val Glu Gln Asn
    130                 135                 140

Thr Leu Ile Ile Lys Gly Glu Gly Ala Lys Glu Gly Asp Glu Glu Glu
145                 150                 155                 160

Ser Ala Arg Arg Tyr Thr Ser Arg Ile Asp Leu Pro Asp Lys Leu Tyr
                165                 170                 175

Lys Ile Asp Gln Ile Arg Ala Glu Met Lys Asn Gly Val Leu Lys Val
            180                 185                 190

Val Val Pro Lys Met Lys Glu Glu Glu Arg Lys Asp Val Ile Ser Val
        195                 200                 205

Lys Val Glu
    210
```

<210> 62
<211> 161
<212> PRT
<213> Sus scrofa

<400> 62

```
Met Asp Asp Ile Tyr Lys Ala Ala Val Glu Gln Leu Thr Glu Glu Gln
1               5                   10                  15

Lys Asn Glu Phe Lys Ala Ala Phe Asp Ile Phe Val Leu Gly Ala Glu
            20                  25                  30

Asp Gly Cys Ile Ser Thr Lys Glu Leu Gly Lys Val Met Arg Met Leu
        35                  40                  45

Gly Gln Asn Pro Thr Pro Glu Glu Leu Gln Glu Met Ile Asp Glu Val
    50                  55                  60

Asp Glu Asp Gly Ser Gly Thr Val Asp Phe Asp Glu Phe Leu Val Met
65                  70                  75                  80

Met Val Arg Cys Met Lys Asp Asp Ser Lys Gly Lys Ser Glu Glu Glu
                85                  90                  95

Leu Ser Asp Leu Phe Arg Met Phe Asp Lys Asn Ala Asp Gly Tyr Ile
```

100 105 110

Asp Leu Glu Glu Leu Lys Ile Met Leu Gln Ala Thr Gly Glu Thr Ile
115 120 125

Thr Glu Asp Asp Ile Glu Glu Leu Met Lys Asp Gly Asp Lys Asn Asn
130 135 140

Asp Gly Arg Ile Asp Tyr Asp Glu Phe Leu Glu Phe Met Lys Gly Val
145 150 155 160

Glu

<210> 63
<211> 174
<212> PRT
<213> Oryza sativa

<400> 63
Met Gly Leu Val Val Ser Ala Ala Ala Ser Cys Gly Arg Leu Arg Arg
1 5 10 15

Ser Arg Ser Arg Ser Pro Pro Pro Ala Val Leu Asp Pro Ser Gln Ser
20 25 30

Pro Leu Ser Leu Glu Arg Glu Ala Glu Pro Glu Leu Ile Arg Val Phe
35 40 45

Arg Cys Phe Asp Thr Asp Gly Asp Gly Leu Ile Ser Ala Ala Glu Met
50 55 60

Arg Glu Phe Tyr Gly Cys Ser Val Asp Glu Ala Glu Glu Met Val Ala
65 70 75 80

Ala Ala Asp Arg Asp Gly Asp Gly Phe Val Ser Ile Glu Glu Leu Arg
85 90 95

Ala Val Met Glu Gly Gly Gly Leu Asp Ala Leu Arg Ala Ala Phe Asp
100 105 110

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

Arg Ala Leu Arg Arg Leu Asn Leu Asp Gly Met Asp Leu Thr Ala Glu
130 135 140

Gln Cys Ala Glu Ile Val Ala Ala Val Asp Ser Asp Gly Asp Gly Val
145 150 155 160

Ile Ser Phe Asp Glu Phe Lys Ala Met Met Ser Lys Gln Ala
165 170

<210> 64
<211> 577
<212> PRT
<213> Sus scrofa

<400> 64
Met Pro Lys Thr Ile Asn Val Arg Val Thr Thr Met Asp Ala Glu Leu
1 5 10 15

Glu Phe Ala Ile Gln Pro Asn Thr Thr Gly Lys Gln Leu Phe Asp Gln
20 25 30

Val Val Lys Thr Ile Gly Leu Arg Glu Val Trp Phe Phe Gly Leu Gln
35 40 45

Tyr Gln Asp Thr Lys Gly Phe Ser Thr Trp Leu Lys Leu Asn Lys Lys
50 55 60

Val Thr Ala Gln Asp Val Arg Lys Glu Ser Pro Leu Leu Phe Lys Phe
65 70 75 80

Arg Ala Lys Phe Tyr Pro Glu Asp Val Ser Glu Glu Leu Ile Gln Asp
85 90 95

Ile Thr Gln Arg Leu Phe Phe Leu Gln Val Lys Glu Gly Ile Leu Asn
100 105 110

Asp Asp Ile Tyr Cys Pro Pro Glu Thr Ala Val Leu Leu Ala Ser Tyr
115 120 125

Ala Val Gln Ser Lys Tyr Gly Asp Phe Asn Lys Glu Val His Lys Ser
130 135 140

Gly Tyr Leu Ala Gly Asp Lys Leu Leu Pro Gln Arg Val Leu Glu Gln
145 150 155 160

His Lys Leu Asn Lys Asp Gln Trp Glu Glu Arg Ile Gln Val Trp His
165 170 175

Glu Glu His Arg Gly Met Leu Arg Glu Asp Ala Val Leu Glu Tyr Leu
180 185 190

Lys Ile Ala Gln Asp Leu Glu Met Tyr Gly Val Asn Tyr Phe Ser Ser
195 200 205

```
Lys Asn Lys Lys Gly Ser Glu Leu Trp Leu Gly Val Asp Ala Leu Gly
    210                 215                 220

Leu Asn Ile Tyr Glu Gln Asn Asp Arg Leu Thr Pro Lys Ile Gly Phe
225                 230                 235                 240

Pro Trp Ser Glu Ile Arg Asn Ile Ser Phe Asn Asp Lys Lys Phe Val
                245                 250                 255

Ile Lys Pro Ile Asp Lys Lys Ala Pro Asp Phe Val Phe Tyr Ala Pro
            260                 265                 270

Arg Leu Arg Ile Asn Lys Arg Ile Leu Ala Leu Cys Met Gly Asn His
        275                 280                 285

Glu Leu Tyr Met Arg Arg Arg Lys Pro Asp Thr Ile Glu Val Gln Gln
    290                 295                 300

Met Lys Ala Gln Ala Arg Glu Glu Lys His Gln Lys Gln Met Glu Arg
305                 310                 315                 320

Ala Leu Leu Glu Asn Glu Lys Lys Lys Arg Glu Met Ala Glu Lys Glu
                325                 330                 335

Lys Glu Lys Ile Glu Arg Glu Lys Glu Glu Leu Met Glu Arg Leu Lys
            340                 345                 350

Gln Ile Glu Glu Gln Thr Lys Lys Ala Gln Gln Glu Leu Glu Glu Gln
        355                 360                 365

Thr Arg Arg Ala Leu Ala Leu Glu Gln Glu Arg Lys Arg Ala Gln Ser
    370                 375                 380

Glu Ala Glu Lys Leu Ala Lys Glu Arg Gln Glu Ala Glu Glu Ala Lys
385                 390                 395                 400

Glu Ala Leu Leu Lys Ala Ser Arg Asp Gln Lys Lys Thr Gln Glu Gln
                405                 410                 415

Leu Ala Leu Glu Met Ala Glu Leu Thr Ala Arg Ile Ser Gln Leu Glu
            420                 425                 430

Met Ala Arg Gln Lys Lys Glu Ser Glu Ala Ala Glu Trp Gln Gln Lys
        435                 440                 445

Ala Gln Met Val Gln Glu Asp Leu Glu Lys Thr Arg Ala Glu Leu Lys
    450                 455                 460
```

Thr Ala Met Ser Thr Pro His Gly Ala Glu Pro Ala Glu Asn Asp Gln
465 470 475 480

Asp Glu Gln Asp Glu Asn Gly Ala Glu Ala Ser Ala Asp Leu Arg Ala
485 490 495

Asp Ala Met Ala Lys Asp Arg Ser Glu Glu Glu Arg Thr Thr Glu Ala
500 505 510

Glu Lys Asn Glu Arg Val Gln Lys His Leu Lys Ala Leu Thr Ser Glu
515 520 525

Leu Ala Asn Ala Arg Asp Glu Ser Lys Lys Thr Ala Asn Asp Met Ile
530 535 540

His Ala Glu Asn Met Arg Leu Gly Arg Asp Lys Tyr Lys Thr Leu Arg
545 550 555 560

Gln Ile Arg Gln Gly Asn Thr Lys Gln Arg Ile Asp Glu Phe Glu Ser
565 570 575

Met

<210> 65
<211> 164
<212> PRT
<213> Oryza sativa

<400> 65
Met Ala Cys Asp Gln Gln Ala Glu Leu Arg Arg Val Phe Glu Leu Phe
1 5 10 15

Asp Arg Asp Gly Asp Gly Arg Ile Thr Arg Glu Glu Leu Thr Glu Ser
20 25 30

Leu Glu Arg Leu Gly Met Pro Val His Arg Glu Glu Leu Ala Ala Thr
35 40 45

Ile Ala Arg Ile Asp Ala Asn Gly Asp Gly Cys Val Asp Met Asp Glu
50 55 60

Phe Thr Gln Leu Tyr Glu Thr Val Met Arg Val Asp Gly Gly Gly Gly
65 70 75 80

Gly Gly Gly Gly Ala Cys Asp Val Asp Glu Ala Ser Met Arg Glu Ala
85 90 95

Phe Asp Val Phe Asp Arg Asn Gly Asp Gly Phe Ile Thr Val Asp Glu
100 105 110

Leu Gly Ala Val Leu Ala Ser Leu Gly Ile Lys Gln Gly Arg Thr Ala
115 120 125

Glu Asp Cys Gly Arg Met Ile Gly Gln Val Asp Arg Asp Gly Asp Gly
130 135 140

Arg Val Asp Phe Leu Glu Phe Lys Gln Met Met Arg Gly Gly Ala Phe
145 150 155 160

Ala Thr Leu Arg

<210> 66
<211> 191
<212> PRT
<213> Oryza sativa

<400> 66
Met Ala Ser Lys Tyr Arg Gly Tyr Tyr His Asp Glu Ala Ser Ser Ala
1 5 10 15

Ala Gly Gly Gly Gly Gly Gly Gly Gly Gly Asp Gly Tyr Arg Arg Glu
20 25 30

Lys Gln Val Arg Lys Lys Arg Leu Thr Ala Gln Lys Arg Lys Glu Ile
35 40 45

Lys Glu Ala Phe Asp Leu Phe Asp Thr Asp Gly Ser Gly Thr Ile Asp
50 55 60

Pro Lys Glu Leu Asn Val Ala Met Arg Ala Leu Gly Phe Glu Met Thr
65 70 75 80

Pro Glu Gln Ile His Gln Met Ile Ala Glu Val Asp Lys Asp Gly Ser
85 90 95

Gly Thr Ile Asp Phe Asp Glu Phe Val His Met Met Thr Asp Lys Met
100 105 110

Gly Glu Arg Asp Ala Arg Glu Glu Leu Asn Lys Ala Phe Lys Ile Ile
115 120 125

Asp Lys Asp Asn Asn Gly Lys Ile Ser Asp Val Asp Ile Gln Arg Leu
130 135 140

Ala Ile Glu Thr Gly Glu Pro Phe Thr Leu Asp Glu Val Arg Glu Met
145 150 155 160

Ile Glu Ala Ala Asp Glu Asn Gly Asp Gly Glu Val Asp His Glu Glu
165 170 175

Phe Leu Lys Met Met Lys Arg Ile Gly Phe Gly Ala Gly Phe Phe
180 185 190

<210> 67
<211> 476
<212> PRT
<213> Oryza sativa

<400> 67
Met Asp Glu Ala Trp Glu Arg Ala Val Glu Ala Ala Leu Gln Ala Ala
1 5 10 15

Gly Glu Gly Ser Ser Ser Pro Ala Arg Ser Leu Thr Leu Asp Gly Ala
20 25 30

Val Lys Cys Leu His Gly Arg Leu Pro Ala Ala Glu Ile Leu Glu Arg
35 40 45

Tyr Gln Ser Leu Glu His Leu Ser Ile Ala Gly Val Gly Val Ala Ser
50 55 60

Leu Ala Gly Phe Pro Arg Leu Arg Asn Leu Thr Arg Leu Thr Leu Ser
65 70 75 80

Asp Asn Arg Ile Ala Gly Gly Leu Asp His Leu Val Ala Ala Gly Leu
85 90 95

Ala Ser Leu Arg Asp Leu Asp Leu Ser Asn Asn Arg Ile Gln Asp Val
100 105 110

Gly Asp Leu Ser Pro Leu Ala Asn Leu Arg Leu Val Ser Leu Asp Leu
115 120 125

Tyr Glu Cys Pro Val Thr Arg Val Lys Asp Tyr Arg Ser Lys Val Phe
130 135 140

Gly Met Ile Arg Thr Leu Lys Tyr Leu Asp Lys Met Asp Ala Asp Glu
145 150 155 160

Asn Glu Arg Pro Glu Ser Asp Asp Asp Asp Asp Asp Gly Asp Gly Asp
165 170 175

Gly Asp Gly Glu Glu Glu Glu Asp Asp Asp Asp Asp Glu Asp Glu Asp

```
            180                 185                 190

Pro Gly Ser Gly Glu Val Ala Asn Gly Gly Val Ser His Pro Arg Gly
        195                 200                 205

Gly Val Ala Ser His Pro Val Glu Val Asn Gly Val Ile Asp Val Asp
    210                 215                 220

Glu Asp Glu Ser Asp Ala Asp Glu Val Val Pro Asn Gly Gly Asp Glu
225                 230                 235                 240

His His Ala Asn Gly Phe Arg Val Ala Ala Val Gly Asp Glu Asp Glu
                245                 250                 255

Tyr Val Glu Glu Glu Asp Asp Asp Asp Glu Glu Asp Tyr Glu Glu Glu
            260                 265                 270

Asp Asp Leu Gly Glu Glu Ile Asp Glu Asp Gly Asp Asp Glu Asp Ala
        275                 280                 285

Val Val Glu Val His Asp Val Pro Ser Ser Ser Asp Glu Glu Glu Asp
    290                 295                 300

Gly Ile Glu Glu Glu Asp Glu Glu Glu Asp Glu Asp Glu Glu Glu Val
305                 310                 315                 320

Glu Asp Asp Gly Glu Glu Ala Glu Pro Glu Ser Ser Gly Arg Val Ala
                325                 330                 335

Leu Ala Val Gly Asp Val Gly Glu Glu Ile Asp Gly His Glu His Gly
            340                 345                 350

Glu Gly Glu Asp Glu Asp Glu Asn Gly Glu Ile Gly Glu Glu Asp Glu
        355                 360                 365

Glu Arg Leu Glu Asp Asp Arg Val Tyr Glu Glu Gly Asn Asp Asp Asp
    370                 375                 380

Glu Glu Asp Val Asp Asp Glu Asp Glu Asp Thr Glu Tyr Leu Val Gln
385                 390                 395                 400

Pro Ile Ala Gln Pro Gln Ala Met Ala Val Gly Asn Asp Phe Asp Ala
                405                 410                 415

Ala Glu Ala Asp Asp Ala Asp Glu Asp Arg Asp Glu Val Asp Asp Asp
            420                 425                 430
```

Asp Asp Gly Gly Thr Asp Leu Pro Ser Ser Ser Gln Gly Ala Lys Arg
435 440 445

Lys Arg Asp Asp Asp Pro Ser Gly Ser Gly Asp Asp Asp Glu Asp Asp
450 455 460

Asp Gly Val Glu Asp Leu Arg Pro Phe Lys His His
465 470 475

<210> 68
<211> 664
<212> PRT
<213> Sus scrofa

<400> 68
Met Glu Thr Pro Ser Gln Arg Arg Ala Thr Arg Ser Gly Ala Gln Ala
1 5 10 15

Ser Ser Thr Pro Leu Ser Pro Thr Arg Ile Thr Arg Leu Gln Glu Lys
20 25 30

Glu Asp Leu Gln Glu Leu Asn Asp Arg Leu Ala Val Tyr Ile Asp Arg
35 40 45

Val Arg Ser Leu Glu Thr Glu Asn Ala Gly Leu Arg Leu Arg Ile Thr
50 55 60

Glu Ser Glu Glu Val Val Ser Arg Glu Val Ser Gly Ile Lys Ser Ala
65 70 75 80

Tyr Glu Ala Glu Leu Gly Asp Ala Arg Lys Thr Leu Asp Ser Val Ala
85 90 95

Lys Glu Arg Ala Arg Leu Gln Leu Glu Leu Ser Lys Val Arg Glu Glu
100 105 110

Phe Lys Glu Leu Lys Ala Arg Asn Thr Lys Lys Glu Gly Asp Leu Met
115 120 125

Ala Ala Gln Ala Arg Leu Lys Asp Leu Glu Ala Leu Leu Asn Ser Lys
130 135 140

Glu Ala Ala Leu Ser Thr Ala Leu Ser Glu Lys Arg Thr Leu Glu Gly
145 150 155 160

Glu Leu His Asp Leu Arg Gly Gln Val Ala Lys Leu Glu Ala Ala Leu
165 170 175

Gly Glu Ala Lys Lys Gln Leu Gln Asp Glu Met Leu Arg Arg Val Asp

```
            180                 185                 190

Ala Glu Asn Arg Leu Gln Thr Leu Lys Glu Glu Leu Asp Phe Gln Lys
        195                 200                 205

Asn Ile Tyr Ser Glu Glu Leu Arg Glu Thr Lys Arg Arg His Glu Thr
    210                 215                 220

Arg Leu Val Glu Ile Asp Asn Gly Lys Gln Arg Glu Phe Glu Ser Arg
225                 230                 235                 240

Leu Ala Asp Ala Leu Gln Asp Leu Arg Ala Gln His Glu Asp Gln Val
                245                 250                 255

Glu Gln Tyr Lys Lys Glu Leu Glu Lys Thr Tyr Ser Ala Lys Leu Asp
            260                 265                 270

Asn Ala Arg Gln Ser Ala Glu Arg Asn Ser Asn Leu Val Gly Ala Ala
        275                 280                 285

His Glu Glu Leu Gln Gln Ser Arg Ile Arg Ile Asp Ser Leu Ser Ala
    290                 295                 300

Gln Leu Ser Gln Leu Gln Lys Gln Leu Ala Ala Lys Glu Ala Lys Leu
305                 310                 315                 320

Arg Asp Leu Glu Asp Ser Leu Ala Arg Glu Arg Asp Thr Ser Arg Arg
                325                 330                 335

Leu Leu Ala Asp Lys Glu Arg Glu Met Ala Glu Met Arg Ala Arg Met
            340                 345                 350

Gln Gln Gln Leu Asp Glu Tyr Gln Glu Leu Leu Asp Ile Lys Leu Ala
        355                 360                 365

Leu Asp Met Glu Ile His Ala Tyr Arg Lys Leu Leu Glu Gly Glu Glu
    370                 375                 380

Glu Arg Leu Arg Leu Ser Pro Ser Pro Thr Ser Gln Arg Ser Arg Gly
385                 390                 395                 400

Arg Ala Ser Ser His Ser Ser Gln Thr Gln Ser Gly Gly Ser Val Thr
                405                 410                 415

Lys Lys Arg Lys Leu Glu Ser Ser Glu Ser Arg Ser Ser Phe Ser Gln
            420                 425                 430
```

```
His Ala Arg Thr Ser Gly Arg Val Ala Val Glu Glu Val Asp Glu Glu
        435                 440                 445

Gly Lys Phe Val Arg Leu Arg Asn Lys Ser Asn Glu Asp Gln Ser Met
    450                 455                 460

Gly Asn Trp Gln Ile Lys Arg Gln Asn Gly Asp Asp Pro Leu Leu Thr
465                 470                 475                 480

Tyr Arg Phe Pro Pro Lys Phe Thr Leu Lys Ala Gly Gln Val Val Thr
                485                 490                 495

Ile Trp Ala Ala Gly Ala Gly Ala Thr His Ser Pro Pro Ala Asp Leu
            500                 505                 510

Val Trp Lys Ser Gln Asn Thr Trp Gly Cys Gly Asn Ser Leu Arg Thr
        515                 520                 525

Ala Leu Ile Asn Ser Thr Gly Glu Glu Val Ala Met Arg Lys Leu Val
    530                 535                 540

Arg Ser Val Thr Met Ile Glu Asp Asp Glu Asp Glu Asp Gly Asp Asp
545                 550                 555                 560

Leu Leu His His His His Gly Ser His Gly Ser Ser Ser Gly Asp Pro
                565                 570                 575

Ala Glu Tyr Asn Leu Arg Ser Arg Thr Val Leu Cys Gly Thr Cys Gly
            580                 585                 590

Gln Pro Ala Asp Lys Ala Ser Ala Ser Ser Ser Gly Ala Gln Val Gly
        595                 600                 605

Gly Ser Ile Ser Ser Gly Ser Ser Ala Ser Ser Val Thr Val Thr Arg
    610                 615                 620

Ser Tyr Arg Ser Val Gly Gly Ser Gly Gly Gly Ser Phe Gly Asp Asn
625                 630                 635                 640

Leu Val Thr Arg Ser Tyr Leu Leu Gly Asn Ser Arg Pro Arg Thr Gln
                645                 650                 655

Ser Pro Gln Asn Cys Ser Ile Met
            660
```

<210> 69
<211> 1549
<212> PRT

<213> Ovis aries

<400> 69

```
Met Ser Pro Leu Leu Arg Ser Ile Phe Asn Ile Thr Lys Ile Phe Asn
1               5                  10                  15

Gln Tyr Ala Ser His Asp Cys Asp Gly Thr Thr Leu Ser Lys Lys Asp
            20                  25                  30

Leu Lys Asn Leu Leu Glu Arg Glu Phe Gly Glu Ile Leu Arg Lys Pro
        35                  40                  45

His Asp Pro Glu Thr Val Asp Leu Val Leu Glu Leu Gln Asp Arg Asp
    50                  55                  60

Arg Asp Gly Leu Ile Asp Phe His Glu Phe Leu Ala Ile Val Phe Lys
65                  70                  75                  80

Val Ala Ala Ala Cys Tyr Tyr Ala Leu Gly Gln Ala Ser Gly Leu Asn
                85                  90                  95

Glu Lys Glu Ala Lys Cys Glu Arg Lys Gly Asn Pro Leu Gln Asp Arg
            100                 105                 110

Arg Arg Glu Asp Gln Arg Arg Phe Glu Pro Gln Asp Arg Gln Leu Glu
        115                 120                 125

Glu Arg Arg Leu Lys Arg Gln Glu Leu Glu Glu Leu Ala Glu Glu Glu
    130                 135                 140

Glu Leu Arg Glu Lys Gln Val Arg Arg Glu Gln Arg Leu Gln Arg Arg
145                 150                 155                 160

Glu Gln Glu Glu Tyr Gly Gly Glu Glu Glu Leu Gln Gln Arg Pro Lys
                165                 170                 175

Gly Arg Glu Leu Glu Glu Leu Leu Asn Arg Glu Gln Arg Phe Glu Arg
            180                 185                 190

Gln Glu Gln Arg Glu Arg Gln Arg Leu Gln Val Glu Gln Gln Gln Arg
        195                 200                 205

Gln Arg Gly Glu Leu Arg Glu Arg Gln Glu Glu Val Gln Leu Gln Lys
    210                 215                 220

Arg Glu Thr Gln Glu Leu Gln Arg Glu Arg Leu Glu Glu Glu Gln Gln
225                 230                 235                 240
```

```
Leu Gln Lys Gln Lys Arg Gly Leu Glu Glu Arg Leu Leu Glu Gln Glu
                245                 250                 255

Arg Arg Glu Gln Glu Leu Arg Arg Lys Glu Gln Glu Arg Arg Glu Gln
            260                 265                 270

Gln Leu Arg Gln Glu Gln Glu Glu Ala Thr Gln Glu Glu Ile Ser Glu
        275                 280                 285

Arg Gly Glu Ser Arg Thr Ser Arg Cys Gln Trp Gln Leu Glu Ser Glu
    290                 295                 300

Ala Asp Ala Arg Gln Arg Lys Val Tyr Ser Arg Pro His Arg Gln Glu
305                 310                 315                 320

Gln Gln Ser Arg Arg Gln Glu Gln Glu Leu Leu Glu Arg Gln Gln Glu
                325                 330                 335

Gln Gln Ile Ser Glu Glu Val Gln Ser Leu Gln Glu Asp Gln Gly Arg
            340                 345                 350

Gln Arg Leu Lys Gln Glu Gln Arg Tyr Asp Gln Asn Trp Arg Trp Gln
        355                 360                 365

Leu Glu Glu Glu Ser Gln Arg Arg Arg Tyr Thr Leu Tyr Ala Lys Pro
    370                 375                 380

Ala Gln Arg Glu Gln Val Arg Glu Glu Glu Gln Leu Arg Leu Lys Glu
385                 390                 395                 400

Glu Lys Leu Gln Arg Glu Lys Arg Arg Gln Glu Arg Glu Arg Gln Tyr
                405                 410                 415

Arg Glu Val Glu Leu Gln Arg Glu Glu Glu Arg Leu Gln Arg Glu Glu
            420                 425                 430

Glu Gln Leu Gln Arg Glu Glu Arg Glu Lys Arg Arg Arg Gln Glu Arg
        435                 440                 445

Glu Lys Gln Tyr Leu Glu Lys Val Glu Leu Trp Glu Glu Glu Gln Leu
    450                 455                 460

Gln Arg Glu Glu Arg Glu Lys Arg Arg Gln Glu Arg Glu Lys Gln Tyr
465                 470                 475                 480

Leu Glu Lys Val Glu Leu Arg Glu Glu Glu Gln Leu Gln Arg Gln Glu
                485                 490                 495
```

```
Arg Glu Lys Arg Arg Gln Glu Arg Glu Arg Gln Tyr Leu Glu Lys Val
            500                 505                 510

Glu Leu Gln Glu Glu Glu Gln Leu Gln Arg Glu Glu Arg Glu Lys Arg
        515                 520                 525

Arg Gln Glu Arg Glu Arg Gln Tyr Leu Glu Lys Val Glu Leu Gln Glu
    530                 535                 540

Glu Glu Gln Leu Gln Arg Gln Glu Arg Glu Lys Arg Arg Gln Glu Arg
545                 550                 555                 560

Glu Lys Gln Tyr Leu Glu Lys Val Glu Leu Gln Glu Glu Glu Gln Leu
                565                 570                 575

Gln Arg Gln Glu Arg Gln Lys Arg Arg Gln Glu Arg Glu Lys Gln Tyr
            580                 585                 590

Leu Glu Lys Val Glu Leu Gln Glu Glu Glu Gln Leu Gln Arg Gln Glu
        595                 600                 605

Arg Glu Lys Arg Arg Gln Glu Arg Glu Arg Gln Tyr Leu Glu Lys Val
    610                 615                 620

Glu Leu Gln Glu Glu Glu Gln Val Gln Arg Gln Glu Arg Glu Lys Arg
625                 630                 635                 640

Arg Gln Glu Arg Glu Arg Gln Tyr Leu Glu Lys Glu Leu Gln Arg Gln
                645                 650                 655

Glu Glu Arg Leu Gln Glu Glu Glu Gln Leu Leu Arg Glu Glu Arg Glu
            660                 665                 670

Lys Arg Arg Gln Glu Arg Glu Arg Gln Tyr Leu Glu Lys Val Glu Leu
        675                 680                 685

Gln Glu Glu Glu Gln Leu Gln Arg Glu Glu Arg Glu Lys Arg Arg Gln
    690                 695                 700

Glu Arg Glu Arg Gln Tyr Leu Glu Lys Glu Glu Leu Gln Arg Gln Glu
705                 710                 715                 720

Glu Arg Leu Gln Arg Glu Lys Glu Gln Leu Gln Arg Glu Asp Arg Glu
                725                 730                 735

Lys Arg Arg Gln Val Arg Glu Arg Lys Tyr Leu Glu Glu Glu Leu Gln
            740                 745                 750
```

```
Gln Glu Glu Asp Arg Leu Gln Arg Glu Lys Gln Leu Leu Arg Glu Asp
        755                 760                 765

Arg Glu Lys Arg Gln Tyr Leu Glu Lys Val Glu Leu Gln Arg Glu Glu
    770                 775                 780

Glu Gln Leu Gln Arg Glu Lys Arg Arg Gln Glu Arg Glu Arg Gln Tyr
785                 790                 795                 800

Arg Glu Glu Glu Leu Leu Arg Glu Glu Glu Arg Leu His Arg Lys Glu
                805                 810                 815

Gln Gln Leu Gln Arg Glu Glu Cys Glu Lys Arg Arg Arg Gln Glu Leu
            820                 825                 830

Glu Arg Gln Leu Glu Glu Glu Glu Leu Gln Arg Leu Asp Arg Lys Arg
        835                 840                 845

Gln Phe Arg Asp Asp Asp Gln His Gln Asn Glu Val Arg Asn Ser Arg
    850                 855                 860

Val Tyr Ser Lys His Arg Glu Asn Lys Glu Lys Ser Arg Gln Leu Asp
865                 870                 875                 880

Asp Ser Trp Val Arg Glu Ser Gln Phe Gln Gln Asp Leu Arg Pro Leu
                885                 890                 895

Gln Asp Glu Gln Glu Glu Lys Arg Glu Arg Glu Gln Glu Trp Arg Ser
            900                 905                 910

Arg Gln Lys Arg Asp Ser Gln Phe Pro Ala Glu Gln Leu Leu Glu Arg
        915                 920                 925

Glu Gln Gln Lys Glu Thr Glu Arg Arg Asp Arg Lys Phe Arg Glu Glu
    930                 935                 940

Glu Gln Leu Leu Lys Gly Gln Arg Glu Glu Lys Ile Arg Tyr Leu Glu
945                 950                 955                 960

Glu Asp Arg Lys Phe Arg Glu Glu Glu Gln Gln Leu Arg Arg Leu Glu
                965                 970                 975

Arg Glu Gln Gln Leu Arg Gln Glu Arg Asp Arg Lys Phe Arg Glu Glu
            980                 985                 990

Leu Ser Arg Gln Glu Arg Asp Arg  Lys Phe Arg Glu Glu  Glu Gln Leu
```

995 1000 1005

Leu Gln Glu Arg Glu Glu Gln Leu Arg Arg Gln Glu Arg Asp Arg
1010 1015 1020

Lys Phe Arg Glu Glu Glu Gln Leu Leu Gln Glu Arg Glu Glu Gln
1025 1030 1035

Leu Arg Arg Gln Glu Arg Asp Arg Lys Phe Arg Glu Glu Glu Gln
1040 1045 1050

Leu Leu Gln Glu Arg Glu Glu Gln Leu Arg Arg Gln Glu Arg Asp
1055 1060 1065

Arg Lys Phe Arg Glu Glu Glu Gln Gln Leu Arg Leu Leu Glu Arg
1070 1075 1080

Glu Gln Gln Leu Arg Gln Glu Arg Asn Arg Lys Phe Arg Glu Glu
1085 1090 1095

Gln Leu Leu Arg Glu Arg Glu Glu Gln Leu Arg Leu Gln Glu Gly
1100 1105 1110

Glu Pro Gln Leu Arg Gln Lys Arg Asp Arg Lys Phe His Glu Glu
1115 1120 1125

Glu Gln Leu Leu Gln Glu Arg Glu Glu Gln Leu Arg Arg Gln Glu
1130 1135 1140

Arg Asp Arg Lys Phe Arg Glu Glu Ala Gln Ile Leu Lys Glu Arg
1145 1150 1155

Glu Glu Gln Leu Arg Arg Gln Glu Arg Asp Arg Lys Phe Arg Glu
1160 1165 1170

Glu Glu Gln Leu Leu Gln Glu Arg Glu Glu Leu Arg Arg Gln Glu
1175 1180 1185

Arg Glu Pro Gln Leu Arg Gln Glu Arg Asp Arg Lys Phe Arg Glu
1190 1195 1200

Glu Glu Gln Leu Leu Gln Glu Arg Glu Lys Leu Arg Arg Gln Glu
1205 1210 1215

Arg Glu Pro Gln Leu Arg Gln Glu Arg Asp Arg Lys Phe His Glu
1220 1225 1230

```
Glu Glu  Gln Leu Leu Gln Glu  Arg Glu Glu Gln Leu  Arg Arg Gln
    1235                1240                1245

Glu Arg  Asp Arg Lys Phe Arg  Glu Glu Ala Gln Leu  Leu Gln Glu
    1250                1255                1260

Arg Glu  Glu Gln Leu Arg Arg  Gln Glu Arg Asp Arg  Lys Phe Arg
    1265                1270                1275

Glu Glu  Glu Gln Leu Leu Gln  Glu Arg Glu Glu Gln  Leu Arg Arg
    1280                1285                1290

Gln Glu  Arg Asp Arg Lys Phe  Arg Glu Glu Glu Gln  Leu Leu Gln
    1295                1300                1305

Glu Arg  Glu Glu Gln Leu Arg  Arg Gln Glu Arg Asp  Arg Lys Phe
    1310                1315                1320

Arg Glu  Glu Glu Gln Leu Leu  Lys Glu Ser Glu Glu  Gln Leu Arg
    1325                1330                1335

Arg Gln  Glu Arg Asp Arg Lys  Phe His Glu Lys Glu  His Leu Leu
    1340                1345                1350

Arg Glu  Arg Glu Glu Gln Gln  Leu Arg Arg Gln Glu  Leu Glu Gly
    1355                1360                1365

Val Phe  Ser Gln Glu Glu Gln  Leu Arg Arg Ala Glu  Gln Glu Glu
    1370                1375                1380

Glu Gln  Arg Arg Gln Arg Gln  Arg Asp Arg Lys Phe  Leu Glu Glu
    1385                1390                1395

Glu Gln  Ser Leu Gln Arg Glu  Arg Glu Glu Glu Lys  Arg Arg Val
    1400                1405                1410

Gln Glu  Gln Asp Arg Lys Phe  Leu Glu Gln Glu Glu  Gln Leu His
    1415                1420                1425

Arg Glu  Glu Gln Glu Glu Leu  Arg Arg Arg Gln Gln  Leu Asp Gln
    1430                1435                1440

Gln Tyr  Arg Ala Glu Glu Gln  Phe Ala Arg Glu Glu  Lys Arg Arg
    1445                1450                1455

Arg Gln  Glu Gln Glu Leu Arg  Gln Glu Glu Gln Arg  Arg Arg Gln
    1460                1465                1470
```

```
Glu Arg  Glu Arg Lys Phe Arg  Glu Glu Glu Gln Leu  Arg Arg Gln
    1475                1480                1485

Gln Gln  Glu Glu Gln Lys Arg  Arg Gln Glu Arg Asp  Val Gln Gln
    1490                1495                1500

Ser Arg  Arg Gln Val Trp Glu  Glu Asp Lys Gly Arg  Arg Gln Val
    1505                1510                1515

Leu Glu  Ala Gly Lys Arg Gln  Phe Ala Ser Ala Pro  Val Arg Ser
    1520                1525                1530

Ser Pro  Leu Tyr Glu Tyr Ile  Gln Glu Gln Arg Ser  Gln Tyr Arg
    1535                1540                1545

Pro
```

<210> 70
<211> 962
<212> PRT
<213> Zea mays

<400> 70

```
Met Ala Thr Phe Ala Lys Pro Glu Asn Ala Leu Lys Arg Ala Glu Glu
1               5                   10                  15

Leu Ile His Val Gly Gln Lys Gln Ser Ala Leu Gln Ala Leu His Asp
            20                  25                  30

Leu Ile Thr Ser Lys Arg Tyr Arg Ser Trp Gln Lys Pro Leu Glu Lys
        35                  40                  45

Ile Met Met Lys Tyr Val Glu Leu Cys Val Asp Leu Arg Lys Gly Arg
    50                  55                  60

Phe Ala Lys Asp Gly Leu Ile Gln Tyr Arg Ile Val Cys Gln Gln Val
65                  70                  75                  80

Asn Val Ser Ser Leu Glu Asp Val Ile Lys His Phe Met Gln Leu Ser
                85                  90                  95

Asn Glu Lys Ala Glu Gln Ala Lys Ser Gln Val Glu Ala Leu Glu Asp
            100                 105                 110

Ala Leu Asp Val Glu Asp Leu Glu Ala Asp Lys Arg Pro Glu Asp Leu
        115                 120                 125
```

```
Met Leu Ser Phe Val Ser Gly Glu Lys Gly Lys Asp Arg Ser Asp Lys
    130                 135                 140

Glu Val Val Thr Pro Trp Phe Lys Phe Leu Trp Glu Thr Tyr Arg Thr
145                 150                 155                 160

Val Leu Glu Ile Leu Arg Asn Asn Ser Lys Leu Glu Ala Leu Tyr Ala
                165                 170                 175

Met Thr Ala His Arg Ala Phe Gln Phe Cys Lys Gln Tyr Lys Arg Thr
            180                 185                 190

Thr Glu Phe Arg Ser Cys Val Arg Ser Ile Arg Asn His Leu Ala Asn
        195                 200                 205

Leu Asn Lys Tyr Arg Asp Gln Arg Asp Arg Pro Asp Leu Thr Ala Pro
    210                 215                 220

Glu Ser Leu Gln Leu Tyr Leu Asp Thr Arg Val Glu Gln Leu Lys Val
225                 230                 235                 240

Ala Thr Glu Leu Ser Leu Trp Gln Glu Ala Phe Arg Ser Val Glu Asp
                245                 250                 255

Ile His Gly Leu Met Thr Met Val Lys Lys Met Pro Lys Pro Ser Ile
            260                 265                 270

Leu Val Val Tyr Tyr Ala Lys Leu Thr Glu Ile Phe Trp Ile Ser Asp
        275                 280                 285

Ser His Leu Tyr His Ala Tyr Ala Trp Leu Lys Leu Phe Asn Leu Gln
    290                 295                 300

Lys Ser Tyr Asn Lys Asn Leu Ser Gln Lys Asp Leu Gln Leu Ile Ala
305                 310                 315                 320

Ser Ser Val Leu Leu Ala Ala Leu Ser Val Ser Pro Tyr Asp Lys Lys
                325                 330                 335

Tyr Gly Ala Phe Glu Thr Glu Asn Glu Lys Glu Arg Asn Met Arg Leu
            340                 345                 350

Ser Asn Leu Val Asn Phe Ser Leu Asp Asn Lys Arg Glu Asn Arg Glu
        355                 360                 365

Met Pro Ser Arg Pro Tyr Leu Leu Ser Glu Leu Ala Ser Lys Gly Val
    370                 375                 380
```

```
Leu Ser Cys Ala Ser Gln Glu Val Arg Asp Leu Tyr Asn Leu Leu Glu
385                 390                 395                 400

His Arg Phe Leu Pro Leu Asp Leu Ala Ser Lys Val Gln Pro Leu Leu
                405                 410                 415

Leu Lys Ile Ser Lys Ile Gly Gly Lys Leu Ser Ser Ala Ser Ser Val
            420                 425                 430

Pro Glu Val Lys Leu Ser Gln Tyr Ile Ser Ala Leu Glu Lys Leu Thr
        435                 440                 445

Thr Leu Arg Val Leu Gln Gln Ala Ser Cys Ile Phe Lys Ser Ile Lys
    450                 455                 460

Ile Asp Met Leu Ser Arg Met Ile Pro Phe Phe Asp Phe Ser Val Val
465                 470                 475                 480

Glu Lys Ile Ser Val Asp Ala Ala Lys Gln Asn Phe Val Ala Ile Lys
                485                 490                 495

Val Asp His Leu Ser Gly Val Val Gln Phe Gly Thr Val Asp Ile Glu
            500                 505                 510

Ser Asp Gly Leu Ser Asp His Leu Ser Val Leu Ala Asp Ser Leu Asn
        515                 520                 525

Lys Ala Arg Ile His Ile Cys Pro Pro Val Lys Lys Pro Ser Lys Leu
    530                 535                 540

Gly Glu Ser Leu Ile Ser Leu Ala Ala Ile Val Glu Asn Glu His Lys
545                 550                 555                 560

Arg Leu Leu Ala Arg Lys Ser Ile Ile Glu Lys Arg Lys Glu Glu Leu
                565                 570                 575

Glu Arg Gln Ile Leu Glu Lys Glu Lys Glu Glu Glu Lys Lys Arg Met
            580                 585                 590

Ser Ser Gln Lys Lys Thr Val Asp Glu Glu Arg Val Arg Leu Leu Asn
        595                 600                 605

Glu Gln Arg Gln Arg Glu Gln Asp Arg Ile Arg Arg Glu Ile Glu Glu
    610                 615                 620

Lys Asn Lys Ala Glu Ala Lys Lys Met Leu Glu Asp Leu Asn Lys Ala
625                 630                 635                 640
```

```
Gly Lys Lys His Val Val Val Glu Gly Glu Leu Thr Lys Glu Ala Tyr
                645                 650                 655

Met Glu Leu Ala Arg Asn Glu Gln Leu Lys Glu Arg His Glu Met Glu
            660                 665                 670

Lys Lys Leu Gln Lys Phe Ala Lys Thr Met Asp Tyr Leu Glu Arg Ala
        675                 680                 685

Lys Arg Gln Glu Glu Ala Pro Leu Ile Glu Gln Ala Phe Gln Lys Arg
    690                 695                 700

Leu Glu Glu Glu Lys Ile Leu His Glu Gln Glu Gln Leu Arg Glu Ile
705                 710                 715                 720

Glu Leu Ser Lys Gln His His Ala Ser Asp Leu Gln Glu Lys Asn Arg
                725                 730                 735

Leu Ser Arg Met Leu Glu His Lys Asn Ala Leu Gln Glu Arg Ile Ile
            740                 745                 750

Gln Glu Arg Ala Ala Glu Phe Gly Arg Leu Lys Lys Glu Arg Asp Glu
        755                 760                 765

Arg Met Asn Arg Leu Ile Ser Ser Arg Lys His Glu Arg Glu Thr Val
    770                 775                 780

Arg Lys Leu Met Phe Tyr Leu Asn Leu Glu Glu Gln Arg Ile Glu Met
785                 790                 795                 800

Leu Arg Glu Glu Glu Glu Ala Arg Lys Arg Glu Ala Glu Glu Arg Arg
                805                 810                 815

Lys Arg Glu Glu Ala Glu Arg Lys Ala Lys Leu Asp Ala Ile Ala Glu
            820                 825                 830

Lys Gln Arg Leu Arg Glu Ile Glu Leu Glu Glu Lys Ala Lys Ala Thr
        835                 840                 845

Arg Glu Lys Leu Leu Lys Gly Ser Glu Ala Val Arg Ala Pro Asp Ser
    850                 855                 860

Ala Pro Val Ala Gln Pro Pro Arg Glu Ser Ala Ala Ala Ala Ala Ala
865                 870                 875                 880

Ala Ala Ala Ala Ala Pro Ala Pro Ser Lys Tyr Ile Pro Lys Phe Lys
```

885 890 895

Arg Gly Gly Asp Ser Ser Ser Ile Pro Ser Gly Ser Arg Asp Glu Asp
900 905 910

Arg Trp Gly Ser Arg Gly Pro Leu Arg Gln Asp Gly Pro Pro Ala Arg
915 920 925

Leu Asp Ala Pro Ser Ser Arg Gln Asp Thr Asp Arg Trp Arg Gly Ser
930 935 940

Arg Phe Pro Ser Asn Ser Thr Ser Ser Ser Ser Thr Trp Ser Arg Ser
945 950 955 960

Arg Asn

<210> 71
<211> 146
<212> PRT
<213> Oryza sativa

<400> 71
Met Val Ala Ala Thr Ala Glu Phe Arg Arg Val Phe Ser Ala Phe Asp
1 5 10 15

Arg Asp Ala Asp Gly Lys Ile Ser Ala Ala Glu Leu Arg Leu Cys Met
20 25 30

Lys Ala Ala Leu Gly Glu Asp Met Ser Ala Glu Glu Ala Glu Ala Leu
35 40 45

Val Ser Ser Ala Asp Thr Asp Asp Asp Gly Leu Leu Asp Glu Glu Glu
50 55 60

Phe Thr Lys Leu Ala Val Gln Leu Glu Met Gly Asp Glu Glu Glu Arg
65 70 75 80

Cys Arg Gly Leu Met Glu Ala Phe Arg Met Tyr Glu Met Glu Gly Glu
85 90 95

Gly Arg Ile Thr Pro Ala Ser Leu Lys Arg Met Leu Ser Lys Leu Gly
100 105 110

Ser His Gln Gly Ile Glu Glu Cys Gln Thr Met Ile Cys Arg Phe Asp
115 120 125

Leu Asp Gly Asp Gly Val Ile Ser Phe Glu Glu Phe Lys Ile Met Met
130 135 140

Asp Ala
145

<210> 72
<211> 796
<212> PRT
<213> Sus scrofa

<400> 72
Met Ala Trp Asp Met Cys Asn Gln Asp Ser Val Trp Thr Asp Ile Glu
1 5 10 15

Cys Ala Ala Leu Val Gly Glu Asp Gln Pro Leu Cys Pro Asp Leu Pro
20 25 30

Glu Leu Asp Leu Ser Glu Leu Asp Val Asn Asp Leu Asp Thr Asp Ser
35 40 45

Phe Leu Gly Gly Leu Lys Trp Cys Ser Asp Gln Ser Glu Ile Ile Ser
50 55 60

Asn Gln Tyr Asn Asn Glu Pro Ser Asn Ile Phe Glu Lys Ile Asp Glu
65 70 75 80

Glu Asn Glu Ala Asn Leu Leu Ala Val Leu Thr Glu Thr Leu Asp Ser
85 90 95

Leu Pro Val Asp Glu Asp Gly Leu Pro Ser Phe Asp Ala Leu Thr Asp
100 105 110

Gly Asp Val Thr Thr Glu Asn Glu Ala Ser Pro Ser Ser Met Pro Asp
115 120 125

Gly Thr Pro Pro Pro Gln Glu Ala Glu Glu Pro Ser Leu Leu Lys Lys
130 135 140

Leu Leu Leu Ala Pro Ala Asn Thr Gln Leu Ser Tyr Asn Glu Cys Ser
145 150 155 160

Gly Leu Ser Thr Gln Asn His Ala Asn His Asn His Arg Ile Arg Thr
165 170 175

Asn Pro Ala Val Val Lys Thr Glu Asn Ser Trp Ser Asn Lys Ala Lys
180 185 190

Ser Ile Cys Gln Gln Gln Lys Pro Gln Arg Arg Pro Cys Ser Glu Leu
195 200 205

```
Leu Lys Tyr Leu Thr Thr Asn Asp Asp Pro Pro His Thr Lys Pro Thr
    210                 215                 220

Glu Thr Arg Asn Ser Ser Arg Asp Lys Cys Thr Ser Lys Lys Lys Ala
225                 230                 235                 240

His Thr Gln Ser Gln Ser Gln His Leu Gln Ala Lys Pro Thr Ser Leu
                245                 250                 255

Ser Leu Pro Leu Thr Pro Glu Ser Pro Asn Asp Pro Lys Gly Ser Pro
            260                 265                 270

Phe Glu Asn Lys Thr Ile Glu Arg Thr Leu Ser Val Glu Leu Ser Gly
        275                 280                 285

Thr Ala Gly Leu Thr Pro Pro Thr Thr Pro Pro His Lys Ala Asn Gln
    290                 295                 300

Asp Asn Pro Phe Arg Ala Ser Pro Lys Leu Lys Pro Pro Cys Lys Thr
305                 310                 315                 320

Val Val Pro Pro Pro Ser Lys Lys Thr Arg Tyr Ser Glu Ser Ser Gly
                325                 330                 335

Thr His Gly Asn Asn Ser Thr Lys Lys Gly Pro Glu Gln Ser Glu Leu
            340                 345                 350

Tyr Ala Gln Leu Ser Lys Thr Ser Ala Leu Gly Gly Gly His Glu Glu
        355                 360                 365

Arg Lys Ala Arg Arg Pro Ser Leu Arg Leu Phe Gly Asp His Asp Tyr
    370                 375                 380

Cys Gln Ser Ile Asn Ser Lys Ala Glu Ile Leu Ile Asn Ile Ser Gln
385                 390                 395                 400

Glu Leu His Asp Ser Arg Gln Leu Asp Ser Lys Asp Ala Ala Ser Asp
                405                 410                 415

Trp Gln Arg Gln Met Cys Ser Ser Thr Asp Ser Asp Gln Cys Tyr Leu
            420                 425                 430

Thr Glu Thr Ser Glu Ala Ser Arg Gln Val Ser Pro Gly Ser Ala Arg
        435                 440                 445

Lys Gln Leu Gln Asp Gln Glu Ile Arg Ala Glu Leu Asn Lys His Phe
    450                 455                 460
```

```
Gly His Pro Ser Gln Ala Val Phe Asp Asp Glu Ala Asp Lys Thr Ser
465                 470                 475                 480

Glu Leu Arg Asp Ser Asp Phe Ser Asn Glu Gln Phe Ser Lys Leu Pro
                485                 490                 495

Met Phe Ile Asn Ser Gly Leu Ala Met Asp Gly Leu Phe Asp Asp Ser
            500                 505                 510

Glu Asp Glu Ser Asp Lys Leu Asn Ser Pro Trp Asp Gly Thr Gln Ser
        515                 520                 525

Tyr Ser Leu Phe Asp Val Ser Pro Ser Cys Ser Ser Phe Asn Ser Pro
    530                 535                 540

Cys Arg Asp Ser Val Ser Pro Pro Lys Ser Leu Phe Ser Gln Arg Pro
545                 550                 555                 560

Gln Arg Met Arg Ser Arg Ser Arg Ser Phe Ser Gln His Arg Ser Cys
                565                 570                 575

Ser Arg Ser Pro Tyr Ser Arg Ser Arg Ser Arg Ser Pro Gly Ser Arg
            580                 585                 590

Ser Ser Ser Arg Ser Cys Tyr Tyr Ser Glu Ser Gly His Cys Arg His
        595                 600                 605

Arg Thr His Arg Asn Ser Pro Leu Cys Ala Arg Ser Arg Ser Arg Ser
    610                 615                 620

Pro Tyr Ser Arg Arg Pro Arg Tyr Asp Ser Tyr Glu Glu Tyr Gln His
625                 630                 635                 640

Glu Arg Leu Lys Arg Glu Glu Tyr Arg Arg Glu Tyr Glu Lys Arg Glu
                645                 650                 655

Ser Glu Arg Ala Lys Gln Arg Glu Arg Gln Arg Gln Lys Ala Ile Glu
            660                 665                 670

Glu Arg Arg Val Ile Tyr Val Gly Lys Ile Arg Pro Asp Thr Thr Arg
        675                 680                 685

Thr Glu Leu Arg Asp Arg Phe Glu Val Phe Gly Glu Ile Glu Glu Cys
    690                 695                 700

Thr Val Asn Leu Arg Asp Asp Gly Asp Ser Tyr Gly Phe Ile Thr Tyr
```

705 710 715 720

Arg Tyr Thr Cys Asp Ala Phe Ala Ala Leu Glu Asn Gly Tyr Thr Leu
725 730 735

Arg Arg Ser Asn Glu Thr Asp Phe Glu Leu Tyr Phe Cys Gly Arg Lys
740 745 750

Gln Phe Phe Lys Ser Asn Tyr Ala Asp Leu Asp Ser Asn Ser Asp Asp
755 760 765

Phe Asp Pro Ala Ser Thr Lys Ser Lys Tyr Asp Ser Leu Asp Phe Asp
770 775 780

Ser Leu Leu Lys Glu Ala Gln Arg Ser Leu Arg Arg
785 790 795

<210> 73
<211> 1107
<212> PRT
<213> Oryza sativa

<400> 73
Met Ala Lys Pro Val Lys Tyr Asp Glu Glu Glu Glu Glu Val Ser Ser
1 5 10 15

Ser Gly Glu Glu Glu Glu Glu Gln Ser Asp Gly Ala Gly Ser Gly Ser
20 25 30

Gly Glu Glu Glu Asp Glu Glu Glu Glu Glu Ala Pro Ala Ala Ala Ala
35 40 45

Gly Glu Ala Ala Gly Gly Glu Glu Glu Glu Val Asp Glu Glu Glu Ile
50 55 60

Glu Ala Val Thr Thr Gly Ala Gly Ala Asp Glu Glu Glu Glu Glu Ser
65 70 75 80

Gly Ala Ala Ala Ala Ala Pro Gly Glu Gly Asp Glu Glu Ser Gln Ser
85 90 95

Thr Glu Asp Asp Glu Ala Val Val Gly Glu Asp Asp Asp Ala Asp Glu
100 105 110

Ala Glu Gly Gly Ala Val Val Gly Lys Arg Glu Lys Ala Arg Leu Lys
115 120 125

Glu Met Gln Lys Leu Lys Lys Gln Lys Ile Gln Glu Ile Leu Asp Thr
130 135 140

```
Gln Asn Ala Ala Val Asp Ala Asp Met Asn Asn Lys Gly Lys Gly Arg
145                 150                 155                 160

Leu Lys Tyr Leu Leu Gln Gln Thr Glu Ile Phe Ala His Phe Ala Lys
                165                 170                 175

Gly Asn Gln Ser Lys Glu Lys Lys Pro Arg Gly Arg Gly Arg His Ala
            180                 185                 190

Ser Lys Met Thr Glu Glu Glu Glu Asp Glu Glu Tyr Leu Lys Glu Glu
        195                 200                 205

Glu Asp Ala Leu Ala Gly Ser Gly Gly Thr Arg Leu Leu Ser Gln Pro
    210                 215                 220

Ser Cys Ile Lys Gly Lys Met Arg Asp Tyr Gln Leu Ala Gly Leu Asn
225                 230                 235                 240

Trp Leu Ile Arg Leu Tyr Glu Asn Gly Ile Asn Gly Ile Leu Ala Asp
                245                 250                 255

Glu Met Gly Leu Gly Lys Thr Leu Gln Thr Ile Ser Leu Leu Gly Tyr
            260                 265                 270

Leu His Glu Phe Arg Gly Ile Thr Gly Pro His Met Val Val Ala Pro
        275                 280                 285

Lys Ser Thr Leu Gly Asn Trp Ile Lys Glu Ile Gln Arg Phe Cys Pro
    290                 295                 300

Ile Leu Arg Ala Val Lys Phe Leu Gly Asn Pro Glu Glu Arg Asn His
305                 310                 315                 320

Ile Arg Glu Asn Leu Leu Gln Pro Gly Lys Phe Asp Val Cys Val Thr
                325                 330                 335

Ser Phe Glu Met Ala Ile Lys Glu Lys Thr Thr Leu Lys Arg Phe Ser
            340                 345                 350

Trp Arg Tyr Ile Ile Ile Asp Glu Ala His Arg Ile Lys Asn Glu Asn
        355                 360                 365

Ser Leu Leu Ser Lys Thr Met Arg Ile Tyr Asn Thr Asn Tyr Arg Leu
    370                 375                 380

Leu Ile Thr Gly Thr Pro Leu Gln Asn Asn Leu His Glu Leu Trp Ser
```

385 390 395 400

Leu Leu Asn Phe Leu Leu Pro Glu Ile Phe Ser Ser Ala Glu Thr Phe
405 410 415

Asp Glu Trp Phe Gln Ile Ser Gly Glu Asn Asp Gln Gln Glu Val Val
420 425 430

Gln Gln Leu His Lys Val Leu Arg Pro Phe Leu Leu Arg Arg Leu Lys
435 440 445

Ser Asp Val Glu Lys Gly Leu Pro Pro Lys Lys Glu Thr Ile Leu Lys
450 455 460

Val Gly Met Ser Gln Met Gln Lys Gln Tyr Tyr Arg Ala Leu Leu Gln
465 470 475 480

Lys Asp Leu Glu Val Ile Asn Ala Gly Gly Glu Arg Lys Arg Leu Leu
485 490 495

Asn Ile Ala Met Gln Leu Arg Lys Cys Cys Asn His Pro Tyr Leu Phe
500 505 510

Gln Gly Ala Glu Pro Gly Pro Pro Tyr Thr Thr Gly Glu His Leu Val
515 520 525

Glu Asn Ala Gly Lys Met Val Leu Leu Asp Lys Leu Leu Pro Lys Leu
530 535 540

Lys Asp Arg Asp Ser Arg Val Leu Ile Phe Ser Gln Met Thr Arg Leu
545 550 555 560

Leu Asp Ile Leu Glu Asp Tyr Leu Met Tyr Arg Gly Tyr Gln Tyr Cys
565 570 575

Arg Ile Asp Gly Asn Thr Gly Gly Glu Asp Arg Asp Ala Ser Ile Glu
580 585 590

Ala Phe Asn Lys Pro Gly Ser Glu Lys Phe Val Phe Leu Leu Ser Thr
595 600 605

Arg Ala Gly Gly Leu Gly Ile Asn Leu Ala Thr Ala Asp Val Val Val
610 615 620

Leu Tyr Asp Ser Asp Trp Asn Pro Gln Ala Asp Leu Gln Ala Gln Asp
625 630 635 640

```
Arg Ala His Arg Ile Gly Gln Lys Lys Glu Val Gln Val Phe Arg Phe
                645                 650                 655

Cys Thr Glu Tyr Thr Ile Glu Glu Lys Val Ile Glu Arg Ala Tyr Lys
            660                 665                 670

Lys Leu Ala Leu Asp Ala Leu Val Ile Gln Gln Gly Arg Leu Ala Glu
        675                 680                 685

Gln Lys Thr Val Asn Lys Asp Asp Leu Leu Gln Met Val Arg Phe Gly
    690                 695                 700

Ala Glu Met Val Phe Ser Ser Lys Asp Ser Thr Ile Thr Asp Glu Asp
705                 710                 715                 720

Ile Asp Arg Ile Ile Ala Lys Gly Glu Glu Thr Thr Ala Glu Leu Asp
                725                 730                 735

Ala Lys Met Lys Lys Phe Thr Glu Asp Ala Ile Lys Phe Lys Met Asp
            740                 745                 750

Asp Thr Ala Glu Leu Tyr Asp Phe Asp Asp Asp Lys Glu Glu Asn Lys
        755                 760                 765

Leu Asp Phe Lys Lys Leu Val Ser Asp Asn Trp Ile Glu Pro Pro Arg
    770                 775                 780

Arg Glu Arg Lys Arg Asn Tyr Ser Glu Ser Glu Tyr Phe Lys Gln Ala
785                 790                 795                 800

Leu Arg Gln Gly Ala Pro Ala Lys Pro Arg Glu Pro Arg Ile Pro Arg
                805                 810                 815

Met Pro His Leu His Asp Phe Gln Phe Phe Asn Asn Gln Arg Leu Asn
            820                 825                 830

Glu Leu Tyr Glu Lys Glu Val Arg Tyr Leu Met Gln Ala Asn Gln Lys
        835                 840                 845

Lys Asp Thr Ile Asp Gly Glu Asp Glu Asp Gln Leu Glu Pro Leu Thr
    850                 855                 860

Ala Glu Glu Gln Glu Glu Lys Glu Gln Leu Leu Glu Glu Gly Phe Ala
865                 870                 875                 880

Thr Trp Thr Arg Arg Asp Phe Asn Thr Phe Ile Arg Ala Cys Glu Lys
                885                 890                 895
```

```
Tyr Gly Arg Asn Asp Ile Arg Ser Ile Ala Ala Glu Met Glu Gly Lys
            900                 905                 910

Thr Glu Glu Glu Val Gln Arg Tyr Ala Lys Val Phe Lys Glu Arg Tyr
        915                 920                 925

Lys Glu Leu Ser Asp Tyr Asp Arg Ile Ile Lys Asn Ile Glu Arg Gly
    930                 935                 940

Glu Ala Arg Ile Ser Arg Lys Asp Glu Ile Met Arg Ala Ile Gly Lys
945                 950                 955                 960

Lys Leu Asp Arg Tyr Lys Asn Pro Trp Leu Glu Leu Lys Ile Gln Tyr
                965                 970                 975

Gly Gln Asn Lys Gly Lys Phe Tyr Asn Glu Glu Cys Asp Arg Phe Met
            980                 985                 990

Leu Cys Met Val His Lys Leu Gly  Tyr Gly Asn Trp Asp  Glu Leu Lys
        995                 1000                1005

Ala Ala  Phe Arg Met Ser Pro  Leu Phe Arg Phe Asp  Trp Phe Val
    1010                1015                1020

Lys Ser  Arg Thr Thr Gln Glu  Leu Ala Arg Arg Cys  Asp Thr Leu
    1025                1030                1035

Ile Arg  Leu Val Glu Lys Glu  Asn Gln Glu Tyr Asp  Glu Gln Glu
    1040                1045                1050

Arg Gln  Ala Arg Lys Asp Lys  Arg Met Ala Lys Asn  Met Thr Pro
    1055                1060                1065

Thr Lys  Arg Ser Ala Leu Arg  Val Ser Glu Gly Glu  Thr Thr Pro
    1070                1075                1080

Ser Asn  Ser Phe Lys Arg Arg  Arg Gln Ser Leu Met  Asp Asp Tyr
    1085                1090                1095

Val Gly  Ser Gly Arg Arg Lys  Arg Gly
    1100                1105
```

<210> 74
<211> 232
<212> PRT
<213> Pisum sativum

<400> 74

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

Gln Lys Pro Gly Ser Ser Val Lys Ser Thr Pro Pro Cys Met Ala Ser
20 25 30

Phe Pro Leu Arg Arg Gln Leu Pro Arg Leu Gly Leu Arg Asn Val Arg
35 40 45

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

His Arg Val Asn Lys Asp Asp Gln Gly Thr Ala Val Glu Arg Lys Pro
65 70 75 80

Arg Arg Ser Ser Ile Asp Ile Ser Pro Phe Gly Leu Leu Asp Pro Trp
85 90 95

Ser Pro Met Arg Ser Met Arg Gln Met Leu Asp Thr Met Asp Arg Ile
100 105 110

Phe Glu Asp Ala Ile Thr Ile Pro Gly Arg Asn Ile Gly Gly Gly Glu
115 120 125

Ile Arg Val Pro Trp Glu Ile Lys Asp Glu Glu His Glu Ile Arg Met
130 135 140

Arg Phe Asp Met Pro Gly Val Ser Lys Glu Asp Val Lys Val Ser Val
145 150 155 160

Glu Asp Asp Val Leu Val Ile Lys Ser Asp His Arg Glu Glu Asn Gly
165 170 175

Gly Glu Asp Cys Trp Ser Arg Lys Ser Tyr Ser Cys Tyr Asp Thr Arg
180 185 190

Leu Lys Leu Pro Asp Asn Cys Glu Lys Glu Lys Val Lys Ala Glu Leu
195 200 205

Lys Asp Gly Val Leu Tyr Ile Thr Ile Pro Lys Thr Lys Ile Glu Arg
210 215 220

Thr Val Ile Asp Val Gln Ile Gln
225 230

<210> 75
<211> 583
<212> PRT

<213> Sus scrofa

<400> 75

```
Met Pro Lys Pro Ile Asn Val Arg Val Thr Thr Met Asp Ala Glu Leu
1               5                  10                  15

Glu Phe Ala Ile Gln Pro Asn Thr Thr Gly Lys Gln Leu Phe Asp Gln
            20                  25                  30

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

Tyr Val Asp Ser Lys Gly Tyr Ser Thr Trp Leu Lys Leu Asn Lys Lys
    50                  55                  60

Val Thr Gln Gln Asp Val Lys Lys Glu Asn Pro Leu Gln Phe Lys Phe
65                  70                  75                  80

Arg Ala Lys Phe Phe Pro Glu Asp Val Ser Glu Glu Leu Ile Gln Glu
                85                  90                  95

Ile Thr Gln Arg Leu Phe Phe Leu Gln Val Lys Glu Ala Ile Leu Asn
            100                 105                 110

Asp Glu Ile Tyr Cys Pro Pro Glu Thr Ala Val Leu Leu Ala Ser Tyr
        115                 120                 125

Ala Val Gln Ala Lys Tyr Gly Asp Tyr Asn Lys Glu Ile His Lys Pro
    130                 135                 140

Gly Tyr Leu Ala Asn Asp Arg Leu Leu Pro Gln Arg Val Leu Glu Gln
145                 150                 155                 160

His Lys Leu Thr Lys Glu Gln Trp Glu Glu Arg Ile Gln Asn Trp His
                165                 170                 175

Glu Glu His Arg Gly Met Leu Arg Glu Asp Ser Ile Met Glu Tyr Leu
            180                 185                 190

Lys Ile Ala Gln Asp Leu Glu Met Tyr Gly Val Asn Tyr Phe Glu Ile
        195                 200                 205

Lys Asn Lys Lys Gly Thr Glu Leu Trp Leu Gly Val Asp Ala Leu Gly
    210                 215                 220

Leu Asn Ile Tyr Glu His Asp Asp Lys Leu Thr Pro Lys Ile Gly Phe
225                 230                 235                 240
```

```
Pro Trp Ser Glu Ile Arg Asn Ile Ser Phe Asn Asp Lys Lys Phe Val
                245                 250                 255

Ile Lys Pro Ile Asp Lys Lys Ala Pro Asp Phe Val Phe Tyr Ala Pro
            260                 265                 270

Arg Leu Arg Ile Asn Lys Arg Ile Leu Ala Leu Cys Met Gly Asn His
        275                 280                 285

Glu Leu Tyr Met Arg Arg Arg Lys Pro Asp Thr Ile Glu Val Gln Gln
    290                 295                 300

Met Lys Ala Gln Ala Arg Glu Glu Lys His Gln Lys Gln Leu Glu Arg
305                 310                 315                 320

Ala Gln Leu Glu Asn Glu Lys Lys Lys Arg Glu Ile Ala Glu Lys Glu
                325                 330                 335

Lys Glu Arg Ile Glu Arg Glu Lys Glu Glu Leu Met Glu Arg Leu Arg
            340                 345                 350

Gln Ile Glu Glu Gln Thr Met Lys Ala Gln Lys Glu Leu Glu Glu Gln
        355                 360                 365

Thr Arg Lys Ala Leu Glu Leu Asp Gln Glu Arg Lys Arg Ala Lys Glu
    370                 375                 380

Glu Ala Glu Arg Leu Glu Lys Glu Arg Arg Ala Ala Glu Glu Ala Lys
385                 390                 395                 400

Ser Ala Ile Ala Lys Gln Ala Ala Asp Gln Met Lys Asn Gln Glu Gln
                405                 410                 415

Leu Ala Ala Glu Leu Ala Glu Phe Thr Ala Lys Ile Ala Leu Leu Glu
            420                 425                 430

Glu Ala Lys Lys Lys Lys Glu Glu Glu Ala Thr Glu Trp Gln His Lys
        435                 440                 445

Ala Phe Ala Ala Gln Glu Asp Leu Glu Lys Thr Lys Glu Glu Leu Lys
    450                 455                 460

Thr Val Met Ser Ala Pro Pro Pro Pro Pro Pro Pro Val Val Pro
465                 470                 475                 480

Pro Thr Glu Asn Glu His Asp Glu His Asp Glu Asn Asn Ala Glu Ala
                485                 490                 495
```

```
Ser Ala Glu Leu Ser Asn Asp Gly Val Met Asn His Arg Ser Glu Glu
            500                 505                 510

Glu Arg Val Thr Glu Thr Gln Lys Asn Glu Arg Val Asn Lys Gln Leu
        515                 520                 525

Gln Ala Leu Ser Ser Glu Leu Ala Gln Ala Arg Asp Glu Thr Lys Lys
    530                 535                 540

Thr Gln Asn Asp Val Leu His Ala Glu Asn Val Lys Ala Gly Arg Asp
545                 550                 555                 560

Lys Tyr Lys Thr Leu Arg Gln Ile Arg Gln Gly Asn Thr Lys Gln Arg
                565                 570                 575

Ile Asp Glu Phe Glu Ala Met
            580
```

<210> 76
<211> 802
<212> PRT
<213> Oryza sativa

<400> 76

```
Met Asp Ala Asp Phe Arg Phe Asp Pro Asp Gly Ser Asp Asp Asp Gly
1               5                   10                  15

Ala Ala Ala Ser Ala Ala Ala Gly Arg Arg Lys Pro Ala Gln Ser Pro
            20                  25                  30

Trp Glu Phe Ser Ser Tyr Ala Glu Ser Val Ala Ala Glu His Ala Arg
        35                  40                  45

Arg Arg Thr Thr Ser Ile Asp Glu Lys Ile Ser Gln Ala Leu Ser Gly
    50                  55                  60

Ser Arg Arg Gly Gly Lys Pro Ser Ile Pro Asp Gly Asp Ser Glu Gly
65                  70                  75                  80

Asp Glu Asp Asp Ser Glu Val Glu Asp Asp Ser Glu Glu Asp Asp Lys
                85                  90                  95

Glu Val Val Glu Gly Glu Ile Asp Asp Glu Glu Asp Glu Val Glu Glu
            100                 105                 110

Ser Glu Asp Asp Asp Glu Gly Val Glu Val Ser Asp Glu Glu Val Glu
        115                 120                 125
```

```
Glu Leu Glu Glu Gly Lys Gly Glu Glu Lys Ser Asp Glu Val Glu Glu
    130                 135                 140

Gly Glu Glu Gly Gln Asp Gly Glu Glu Glu Glu Lys Glu Glu Gly Asp
145                 150                 155                 160

Glu Glu Ala Ala Glu Glu Glu Glu Glu Thr Asp Lys Lys Ser Gly Val
                165                 170                 175

Val Asp Pro Ser Lys Phe Phe Ala Ser Ser Glu Gly Ala Ser Phe His
            180                 185                 190

Ala Asn Ser Phe Leu Glu Leu Asn Leu Ser Arg Pro Leu Leu Arg Ala
        195                 200                 205

Cys Glu Ala Leu Gly Tyr Gln Lys Pro Thr Pro Ile Gln Ala Ala Cys
    210                 215                 220

Ile Pro Leu Ala Leu Thr Gly Arg Asp Ile Cys Gly Ser Ala Ile Thr
225                 230                 235                 240

Gly Ser Gly Lys Thr Ala Ala Phe Ser Leu Pro Val Leu Glu Arg Leu
                245                 250                 255

Leu Phe Arg Pro Lys Arg Val Pro Ala Ile Arg Val Leu Ile Leu Thr
            260                 265                 270

Pro Thr Arg Glu Leu Ala Ala Gln Val His Ser Met Ile Glu Lys Leu
        275                 280                 285

Ala Gln Phe Thr Asp Ile Arg Cys Cys Leu Ile Val Gly Gly Leu Ser
    290                 295                 300

Thr Lys Val Gln Glu Val Ala Leu Arg Ser Met Pro Asp Ile Val Val
305                 310                 315                 320

Ala Thr Pro Gly Arg Ile Ile Asp His Leu Arg Asn Ser Leu Ser Val
                325                 330                 335

Gly Leu Glu Asp Leu Ala Ile Leu Ile Leu Asp Glu Ala Asp Arg Leu
            340                 345                 350

Leu Glu Leu Gly Phe Ser Ala Glu Ile Gln Glu Leu Ile Arg Met Cys
        355                 360                 365

Pro Arg Arg Arg Gln Thr Met Leu Phe Ser Ala Thr Met Thr Glu Glu
    370                 375                 380
```

```
Ile Asn Glu Leu Val Thr Leu Ser Leu Asn Lys Pro Val Arg Leu Glu
385                 390                 395                 400

Ala Asp Pro Ser Leu Lys Arg Pro Ala Thr Leu Thr Glu Glu Val Val
                405                 410                 415

Arg Ile Arg Arg Ala Arg Glu Ala Asn Gln Glu Ala Val Leu Leu Ala
            420                 425                 430

Leu Cys Leu Lys Thr Phe Lys Asp Lys Val Ile Ile Phe Ser Gly Thr
        435                 440                 445

Lys His Ser Ala His Arg Leu Lys Ile Ile Phe Gly Leu Ser Gly Met
    450                 455                 460

Lys Ala Ala Glu Leu His Gly Asn Leu Thr Gln Ala Gln Arg Leu Glu
465                 470                 475                 480

Ala Leu Glu Leu Phe Lys Lys Gln Glu Val Asp Phe Leu Ile Ala Thr
                485                 490                 495

Asp Val Ala Ala Arg Gly Ile Asp Ile Val Gly Val Arg Thr Val Ile
            500                 505                 510

Asn Phe Ser Cys Pro Arg Asp Ala Arg Thr Tyr Leu His Arg Val Gly
        515                 520                 525

Arg Thr Ala Arg Ala Gly Arg Glu Gly Tyr Ala Val Thr Phe Val Thr
    530                 535                 540

Asp Asp Asp Arg Ser Leu Leu Lys Ala Ile Ala Lys Lys Ala Gly Ser
545                 550                 555                 560

Gln Leu Lys Ser Arg Ile Val Ala Glu Lys Pro Val Ala Glu Cys Ala
                565                 570                 575

Lys Leu Ile Glu Glu Leu Glu Asp Gln Ile Ser Thr Ile Ile Gln Glu
            580                 585                 590

Glu Arg Glu Glu Arg Ile Leu Arg Lys Ala Glu Met Glu Ala Thr Lys
        595                 600                 605

Ala Glu Asn Met Ile Ala His Lys Asp Glu Ile Tyr Ser Arg Pro Lys
    610                 615                 620

Arg Thr Trp Phe Ala Thr Glu Lys Glu Lys Lys Leu Leu Ala Lys Ala
625                 630                 635                 640
```

```
Ala Lys Glu Ser Thr Ser Gln Gly Lys Ser Asn Ser Gly Val Ile Ser
                645                 650                 655

Ala Gln Gln Ala Glu Asp Leu Arg Leu Lys Glu Lys Lys Arg Arg Glu
            660                 665                 670

Arg Glu Lys Asn Leu Pro Arg Lys Lys Arg Arg Arg Leu Glu Ala Glu
        675                 680                 685

Arg Glu Met Leu Glu Asp Glu Ser Glu Asp Glu Glu Glu Ala Lys Glu
    690                 695                 700

Ser Lys Gly Gly Lys Lys Glu Lys Lys Gly Gln Ser Leu Val Asp Val
705                 710                 715                 720

Ala Tyr Arg Arg Ala Lys Ser Met Lys Ala Ser Gly Lys Arg Gly Ala
                725                 730                 735

Gly Thr Gly Lys Gly Lys Asn Asp Lys Lys Ala Lys Gln His Ser Gly
            740                 745                 750

Lys Gly Pro Thr Arg Gln Glu Glu Met Gln Glu Leu Phe Gln Asn Asp
        755                 760                 765

Met Ser Glu Trp Lys Gln Gly Arg Ser Leu Lys Lys Asn Asn Val Met
    770                 775                 780

Arg Lys Lys Ser Lys Asn Ser Phe Lys Ser Lys Ser Arg Tyr Asn Arg
785                 790                 795                 800

Arg Lys
```

<210> 77
<211> 415
<212> PRT
<213> Oryza sativa

<400> 77

```
Met Ala Arg Gly Lys Asn His Pro Asp Gly Glu Glu Glu Glu Ala Pro
1               5                   10                  15

Ala Ala Ala Gly Glu Glu Glu Ala Pro Val Glu Met Asp Glu Glu Gly
            20                  25                  30

Glu Met Glu Glu Glu Glu Glu Glu Glu Gln Gly Glu Gly Glu Gly Glu
        35                  40                  45
```

```
Glu Arg Asp Glu Gly Glu Glu Glu Glu Glu Trp Glu Asp Ala Glu Glu
    50                  55                  60

Val Glu Gly Gly Glu Glu Ser Glu Gln Ala Ala Ala Glu Glu Glu Asp
65                  70                  75                  80

Ser Pro Leu Val Val Val Glu Ala Glu Ala Ala Ala Pro Val Val Asp
                85                  90                  95

Gly Ser Pro Pro Lys Leu Ala Glu Gly Tyr Tyr Glu Ile Glu Asp Ile
            100                 105                 110

Arg Arg Arg Arg Leu Arg Lys Gly Lys Leu Gln Tyr Leu Val Lys Trp
        115                 120                 125

Arg Gly Trp Pro Glu Ser Ala Asn Thr Trp Glu Pro Leu Glu Asn Leu
    130                 135                 140

Ser Ala Cys Ser Asp Ile Ile Asp Ala Phe Glu Met Arg Leu Gln Ser
145                 150                 155                 160

Pro Arg Pro Gly Arg Lys Arg Lys Arg Lys Ile Thr Thr Thr Pro Val
                165                 170                 175

Ala Gly Ser Asn Pro Ser His Gly Lys Arg Gly Arg Pro Arg Leu Asp
            180                 185                 190

Ala Lys Ser His Thr Arg Ala Pro Ala Pro Glu Pro Lys Gln Leu Pro
        195                 200                 205

Cys Arg Thr Ser Cys Arg Arg Ala Thr Asn Cys Ser Ser Lys Thr Val
    210                 215                 220

Ala Gly Leu Asp Ala Ser Gly Ser Val Val Arg Asn Gln Leu Ala Gln
225                 230                 235                 240

Asn Ile Val Gln Glu Gly Ser Ser Ser Val Ile Ser Arg Thr Pro Cys
                245                 250                 255

Gln Glu Leu Pro Leu Ser Ile Arg Leu Thr Asp Gln Gln Asn Glu His
            260                 265                 270

His Leu Val Asn Gly Ser Ser Asn Ser Glu Asn Leu Val Lys Val Pro
        275                 280                 285

Pro Ser Gln Gly Gly Gln Val Thr Gly Ala Lys Lys Arg Lys Ser Gly
    290                 295                 300
```

```
Asn Val Arg Arg Phe Glu Gln Asn Lys Pro Thr Gln Gly Gln Gly Glu
305                 310                 315                 320

Cys Gly Ala Leu Val Val Ala Glu Asp Val Gly Ser Thr Glu Gly Glu
                325                 330                 335

Thr Gly Asp Lys Lys Lys Thr Glu Gly Cys Pro Asn Arg Val His Ile
            340                 345                 350

Thr Lys Ile Ile Lys Pro Val Arg Phe Ala Ala Ala Val Asn Asn Asp
        355                 360                 365

Val Gln Gln Val Ser Ile Thr Phe Lys Ala Leu Arg Ser Asp Gly Gln
    370                 375                 380

Glu Val Met Val Asp Asp Lys Glu Leu Lys Ala Asn Asn Pro Leu Leu
385                 390                 395                 400

Leu Ile Ser Tyr Tyr Glu Gln Cys Leu Arg Tyr Asn Pro Thr Ser
                405                 410                 415
```

<210> 78
<211> 134
<212> PRT
<213> Sus scrofa

<400> 78

```
Met Thr Arg Asp Gln Asn Gly Thr Trp Glu Met Glu Ser Asn Asp Asn
1               5                   10                  15

Phe Glu Gly Tyr Met Lys Ala Leu Asp Ile Asp Phe Ala Thr Arg Lys
            20                  25                  30

Ile Ala Val Ala Leu Thr Gln Thr Lys Ile Ile Glu Gln Asp Gly Asp
        35                  40                  45

Lys Phe Lys Thr Lys Thr Asn Ser Thr Phe Arg Asn Tyr Asp Leu Asp
    50                  55                  60

Phe Thr Val Gly Val Glu Phe Asp Glu Tyr Thr Lys Gly Leu Asp Asn
65                  70                  75                  80

Arg Asn Val Lys Thr Leu Ile Ile Trp Glu Gly Asp Ala Leu Val Cys
                85                  90                  95

Val Gln Lys Gly Glu Lys Glu Asn Arg Gly Trp Lys Gln Trp Val Glu
            100                 105                 110
```

Gly Asp Lys Leu Tyr Leu Glu Leu Thr Cys Gly Asp Gln Val Cys Arg
115 120 125

Gln Val Phe Lys Lys Lys
130

<210> 79
<211> 567
<212> PRT
<213> Oryza sativa

<400> 79
Met Ala Asp Pro Tyr Gly Asp Gly Lys Gly Leu Lys Gln Gln Gln Arg
1 5 10 15

Gln Lys Leu Lys Pro Ala Leu Glu Val Glu Asp Phe Ile Asn Leu Leu
20 25 30

His Gly Ser Asp Pro Val Arg Val Glu Leu Thr Arg Leu Glu Asn Glu
35 40 45

Leu Gln Tyr Lys Glu Lys Glu Leu Gly Glu Ala Gln Ala Glu Ile Lys
50 55 60

Ala Leu Arg Leu Ser Glu Arg Ala Arg Glu Lys Ala Val Glu Asp Leu
65 70 75 80

Thr Glu Glu Leu Thr Lys Val Asp Gly Lys Leu Lys Leu Thr Glu Ser
85 90 95

Leu Leu Glu Ser Lys Asn Leu Glu Ala Lys Lys Ile Asn Asp Glu Lys
100 105 110

Lys Ala Ala Leu Ala Ala Gln Phe Ala Ala Glu Ala Thr Leu Arg Arg
115 120 125

Val His Ala Ala Gln Lys Asp Asp Asp Met Pro Pro Ile Glu Ala Ile
130 135 140

Leu Ala Pro Leu Glu Ala Glu Leu Lys Leu Ala Arg His Glu Ile Ala
145 150 155 160

Lys Leu Gln Asp Asp Asn Arg Ala Leu Asp Arg Leu Thr Lys Ser Lys
165 170 175

Glu Ala Ala Leu Leu Glu Ala Glu Arg Thr Val Gln Ile Ala Leu Ala
180 185 190

```
Lys Ala Ser Leu Val Asp Asp Leu Gln Asn Lys Asn Gln Glu Leu Met
        195                 200                 205

Lys Gln Ile Glu Ile Cys Gln Glu Glu Asn Lys Ile Leu Asp Arg Met
    210                 215                 220

His Arg Gln Lys Val Ala Glu Val Glu Lys Leu Thr Gln Thr Val Arg
225                 230                 235                 240

Glu Leu Glu Glu Ala Val Leu Ala Gly Gly Ala Ala Ala Asn Ala Val
                245                 250                 255

Arg Asp Tyr Gln Arg Lys Val Gln Glu Met Asn Glu Glu Arg Lys Thr
            260                 265                 270

Leu Asp Arg Glu Leu Ala Arg Ala Lys Val Ser Ala Asn Arg Val Ala
        275                 280                 285

Val Val Val Ala Asn Glu Trp Lys Asp Gly Asn Asp Lys Val Met Pro
    290                 295                 300

Val Lys Gln Trp Leu Glu Glu Arg Arg Ile Leu Gln Gly Glu Met Gln
305                 310                 315                 320

Gln Leu Arg Asp Lys Leu Ala Ile Ala Glu Arg Ala Ala Arg Ser Glu
                325                 330                 335

Ala Gln Leu Lys Asp Lys Phe Gln Leu Arg Leu Lys Val Leu Glu Glu
            340                 345                 350

Gly Leu Arg Met Ser Thr Thr Arg Thr Asn Val Ser Ala Ala Arg Arg
        355                 360                 365

Gln Ser Ile Gly Gly Ala Asp Ser Leu Ser Lys Thr Asn Gly Phe Leu
    370                 375                 380

Ser Lys Arg Pro Ser Phe Gln Met Arg Ser Ser Val Ser Thr Thr Thr
385                 390                 395                 400

Thr Thr Leu Val Asn His Ala Lys Gly Ala Ser Lys Ser Phe Asp Gly
                405                 410                 415

Gly Cys Arg Ser Leu Asp Arg Tyr Lys Gly His Val Asn Gly Ser Gly
            420                 425                 430

Met Asn Val Ser Thr Asp Ser Ser Glu Asp Lys Glu Ser Asn Asn Ser
        435                 440                 445
```

```
Asp Glu Lys Ala Asn Glu Phe Thr Ser Val Glu Thr Glu Asp Thr Val
    450                 455                 460

Ser Gly Leu Leu Tyr Asp Thr Leu Gln Lys Glu Val Ile Ala Leu Arg
465                 470                 475                 480

Lys Ala Cys His Glu Lys Asp Gln Ser Leu Lys Asp Lys Asp Asp Ala
                485                 490                 495

Val Glu Met Leu Ala Lys Lys Val Asp Thr Leu Thr Lys Ala Met Glu
            500                 505                 510

Ser Glu Gly Lys Lys Arg Arg Met Glu Val Ala Ala Met Glu Lys Glu
        515                 520                 525

Met Ala Ala Leu Arg Leu Glu Lys Glu Gln Asp Asn Lys Ala Lys Arg
    530                 535                 540

Phe Gly Ser Ser Ser Ser Gln Leu Pro Pro Gly Arg Thr Leu Pro Arg
545                 550                 555                 560

Ser Gly Ser Ala Arg Asn Met
                565
```

<210> 80
<211> 158
<212> PRT
<213> Glycine max

<400> 80

```
Met Thr Lys Phe Thr Ile Leu Leu Ile Ser Leu Leu Phe Cys Ile Ala
1               5                   10                  15

His Thr Cys Ser Ala Ser Lys Trp Gln His Gln Gln Asp Ser Cys Arg
            20                  25                  30

Lys Gln Leu Gln Gly Val Asn Leu Thr Pro Cys Glu Lys His Ile Met
        35                  40                  45

Glu Lys Ile Gln Gly Arg Gly Asp Asp Asp Asp Asp Asp Asp Asp Asp
    50                  55                  60

Asn His Ile Leu Arg Thr Met Arg Gly Arg Ile Asn Tyr Ile Arg Arg
65                  70                  75                  80

Asn Glu Gly Lys Asp Glu Asp Glu Glu Glu Glu Gly His Met Gln Lys
                85                  90                  95
```

Cys Cys Thr Glu Met Ser Glu Leu Arg Ser Pro Lys Cys Gln Cys Lys
100 105 110

Ala Leu Gln Lys Ile Met Glu Asn Gln Ser Glu Glu Leu Glu Glu Lys
115 120 125

Gln Lys Lys Lys Met Glu Lys Glu Leu Ile Asn Leu Ala Thr Met Cys
130 135 140

Arg Phe Gly Pro Met Ile Gln Cys Asp Leu Ser Ser Asp Asp
145 150 155

<210> 81
<211> 1049
<212> PRT
<213> Oryza sativa

<400> 81
Met Gly Ser Ser Asp Glu Ala Gly Ser Ser Lys His His Arg Arg Asp
1 5 10 15

Lys Glu Lys Asp Arg Glu Arg Ser Ser Ser Arg His His Arg Asp Arg
20 25 30

Asp Arg Glu Arg Ser Ser Ser Arg His His His Arg Glu Asp Arg Asp
35 40 45

Asp Asp Arg Asp Arg Asp Arg Asp Arg Glu Arg Arg His Arg Glu Lys
50 55 60

Glu Arg Asp Arg Glu Glu Arg Lys Ala Arg Glu Arg Glu Glu Arg Glu
65 70 75 80

Lys Glu Lys Glu Arg Glu Arg Ala Arg Arg Arg Glu Glu Arg Asp Arg
85 90 95

Glu Glu Arg Ser Arg Arg Arg Glu Ala Ala Ala Glu Glu Glu Glu Glu
100 105 110

Asp Val Asp Arg Asp Arg Lys Arg Arg Arg Arg Ser Ser His His His
115 120 125

His His His Arg Asp Ala Glu Pro Glu Gly Pro Ala Ser Gly Ala Arg
130 135 140

Glu Glu Glu Val Val Asp Val Glu Glu Ala Glu Arg Arg Arg Gln Lys
145 150 155 160

Lys Lys Glu Glu Glu Gln Lys Gln Leu Asp Glu Glu Met Glu Thr Arg

```
                165                 170                 175

Arg Arg Arg Ile Lys Glu Trp Gln Glu Met Lys Arg Arg Glu Glu Glu
            180                 185                 190

Thr Lys Arg Arg Glu Gln Glu Glu Ala Gly Val Gly Thr Ser Ala Ala
        195                 200                 205

Ala Ala Ala Ala Pro Ala Glu Ala Glu Asp Gly Gly Asn Ala Gly Lys
    210                 215                 220

Lys Trp Thr Leu Asp Gly Glu Glu Ser Asp Glu Glu Gly Asn Gln Glu
225                 230                 235                 240

Asp Gly Lys Lys Ser Asp Asp Asn Gly Gly Ser Gly Ala Gly Ala Met
                245                 250                 255

Asp Val Asp Val Pro Asn Gly Gly Asp Asn Ala Asn Gly Ala Asn Ala
            260                 265                 270

Met Asp Glu Asp Glu Ile Asp Pro Leu Asp Ala Phe Met Asn Ser Met
        275                 280                 285

Val Leu Pro Glu Val Ala Lys Leu Glu Ser Met Pro Ala Ala Asn Val
    290                 295                 300

Asp Asp Lys Asn Asp Lys Ser Ala Lys Asp Ala Val Thr Asn Gly Asp
305                 310                 315                 320

Lys Lys Gly Pro Lys Lys Val Met Gly Arg Ile Ile Gln Gly Glu Asp
                325                 330                 335

Ser Asp Ser Asp Tyr Ala Asp Asp Glu Asp Asp Glu Gly Gly Ser Glu
            340                 345                 350

Asp Glu Asp Asp Glu Glu Phe Met Lys Arg Val Lys Lys Thr Lys Ala
        355                 360                 365

Glu Lys Leu Ala Ile Val Asp His Ser Lys Ile Asp Tyr Gln Pro Phe
    370                 375                 380

Arg Lys Asn Phe Tyr Ile Glu Val Lys Asp Ile Thr Lys Met Ala Ala
385                 390                 395                 400

Glu Glu Val Ala Ala Tyr Arg Lys Gln Leu Glu Leu Lys Val His Gly
                405                 410                 415
```

```
Lys Asp Val Pro Lys Pro Ile Lys Thr Trp Val Gln Ser Gly Leu Thr
            420                 425                 430

Ser Lys Leu Leu Asp Thr Ile Lys Lys Leu Gly Phe Glu Lys Pro Met
        435                 440                 445

Ser Ile Gln Ala Gln Ala Leu Pro Ile Ile Met Ser Gly Arg Asp Cys
    450                 455                 460

Ile Gly Ile Ala Lys Thr Gly Ser Gly Lys Thr Leu Ala Phe Val Leu
465                 470                 475                 480

Pro Met Leu Arg His Val Lys Asp Gln Pro Ala Val Val Pro Gly Asp
                485                 490                 495

Gly Pro Ile Gly Leu Ile Met Ala Pro Thr Arg Glu Leu Val Val Gln
            500                 505                 510

Ile His Ser Asp Ile Lys Lys Phe Ser Lys Ala Leu Gly Ile Asn Cys
        515                 520                 525

Val Ala Ile Tyr Gly Gly Ser Gly Val Ala Gln Gln Ile Ser Glu Leu
    530                 535                 540

Lys Arg Gly Ala Glu Ile Val Val Cys Thr Pro Gly Arg Met Ile Asp
545                 550                 555                 560

Ile Leu Cys Thr Ser Ser Gly Lys Ile Thr Asn Leu Arg Arg Val Thr
                565                 570                 575

Phe Leu Val Met Asp Glu Ala Asp Arg Met Phe Asp Met Gly Phe Glu
            580                 585                 590

Pro Gln Ile Thr Arg Ile Val Gln Asn Thr Arg Pro Asp Arg Gln Thr
        595                 600                 605

Val Leu Phe Ser Ala Thr Phe Pro Arg Gln Val Glu Ile Leu Ala Arg
    610                 615                 620

Lys Val Leu Thr Lys Pro Val Glu Ile Gln Val Gly Gly Arg Ser Val
625                 630                 635                 640

Val Asn Lys Asp Ile Thr Gln Leu Val Glu Val Arg Pro Glu Asn Glu
                645                 650                 655

Arg Phe Phe Arg Leu Leu Glu Leu Leu Gly Glu Trp Phe Asp Lys Gly
            660                 665                 670
```

```
Lys Ile Leu Val Phe Val His Ser Gln Asp Lys Cys Asp Ser Leu Leu
        675                 680                 685

Lys Asp Leu Phe Gln His Gly Tyr Pro Cys Leu Ser Leu His Gly Gly
    690                 695                 700

Lys Asp Gln Thr Asp Arg Glu Ser Thr Leu Ala Asp Phe Lys Ser Asn
705                 710                 715                 720

Val Cys Ser Leu Leu Ile Ala Thr Ser Val Ala Ala Arg Gly Leu Asp
                725                 730                 735

Val Lys Glu Leu Glu Leu Val Val Asn Tyr Asp Val Pro Asn His Tyr
            740                 745                 750

Glu Asp Tyr Val His Arg Val Gly Arg Thr Gly Arg Ala Gly Arg Lys
        755                 760                 765

Gly Phe Ala Val Thr Phe Ile Ser Glu Glu Glu Glu Arg Tyr Ala Pro
    770                 775                 780

Asp Leu Val Lys Ala Leu Glu Leu Ser Glu Gln Ala Val Pro Glu Asp
785                 790                 795                 800

Leu Lys Gly Leu Ala Asp Arg Phe Met Ala Lys Val Lys Gln Gly Thr
                805                 810                 815

Glu Gln Ala His Gly Thr Gly Tyr Gly Gly Ser Gly Phe Lys Phe Asn
            820                 825                 830

Glu Glu Glu Asp Glu Ala Arg Lys Ser Ala Lys Lys Ala Gln Ala Arg
        835                 840                 845

Glu Tyr Gly Tyr Glu Glu Asp Lys Ser Asp Ser Asp Ser Asp Glu Glu
    850                 855                 860

Gly Gly Val Arg Lys Ala Gly Gly Asp Leu Ala Ala Gln Ala Ile Ala
865                 870                 875                 880

Ala Ala Gln Ala Ala Ala Ala Met Val Ala Ala Lys Ala Ala Ser Asn
                885                 890                 895

Ala Asn Gln Gln Thr Gln Gly Thr Ser Val Gly Pro Leu Leu Pro Leu
            900                 905                 910

Ala Ile Ala Ser Asn Thr Gln Asn Asn Glu Ala Thr Ala Arg Ala Leu
        915                 920                 925
```

```
Gln Ala Ala Phe Asn Ile Gln Gln Asn Leu Ala Arg Ile Gln Ala His
    930                 935                 940

Ala Val Pro Glu His Tyr Glu Ala Glu Leu Glu Ile Asn Asp Phe Pro
945                 950                 955                 960

Gln Asn Ala Arg Trp Lys Ile Thr His Lys Glu Thr Leu Gly Pro Ile
                965                 970                 975

Gln Glu Trp Thr Gly Ala Ala Ile Thr Thr Arg Gly Thr Phe Phe Pro
            980                 985                 990

Gln Gly Lys Ile Val Gly Ala Asn  Glu Arg Lys Leu Tyr  Leu Phe Ile
        995                 1000                1005

Glu Gly  Pro Thr Glu Leu Ser  Val Lys Lys Ala Lys  Ala Glu Leu
    1010                1015                1020

Lys Arg  Val Leu Glu Asp Cys  Ala Asn His Ala Leu  Asn Leu Pro
    1025                1030                1035

Gly Ser  Ala Gln Thr Gly Lys  Tyr Ser Val Ile
    1040                1045


<210> 82
<211> 157
<212> PRT
<213> Sus scrofa

<400> 82
Gln Glu Pro Gln Pro Glu Gln Asp Pro Phe Glu Leu Ser Gly Lys Trp
1               5                   10                  15

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

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

Ser Lys Val Tyr Leu Asn Phe Phe Ser Lys Glu Asn Gly Ile Cys Glu
    50                  55                  60

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

Asn Tyr Ala Gly Asn Asn Lys Phe Val Val Ser Tyr Ala Ser Glu Thr
                85                  90                  95
```

Ala Leu Ile Ile Ser Asn Ile Asn Val Asp Glu Glu Gly Asp Lys Thr
100 105 110

Ile Met Thr Gly Leu Leu Gly Lys Gly Thr Asp Ile Glu Asp Gln Asp
115 120 125

Leu Glu Lys Phe Lys Glu Val Thr Arg Glu Asn Gly Ile Pro Glu Glu
130 135 140

Asn Ile Val Asn Ile Ile Glu Arg Asp Asp Cys Pro Ala
145 150 155

<210> 83
<211> 300
<212> PRT
<213> Zea mays

<400> 83
Met Glu Phe Trp Gly Leu Glu Val Lys Pro Gly Ser Thr Val Lys Cys
1 5 10 15

Glu Pro Gly Tyr Gly Phe Val Leu His Leu Ser Gln Ala Ala Leu Gly
20 25 30

Glu Ser Lys Lys Ser Asp Asn Ala Leu Met Tyr Val Lys Ile Asp Asp
35 40 45

Gln Lys Leu Ala Ile Gly Thr Leu Ser Val Asp Lys Asn Pro His Ile
50 55 60

Gln Phe Asp Leu Ile Phe Asp Lys Glu Phe Glu Leu Ser His Thr Ser
65 70 75 80

Lys Thr Thr Ser Val Phe Phe Thr Gly Tyr Lys Val Glu Gln Pro Phe
85 90 95

Glu Glu Asp Glu Met Asp Leu Asp Ser Glu Asp Glu Asp Glu Glu Leu
100 105 110

Asn Val Pro Ala Val Lys Glu Asn Gly Lys Ala Asp Glu Lys Lys Gln
115 120 125

Lys Ser Gln Glu Lys Ala Val Ala Ala Pro Ser Lys Ser Ser Pro Asp
130 135 140

Ser Lys Lys Ser Lys Asp Asp Asp Asp Ser Asp Glu Asp Glu Thr Asp
145 150 155 160

```
Asp Ser Asp Glu Asp Glu Thr Asp Asp Ser Asp Glu Gly Leu Ser Pro
                165                 170                 175

Glu Glu Gly Asp Asp Asp Ser Ser Asp Glu Asp Asp Thr Ser Asp Asp
            180                 185                 190

Glu Glu Glu Asp Thr Pro Thr Pro Lys Lys Pro Glu Val Gly Lys Lys
        195                 200                 205

Arg Ala Ala Glu Ser Ser Val Leu Lys Thr Pro Leu Ser Asp Lys Lys
    210                 215                 220

Ala Lys Val Ala Thr Pro Ser Ser Gln Lys Thr Gly Gly Lys Lys Gly
225                 230                 235                 240

Ala Ala Val His Val Ala Thr Pro His Pro Ala Lys Gly Lys Thr Ile
                245                 250                 255

Val Asn Asn Asp Lys Ser Val Lys Ser Pro Lys Ser Ala Pro Lys Ser
            260                 265                 270

Gly Val Pro Cys Lys Ser Cys Ser Lys Ser Phe Ile Ser Glu Thr Ala
        275                 280                 285

Pro Gln Ala His Ser Lys Ala Lys His Gly Gly Lys
    290                 295                 300


<210> 84
<211> 670
<212> PRT
<213> Oryza sativa

<400> 84
Met Ala Ala Ala Ala Ala Ala Ser Ser Met Ala Lys Arg Lys Gln Arg
1               5                   10                  15

Lys Ala Ala Thr Glu Gln Glu Val Glu Asn His Asp Glu Ala Thr Val
            20                  25                  30

Ala Ala Glu Ala Gly Pro Glu Asn Asp Gly His Thr Ala His Ala Ala
        35                  40                  45

Glu Glu Ala Ala Ala Ala Glu Glu Gly Val Glu Arg Glu Gly Gly Gly
    50                  55                  60

Glu Gly Gly Ala Glu Gly Glu Glu Gly Pro Asp Ala Ala Ala Arg Gly
65                  70                  75                  80

Gly Glu Glu Gly Lys Glu Glu Glu Glu Arg Glu Val Ser Phe Asp Glu
```

85 90 95

Leu Gly Leu Asp Glu Gln Leu Lys Arg Ala Leu Arg Lys Lys Gly Leu
100 105 110

Asp Lys Ala Thr Pro Ile Gln Arg Glu Ala Ile Pro Leu Ile Leu Glu
115 120 125

Gly Lys Asp Val Val Ala Lys Ala Lys Thr Gly Ser Gly Lys Thr Phe
130 135 140

Ala Tyr Leu Leu Pro Met Leu His Glu Leu Leu Lys Leu Ser Ala Glu
145 150 155 160

Gly Arg Ile Arg Lys Ser Ala Pro Asn Val Phe Ile Leu Val Pro Thr
165 170 175

Arg Glu Leu Cys Gln Gln Val His Asn Glu Ala Ser Ser Leu Leu Glu
180 185 190

Phe Cys Thr Ser Lys Leu Lys Val Val Gln Val Asn Ala Ser Met Ser
195 200 205

Asp Lys Asp Ile Lys Val Ala Leu Ser Gly Pro Pro Asn Ile Leu Val
210 215 220

Thr Thr Pro Ala Cys Val Ala Ser Cys Ile Ser Lys Gly Ile Ile Arg
225 230 235 240

Gly Ser Ser Ile Lys Glu Ser Leu Ser Met Met Ile Leu Asp Glu Ala
245 250 255

Asp Leu Leu Leu Ser Tyr Arg Cys Glu Asp Asp Ile Lys Ala Leu Val
260 265 270

Pro His Ile Pro Arg Ser Cys Gln Ser Ile Leu Met Ser Ala Thr Ser
275 280 285

Ser Ala Asp Ile Glu Lys Leu Thr Lys Leu Leu Leu His Asn Pro Phe
290 295 300

Ile Leu Thr Leu Thr Glu Val Gly His Ala Lys Asp Asp Leu Ile Pro
305 310 315 320

Lys Asn Val Gln Gln Phe Trp Ile Ser Cys Asp Ala Lys Asp Lys Met
325 330 335

```
Leu Tyr Ile Leu Val Leu Leu Lys Leu Glu Leu Ile Gln Lys Lys Val
            340                 345                 350

Leu Ile Phe Val Asn Ser Ile Asp Ser Ala Phe Lys Leu Arg Leu Phe
        355                 360                 365

Leu Glu Lys Phe Gly Ile Arg Ser Ser Val Leu Asn Ala Glu Leu Pro
    370                 375                 380

Gln Asn Ser Arg Leu His Ile Ile Gln Ala Phe Asn Ala Arg Leu Phe
385                 390                 395                 400

Asp Tyr Leu Ile Ala Thr Asp Asp Asn Lys Ser Lys Glu Glu Arg Gln
                405                 410                 415

Ala Asn Lys Gly Asn Lys Lys Asp Ser Arg Val Ser Arg Lys Gln Leu
            420                 425                 430

Gln Gln Thr Leu Asp Ala Glu Phe Gly Val Val Arg Gly Ile Asp Phe
        435                 440                 445

Lys Asn Val Phe Thr Val Val Asn Tyr Asp Met Pro Pro Asp Pro Ala
    450                 455                 460

Gly Tyr Val His Arg Val Gly Arg Thr Gly Arg Ala Asn Lys Thr Gly
465                 470                 475                 480

Ala Ser Ile Ser Leu Val Ser Pro Lys Glu Asn Gly Ile Phe Glu Asp
                485                 490                 495

Ile Glu Asn Met Leu Lys Asp Val Glu Asn Arg Asp Thr Ser Cys Ile
            500                 505                 510

Ser Pro Phe Pro Leu Leu Thr Lys Asn Ala Val Glu Ser Leu Arg Tyr
        515                 520                 525

Arg Ala Gln Asp Val Ala Arg Ser Val Thr Thr Arg Asp Ile Lys Glu
    530                 535                 540

Ala Arg Arg Gln Asp Ile Lys Asn Glu Ile Leu Asn Ser Glu Lys Leu
545                 550                 555                 560

Lys Ala His Phe Asp Glu Asn Pro Arg Asp Leu Asp Leu Leu Lys His
                565                 570                 575

Asp Lys Leu Leu Ser Asn Lys Glu Ile Pro Ala His Leu Arg Asp Val
            580                 585                 590
```

```
Pro Glu Tyr Leu Ile Asp Pro Thr Thr Lys Glu Ala Ser Asn Val Val
        595                 600                 605

Lys Leu Ser Arg Ala Ala Met Asp Ile Asp Lys Pro Arg Arg Arg Lys
    610                 615                 620

Arg Met Gly Phe Lys Gly Gly Ser Gly Arg Ser Ser Asp Pro Leu Lys
625                 630                 635                 640

Thr Phe Ser Ala Glu Gly Lys Ser Arg Arg Arg Gly Arg Lys Glu Arg
                645                 650                 655

Asp Gly Glu Gln Asp Arg Arg Lys Arg Lys Lys Val Glu Ser
            660                 665                 670
```

<210> 85
<211> 697
<212> PRT
<213> Solanum lycopersicum

<400> 85

```
Met Ala Thr Ser Cys Phe Pro Pro Phe Ser Ala Ser Ser Ser Ser Leu
1               5                   10                  15

Cys Ser Ser Gln Phe Thr Pro Leu Leu Ser Cys Pro Arg Asn Thr Gln
            20                  25                  30

Ile Cys Arg Lys Lys Arg Pro Val Met Ala Ser Met His Ser Glu Asn
        35                  40                  45

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

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

Leu Ser Thr Asp Ser Gln Ala Gln Pro Gln Lys Glu Glu Thr Glu Gln
                85                  90                  95

Thr Ile Gln Gly Ser Ala Gly Asn Pro Phe Val Ser Leu Leu Asn Gly
            100                 105                 110

Leu Gly Val Val Gly Ser Gly Val Leu Gly Ser Leu Tyr Ala Leu Ala
        115                 120                 125

Arg Asn Glu Lys Ala Val Ser Asp Ala Thr Ile Glu Ser Met Lys Asn
    130                 135                 140
```

```
Lys Leu Lys Asp Lys Glu Asp Ala Phe Val Ser Met Lys Lys Gln Phe
145                 150                 155                 160

Glu Ser Glu Leu Leu Ser Glu Arg Glu Asp Arg Asn Lys Leu Ile Arg
                165                 170                 175

Arg Glu Gly Glu Glu Arg Gln Ala Leu Val Asn Gln Leu Lys Ser Ala
            180                 185                 190

Lys Thr Thr Val Ile Ser Leu Gly Gln Glu Leu Gln Asn Glu Lys Lys
        195                 200                 205

Leu Ala Glu Asp Leu Lys Phe Glu Ile Lys Gly Leu Gln Asn Asp Leu
    210                 215                 220

Met Asn Thr Lys Glu Asp Lys Lys Lys Leu Gln Glu Glu Leu Lys Glu
225                 230                 235                 240

Lys Leu Asp Leu Ile Gln Val Leu Glu Glu Lys Ile Thr Leu Leu Thr
                245                 250                 255

Thr Glu Ile Lys Asp Lys Glu Val Ser Leu Arg Ser Asn Thr Ser Lys
            260                 265                 270

Leu Ala Glu Lys Glu Ser Glu Val Asn Ser Leu Ser Asp Met Tyr Gln
        275                 280                 285

Gln Ser Gln Asp Gln Leu Met Asn Leu Thr Ser Glu Ile Lys Glu Leu
    290                 295                 300

Lys Asp Glu Ile Gln Lys Arg Glu Arg Glu Leu Glu Leu Lys Cys Val
305                 310                 315                 320

Ser Glu Asp Asn Leu Asn Val Gln Leu Asn Ser Leu Leu Leu Glu Arg
                325                 330                 335

Asp Glu Ser Lys Lys Glu Leu His Ala Ile Gln Lys Glu Tyr Ser Glu
            340                 345                 350

Phe Lys Ser Asn Ser Asp Glu Lys Val Ala Ser Asp Ala Thr Leu Gly
        355                 360                 365

Glu Gln Glu Lys Arg Leu His Gln Leu Glu Glu Gln Leu Gly Thr Ala
    370                 375                 380

Leu Ser Glu Ala Ser Lys Asn Glu Val Leu Ile Ala Asp Leu Thr Arg
385                 390                 395                 400
```

```
Glu Lys Glu Asn Leu Arg Arg Met Val Asp Ala Glu Leu Asp Asn Val
                405                 410                 415

Asn Lys Leu Lys Gln Glu Ile Glu Val Thr Gln Glu Ser Leu Glu Asn
            420                 425                 430

Ser Arg Ser Glu Val Ser Asp Ile Thr Val Gln Leu Glu Gln Leu Arg
        435                 440                 445

Asp Leu Ser Ser Lys Leu Glu Arg Glu Val Ser Lys Leu Gln Met Glu
    450                 455                 460

Leu Glu Glu Thr Arg Ala Ser Leu Gln Arg Asn Ile Asp Glu Thr Lys
465                 470                 475                 480

His Ser Ser Glu Leu Leu Ala Ala Glu Leu Thr Thr Thr Lys Glu Leu
                485                 490                 495

Leu Lys Lys Thr Asn Glu Glu Met His Thr Met Ser Asp Glu Leu Val
            500                 505                 510

Ala Val Ser Glu Asn Arg Asp Ser Leu Gln Thr Glu Leu Val Asn Val
        515                 520                 525

Tyr Lys Lys Arg Glu His Thr Arg Asn Glu Leu Lys Gln Glu Lys Thr
    530                 535                 540

Ile Val Arg Thr Leu Glu Glu Glu Leu Lys Phe Leu Glu Ser Gln Ile
545                 550                 555                 560

Thr Arg Glu Lys Glu Leu Arg Lys Ser Leu Glu Asp Glu Leu Glu Lys
                565                 570                 575

Ala Thr Glu Ser Leu Asp Glu Ile Asn Arg Asn Val Leu Ala Leu Ala
            580                 585                 590

Glu Glu Leu Glu Leu Ala Thr Ser Arg Asn Ser Ser Leu Glu Asp Glu
        595                 600                 605

Arg Glu Val His Arg Gln Ser Val Ser Glu Gln Lys Gln Ile Ser Gln
    610                 615                 620

Glu Ala Gln Glu Asn Leu Glu Asp Ala His Ser Leu Val Met Lys Leu
625                 630                 635                 640

Gly Lys Glu Arg Glu Ser Leu Glu Lys Arg Ala Lys Lys Leu Glu Asp
                645                 650                 655
```

Glu Met Ala Ala Ala Lys Gly Glu Ile Leu Arg Leu Arg Ser Gln Ile
660 665 670

Asn Ser Val Lys Ala Pro Val Glu Asp Glu Glu Lys Val Val Ala Gly
675 680 685

Glu Lys Glu Lys Val Asn Val Gln Gln
690 695

<210> 86
<211> 158
<212> PRT
<213> Solanum lycopersicum

<400> 86
Met Gln Glu Gln Ala Thr Ser Ser Ile Ala Ala Ser Ser Leu Pro Ser
1 5 10 15

Ser Ser Glu Arg Ser Ser Ser Ser Ala Leu His His Glu Leu Lys Glu
20 25 30

Gly Met Glu Ser Asp Asp Glu Ile Arg Arg Val Pro Glu Met Gly Gly
35 40 45

Glu Ala Thr Gly Thr Thr Ser Ala Ser Gly Arg Asp Gly Val Ser Ala
50 55 60

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

Ser Pro Ala Asp Lys Glu Asn Lys Arg Leu Lys Arg Leu Leu Arg Asn
85 90 95

Arg Val Ser Ala Gln Gln Ala Arg Glu Arg Lys Lys Ala Tyr Leu Ile
100 105 110

Asp Leu Glu Ala Arg Val Lys Glu Leu Glu Thr Lys Asn Ala Glu Leu
115 120 125

Glu Glu Arg Leu Ser Thr Leu Gln Asn Glu Asn Gln Met Leu Arg His
130 135 140

Ile Leu Lys Asn Thr Thr Ala Gly Ala Gln Glu Gly Arg Lys
145 150 155

<210> 87
<211> 599
<212> PRT

<213> Oryza sativa

<400> 87

```
Met Ala Asp Gly Gly Gly Gly Glu Glu Gly Ser Ala Ser Ala Leu Arg
1               5                  10                  15

Gly Ser Ala Arg Arg Arg Gly Ala Val Gln Pro Ala Gly Leu Asp Ala
            20                  25                  30

Asp Glu Leu Leu Thr Leu Met His Gly Ser Asp Pro Val Lys Val Glu
        35                  40                  45

Leu Asn Arg Leu Glu Asn Glu Val Arg Asp Lys Asp Arg Glu Leu Gly
    50                  55                  60

Asp Ala His Ala Glu Ile Lys Ala Leu Arg Leu Ser Glu Arg Ala Arg
65                  70                  75                  80

Glu Lys Ala Val Glu Glu Leu Thr Ala Glu Tyr Glu Lys Leu Asp Glu
                85                  90                  95

Lys Leu Lys Leu Thr Glu Ser Leu Leu Glu Ser Lys Asn Leu Glu Leu
            100                 105                 110

Lys Lys Thr Asn Asp Glu Lys Lys Ala Ala Met Ala Ala Gln Phe Ala
        115                 120                 125

Ala Glu Ala Thr Leu Arg Arg Val His Ala Ala Gln Lys Asp Asp Asp
    130                 135                 140

Met Pro Pro Ile Glu Ala Ile Leu Ala Pro Leu Glu Ala Glu Leu Lys
145                 150                 155                 160

Leu Ala Arg Gln Glu Ile Ala Lys Leu Gln Asp Asp Asn Arg Ala Leu
                165                 170                 175

Asp Arg Leu Thr Lys Gln Lys Glu Ala Ala Leu Leu Glu Ala Glu Arg
            180                 185                 190

Thr Val Glu Ile Ala Leu Ala Lys Ala Ala Met Val Asp Asp Met Gln
        195                 200                 205

Asn Lys Asn Gln Glu Leu Met Lys Gln Ile Glu Ile Cys Gln Glu Glu
    210                 215                 220

Asn Lys Ile Leu Asp Arg Leu His Arg Gln Lys Val Ala Glu Val Glu
225                 230                 235                 240
```

```
Lys Leu Ser Gln Thr Val Arg Glu Leu Glu Glu Ala Val Leu Ala Gly
                245                 250                 255

Gly Ala Ala Ala Asn Ala Val Arg Asp Tyr Gln Arg Lys Val Gln Glu
            260                 265                 270

Met Asn Glu Glu Arg Lys Ile Leu Asp Arg Glu Leu Ala Arg Ala Lys
        275                 280                 285

Val Thr Ala Asn Arg Val Ala Val Val Val Ala Asn Glu Trp Lys Asp
    290                 295                 300

Ala Asn Asp Lys Val Met Pro Val Lys Gln Trp Leu Glu Glu Arg Arg
305                 310                 315                 320

Phe Leu Gln Gly Glu Met Gln Gln Leu Arg Asp Lys Leu Ala Ile Ala
                325                 330                 335

Glu Arg Thr Ala Arg Ser Glu Ala Gln Leu Lys Glu Lys Tyr Gln Leu
            340                 345                 350

Arg Leu Lys Val Leu Glu Asp Gly Leu Arg Gly Pro Pro Ser Gly Ser
        355                 360                 365

Ser Arg Pro Thr Glu Gly Lys Ser Ile Gly Asn Gly Pro Ser Arg Arg
    370                 375                 380

Leu Ser Leu Gly Gly Ala Asp Asn Met Ser Lys Ile Ser Pro Asn Gly
385                 390                 395                 400

Met Leu Ala Arg Arg Ser Pro Ser Phe Asn Ser Arg Ser Ser Leu Ser
                405                 410                 415

Thr Ser Ser Ser Leu Val Ile Lys His Ala Lys Gly Thr Ser Arg Ser
            420                 425                 430

Phe Asp Gly Gly Thr Arg Ser Leu Asp Arg Gly Lys Val Leu Gly Asn
        435                 440                 445

Gly Pro His Leu Leu Asn Arg Ser Thr Asp Ala Val Arg Asp Cys Glu
    450                 455                 460

Thr Thr Asp Asp Trp Lys Ala Ala Asn Thr Glu Glu Lys Gly Ser Glu
465                 470                 475                 480

Ala Thr Asn Ser Ser Ser Thr Asp Thr Val Ser Gly Val Leu Tyr Asp
                485                 490                 495
```

Met Leu Gln Lys Glu Val Ile Ser Leu Arg Lys Ala Cys His Glu Lys
500 505 510

Asp Gln Ser Leu Lys Asp Lys Asp Asp Ala Ile Glu Met Leu Ala Lys
515 520 525

Lys Val Asp Thr Leu Thr Lys Ala Met Glu Val Glu Ala Lys Lys Met
530 535 540

Arg Arg Glu Val Ala Ala Met Glu Lys Glu Val Ala Ala Met Arg Leu
545 550 555 560

Asp Lys Asp Gln Glu Asn Lys Ala Lys Arg Pro Gly Asn Phe Lys Gly
565 570 575

Pro Gly Thr Thr Ser Gln Ala Pro His Gly Arg Asn Ala Pro Arg Gly
580 585 590

Gly Leu Thr Arg Asn Leu Gln
595

<210> 88
<211> 545
<212> PRT
<213> Sus scrofa

<400> 88
Met Ala Thr Ser Ala Pro Leu Arg Ser Leu Glu Glu Glu Val Thr Cys
1 5 10 15

Ser Ile Cys Leu Asp Tyr Leu Arg Asp Pro Val Thr Ile Asp Cys Gly
20 25 30

His Val Phe Cys Arg Ser Cys Thr Thr Asp Ile His Pro Val Ser Gly
35 40 45

Gly Arg Pro Val Cys Pro Leu Cys Lys Lys Pro Phe Thr Lys Glu Asn
50 55 60

Ile Arg Pro Val Trp Gln Leu Ala Ser Leu Val Glu Asn Ile Glu Arg
65 70 75 80

Leu Lys Val Asp Thr Gly Arg Gln Pro Gly Glu Val Ala Arg Glu Gln
85 90 95

Gln Asp Thr Arg Leu Cys Glu Arg His Gln Glu Lys Leu His Tyr Tyr
100 105 110

```
Cys Glu Asp Asp Gly Lys Leu Leu Cys Val Met Cys Arg Glu Ser Arg
        115                 120                 125

Glu His Arg Pro His Met Ala Val Leu Val Glu Lys Ala Ala Gln Pro
    130                 135                 140

His Arg Glu Lys Ile Leu Asn His Leu Ser Thr Leu Arg Arg Asp Arg
145                 150                 155                 160

Asp Lys Ile Gln Gly Phe Gln Ala Lys Gly Glu Ala Asp Ile Leu Ala
                165                 170                 175

Glu Leu Lys Lys Leu Gln Asp Gln Arg Gln Arg Ile Leu Ala Ala Phe
            180                 185                 190

Glu Gln Gly His Gln Phe Leu Trp Glu Arg Glu Gln His Leu Leu Asp
        195                 200                 205

Gln Leu Ala Lys Leu Glu Gln Glu Val Thr Glu Gly Arg Glu Lys Tyr
    210                 215                 220

Lys Thr Arg Gly Asp Gly Glu Leu Ala Arg Leu Ala Gln Val Ile Ser
225                 230                 235                 240

Glu Leu Glu Gly Lys Ala Gln Gln Pro Ala Ala Glu Leu Met Gln Asp
                245                 250                 255

Thr Arg Asp Phe Leu Thr Arg Tyr Pro Arg Lys Lys Phe Trp Ile Gly
            260                 265                 270

Lys Pro Ile Ala Arg Val Val Lys Lys Arg Thr Gly Glu Phe Ser Asp
        275                 280                 285

Lys Leu Leu Ser Leu Gln Arg Gly Leu Arg Glu Phe Gln Gly Lys Leu
    290                 295                 300

Leu Arg Asp Leu Glu Tyr Lys Thr Val Ser Val Thr Leu Asp Pro Gln
305                 310                 315                 320

Ser Ala Ser Gly Tyr Leu Gln Leu Ser Glu Asp Trp Lys Cys Val Thr
                325                 330                 335

Tyr Ser Gly Leu Tyr Gln Ser Ser Tyr Leu His Pro Gln Gln Phe Glu
            340                 345                 350

Cys Glu Pro Gly Val Leu Gly Ser Lys Gly Phe Thr Trp Gly Lys Val
        355                 360                 365
```

```
Tyr Trp Glu Val Glu Val Glu Arg Glu Gly Trp Ser Glu Asp Glu Glu
    370                 375                 380

Glu Gly Asp Glu Glu Glu Glu Gly Glu Glu Glu Glu Glu Glu Glu Glu
385                 390                 395                 400

Ala Gly Tyr Gly Ala Gly Phe Gly Tyr Gly Asp Gly Tyr Asp Asp Trp
                405                 410                 415

Gly Thr Asp Glu Asp Glu Glu Ser Leu Gly Asp Glu Glu Glu Glu Glu
            420                 425                 430

Glu Glu Glu Glu Glu Glu Val Leu Glu Ser Cys Met Val Gly Val Ala
        435                 440                 445

Arg Asp Ser Val Lys Arg Lys Gly Asp Leu Ser Leu Arg Pro Glu Asp
    450                 455                 460

Gly Val Trp Ala Leu Arg Leu Ser Ser Ser Gly Ile Trp Ala Asn Thr
465                 470                 475                 480

Arg Pro Glu Ala Glu Leu Phe Pro Ala Gln Arg Pro Arg Arg Val Gly
                485                 490                 495

Ile Ala Leu Asp Tyr Glu Gly Gly Thr Val Thr Phe Thr Asn Ala Glu
            500                 505                 510

Ser Gln Glu Leu Ile Tyr Thr Phe Lys Ala Thr Phe Thr Arg Arg Leu
        515                 520                 525

Leu Pro Phe Leu Trp Leu Arg Trp Pro Gly Thr Arg Leu Leu Leu Arg
    530                 535                 540

Pro
545
```

<210> 89
<211> 582
<212> PRT
<213> Salmo salar

<400> 89

```
Met Gly Gly Leu Gln Lys Lys Lys Tyr Glu Arg Gly Ser Ala Thr Asn
1               5                   10                  15

Tyr Ile Thr Arg Asn Lys Ala Arg Lys Lys Leu Gln Leu Ser Leu Ala
            20                  25                  30
```

```
Asp Phe Arg Arg Leu Cys Ile Leu Lys Gly Ile Tyr Pro His Glu Pro
        35                  40                  45

Lys His Lys Lys Lys Val Asn Lys Gly Ser Thr Ala Pro Arg Thr Phe
    50                  55                  60

Tyr Leu Leu Lys Asp Ile Arg Phe Leu Leu His Glu Pro Ile Val Arg
65                  70                  75                  80

Lys Phe Arg Glu Tyr Lys Val Phe Val Arg Lys Leu Arg Lys Ala Tyr
                85                  90                  95

Gly Lys Ala Glu Trp Thr Gly Val Glu Arg Leu Arg Asp Asn Lys Pro
            100                 105                 110

Gly Tyr Lys Leu Asp His Ile Ile Lys Glu Arg Tyr Pro Thr Phe Ile
        115                 120                 125

Asp Ala Leu Arg Asp Ile Asp Asp Ala Leu Ser Met Cys Phe Leu Phe
    130                 135                 140

Ser Thr Phe Ala Arg Thr Gly Lys Cys His Val Gln Thr Ile Thr Leu
145                 150                 155                 160

Cys Arg Arg Leu Thr Val Glu Trp Met Asn Tyr Val Val Thr Ser Arg
                165                 170                 175

Ser Leu Arg Lys Val Phe Leu Ser Ile Lys Gly Ile Tyr Tyr Gln Ala
            180                 185                 190

Glu Val Leu Gly Gln Leu Ile Thr Trp Leu Val Pro Tyr Gln Phe Ala
        195                 200                 205

His Asp His Pro Thr Asp Val Asp Tyr Arg Val Met Ala Thr Phe Thr
    210                 215                 220

Glu Met Tyr Thr Thr Leu Phe Gly Phe Ile Asn Phe Arg Leu Tyr Gln
225                 230                 235                 240

Thr Leu Asn Leu Val Tyr Pro Pro Lys Leu Asp Ser Lys Ala Glu Ser
                245                 250                 255

Glu Leu Lys Ala Glu His Glu Glu Asp Tyr Ala Met Asp Ser Glu Ser
            260                 265                 270

Tyr Leu Glu Lys Leu Ser Ala Leu Ser Ala Ser Leu Ala Arg Val Val
        275                 280                 285
```

```
Ala Thr Val Glu Glu Glu Glu Asn Gln Leu Asp Asn Phe Pro Thr Glu
    290                 295                 300

Glu Glu Asp Gln Glu Asn Met Gln Ala Arg Glu Lys Glu Gln Lys Glu
305                 310                 315                 320

Gln Glu Ala Gln Lys Arg Leu Phe Glu Gly Leu Lys Phe Phe Leu Asn
                325                 330                 335

Arg Glu Val Pro Arg Glu Ser Leu Ala Phe Ile Leu Arg Cys Phe Gly
            340                 345                 350

Ala Glu Val Ser Trp Asp Lys Ser Leu Cys Ile Gly Gly Thr Tyr Glu
        355                 360                 365

Val Thr Asp Glu Thr Ile Thr His Gln Ile Val Asp Arg Pro Asp Met
    370                 375                 380

Asp Lys Gln Tyr Ile Asn Arg Tyr Tyr Ile Gln Pro Gln Trp Val Phe
385                 390                 395                 400

Asp Ser Val Asn Ala Lys Met Arg Leu Pro Val Glu Asp Tyr Phe Leu
                405                 410                 415

Gly Thr Met Leu Pro Pro His Leu Ser Pro Phe Val Glu Glu Lys Asp
            420                 425                 430

Gly Asp Tyr Val Pro Pro Glu Lys Leu Lys Leu Met Ala Leu Gln Arg
        435                 440                 445

Gly Glu Lys Pro Val Gln Glu Glu Asp Glu Glu Glu Glu Asp Glu Asp
    450                 455                 460

Glu Glu Glu Asp Asp Asp Val Asp Asp Glu Glu Phe Thr Glu Glu Lys
465                 470                 475                 480

Asn Leu Lys Lys Met Glu Asp Thr Arg Ala Gln Gly Lys Thr Leu Ser
                485                 490                 495

Val Lys Val Thr Pro Gly Lys Val Lys Pro Trp Glu Thr Gly Ser Val
            500                 505                 510

Gly Asn Lys Val Arg Leu Glu Gln Glu Glu Lys Ala Glu Glu Lys Arg
        515                 520                 525

Leu Ala Ile Met Met Met Lys Lys Lys Glu Lys Tyr Leu Tyr Asp Lys
    530                 535                 540
```

```
Ile Met Phe Gly Lys Lys Arg Thr Thr Arg Glu Val Asn Lys Leu Thr
545                 550                 555                 560


Ala Lys Arg Lys Ala His Glu Asp Ala Ser Lys Ala Gln Lys Lys Gln
                565                 570                 575


Lys Lys Ala Lys Lys Gln
            580


<210> 90
<211> 618
<212> PRT
<213> Sus scrofa

<400> 90
Met Ala Thr Ile Pro Asp Trp Lys Leu Gln Leu Leu Ala Arg Arg Arg
1               5                   10                  15


Gln Glu Glu Ala Ala Val Arg Gly Arg Glu Lys Ala Glu Arg Glu Arg
            20                  25                  30


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


Ala Lys Leu Gly Leu Ser Pro Gly Glu Pro Ser Pro Ala Pro Gly Thr
    50                  55                  60


Thr Glu Ala Gly Pro Pro Asp Pro Asp Lys Ser Ala Val Leu Leu Glu
65                  70                  75                  80


Ala Ile Gly Pro Val His Gln Asn Arg Phe Ile Arg Gln Glu Arg Gln
                85                  90                  95


Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Arg Ser Glu
            100                 105                 110


Glu Leu Leu Ala Glu Arg Arg Pro Gly Leu Leu Glu Ala Arg Glu Trp
        115                 120                 125


Arg Ser Ser Pro Gly Glu Met Arg Asp Gln Ser Pro Lys Glu Arg Glu
    130                 135                 140


Ser Arg Glu Glu Arg Leu Ser Pro Arg Glu Ala Arg Glu Arg Arg Leu
145                 150                 155                 160


Gly Ile Gly Gly Ala Arg Glu Ser Ser Pro Arg Pro Leu Glu Ser Arg
                165                 170                 175
```

```
Asp Trp Arg Gln Ser Pro Gly Glu Ala Gly Asp Arg Ser Ser Arg Leu
            180                 185                 190

Ser Glu Val Arg Lys Trp Arg Leu Ser Pro Gly Glu Thr Pro Glu Arg
        195                 200                 205

Ser Leu Arg Pro Ala Glu Pro Gln Glu Gln Ser Pro Arg Arg Lys Glu
    210                 215                 220

Val Val Glu Ser Arg Leu Ser Pro Ala Asp Ser Asp His Glu Lys Leu
225                 230                 235                 240

Gly Leu Thr Asp Ala His Lys Arg Arg Pro Asp Ser Gly Glu Ser Gln
                245                 250                 255

Glu Gln Ser Leu Val Leu Glu Ala Ser Glu Trp Arg Leu Ser Ser Gly
            260                 265                 270

Glu Glu Arg Lys Asp Cys Leu Glu Glu Cys Gly Arg Lys Glu Glu Arg
        275                 280                 285

Thr Leu Pro Gly Met Val Pro Glu Asp Ile Thr Gly Ser Pro Glu Thr
    290                 295                 300

Leu Thr Met Glu Ala Ala Gly Ser Ser Ser Gly Gly Val Glu Ala Ala
305                 310                 315                 320

Asp Gln Arg Pro Ile Pro Val Glu Asp Gly Glu Arg Asp Leu Arg Leu
                325                 330                 335

Ser Glu Gly Trp Lys Trp Thr Leu Asn Ser Gly Lys Val Arg Asp Arg
            340                 345                 350

Thr Pro Arg Asp Thr Glu Thr Gln Ser Gln Lys Pro Glu Ser Ala Glu
        355                 360                 365

Lys His Leu Gly Pro Leu Gly Ala Glu Ala Gly Glu Gly Glu Ala Glu
    370                 375                 380

Lys Glu Glu Ala Gly Ala Gln Gly Arg Pro Leu Ser Ala Leu Gln Asn
385                 390                 395                 400

Arg Cys Ser Val Pro Ser Pro Leu Pro Pro Glu Asp Ala Gly Thr Gly
                405                 410                 415

Gly Ser Arg Gln Gln Glu Glu Glu Ala Gly Glu Leu Arg Pro Pro Pro
            420                 425                 430
```

```
Ala Ala Pro Leu Ser Pro Pro Pro Pro Ala Pro Pro Ala Pro Gln Pro
        435                 440                 445

Pro Gly Asp Pro Leu Met Ser Arg Leu Phe Tyr Gly Val Lys Ala Gly
    450                 455                 460

Pro Gly Val Gly Ala Pro Arg Arg Ser Gly His Thr Phe Thr Val Asn
465                 470                 475                 480

Pro Arg Arg Ser Ala Pro Pro Ala Ala Ala Ala Thr Pro Ala Thr Pro
                485                 490                 495

Ala Thr Ala Asp Ala Ala Val Pro Gly Ala Gly Lys Lys Arg Tyr Pro
            500                 505                 510

Thr Ala Glu Glu Ile Leu Val Leu Gly Gly Tyr Leu Arg Leu Ser Arg
        515                 520                 525

Ser Cys Leu Ala Lys Gly Ser Pro Glu Arg His His Lys Gln Leu Lys
    530                 535                 540

Ile Ser Phe Ser Glu Thr Ala Leu Glu Thr Thr Tyr Gln Tyr Pro Ser
545                 550                 555                 560

Glu Ser Ser Val Leu Glu Glu Leu Gly Pro Glu Pro Glu Ala Pro Ser
                565                 570                 575

Ala Pro Ser Pro Pro Ala Ala Gln Pro Asp Asp Glu Glu Asp Glu Glu
            580                 585                 590

Glu Leu Leu Leu Leu Gln Arg Glu Leu Gln Gly Gly Leu Arg Thr Lys
        595                 600                 605

Ala Leu Ile Val Asp Glu Ser Cys Arg Arg
    610                 615


<210> 91
<211> 198
<212> PRT
<213> Solanum tuberosum

<400> 91
Met Ala Glu Leu Glu Ala Lys Lys Val Glu Ile Val Asp Pro Ala Pro
1               5                   10                  15

Pro Ala Pro Gly Pro Val Glu Ala Pro Lys Glu Val Val Ala Asp Glu
            20                  25                  30
```

```
Lys Ala Ile Val Ala Pro Ala Leu Pro Pro Pro Ala Glu Glu Lys Glu
        35                  40                  45

Lys Pro Asp Asp Ser Lys Ala Leu Val Val Val Glu Thr Lys Ala Pro
    50                  55                  60

Glu Pro Ala Asp Glu Lys Lys Glu Gly Ser Ile Asp Arg Asp Ala Val
65                  70                  75                  80

Leu Ala Arg Val Ala Thr Glu Lys Arg Val Ser Leu Ile Lys Ala Trp
                85                  90                  95

Glu Glu Ser Glu Lys Ser Lys Ala Glu Asn Lys Ala Gln Lys Lys Val
            100                 105                 110

Ser Ala Ile Gly Ala Trp Glu Asn Ser Lys Lys Ala Asn Leu Glu Ala
        115                 120                 125

Glu Leu Lys Lys Met Glu Glu Gln Leu Glu Lys Lys Lys Ala Glu Tyr
    130                 135                 140

Thr Glu Lys Met Lys Asn Lys Ile Ala Leu Leu His Lys Glu Ala Glu
145                 150                 155                 160

Glu Lys Arg Ala Met Ile Glu Ala Lys Arg Gly Glu Asp Leu Leu Lys
                165                 170                 175

Ala Glu Glu Leu Ala Ala Lys Tyr Arg Ala Thr Gly Thr Ala Pro Lys
            180                 185                 190

Lys Ile Leu Gly Ile Phe
        195
```

<210> 92
<211> 153
<212> PRT
<213> Oryza sativa

```
<400> 92
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1               5                   10                  15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Ala Pro Ala Gly Lys Lys
            20                  25                  30

Pro Lys Ala Glu Lys Arg Leu Pro Ala Gly Lys Ala Glu Lys Gly Ser
        35                  40                  45
```

Gly Glu Gly Arg Lys Ala Gly Arg Lys Lys Ala Lys Lys Ser Val Glu
    50   55   60

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
65   70   75   80

Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn
                85   90   95

Asp Ile Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg Tyr
            100   105   110

Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg
        115   120   125

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
    130   135   140

Lys Ala Val Thr Lys Phe Thr Ser Ala
145   150

<210> 93
<211> 591
<212> PRT
<213> Triticum aestivum

<400> 93
Met Ala Glu His Asp Ala Pro Pro Glu Ser Gly Ala Ala Arg Ser Pro
1   5   10   15

Pro Ala Lys Lys Arg Gly Gly Asp Ala Arg Ser Pro Gln Gln Asp Ala
            20   25   30

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

Asp Arg Glu Arg His Arg Arg His Gly Glu Asp Arg Glu Arg Tyr Arg
    50   55   60

Asp Arg Glu Ser Val Arg Glu Arg Gly Glu Gly Ser Arg Asp Arg Glu
65   70   75   80

Arg His Arg Arg Glu His Arg Glu Glu Ser Arg Asp Arg Glu Arg His
                85   90   95

His Arg Glu His Arg Glu Gly Ser Arg Asp Arg Glu Arg His His Arg
            100   105   110

Glu His Arg Glu Gly Ser Arg Asp Arg Glu Arg His His Arg Glu His

```
        115                 120                 125

Arg Glu Gly Ser Arg Asp Arg Glu Arg His His Arg Asp His Arg Glu
    130                 135                 140

Gly Ser Arg Asp Arg Glu Arg His His Arg Asp His Arg Glu Arg Ser
145                 150                 155                 160

Glu Arg Arg Glu His Arg Asp Arg Ser Asp Asp Arg Asp Tyr Arg Arg
                165                 170                 175

Ser Cys Asp Arg Asp Ala Glu Arg Arg Asp Arg Asp Arg Asp Gly His
            180                 185                 190

Arg Arg His Arg Ser Arg Ser Pro Leu Arg Ser Glu Ser Gln Ser Lys
        195                 200                 205

Arg Met Ser Gly Phe Asp Gln Arg Pro Ser Glu Ala Ile Pro Ile Leu
    210                 215                 220

Ala Pro Asp Ala Thr Pro Ser Gln Leu Pro Glu Leu Pro Ala Ala Asn
225                 230                 235                 240

Pro Gly Met Phe Pro Asn Met Leu Pro Asn Leu Val Asn Val Pro Ala
                245                 250                 255

Leu Gly Gln Pro Leu Ala Met Thr Gln Gln Ala Thr Arg His Ala Arg
            260                 265                 270

Arg Val Tyr Val Gly Gly Leu Pro Pro Ile Ala Asn Glu Gln Thr Val
        275                 280                 285

Ala Val Phe Phe Asn Gln Val Met Ala Ala Ile Gly Gly Asn Thr Phe
    290                 295                 300

Ala Leu Gly His Ala Val Val Asn Val Tyr Ile Asn His Asp Lys Lys
305                 310                 315                 320

Phe Ala Phe Val Glu Met Arg Ser Val Glu Glu Ala Ser Asn Ala Met
                325                 330                 335

Ala Leu Asp Gly Ile Met Phe Glu Gly Ala Pro Val Lys Val Arg Arg
            340                 345                 350

Pro Thr Asp Tyr Asn Pro Ser Gln Ala Ala Ala Leu Gly Pro Ser Gln
        355                 360                 365
```

```
Pro Asn Pro Asn Leu Asn Leu Ala Ala Val Gly Leu Thr Pro Gly Ala
    370                 375                 380

Gly Gly Gly Leu Glu Gly Pro Asp Arg Ile Phe Val Gly Gly Leu Pro
385                 390                 395                 400

Tyr Tyr Phe Thr Glu Ala Gln Val Arg Glu Leu Leu Glu Thr Phe Gly
                405                 410                 415

Pro Leu Arg Gly Phe Asp Ile Val Lys Asp Lys Glu Thr Gly Asn Ser
            420                 425                 430

Lys Gly Tyr Ala Phe Cys Leu Tyr Lys Asp Gly Thr Val Thr Asp Ile
        435                 440                 445

Ala Cys Ala Ala Leu Asn Gly Ile Gln Leu Gly Asp Arg Thr Leu Thr
    450                 455                 460

Val Arg Arg Ala Asn Gln Gly Ala Glu Pro Arg Pro Glu Gln Glu Asn
465                 470                 475                 480

Ile Leu Leu Gln Ala Gln Gln Glu Ala Gln Met Lys Arg Leu Val Tyr
                485                 490                 495

Glu Val Gly Arg Thr Leu Thr Thr Lys Val Val Cys Leu Thr Gln Val
            500                 505                 510

Val Ser Ala Asp Asp Leu Arg Asp Asp Glu Glu Tyr Asn Asp Ile Leu
        515                 520                 525

Glu Asp Met Thr Leu Glu Gly His Lys Tyr Val Pro His Ser Thr Ile
    530                 535                 540

Ala Glu Ser Phe Ile Ile Arg Pro His Ala Lys Phe Ala Ile Arg Pro
545                 550                 555                 560

Lys Leu Thr Glu Asp Thr Asn Leu Phe His Leu Asp Leu Thr Asn His
                565                 570                 575

Met Phe Ser Ser Leu Pro Phe Cys His Val His Val Cys Ser Tyr
            580                 585                 590
```

<210> 94
<211> 693
<212> PRT
<213> Oryza sativa

<400> 94

```
Met Ala Ala Gly Ser His Gly Gly Tyr Arg Gly Tyr Glu Val Ala Arg
```

```
1               5                  10                  15

Glu Arg Glu His Asp Val Gly Val Ser Arg Arg Ser Lys Glu His Tyr
            20                  25                  30

His His Arg His Pro Ser Arg His Arg Asp Ser Glu Arg Arg Arg Asp
        35                  40                  45

Gly Gly Arg Ser Gly Gly Arg Glu Leu Ser Asn Gly Tyr Ser His Arg
    50                  55                  60

Arg Asp Ser Pro Arg Pro Pro Pro Arg Arg Arg Pro Ser Glu Gly Arg
65                  70                  75                  80

Thr Glu Asp Arg Glu Pro Gly Glu Val Ser Gly Gly Ser Gly Ser Glu
                85                  90                  95

Arg Ser Gly Glu Arg Pro Met Lys Thr Arg Glu Pro Arg Glu Asn Gly
            100                 105                 110

Val Thr Arg Val Ser Lys Glu Glu Ala Lys Met Ser Pro Ser Lys Lys
        115                 120                 125

Arg Lys Gln Ser Pro Val Ile Trp Asp Arg Asn Gly Ser Gln Arg Gln
    130                 135                 140

Ala Arg Asp Pro Val Arg Gly Ile Arg Glu Val Asp Ala Val Val Ala
145                 150                 155                 160

Glu Ile Ile Met His Gln Ser His Ser Leu Pro Val Met Ser Ser Leu
                165                 170                 175

Ser Ser Ile Gly Asp Gly His Ser Pro Met Ile Leu Asp Val Ser Val
            180                 185                 190

Asp Lys Val Gln Glu Tyr Glu Lys Asn Arg Ile Val Asp Glu Glu Glu
        195                 200                 205

Glu Gly Tyr Pro Thr Met Arg Asn Ile Leu Thr Ser Arg Trp Ala Asp
    210                 215                 220

Ala Gly Asp Glu Glu Glu Asn Val Phe Val Pro Lys Lys Lys Lys Ser
225                 230                 235                 240

Val Ser Pro Val Asp Ser Ile Glu Arg Gly Ser Thr Lys Lys Val Thr
                245                 250                 255
```

```
Ser Pro Glu Ser Gly Glu Val Leu Val Tyr Asn Ser Val Arg Ser Ser
            260                 265                 270

Ser Arg Ser Ser Asp Ser Gly Val Leu Gln Gly Ser Ala Asn Arg Asp
        275                 280                 285

Leu Glu Val Glu Lys Gly Asp Asn Ile Asp Val Glu Lys Ala Ala Asp
    290                 295                 300

Asp Asp Tyr Pro Ala Gly His Leu Leu Asp Ser Asp Phe Glu Gly Glu
305                 310                 315                 320

Asp Cys Arg Ser Glu Thr Pro Glu Cys Thr Arg Ser Pro Arg Arg Cys
                325                 330                 335

Ile Asn Met Leu Gln Gly Cys Arg Ser Val Asp Glu Phe Glu Arg Leu
            340                 345                 350

Asn Thr Ile Asn Glu Gly Thr Tyr Gly Val Val Phe Arg Val Arg Asp
        355                 360                 365

Lys Arg Thr Gly Glu Ile Val Ala Leu Lys Lys Val Lys Met Glu Lys
    370                 375                 380

Glu Arg Glu Gly Phe Pro Leu Thr Ser Leu Arg Glu Met Asn Ile Leu
385                 390                 395                 400

Leu Ser Phe His His Pro Ser Ile Val Glu Val Lys Glu Val Val Val
                405                 410                 415

Gly Ser Asn Asp Arg Asp Ile Phe Met Val Met Glu Tyr Met Glu His
            420                 425                 430

Asp Leu Lys Gly Val Met Glu Thr Met Lys Gln Pro Tyr Ser Gln Ser
        435                 440                 445

Glu Val Lys Cys Leu Met Leu Gln Leu Leu Glu Gly Val Lys Tyr Leu
    450                 455                 460

His Asp Asn Trp Val Leu His Arg Asp Leu Lys Thr Ser Asn Leu Leu
465                 470                 475                 480

Leu Asn Asn Arg Gly Glu Leu Lys Ile Cys Asp Phe Gly Leu Ser Arg
                485                 490                 495

Gln Tyr Gly Ser Pro Leu Lys Pro Tyr Thr Gln Leu Val Val Thr Leu
            500                 505                 510
```

Trp Tyr Arg Ala Pro Glu Leu Leu Leu Gly Ala Lys Asp Tyr Ser Thr
515 520 525

Ala Ile Asp Met Trp Ser Leu Gly Cys Ile Met Gly Glu Leu Leu Ser
530 535 540

Lys Gly Pro Leu Phe Asn Gly Lys Ser Glu Ile Asp Gln Leu Asp Lys
545 550 555 560

Ile Phe Arg Thr Leu Gly Thr Pro Asp Glu Asn Ile Trp Pro Gly Tyr
565 570 575

Ser Lys Leu Pro Gly Ala Thr Val Lys Phe Gly Lys Gln Thr His Asn
580 585 590

Arg Leu Arg Asp Lys Phe Arg Ala Val Ser Phe Thr Gly Gly Pro Met
595 600 605

Leu Ser Glu Ala Gly Phe Asp Leu Leu Asn Arg Leu Leu Thr Tyr Asp
610 615 620

Pro Glu Lys Arg Ile Ser Ala Glu Asp Ala Leu Asn His Glu Trp Phe
625 630 635 640

Arg Glu Leu Pro Leu Pro Arg Ser Lys Asp Phe Met Pro Thr Phe Pro
645 650 655

Ala Leu Asn Glu Gln Asp Arg Arg Phe Lys Lys His Met Lys Ser Pro
660 665 670

Asp Pro Leu Glu Glu Gln Trp Met Lys Glu Gln Gly Asn Asn Gly Asp
675 680 685

Arg Gly Leu Phe Gly
690

<210> 95
<211> 844
<212> PRT
<213> Oryza sativa

<400> 95
Met Asp Ala Ala Ala Leu Gln Tyr Glu Asn Gln Lys Leu Val Gln Gln
1 5 10 15

Leu Glu Ala Gln Lys Ser Lys Met Arg Ala Leu Glu Gly Lys Phe Lys
20 25 30

```
Glu Leu Arg Asp Glu Gln Cys Ser Tyr Asp Asn Thr Leu Ile Cys Leu
        35                  40                  45

Asn Lys Met Trp Asn Gln Leu Ile Asp Asp Leu Val Leu Leu Gly Val
    50                  55                  60

Arg Ala Gly Gly Asp Leu Asn Gly Leu Gln Ala Leu Asp His Glu Glu
65                  70                  75                  80

Met Ser Glu Glu Ser Leu Glu Ser Cys Pro Ser Glu Glu Ile Phe Leu
                85                  90                  95

Phe Arg Leu Leu Asn Ser Arg Asn Phe Arg Asn Asn Asp Asp Ser Ser
            100                 105                 110

Leu Ser Lys Leu Val Glu Glu Ala Leu Ala Leu Arg Tyr Ser Thr Thr
        115                 120                 125

Val Thr Leu Met Lys Ser Leu Gln Glu Ala Phe Ala Val Gln Gln Ala
    130                 135                 140

Arg Ser Glu Ser Leu Ser Leu Ala Leu Asn Gly Gln Asn Ser Ser Glu
145                 150                 155                 160

Asp Val Ile Val Ala Leu Glu Asn His Asn Asp Tyr Leu Lys Glu Val
                165                 170                 175

Val Asp Asn Leu Arg Gln Ala Val Ser Ile Ile Asn Arg Lys His Glu
            180                 185                 190

Lys Tyr Leu Asp Glu Ile Glu Ala Phe Lys Asn Asn Gln Ser Arg Glu
        195                 200                 205

Leu His Glu Val Lys Cys Leu Ser Gly Glu Leu Glu Glu Ser Met Ala
    210                 215                 220

Glu Leu Glu Glu Ser Arg Arg Lys Leu Ala Val Leu Gln Leu Gln Thr
225                 230                 235                 240

Gly Gly Gly Ser Leu Met Asn Thr Ser Ala Pro Asn Gly Val Asn Gly
                245                 250                 255

Ser Val Ser Thr Asp Lys Ser Ser Asp Lys Gly Met Gly Trp Arg Asp
            260                 265                 270

Leu Lys Asp Ala Val Glu Glu Ala Lys Thr Leu Ala Ala Asn Arg Leu
        275                 280                 285
```

```
Phe Glu Leu His Glu Thr Gln Glu Asp Asn Leu Ile Leu Ser Lys Gln
    290                 295                 300

Leu Glu Asp Ile Gln Asp Gln Leu Lys Asp Glu Asn Tyr Ile Val Thr
305                 310                 315                 320

Ser Lys Pro Tyr Thr Ile Leu Ser Asp Gln Leu His His Leu Asn Ala
                325                 330                 335

Glu Ile Glu Arg Tyr Arg Gly Leu Val Glu Val Leu Gln Asn Glu Lys
            340                 345                 350

Asp Gln Leu Met Gln Lys Glu Glu Glu Met Leu Ala Lys Ala Glu Ser
        355                 360                 365

Val Asp Ala Val Gln Gln Ser Ile Thr Thr Tyr Lys Ala Lys Ile Glu
    370                 375                 380

Asp Leu Glu His Glu Ile Gln Lys Leu Met Ala Glu Lys Asn Asp Leu
385                 390                 395                 400

Glu Ile Lys Ala Glu Glu Ala Leu Gln Asp Ser Gly Lys Lys Asp Phe
                405                 410                 415

Lys Asp Glu Ile His Val Met Ala Ala Ser Leu Ser Lys Glu Met Glu
            420                 425                 430

Leu Leu Asp Asn Gln Met Asn Arg Ser Lys Asp Ala Ala Ser Glu Ala
        435                 440                 445

Leu Ala Leu Arg Glu Glu Ala Asp Tyr Leu Arg Thr Leu Leu Ala Lys
    450                 455                 460

Lys Ile Asp Glu Gln Lys Glu Ile Ser Asp Arg Tyr Asn Thr Gln Val
465                 470                 475                 480

Thr Glu Ile Lys Ser Leu Lys Ala Leu Ile Glu Thr Leu Asp Gln Glu
                485                 490                 495

Lys Gln Glu Leu Gln Phe Ile Val Asp Met Leu Gly Lys Glu Cys Ser
            500                 505                 510

Glu Ser Arg Ala Ile Ser Glu Ile Glu Glu Ser Glu Asn Arg Ala Arg
        515                 520                 525

Lys Gln Ala Glu Tyr Leu Arg Lys Cys Leu Glu Glu His Asn Leu Glu
    530                 535                 540
```

```
Leu Arg Val Lys Ala Ala Asn Glu Ala Glu Thr Ala Cys Gln Gln Arg
545                 550                 555                 560

Leu Ser Ile Ala Glu Ala Glu Leu Glu Asp Leu Arg Ala Lys Val Asp
                565                 570                 575

Ala Ser Glu Arg Asp Val Met Lys Leu Lys Glu Ser Ile Arg Ile Lys
            580                 585                 590

Glu Ala Glu Val Asp Gly His Ile Ser Glu Ile Glu Thr Ile Gly Gln
        595                 600                 605

Ala Tyr Glu Asp Met Gln Thr Gln Asn Gln His Leu Leu Gln Gln Val
    610                 615                 620

Ala Asp Arg Asp Asp Phe Asn Ile Lys Leu Val Ser Asp Ser Val Lys
625                 630                 635                 640

Met Lys Gln Ala Tyr Gly Ser Leu Leu Ala Glu Lys Asn Met Leu Gln
                645                 650                 655

Lys Gln Leu Gln His Val Asn Ser Ser Leu Glu Ser Ser Lys Leu Lys
            660                 665                 670

Ile Thr Ser Gly Glu Glu Gln Met Lys Thr Tyr Val Ala Gln Ala Met
        675                 680                 685

Lys Ser Ser Ser Glu Asn Arg His Leu Ala Ile Ser Leu Glu Arg Thr
    690                 695                 700

Met Leu Glu Val Ser Asp Ala Glu Lys Glu Leu Lys Trp Leu Arg Ser
705                 710                 715                 720

Ala Thr Gly Ser Ala Glu Lys Glu Tyr Glu Ile Asn Gln Lys Lys Ile
                725                 730                 735

Ala Glu Leu Lys Met Glu Leu Glu Arg Glu Arg Asn Glu Arg Ile Lys
            740                 745                 750

Leu Glu Glu Glu Tyr Glu Glu Val Lys Asn Glu Val Ser Glu Leu Thr
        755                 760                 765

Ser Glu Thr Glu Glu Thr Thr Ile Gln Lys Leu Gln Asp Glu Ile Lys
    770                 775                 780

Glu Cys Lys Ala Ile Leu Lys Cys Gly Val Cys Phe Asp Arg Pro Lys
```

785 790 795 800

Glu Val Val Ile Thr Lys Cys Phe His Leu Phe Cys Ser Pro Cys Ile
805 810 815

Gln Arg Asn Leu Glu Ile Arg His Arg Lys Cys Pro Gly Cys Gly Thr
820 825 830

Pro Phe Gly Gln Ser Asp Val Arg Glu Val Lys Ile
835 840

<210> 96
<211> 844
<212> PRT
<213> Oryza sativa

<400> 96
Met Asp Ala Ala Ala Leu Gln Tyr Glu Asn Gln Lys Leu Val Gln Gln
1 5 10 15

Leu Glu Ala Gln Lys Ser Lys Met Arg Ala Leu Glu Gly Lys Phe Lys
20 25 30

Glu Leu Arg Asp Glu Gln Cys Ser Tyr Asp Asn Thr Leu Ile Cys Leu
35 40 45

Asn Lys Met Trp Asn Gln Leu Ile Asp Asp Leu Val Leu Leu Gly Val
50 55 60

Arg Ala Gly Gly Asp Leu Asn Gly Leu Gln Ala Leu Asp His Glu Glu
65 70 75 80

Met Ser Glu Glu Ser Leu Glu Ser Cys Pro Ser Glu Glu Ile Phe Leu
85 90 95

Phe Arg Leu Leu Asn Ser Arg Asn Phe Arg Asn Asn Asp Asp Ser Ser
100 105 110

Leu Ser Lys Leu Val Glu Glu Ala Leu Ala Leu Arg Tyr Ser Thr Thr
115 120 125

Val Thr Leu Met Lys Ser Leu Gln Glu Ala Phe Ala Val Gln Gln Ala
130 135 140

Arg Ser Glu Ser Leu Ser Leu Ala Leu Asn Gly Gln Asn Ser Ser Glu
145 150 155 160

Asp Val Ile Val Ala Leu Glu Asn His Asn Asp Tyr Leu Lys Glu Val
165 170 175

```
Val Asp Asn Leu Arg Gln Ala Val Ser Ile Ile Asn Arg Lys His Glu
            180                 185                 190

Lys Tyr Leu Asp Glu Ile Glu Ala Phe Lys Asn Asn Gln Ser Arg Glu
        195                 200                 205

Leu His Glu Val Lys Cys Leu Ser Gly Glu Leu Glu Glu Ser Met Ala
    210                 215                 220

Glu Leu Glu Glu Ser Arg Arg Lys Leu Ala Val Leu Gln Leu Gln Thr
225                 230                 235                 240

Gly Gly Gly Ser Leu Met Asn Thr Ser Ala Pro Asn Gly Val Asn Gly
                245                 250                 255

Ser Val Ser Thr Asp Lys Ser Ser Asp Lys Gly Met Gly Trp Arg Asp
            260                 265                 270

Leu Lys Asp Ala Val Glu Glu Ala Lys Thr Leu Ala Ala Asn Arg Leu
        275                 280                 285

Phe Glu Leu His Glu Thr Gln Glu Asp Asn Leu Ile Leu Ser Lys Gln
    290                 295                 300

Leu Glu Asp Ile Gln Asp Gln Leu Lys Asp Glu Asn Tyr Ile Val Thr
305                 310                 315                 320

Ser Lys Pro Tyr Thr Ile Leu Ser Asp Gln Leu His His Leu Asn Ala
                325                 330                 335

Glu Ile Glu Arg Tyr Arg Gly Leu Val Glu Val Leu Gln Asn Glu Lys
            340                 345                 350

Asp Gln Leu Met Gln Lys Glu Glu Glu Met Leu Ala Lys Ala Glu Ser
        355                 360                 365

Val Asp Ala Val Gln Gln Ser Ile Thr Thr Tyr Lys Ala Lys Ile Glu
    370                 375                 380

Asp Leu Glu His Glu Ile Gln Lys Leu Met Ala Glu Lys Asn Asp Leu
385                 390                 395                 400

Glu Ile Lys Ala Glu Glu Ala Leu Gln Asp Ser Gly Lys Lys Asp Phe
                405                 410                 415

Lys Asp Glu Ile His Val Met Ala Ala Ser Leu Ser Lys Glu Met Glu
```

```
            420                 425                 430

Leu Leu Asp Asn Gln Met Asn Arg Ser Lys Asp Ala Ala Ser Glu Ala
        435                 440                 445

Leu Ala Leu Arg Glu Glu Ala Asp Tyr Leu Arg Thr Leu Leu Ala Lys
    450                 455                 460

Lys Ile Asp Glu Gln Lys Glu Ile Ser Asp Arg Tyr Asn Thr Gln Val
465                 470                 475                 480

Thr Glu Ile Lys Ser Leu Lys Ala Leu Ile Glu Thr Leu Asp Gln Glu
                485                 490                 495

Lys Gln Glu Leu Gln Phe Ile Val Asp Met Leu Gly Lys Glu Cys Ser
            500                 505                 510

Glu Ser Arg Ala Ile Ser Glu Ile Glu Glu Ser Glu Asn Arg Ala Arg
        515                 520                 525

Lys Gln Ala Glu Tyr Leu Arg Lys Cys Leu Glu Glu His Asn Leu Glu
    530                 535                 540

Leu Arg Val Lys Ala Ala Asn Glu Ala Glu Thr Ala Cys Gln Gln Arg
545                 550                 555                 560

Leu Ser Ile Ala Glu Ala Glu Leu Glu Asp Leu Arg Ala Lys Val Asp
                565                 570                 575

Ala Ser Glu Arg Asp Val Met Lys Leu Lys Glu Ser Ile Arg Ile Lys
            580                 585                 590

Glu Ala Glu Val Asp Gly His Ile Ser Glu Ile Glu Thr Ile Gly Gln
        595                 600                 605

Ala Tyr Glu Asp Met Gln Thr Gln Asn Gln His Leu Leu Gln Gln Val
    610                 615                 620

Ala Asp Arg Asp Asp Phe Asn Ile Lys Leu Val Ser Asp Ser Val Lys
625                 630                 635                 640

Met Lys Gln Ala Tyr Gly Ser Leu Leu Ala Glu Lys Asn Met Leu Gln
                645                 650                 655

Lys Gln Leu Gln His Val Asn Ser Ser Leu Glu Ser Ser Lys Leu Lys
            660                 665                 670
```

```
Ile Thr Ser Gly Glu Glu Gln Met Lys Thr Tyr Val Ala Gln Ala Met
        675                 680                 685

Lys Ser Ser Ser Glu Asn Arg His Leu Ala Ile Ser Leu Glu Arg Thr
    690                 695                 700

Met Leu Glu Val Ser Asp Ala Glu Lys Glu Leu Lys Trp Leu Arg Ser
705                 710                 715                 720

Ala Thr Gly Ser Ala Glu Lys Glu Tyr Glu Ile Asn Gln Lys Lys Ile
                725                 730                 735

Ala Glu Leu Lys Met Glu Leu Glu Arg Glu Arg Asn Glu Arg Ile Lys
            740                 745                 750

Leu Glu Glu Glu Tyr Glu Glu Val Lys Asn Glu Val Ser Glu Leu Thr
        755                 760                 765

Ser Glu Thr Glu Glu Thr Thr Ile Gln Lys Leu Gln Asp Glu Ile Lys
    770                 775                 780

Glu Cys Lys Ala Ile Leu Lys Cys Gly Val Cys Phe Asp Arg Pro Lys
785                 790                 795                 800

Glu Val Val Ile Thr Lys Cys Phe His Leu Phe Cys Ser Pro Cys Ile
                805                 810                 815

Gln Arg Asn Leu Glu Ile Arg His Arg Lys Cys Pro Gly Cys Gly Thr
            820                 825                 830

Pro Phe Gly Gln Ser Asp Val Arg Glu Val Lys Ile
        835                 840


<210> 97
<211> 807
<212> PRT
<213> Sus scrofa

<400> 97
Met Pro Lys Gly Pro Lys Gln Gln Pro Pro Glu Pro Glu Trp Ile Gly
1               5                   10                  15

Asp Gly Glu Ser Thr Ser Pro Thr Asp Lys Val Val Lys Lys Gly Lys
            20                  25                  30

Lys Asp Lys Lys Thr Lys Lys Thr Phe Phe Glu Glu Leu Ala Val Glu
        35                  40                  45

Asp Arg Gln Ala Gly Glu Glu Glu Lys Val Leu Lys Glu Lys Glu Gln
```

```
    50                  55                  60

Gln Gln Gln His Gln Gln Gln Gln Lys Lys Lys Arg Asp Thr Arg
65                  70                  75                  80

Lys Gly Arg Arg Lys Lys Asp Val Asp Asp Asp Asp Gly Glu Glu Lys
                85                  90                  95

Glu Leu Met Glu Arg Leu Lys Lys Leu Ser Val Pro Ala Ser Asp Glu
            100                 105                 110

Glu Glu Glu Ala Pro Ala Pro Val Pro Arg Gly Gly Lys Lys Asn Lys
        115                 120                 125

Gly Gly Asn Val Phe Ala Ala Leu Ile Gln Asp Gln Ser Glu Glu Glu
    130                 135                 140

Glu Glu Glu Glu Lys His Pro Pro Lys Pro Ala Lys Pro Glu Lys Asn
145                 150                 155                 160

Arg Ile Asn Lys Ala Val Ser Gln Glu Gln Gln Pro Gly Pro Lys Gly
                165                 170                 175

Arg Lys Gly Lys Glu Glu Lys Ser Lys Gly Lys Ala Lys Pro Gln Asn
            180                 185                 190

Lys Phe Ala Ala Leu Asp Asp Glu Glu Glu Gln Asp Glu Glu Glu Ile
        195                 200                 205

Lys Glu Lys Glu Pro Pro Lys Gln Gly Lys Glu Lys Ala Lys Lys Ala
    210                 215                 220

Glu Gln Met Glu Tyr Glu Arg Gln Val Ala Ser Leu Lys Ala Ala Asn
225                 230                 235                 240

Ala Ala Glu Asn Asp Phe Ser Val Ser Gln Ala Glu Met Ser Ser Arg
                245                 250                 255

Gln Ala Met Leu Glu Asn Ala Ser Asp Ile Lys Leu Glu Lys Phe Ser
            260                 265                 270

Ile Ser Ala His Gly Lys Glu Leu Phe Val Asn Ala Asp Leu Tyr Ile
        275                 280                 285

Val Ala Gly Arg Arg Tyr Gly Leu Val Gly Pro Asn Gly Lys Gly Lys
    290                 295                 300
```

```
Thr Thr Leu Leu Lys His Ile Ala Asn Arg Ala Leu Ser Ile Pro Pro
305                 310                 315                 320

Asn Ile Asp Val Leu Leu Cys Glu Gln Glu Val Val Ala Asp Glu Thr
                325                 330                 335

Pro Ala Val Gln Ala Val Leu Arg Ala Asp Thr Lys Arg Leu Lys Leu
            340                 345                 350

Leu Glu Glu Glu Arg Arg Leu Gln Gly Gln Leu Glu Gln Gly Asp Asp
        355                 360                 365

Thr Ala Ala Asp Arg Leu Glu Lys Val Tyr Glu Glu Leu Arg Ala Thr
    370                 375                 380

Gly Ala Ala Ala Ala Glu Ala Lys Ala Arg Arg Ile Leu Ala Gly Leu
385                 390                 395                 400

Gly Phe Asp Pro Glu Met Gln Asn Arg Pro Thr Gln Lys Phe Ser Gly
                405                 410                 415

Gly Trp Arg Met Arg Val Ser Leu Ala Arg Ala Leu Phe Met Glu Pro
            420                 425                 430

Thr Leu Leu Met Leu Asp Glu Pro Thr Asn His Leu Asp Leu Asn Ala
        435                 440                 445

Val Ile Trp Leu Asn Asn Tyr Leu Gln Gly Trp Arg Lys Thr Leu Leu
    450                 455                 460

Ile Val Ser His Asp Gln Gly Phe Leu Asp Asp Val Cys Thr Asp Ile
465                 470                 475                 480

Ile His Leu Asp Ala Gln Arg Leu His Tyr Tyr Arg Gly Asn Tyr Met
                485                 490                 495

Thr Phe Lys Lys Met Tyr Gln Gln Lys Gln Lys Glu Leu Leu Lys Gln
            500                 505                 510

Tyr Glu Lys Gln Glu Lys Lys Leu Lys Glu Leu Lys Ala Gly Gly Lys
        515                 520                 525

Ser Thr Lys Gln Ala Glu Lys Gln Thr Lys Glu Ala Leu Thr Arg Lys
    530                 535                 540

Gln Gln Lys Cys Arg Arg Lys Asn Gln Asp Glu Glu Ser Gln Glu Ala
545                 550                 555                 560
```

```
Pro Glu Leu Leu Lys Arg Pro Lys Glu Tyr Thr Val Arg Phe Thr Phe
                565                 570                 575

Pro Asp Pro Pro Pro Leu Ser Pro Pro Val Leu Gly Leu His Gly Val
            580                 585                 590

Thr Phe Gly Tyr Glu Gly Gln Lys Pro Leu Phe Lys Asn Leu Asp Phe
        595                 600                 605

Gly Ile Asp Met Asp Ser Arg Ile Cys Ile Val Gly Pro Asn Gly Val
    610                 615                 620

Gly Lys Ser Thr Leu Leu Leu Leu Leu Thr Gly Lys Leu Thr Pro Thr
625                 630                 635                 640

Arg Gly Glu Met Arg Lys Asn His Arg Leu Lys Ile Gly Phe Phe Asn
                645                 650                 655

Gln Gln Tyr Ala Glu Gln Leu Arg Met Glu Glu Thr Pro Thr Glu Tyr
            660                 665                 670

Leu Gln Arg Gly Phe Asn Leu Pro Tyr Gln Asp Ala Arg Lys Cys Leu
        675                 680                 685

Gly Arg Phe Gly Leu Glu Ser His Ala His Thr Ile Gln Ile Cys Lys
    690                 695                 700

Leu Ser Gly Gly Gln Lys Ala Arg Val Val Phe Ala Glu Leu Ala Cys
705                 710                 715                 720

Arg Glu Pro Asp Val Leu Ile Leu Asp Glu Pro Thr Asn Asn Leu Asp
                725                 730                 735

Ile Glu Ser Ile Asp Ala Leu Gly Glu Ala Ile Asn Glu Tyr Lys Gly
            740                 745                 750

Ala Val Ile Val Val Ser His Asp Ala Arg Leu Ile Thr Glu Thr Asn
        755                 760                 765

Cys Gln Leu Trp Val Val Glu Glu Gln Ser Val Ser Gln Ile Asp Gly
    770                 775                 780

Asp Phe Asp Asp Tyr Lys Arg Glu Val Leu Glu Ala Leu Gly Glu Val
785                 790                 795                 800

Met Val Ser Arg Pro Arg Glu
                805
```

<210> 98
<211> 668
<212> PRT
<213> Sus scrofa

<400> 98
Met Gln Pro Ala Val Leu Leu Gly Phe Leu Gly Ala Thr Val Val Ala
1 5 10 15

Ala Val Ser Ser Met Pro Val Asp Asn Arg Asn His Asn Glu Glu Met
20 25 30

Val Ala His Cys Ile Ile Glu Val Leu Ser Asn Ala Leu Ser Lys Ser
35 40 45

Asn Ala Pro Pro Ile Thr Pro Glu Cys Arg Gln Val Leu Lys Lys Gly
50 55 60

Gly Lys Glu Val Lys Asp Glu Glu Lys Gly Ala Asn Glu Asn Thr Arg
65 70 75 80

Phe Glu Val Arg Leu Leu Arg Asp Pro Ala Asp Thr Ser Glu Thr Gln
85 90 95

Arg Pro Ser Gly Gly Arg Glu Gly Ala Glu Ala Pro Ser Glu Asp Thr
100 105 110

Gln Gly Pro Pro Gly Ala Asp Val Glu Gly Gly Gly His Ser Arg Glu
115 120 125

Gly Ala Gly Lys Pro Arg Gly Gly Pro Tyr Ser Ser Asp Asn Pro Val
130 135 140

Ala Lys Glu Gly Lys Thr Arg His Ser Glu Lys Ser Glu Gly Gln Asp
145 150 155 160

Arg Glu Glu Glu Glu Gly Glu Lys Tyr Gln Lys Arg Glu Arg Gly Glu
165 170 175

Glu Gly Ser Glu Glu Arg His Leu Gln Glu Pro Gly Glu Thr Gln Thr
180 185 190

Ala Phe Leu Asn Gln Gly Asn Arg Ala Thr Ala Lys Lys Lys Glu Glu
195 200 205

Phe Glu Ser Arg Tyr Asp Ala His Ser Ala Gly Gly Pro Ala Lys Thr
210 215 220

```
His Ser Arg Glu Arg Ser Ser Gln Glu Ser Gly Glu Glu Thr Gly Ser
225                 230                 235                 240

Gln Asp Ala Ala Pro Gly Glu Pro Glu Ser Pro Pro Glu Gly Gln Glu
                245                 250                 255

Ala Pro Glu Glu Ser Gln Glu Asp Ala Ser Leu Glu Val Asp Lys Arg
            260                 265                 270

Arg Trp Arg Pro Arg His His His Gly Arg Ser Arg Pro Asp Arg Ala
        275                 280                 285

Pro Gln Glu Gly Ser Pro Pro Pro Glu Glu Arg Gly His Pro Arg Glu
    290                 295                 300

Glu Ser Glu Glu Ser Val Leu Gly Leu Ala Ser Pro Gly Gly Gln Arg
305                 310                 315                 320

Thr Arg His Pro Thr His Tyr Pro Ala Ser Glu Glu Glu Ala Glu His
                325                 330                 335

Gly Glu Glu Val Arg Ser Ser Ser Ser Val Gln Ala Pro Gly Asp Leu
            340                 345                 350

Val Gly Ala Arg Tyr Gly Gly Arg Gly Gly Ala Glu His Arg Ala Ala
        355                 360                 365

Arg Arg Pro Gly Glu Glu Ser Pro Glu Gln Asp Arg Arg Val Gly Ala
    370                 375                 380

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

Glu Glu Arg Gly Asp Glu Gly Gln Arg His His Arg Ala Trp Ala Gly
                405                 410                 415

Gly Pro Arg Ala Asp Ala Pro Pro Asp Pro Ala Glu Glu Glu Gln Phe
            420                 425                 430

Trp Gly Glu Ala His Arg Pro Val Pro Glu Ser Gln Val Asp Glu Ala
        435                 440                 445

Arg Arg His Pro Gln Ala Lys Leu Arg Asn Tyr Leu Asn Arg Gly Glu
    450                 455                 460

Glu Asn Gly Glu Glu Gly Ala Pro Gly Arg Trp Gln Gln Pro Glu Asp
465                 470                 475                 480
```

```
Leu Gln Gly Pro Gly Glu His Ala Ala Glu Ala Arg Leu Pro Gly Lys
                485                 490                 495

Pro Tyr Ala Ala His Arg Ile Pro Glu Lys Lys Arg Leu Gly Glu Leu
            500                 505                 510

Leu Asn Pro Tyr Tyr Val Pro Pro Gln Trp Glu Ser Ser His Phe Glu
        515                 520                 525

Arg Lys Asp Asn Val Gly Asp Asn Phe Leu Glu Gly Glu Asp Ala Asn
    530                 535                 540

Gly Val Thr Leu Asn Glu Lys Thr Phe Phe Pro Glu Tyr Ser Tyr Asp
545                 550                 555                 560

Trp Trp Glu Lys Lys Pro Phe Glu Glu Asp Val Asn Trp Gly Tyr Glu
                565                 570                 575

Glu Arg Asn Leu Ala Pro Lys Leu Asp Leu Lys Arg Gln Tyr Asp Arg
            580                 585                 590

Val Ala Glu Leu Asp Gln Leu Leu His Tyr Arg Lys Lys Ser Ala Glu
        595                 600                 605

Phe Pro Asp Phe Tyr Asp Ser Gly Glu His Leu Ser Pro Arg His Ala
    610                 615                 620

Ala Glu Ser Glu Lys Glu Arg Ala Gly Gln Gly Val Leu Thr Glu Glu
625                 630                 635                 640

Glu Glu Lys Glu Leu Glu Asn Leu Ala Ala Met Asp Leu Glu Leu Gln
                645                 650                 655

Lys Ile Ala Glu Lys Phe Ser Gly Asn Arg Arg Gly
            660                 665


<210> 99
<211> 486
<212> PRT
<213> Salmo salar

<400> 99
Met Ser Leu His Glu Ile Asn Glu Asn Val Lys Leu Ala Arg Glu Tyr
1               5                   10                  15

Ala Leu Leu Gly Asn Tyr Ser Ser Ala Ile Val Cys Tyr Arg Gly Val
            20                  25                  30
```

```
Leu Glu Gln Ile Lys Lys Tyr Leu Phe Thr Val Arg Asp Ser Ser Phe
        35                  40                  45

Gln Gln Lys Trp Gln Gln Val Trp Gln Glu Ile Asn Glu Glu Asn Asn
    50                  55                  60

Gln Val Gln Glu Ile Met Arg Thr Leu Glu Ser Phe Gln Leu Glu Thr
65                  70                  75                  80

Thr Pro Ser Lys Pro Pro Ser Asn Gln Asp Gly Ile Asn Asp Ile Trp
                85                  90                  95

Pro Val Gln Val Glu Arg Arg Ser Ser Pro Leu Pro Val Arg Arg Pro
            100                 105                 110

Pro Val Pro Tyr Lys Asp Ser Lys Pro His Asn Asn Arg Leu Ser Val
        115                 120                 125

Ala Gly Val Arg Ala Gln His Arg Gln Ser Pro Arg Gly Ala Asn Gly
    130                 135                 140

Asp Arg Ala Lys Pro Leu Lys Gly Lys Glu Lys Lys Glu Ala Lys Pro
145                 150                 155                 160

Lys Asp Asp Lys Asn Lys Ala Glu Val Ser Glu Lys Glu Val Lys Arg
                165                 170                 175

Phe Asp Gly Gln Gly Tyr Asp Lys Asp Leu Ile Glu Ala Leu Glu Arg
            180                 185                 190

Asp Ile Ile Ser Gln Asn Pro Asn Val Lys Trp Asp Asp Ile Ala Asp
        195                 200                 205

Leu Glu Glu Ala Lys Lys Leu Leu Lys Glu Ala Val Val Leu Pro Met
    210                 215                 220

Trp Met Pro Glu Phe Phe Lys Gly Ile Arg Arg Pro Trp Lys Gly Val
225                 230                 235                 240

Leu Met Val Gly Pro Pro Gly Thr Gly Lys Thr Leu Leu Ala Lys Ala
                245                 250                 255

Val Ala Thr Glu Cys Arg Thr Thr Phe Phe Asn Val Ser Ser Ser Thr
            260                 265                 270

Leu Thr Ser Lys Tyr Arg Gly Glu Ser Glu Lys Leu Val Arg Ile Leu
        275                 280                 285
```

Phe Glu Met Ala Arg Phe Tyr Ala Pro Thr Thr Ile Phe Ile Asp Glu
290 295 300

Ile Asp Ser Met Cys Ser Arg Arg Gly Thr Ser Glu Glu His Glu Ala
305 310 315 320

Ser Arg Arg Val Lys Ala Glu Leu Leu Val Gln Met Asp Gly Val Gly
325 330 335

Gly Ala Ser Asp Asn Glu Asp Pro Ser Lys Met Val Met Val Leu Ala
340 345 350

Ala Thr Asn Phe Pro Trp Asp Ile Asp Glu Ala Leu Arg Arg Arg Leu
355 360 365

Glu Lys Arg Ile Tyr Ile Pro Leu Pro Ser Ala Lys Gly Arg Val Glu
370 375 380

Leu Leu Arg Ile Asn Leu Lys Glu Leu Glu Leu Ala Asn Asp Val Asp
385 390 395 400

Met Ala Lys Ile Ala Glu Gln Ser Glu Gly Tyr Ser Gly Ala Asp Ile
405 410 415

Thr Asn Val Cys Arg Asp Ala Ser Leu Met Ala Met Arg Arg Arg Ile
420 425 430

Glu Gly Leu Thr Pro Glu Glu Ile Arg Asn Ile Ser Arg Ala Glu Met
435 440 445

His Met Pro Thr Thr Met Glu Asp Phe Glu Ser Ser Leu Lys Lys Val
450 455 460

Ser Lys Ser Val Ser Ala Ser Asp Leu Glu Lys Tyr Glu Lys Trp Ile
465 470 475 480

Glu Glu Phe Gly Ser Cys
485

<210> 100
<211> 307
<212> PRT
<213> Zea mays

<400> 100
Met Glu Phe Trp Gly Leu Glu Val Lys Pro Gly Ser Thr Val Lys Cys
1 5 10 15

```
Glu Pro Gly Tyr Gly Phe Val Leu His Leu Ser Gln Ala Ala Leu Gly
            20                  25                  30

Glu Ser Lys Lys Ser Asp Asn Ala Leu Met Tyr Val Lys Ile Asp Asp
        35                  40                  45

Gln Lys Leu Ala Ile Gly Thr Leu Ser Val Asp Lys Asn Pro His Ile
    50                  55                  60

Gln Phe Asp Leu Ile Phe Asp Lys Glu Phe Glu Leu Ser His Thr Ser
65                  70                  75                  80

Lys Thr Thr Ser Val Phe Phe Thr Gly Tyr Lys Val Glu Gln Pro Phe
                85                  90                  95

Glu Glu Asp Glu Met Asp Leu Asp Ser Glu Asp Glu Asp Glu Glu Leu
            100                 105                 110

Asn Val Pro Val Val Lys Glu Asn Gly Lys Ala Asp Glu Lys Lys Gln
        115                 120                 125

Lys Ser Gln Glu Lys Ala Val Ala Ala Pro Ser Lys Ser Ser Pro Asp
    130                 135                 140

Ser Lys Lys Ser Lys Asp Asp Asp Asp Ser Asp Glu Asp Glu Thr Asp
145                 150                 155                 160

Asp Ser Asp Glu Asp Glu Thr Asp Asp Ser Asp Glu Gly Leu Ser Ser
                165                 170                 175

Glu Glu Gly Asp Asp Asp Ser Ser Asp Glu Asp Asp Thr Ser Asp Asp
            180                 185                 190

Glu Glu Glu Asp Thr Pro Thr Pro Lys Lys Pro Glu Val Gly Lys Lys
        195                 200                 205

Arg Pro Ala Glu Ser Ser Val Leu Lys Thr Pro Leu Ser Asp Lys Lys
    210                 215                 220

Ala Lys Val Ala Thr Pro Ser Ser Gln Lys Thr Gly Gly Lys Lys Gly
225                 230                 235                 240

Ala Ala Val His Val Ala Thr Pro His Pro Ala Lys Gly Lys Thr Ile
                245                 250                 255

Val Asn Asn Asp Lys Ser Val Lys Ser Pro Lys Ser Ala Pro Lys Ser
            260                 265                 270
```

```
Gly Gly Ser Val Pro Cys Lys Pro Cys Ser Lys Ser Phe Ile Ser Glu
        275                 280                 285


Thr Ala Leu Gln Ala His Ser Arg Ala Lys Met Gly Ala Ser Glu Ser
    290                 295                 300


Gln Val Gln
305


<210> 101
<211> 1812
<212> PRT
<213> Sus scrofa

<400> 101
Met Ser Glu Ile Leu Cys His Trp Leu Asn Gln Glu Leu Lys Val Ser
1               5                   10                  15


Gln Thr Val Ser Pro Lys Ser Phe Ala Lys Ala Phe Ser Ser Gly Tyr
            20                  25                  30


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


Glu Phe Ser Glu Lys Arg Ile Ser Ser Ala Lys Leu Asn Asn Phe Ser
    50                  55                  60


Arg Leu Glu Pro Thr Leu His Leu Leu Gly Val Gln Phe Asp Gln Asn
65                  70                  75                  80


Val Ala His Asp Ile Ile Thr Glu Lys Pro Gly Val Ala Met Lys Leu
                85                  90                  95


Leu Tyr Gln Leu Tyr Ile Ala Leu Gln Arg Lys Lys Lys Ser Gly Leu
            100                 105                 110


Thr Gly Val Glu Leu Gln Thr Met Gln Pro Leu Thr Asn Thr Lys Leu
        115                 120                 125


Gln Asn Met Lys Ser Glu Ala Phe Arg Asp Arg Leu Arg Asn Leu Ile
    130                 135                 140


Pro Arg Gln Thr Asp Val Ser Leu Met Arg Val Ser His Arg Phe Gln
145                 150                 155                 160


Glu Lys Tyr Lys Tyr Lys Asp Glu Asp Leu Val His Thr His Leu Lys
                165                 170                 175
```

```
Lys Leu Glu Asn Phe Gln Lys Leu Gln Glu Glu Gln Arg Ser Phe Asn
            180                 185                 190

Ile Glu Lys Gln Arg Leu Ser Arg Arg Arg Gln Asn Glu Ile Met Ala
        195                 200                 205

Gln Ile Gln Ala Ala Ile Ile Gln Ile Pro Lys Pro Ala Ser Asn Arg
    210                 215                 220

Thr Leu Lys Ala Leu Asp Ala Gln Lys Met Met Lys Lys Lys Lys Glu
225                 230                 235                 240

Ala Glu Asp Val Ala Asn Glu Ile Lys Lys Phe Glu Ala Leu Ile Lys
                245                 250                 255

Lys Asp Leu Gln Ala Lys Glu Ser Ala Ser Lys Thr Ser Leu Asp Ala
            260                 265                 270

Ala Gly Gln Thr Thr Thr Asp Leu Leu Asn Thr Tyr Ser Asp Asp Glu
        275                 280                 285

Tyr Ile Lys Lys Ile Gln Lys Arg Leu Glu Glu Asp Ala Phe Ala Arg
    290                 295                 300

Glu Gln Arg Glu Lys Arg Arg Arg Arg Leu Leu Met Asp Gln Leu Ile
305                 310                 315                 320

Ala His Glu Ala Gln Glu Glu Ala Tyr Arg Glu Glu Gln Leu Val Ser
                325                 330                 335

Arg Leu Met Arg Gln Ser Gln Gln Glu Arg Arg Ile Ala Val Gln Leu
            340                 345                 350

Met His Val Arg His Glu Lys Glu Val Leu Trp Gln Asn Arg Ile Phe
        355                 360                 365

Arg Glu Lys Gln Tyr Glu Glu Arg Arg Leu Lys Asp Phe Gln Asp Ala
    370                 375                 380

Leu Asp Arg Glu Ala Ala Leu Ala Lys Gln Ala Lys Ile Asp Tyr Glu
385                 390                 395                 400

Glu Gln Ala Leu Arg Glu Lys Glu Met His Glu Gln Ile Ala Ala Glu
                405                 410                 415

Arg Val Gln Ala Arg Tyr Lys Lys His Tyr Ser Ile Cys Ala Glu Ile
            420                 425                 430
```

```
Leu Asp Gln Ile Leu Asp Leu Ser Thr Lys Val Ala Asp Tyr Arg Met
        435                 440                 445

Leu Thr Asn Asn Leu Ile Pro Tyr Lys Leu Met His Asp Trp Lys Glu
    450                 455                 460

Leu Phe Phe Asn Gly Met Pro Ile Tyr Glu Gln Ala Ser Leu Lys His
465                 470                 475                 480

Leu Ser Ala Lys Pro Ser Thr Glu Gln Leu Ile Glu Leu Glu Lys Arg
                485                 490                 495

Asp Leu Leu Asp Asn Asn Asp Tyr Glu Glu Tyr Lys Asn Met Val Gly
            500                 505                 510

Glu Trp Ala Leu Pro Glu Glu Met Val Asp Asn Ile Pro Pro Ser Asp
        515                 520                 525

Asn Arg Ile Leu Gly His Val Ile His Arg Leu Ile Glu His Ser Leu
    530                 535                 540

Pro Pro Gln Val Glu Ser Thr Ala Pro Glu Leu Pro Ser Phe Ala Ile
545                 550                 555                 560

Lys Gly Cys Leu Leu Gly Lys Thr Phe Ser Gly Lys Thr Thr Ala Leu
                565                 570                 575

Lys Phe Leu Gln Lys Tyr Phe Pro Ile Glu Val Leu Ser Ile Asp Thr
            580                 585                 590

Leu Val Gln Glu Ala Ile Gln Ala Phe His Asn Asn Glu Lys Val Ser
        595                 600                 605

Gly Ala Leu Gln Leu Gln Lys Ala Ala Glu Glu Lys Ala Ser Pro Val
    610                 615                 620

Arg Gln Glu Ser Gly Asp Arg Ser Gln Asn Leu His Asn Val Leu Ser
625                 630                 635                 640

Ala Glu Gly Thr Pro Glu Thr Glu Asp Glu Thr Arg Leu Ser Thr Lys
                645                 650                 655

Lys Thr Pro Lys Ala Glu Glu Val Ile Ala Ser Ala Ser Leu Ser Glu
            660                 665                 670

Leu Thr Thr Arg Ala Gln Leu Gly Ala Lys Ser Glu Lys Leu Leu Lys
```

675 680 685

Lys Gly Lys Ser Ile Ser Asp Thr Leu Leu Val Ser Ile Val Val Asn
690 695 700

Ala Ile Asn Gln Ile Pro Ile Tyr Lys Gly Trp Ile Leu Asp Gly Phe
705 710 715 720

Pro Met Thr Leu Asn Gln Ala Lys Leu Leu Glu Glu Ala Leu Thr Gly
725 730 735

Phe Asn Arg Asn Leu Ile Glu Leu Glu Gly Lys Lys Ser Gln Ile Ser
740 745 750

Thr Leu Ala Val Asp Pro Thr Ala Ser Arg Glu Val Pro Leu Pro Pro
755 760 765

Ser Ala Phe Asp Phe Val Met Leu Leu Asp Ile Ser Asp Asn Thr Ser
770 775 780

Leu Asn Arg Met Asn Asp Ile Met Ala Glu Ala Phe Leu Ser Glu Thr
785 790 795 800

Pro His Glu Asn Ile Asn Gln Arg Val Ala Ala Glu Asn Gln Asp Met
805 810 815

Asp Glu Asp Gln Asn Leu Arg Asp Gln Ile Gln His Arg Ile Ile Gly
820 825 830

Phe Trp Asp His Trp Pro Ser Leu Glu Gln Trp Phe Thr Glu Pro Glu
835 840 845

Asn Ile Leu Ile Lys Met Asn Ala Glu Val Asp Glu Gln Ser Leu Cys
850 855 860

Gln Lys Val Lys Glu Met Phe Met Ala Glu Ile Met Lys Lys Glu Asn
865 870 875 880

Lys Ala Lys Lys Lys Ser Glu Glu Lys Glu Ala Glu Lys Lys Glu Glu
885 890 895

Phe Ser Leu Pro Glu Ala Thr Pro Pro Thr Pro Pro Ala Pro Pro Pro
900 905 910

Ser Glu Pro Glu Lys Glu Lys Glu Ala His Pro Pro His Glu Arg Ser
915 920 925

```
Lys Thr Pro Thr Ala Lys Gly Lys Pro Ala Ser Glu Pro Pro His Gly
    930                 935                 940

Asn Arg Glu Ser Pro Gln Glu Gly Lys Gly Lys Lys Ser Glu Thr Ser
945                 950                 955                 960

Pro Lys Arg Lys Gly Ser Pro Arg Gly Lys Ser Pro Gly Gly Lys Ala
                965                 970                 975

Pro Val Lys Lys Ser Pro Ala Asp Ser Thr Asp Val Ser Pro Val Pro
            980                 985                 990

Ala Val Pro Pro Pro Ser Lys Pro  Gly Ser Glu Glu Trp  Val Phe Val
        995                 1000                1005

Asn Glu  Pro Ile Pro Glu Glu  Ile Pro Leu Phe Leu  Val Pro Tyr
    1010                1015                1020

Trp Lys  Leu Ile Glu Asn Ser  Tyr Ile Asn Ser Ile  Lys Thr Val
    1025                1030                1035

Leu Arg  His Leu Arg Glu Gly  Gln His Thr Val Leu  Ala Tyr Leu
    1040                1045                1050

Tyr Asp  Thr Arg Thr Gly Phe  Gln Gln Phe Leu Arg  Arg Pro Asp
    1055                1060                1065

His Lys  Gln Asn Phe Val Ser  Gln Trp Gln Ala Asp  Phe Asn Ser
    1070                1075                1080

Leu Pro  Asp Asp Leu Trp Glu  Asp Glu Glu Thr Lys  Ala Glu Leu
    1085                1090                1095

His Gln  Arg Val Asn Asp Leu  Arg Asp Arg Leu Trp  Asp Ile Cys
    1100                1105                1110

Asp Ala  Arg Lys Glu Glu Ala  Glu Gln Glu Arg Leu  Asp Ile Ile
    1115                1120                1125

Asn Glu  Ser Trp Leu Gln Asp  Ser Thr Gly Ile Ala  Met Asn His
    1130                1135                1140

Phe Phe  Ser Leu Met Gln Ala  Glu Leu Asn Arg Phe  Gln Asp Thr
    1145                1150                1155

Lys Arg  Leu Leu Gln Asp Tyr  Tyr Arg Gly Met Glu  Cys Lys Ile
    1160                1165                1170
```

```
Pro Thr  Asp Asp Thr Lys Arg  Phe Thr Arg Ile Pro  Leu Val Gln
    1175                1180                1185

Leu Asp  Asn Lys Asp Thr Leu  Glu Phe Gln Leu Arg  Ile Pro Leu
    1190                1195                1200

Val Pro  Arg Arg Ser Ile Ser  Pro Glu Ser Ala Leu  Ser Lys Pro
    1205                1210                1215

Lys Ile  Lys Ala Leu Leu Lys  Gly Asn Ile Asp Tyr  Ser Leu Glu
    1220                1225                1230

Asn Val  Glu Leu Asn Phe Glu  Ala Asp Glu Lys Val  Val Met Asp
    1235                1240                1245

Thr Trp  Gln Gln Ala Ser Leu  Ala Val Ser His Met  Val Ala Ala
    1250                1255                1260

Glu Ile  His Gln Arg Leu Met  Glu Glu Glu Lys Glu  Asn Gln Pro
    1265                1270                1275

Ala Asp  Thr Lys Glu Lys Pro  Pro Gln Ala Ala Ala  Asn Lys Lys
    1280                1285                1290

Val Lys  Lys Glu Pro Pro Lys  Lys Lys Arg Glu Asp  Lys Lys Gly
    1295                1300                1305

Lys Gly  Lys Ser Pro Pro Met  Ala Glu Ser Ala Pro  Val Ile Thr
    1310                1315                1320

Val Glu  Glu Ile Ala Glu Met  Glu Arg Lys Asn Glu  Leu Arg Leu
    1325                1330                1335

Arg Ile  Lys Glu Glu His Leu  Ala Ala Leu Gln Phe  Glu Glu Arg
    1340                1345                1350

Ala Thr  Gln Phe Arg Leu Glu  Leu Ile Lys Thr Lys  Ala Leu Ala
    1355                1360                1365

Phe Leu  Glu Asp Leu Val Thr  Lys Ala Val Asp Val  Tyr Lys Leu
    1370                1375                1380

Met Glu  Lys Trp Leu Gly Glu  Arg Tyr Leu Asn Glu  Met Ala Ser
    1385                1390                1395

Val Glu  Lys Leu Thr Glu Val  Ala Arg Tyr His Ile  Glu Thr Ser
    1400                1405                1410
```

```
Thr Lys  Ile Gln Asn Glu Leu  Tyr Leu Asp Gln Glu  Asp Phe Phe
    1415                 1420                 1425

Ile Asn  Gly Asn Ile Lys Val  Phe Pro Asp Pro Pro  Pro Pro Val
    1430                 1435                 1440

Arg Pro  Pro Pro Val Glu Lys  Glu Glu Asn Gly Thr  Leu Thr Ile
    1445                 1450                 1455

Glu Gln  Leu Asp Asn Leu Arg  Asp Gln Phe Leu Asp  Ile Ala Pro
    1460                 1465                 1470

Lys Gly  Val Ile Gly Asn Lys  Ala Phe Ala Asp Ile  Leu Leu Asp
    1475                 1480                 1485

Leu Val  Thr Leu Asn Leu Gly  Thr Asn Asn Phe Pro  Ser Ser Trp
    1490                 1495                 1500

Met His  Leu Thr Gln Pro Glu  Leu Gln Glu Leu Ala  Ser Leu Leu
    1505                 1510                 1515

Val Ile  Asn Ser Glu Leu Val  Asp Trp Arg Lys Phe  Leu Leu Val
    1520                 1525                 1530

Ala Ala  Leu Pro Trp Pro Ile  Pro Leu Glu Glu Glu  Leu Leu Glu
    1535                 1540                 1545

Thr Leu  Gln Arg Phe Lys Ala  Val Asp Glu Glu Gln  Leu Gly Thr
    1550                 1555                 1560

Val Thr  Phe Glu Gln Tyr Leu  Gln Ala Gly Leu Trp  Phe Thr Gly
    1565                 1570                 1575

Asp Lys  Asp Ile Lys Ile Pro  Ala Asn Pro Leu Glu  Pro Leu Pro
    1580                 1585                 1590

Phe Asn  Arg Gln Glu His Leu  Ile Glu Phe Phe Phe  Arg Leu Phe
    1595                 1600                 1605

Ala Asp  His Asp Lys Asp Pro  Pro Arg Leu Asp Tyr  Thr Glu Met
    1610                 1615                 1620

Leu Leu  Tyr Phe Ala Cys His  Pro Asp Gly Met Glu  Gly Val Tyr
    1625                 1630                 1635

Arg Ala  Leu Ser Val Ala Thr  Gly Ser His Val Phe  Gln Pro Ile
```

1640 1645 1650

Glu Thr Pro Val Leu Val Ala Glu Lys Thr Ser Ser Phe Ile Asp
1655 1660 1665

Met Ser Pro Thr Glu Glu Tyr Pro Glu Pro Glu Asp Asn Phe Ile
1670 1675 1680

Ser Glu Glu Arg Glu Leu Gln Glu Glu Gly Glu Glu Lys Glu Glu
1685 1690 1695

Asp Ile Pro Glu Asn Ala Asn Thr Glu Met Ile Ser Met Glu Thr
1700 1705 1710

Leu Leu Lys Val Phe Arg Gly Gly Asn Glu Pro Gln Asp Thr Asn
1715 1720 1725

Arg Phe Ala Ser Tyr Pro Lys Thr Glu Ser Ile Tyr Ser Glu Asn
1730 1735 1740

Phe Ile Lys Val Phe Gln Asp Leu Gly Ser Lys Asn Leu Glu Pro
1745 1750 1755

Ile Glu Val Ala Val Leu Leu Lys His Pro Phe Ile Gln Asp Leu
1760 1765 1770

Ile Arg Ser Tyr Pro Asp Tyr Lys Ile Pro Asp Ile Lys Val Val
1775 1780 1785

Leu Gln Arg Ser Glu His Ile Gln Gly Ser Asp Gly Glu Ser Ser
1790 1795 1800

Pro Ser Arg Leu Thr Glu Glu Lys Lys
1805 1810

<210> 102
<211> 832
<212> PRT
<213> Oryza sativa

<400> 102
Met Ala Ala Ala Pro Pro Pro Pro Pro Pro Pro Gln Leu Gln Ser Ser
1 5 10 15

Asp Pro Ser Thr Pro Pro Gln Glu Thr Ser Gln Val Arg Lys Gly Lys
20 25 30

Lys Ser Arg Gly Ala Lys Lys Pro Arg Arg Ala Ala Ala Ala Ala Ala
35 40 45

```
Ala Ser Thr Ser Ser Ala Gly Thr Met Val Glu Asp Pro Phe Leu Val
    50                  55                  60

Leu Ala Gly Gly Lys Glu Gly Gly Phe Leu Glu Leu Glu Glu Ile Asp
65                  70                  75                  80

Glu Ala Asp Phe Gly Ile Phe Gly Gly Ala Val Glu Asp Leu Gly Glu
                85                  90                  95

Ile Asp Arg Lys Ala Gly Lys Asp Gln Lys Lys Lys Lys Arg Lys Lys
            100                 105                 110

Arg Lys Arg Gly Asp Asp Asp Tyr Ala Leu Pro Gly Asp Gly Asp Leu
        115                 120                 125

Val Val Glu Cys Glu Glu Glu Gly Glu Lys Gly Glu Lys Arg Val Lys
    130                 135                 140

Lys Lys Arg Arg Ser Arg Lys Lys Arg Lys Val Lys Glu Met Glu Glu
145                 150                 155                 160

Lys Met Glu Ser Lys Glu Asp Val Ser Asp Asp Asn Val Glu Asp Met
                165                 170                 175

Gln Asp Gly Asn Asp Met Glu Gln Asp Asn Asn Asp Gly Leu Ile Leu
            180                 185                 190

Gly Glu Asp Glu Val Tyr Ala Trp Arg Glu Leu Arg Leu His Pro Leu
        195                 200                 205

Leu Ile Thr Ala Val Arg Arg Leu Gly Phe Lys Glu Pro Thr Pro Ile
    210                 215                 220

Gln Lys Ala Cys Phe Pro Ala Ala Ala His Gln Gly Lys Asp Val Ile
225                 230                 235                 240

Gly Ala Ala Glu Thr Gly Ser Gly Lys Thr Leu Ala Phe Gly Leu Pro
                245                 250                 255

Ile Leu Gln Arg Leu Leu Glu Glu Gln Glu Lys Ala Met Arg Leu Ser
            260                 265                 270

Arg Glu Asp Glu Ser Thr Gln Asp Glu Asn Ser Arg Glu Ser Pro Leu
        275                 280                 285

Arg Ala Leu Ile Leu Thr Pro Thr Arg Glu Leu Ala Lys Gln Val Cys
```

290 295 300

Asp His Leu Lys Glu Ala Ala Lys Phe Leu Arg Ile Gln Val Val Pro
305 310 315 320

Ile Val Gly Gly Leu Ser Met Glu Lys Gln Glu Arg Leu Leu Lys Arg
325 330 335

Lys Pro Glu Ile Val Val Gly Thr Pro Gly Arg Leu Trp Glu Leu Met
340 345 350

Ser Thr Gly Asn Gln His Leu Ile Lys Leu His Ser Leu Ser Phe Phe
355 360 365

Val Leu Asp Glu Ala Asp Arg Met Ile Glu Arg Gly His Phe His Glu
370 375 380

Leu Gln Ser Ile Ile Glu Met Leu Pro Val Thr Asn Gly Ser Asp Glu
385 390 395 400

Gln Thr Val Gly Thr Thr Pro Ser Cys Glu Thr Val Pro Ile Leu Gln
405 410 415

Ile Lys Lys Arg Gln Thr Phe Val Phe Ser Ala Thr Leu Ala Leu Ser
420 425 430

Ala Asn Phe Arg Lys Lys Leu Lys Arg Gly Leu Val Thr Ala Lys Ala
435 440 445

Ser Ala Ser Thr Asp Leu Ser Ser Ile Glu Ala Leu Ser Lys Gln Ala
450 455 460

Arg Met Lys Pro Asn Ala Glu Ile Val Asp Leu Thr Lys Ala Ser Ile
465 470 475 480

Leu Pro Glu Lys Leu Glu Glu Ser Phe Ile Glu Cys Ser Asp Asp Asp
485 490 495

Lys Asp Ala Tyr Leu Tyr Tyr Ile Leu Ser Val His Gly Gln Gly Arg
500 505 510

Thr Ile Ile Phe Cys Thr Ser Ile Ala Ala Leu Arg His Leu Ser Ser
515 520 525

Ile Leu Arg Val Leu Gly Ile Asn Val Leu Thr Asn His Ala Gln Met
530 535 540

```
Gln Gln Arg Ala Arg Met Lys Ala Val Asp Arg Phe Arg Glu Ser Glu
545                 550                 555                 560

Asn Ser Ile Leu Val Ala Thr Asp Gly Phe Ala Arg Gly Met Asp Phe
                565                 570                 575

Asp Asp Val Arg Thr Val Ile His Tyr Gln Leu Pro His Ser Thr Asp
            580                 585                 590

Val Tyr Ile His Arg Ser Gly Arg Thr Ala Arg Lys Ser Met Ala Gly
        595                 600                 605

Cys Ser Ile Ala Leu Ile Ser Pro Ala Asp Lys Ala Lys Phe Tyr Ser
    610                 615                 620

Leu Cys Lys Ser Leu Ser Lys Glu Asn Leu Gln Gln Phe Pro Val Asp
625                 630                 635                 640

His Ala Tyr Met Pro Ala Val Met Asn Arg Leu Thr Leu Ala Arg Gln
                645                 650                 655

Ile Asp Lys Ile Thr Arg Lys Asn Ser Gln Glu Asn Ala Asn Lys Ser
            660                 665                 670

Trp Leu Gln Arg Asn Ala Glu Ser Met Gly Leu Leu Leu Glu Thr Ser
        675                 680                 685

Asp Ser Glu Glu Glu Arg Val Gln Gly His Lys Gln Arg Lys Ala Thr
    690                 695                 700

Ser Ala Asn Leu Gln Lys Leu Gln Gln Asp Leu Ser Glu Leu Leu Gln
705                 710                 715                 720

Arg Pro Leu Gln Pro Lys Thr Phe Ser Arg Arg Tyr Leu Ala Gly Ala
                725                 730                 735

Gly Val Ser Pro Leu Leu Gln Lys Gln Leu Glu Glu Leu Ser Lys Arg
            740                 745                 750

Asn Val Lys Gly Ser Ala Ser Val Asn Ala Asn Lys Gly Ser Arg Phe
        755                 760                 765

Val Val Ile Gly Gln Asp Gln Ile Glu Pro Leu Gln Ala Leu Gln Asn
    770                 775                 780

Ser Gly Gln Glu Val Cys Val Ser Ile Asp Lys Gln Arg Glu Lys Arg
785                 790                 795                 800
```

Arg Leu Ala Glu Asn Trp Arg Arg Lys Lys Gln Lys Glu Lys Lys Ser
805 810 815

Thr Arg Glu Gln Lys Arg Lys Glu Lys Arg Ile Ala Lys Glu Arg Asp
820 825 830

<210> 103
<211> 832
<212> PRT
<213> Oryza sativa

<400> 103
Met Ala Ala Ala Pro Pro Pro Pro Pro Pro Pro Gln Leu Gln Ser Ser
1 5 10 15

Asp Pro Ser Thr Pro Pro Gln Glu Thr Ser Gln Val Arg Lys Gly Lys
20 25 30

Lys Ser Arg Gly Ala Lys Lys Pro Arg Arg Ala Ala Ala Ala Ala Ala
35 40 45

Ala Ser Thr Ser Ser Ala Gly Thr Met Val Glu Asp Pro Phe Leu Val
50 55 60

Leu Ala Gly Gly Lys Glu Gly Gly Phe Leu Glu Leu Glu Glu Ile Asp
65 70 75 80

Glu Ala Asp Phe Gly Ile Phe Gly Gly Ala Val Glu Asp Leu Gly Glu
85 90 95

Ile Asp Arg Lys Ala Gly Lys Asp Gln Lys Lys Lys Lys Arg Lys Lys
100 105 110

Arg Lys Arg Gly Asp Asp Asp Tyr Ala Leu Pro Gly Asp Gly Asp Leu
115 120 125

Val Val Glu Cys Glu Glu Glu Gly Glu Lys Gly Glu Lys Arg Val Lys
130 135 140

Lys Lys Arg Arg Ser Arg Lys Lys Arg Lys Val Lys Glu Met Glu Glu
145 150 155 160

Lys Met Glu Ser Lys Glu Asp Val Ser Asp Asp Asn Val Glu Asp Met
165 170 175

Gln Asp Gly Asn Asp Met Glu Gln Asp Asn Asn Asp Gly Leu Ile Leu
180 185 190

```
Gly Glu Asp Glu Val Tyr Ala Trp Arg Glu Leu Arg Leu His Pro Leu
        195                 200                 205

Leu Ile Thr Ala Val Arg Arg Leu Gly Phe Lys Glu Pro Thr Pro Ile
    210                 215                 220

Gln Lys Ala Cys Phe Pro Ala Ala Ala His Gln Gly Lys Asp Val Ile
225                 230                 235                 240

Gly Ala Ala Glu Thr Gly Ser Gly Lys Thr Leu Ala Phe Gly Leu Pro
                245                 250                 255

Ile Leu Gln Arg Leu Leu Glu Glu Gln Glu Lys Ala Met Arg Leu Ser
            260                 265                 270

Arg Glu Asp Glu Ser Thr Gln Asp Glu Asn Ser Arg Glu Ser Pro Leu
        275                 280                 285

Arg Ala Leu Ile Leu Thr Pro Thr Arg Glu Leu Ala Lys Gln Val Cys
    290                 295                 300

Asp His Leu Lys Glu Ala Ala Lys Phe Leu Arg Ile Gln Val Val Pro
305                 310                 315                 320

Ile Val Gly Gly Leu Ser Met Glu Lys Gln Glu Arg Leu Leu Lys Arg
                325                 330                 335

Lys Pro Glu Ile Val Val Gly Thr Pro Gly Arg Leu Trp Glu Leu Met
            340                 345                 350

Ser Thr Gly Asn Gln His Leu Ile Lys Leu His Ser Leu Ser Phe Phe
        355                 360                 365

Val Leu Asp Glu Ala Asp Arg Met Ile Glu Arg Gly His Phe His Glu
    370                 375                 380

Leu Gln Ser Ile Ile Glu Met Leu Pro Val Thr Asn Gly Ser Asp Glu
385                 390                 395                 400

Gln Thr Val Gly Thr Thr Pro Ser Cys Glu Thr Val Pro Ile Leu Gln
                405                 410                 415

Ile Lys Lys Arg Gln Thr Phe Val Phe Ser Ala Thr Leu Ala Leu Ser
            420                 425                 430

Ala Asn Phe Arg Lys Lys Leu Lys Arg Gly Leu Val Thr Ala Lys Ala
        435                 440                 445
```

```
Ser Ala Ser Thr Asp Leu Ser Ser Ile Glu Ala Leu Ser Lys Gln Ala
    450                 455                 460

Arg Met Lys Pro Asn Ala Glu Ile Val Asp Leu Thr Lys Ala Ser Ile
465                 470                 475                 480

Leu Pro Glu Lys Leu Glu Glu Ser Phe Ile Glu Cys Ser Asp Asp Asp
                485                 490                 495

Lys Asp Ala Tyr Leu Tyr Tyr Ile Leu Ser Val His Gly Gln Gly Arg
            500                 505                 510

Thr Ile Ile Phe Cys Thr Ser Ile Ala Ala Leu Arg His Leu Ser Ser
        515                 520                 525

Ile Leu Arg Val Leu Gly Ile Asn Val Leu Thr Asn His Ala Gln Met
    530                 535                 540

Gln Gln Arg Ala Arg Met Lys Ala Val Asp Arg Phe Arg Glu Ser Glu
545                 550                 555                 560

Asn Ser Ile Leu Val Ala Thr Asp Gly Phe Ala Arg Gly Met Asp Phe
                565                 570                 575

Asp Asp Val Arg Thr Val Ile His Tyr Gln Leu Pro His Ser Thr Asp
            580                 585                 590

Val Tyr Ile His Arg Ser Gly Arg Thr Ala Arg Lys Ser Met Ala Gly
        595                 600                 605

Cys Ser Ile Ala Leu Ile Ser Pro Ala Asp Lys Ala Lys Phe Tyr Ser
    610                 615                 620

Leu Cys Lys Ser Leu Ser Lys Glu Asn Leu Gln Gln Phe Pro Val Asp
625                 630                 635                 640

His Ala Tyr Met Pro Ala Val Met Asn Arg Leu Thr Leu Ala Arg Gln
                645                 650                 655

Ile Asp Lys Ile Thr Arg Lys Asn Ser Gln Glu Asn Ala Asn Lys Ser
            660                 665                 670

Trp Leu Gln Arg Asn Ala Glu Ser Met Gly Leu Leu Leu Glu Thr Ser
        675                 680                 685

Asp Ser Glu Glu Glu Arg Val Gln Gly His Lys Gln Arg Lys Ala Thr
    690                 695                 700
```

```
Ser Ala Asn Leu Gln Lys Leu Gln Gln Asp Leu Ser Glu Leu Leu Gln
705                 710                 715                 720

Arg Pro Leu Gln Pro Lys Thr Phe Ser Arg Arg Tyr Leu Ala Gly Ala
                725                 730                 735

Gly Val Ser Pro Leu Leu Gln Lys Gln Leu Glu Glu Leu Ser Lys Arg
            740                 745                 750

Asn Val Lys Gly Ser Ala Ser Val Asn Ala Asn Lys Gly Ser Arg Phe
        755                 760                 765

Val Val Ile Gly Gln Asp Gln Ile Glu Pro Leu Gln Ala Leu Gln Asn
    770                 775                 780

Ser Gly Gln Glu Val Cys Val Ser Ile Asp Lys Gln Arg Glu Lys Arg
785                 790                 795                 800

Arg Leu Ala Glu Asn Trp Arg Arg Lys Lys Gln Lys Glu Lys Lys Ser
                805                 810                 815

Thr Arg Glu Gln Lys Arg Lys Glu Lys Arg Ile Ala Lys Glu Arg Asp
            820                 825                 830
```

<210> 104
<211> 515
<212> PRT
<213> Oryza sativa

<400> 104

```
Met Gly Ser Leu Gly Glu Val Val Glu His Gly Val Ser Lys Asp Met
1               5                   10                  15

Leu Pro Phe Asp Gly His Pro Asp Pro Val Val Asp Glu Leu Asn Arg
            20                  25                  30

Leu Glu Asn Leu Leu Arg Glu Lys Asp Arg Glu Leu Gly His Ala Tyr
        35                  40                  45

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

Ile Ala Glu Leu Thr Lys Glu Leu Lys Lys Gln Asp Glu Lys Leu Ser
65                  70                  75                  80

Ser Leu Glu Lys Gln Leu Glu Gln Lys Asn Leu Asp Val Lys Arg Leu
                85                  90                  95
```

```
Ser Asn Glu Arg Lys Glu Ala Leu Ser Ala Gln Phe Ala Ala Glu Ala
            100                 105                 110

Thr Leu Arg Arg Ile His Ser Ser Gln Lys Asp Glu Glu Val Val Pro
        115                 120                 125

Phe Asp Ala Ile Ile Ala Pro Leu Glu Ser Asp Ile Lys Ala Tyr Arg
    130                 135                 140

His Glu Ile Ala Leu Leu Gln Asp Asp Lys Lys Ala Leu Glu Arg His
145                 150                 155                 160

Leu Lys Leu Lys Glu Ala Ala Leu Val Glu Ala Gly Asn Ile Leu Arg
                165                 170                 175

Ser Ala Leu Glu Arg Ala Leu Ile Val Glu Asp Val Gln Asn Gln Asn
            180                 185                 190

Ile Glu Leu Lys Lys Gln Met Glu Ile Tyr His Glu Glu Asn Lys Leu
        195                 200                 205

Leu Glu Lys Ser Asn Arg Gln Gln Val Leu Asp Ile Glu Arg Leu Thr
    210                 215                 220

His Thr Ile Ala Glu Leu Glu Glu Ser Ile Leu Ser Thr Gly Asp Val
225                 230                 235                 240

Ala Asn Ala Val Arg Phe Tyr Gln Asn Gln Ala Ala Lys Leu Asn Glu
                245                 250                 255

Glu Lys Arg Thr Leu Glu Arg Glu Leu Ala Arg Ala Lys Val Tyr Val
            260                 265                 270

Asn Arg Val Ala Ser Thr Thr Ala Asn Glu Trp Lys Asp Asp Ala Asp
        275                 280                 285

Lys Leu Met Pro Val Lys Arg Trp Leu Glu Glu Arg Arg Leu Leu Gln
    290                 295                 300

Gly Glu Ile Gln Arg Leu Arg Asp Lys Ile Ala Met Ala Glu Lys Ser
305                 310                 315                 320

Ala Lys Ala Glu Ala Gln Leu Asn Asp Lys Leu Arg Arg Lys Leu Lys
                325                 330                 335

Ala Leu Glu Asp Asp Met Arg Asn Glu Ser Ser Asn Thr Ser Ala Ser
            340                 345                 350
```

```
Asn Lys Asp Asn Ala Thr Ser Lys Gln Ala Thr Pro Lys Arg Ser Ser
        355                 360                 365

Ser Gln Pro Arg Arg Pro Ile Ile Ser Ala Asp Gly Ala Asp Lys Arg
    370                 375                 380

Arg Pro Ala Ser Gln Pro Arg Ala Ser Val Ser Gly Lys Val Leu Asn
385                 390                 395                 400

Lys Gln Pro Gly Ser Glu Thr Glu Ala Ala Glu Lys Asn Arg His Ala
                405                 410                 415

Ala Ala Lys Arg Phe Asp Ser Pro Arg Ser Ala Lys Ser Val Ala Ala
            420                 425                 430

Gly Gly Arg Gly Glu Arg Pro Val Arg Ser His Leu Trp Ala His Arg
        435                 440                 445

Ser Lys Val Ala Asp Asp Ala Gly Lys Glu Asn Lys Glu Gln Asn Pro
    450                 455                 460

Asn Tyr Lys Ala His Leu Gly Asp Ser His Ala Asp Gly Asp Cys Gly
465                 470                 475                 480

Val Gln Cys Ser Glu His Glu Glu Ala Met Asp Leu Arg Lys Leu Asp
                485                 490                 495

Glu Gly Lys Ala Asp Asp Ser Asp Ala Val Lys Ser Thr Lys Asp Ser
            500                 505                 510

Cys Glu Ile
        515


<210> 105
<211> 155
<212> PRT
<213> Oryza sativa

<400> 105
Met Ala Ala Lys Leu Thr Gln Glu Gln Val Asp Glu Cys Arg Glu Ile
1               5                   10                  15

Phe Asp Leu Phe Asp Ser Asp Glu Asp Gly Arg Ile Ala Ala Gly Glu
            20                  25                  30

Leu Val Thr Ala Leu Arg Ser Leu Gly Gln Asn Val Asp Glu Ala Glu
        35                  40                  45
```

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

Gly Gly Gly Asp Ile Asp Phe Ala Ala Phe Leu Ser Val Ala Ala Arg
65 70 75 80

Lys Met Arg Arg Gly Ala Thr Glu Lys Glu Leu Ala Ala Cys Leu Asp
85 90 95

Val Phe Asp Asp Ala Arg Ser Gly Val Ile Pro Ala Glu Gln Leu Arg
100 105 110

Gln Ala Met Val Ser His Gly Asp Arg Leu Thr Glu Glu Glu Ala Asp
115 120 125

Glu Met Val Arg Lys Ala Asp Pro Ala Gly Glu Gly Arg Val Glu Tyr
130 135 140

Lys Glu Phe Val Lys Val Leu Met Asn Asn Lys
145 150 155

<210> 106
<211> 246
<212> PRT
<213> Oryza sativa

<400> 106
Met Ala Gly Gly Gly Gly Gly Gly Gly Arg Gly Glu Gly Glu Gly Arg
1 5 10 15

Ala Ala Thr Gly Lys Arg Glu Arg Ile Ala Ile Arg Arg Ile Asp Asn
20 25 30

Leu Ala Ala Arg Gln Val Thr Phe Ser Lys Arg Arg Arg Gly Leu Phe
35 40 45

Lys Lys Ala Glu Glu Leu Ser Ile Leu Cys Asp Ala Glu Val Gly Leu
50 55 60

Val Val Phe Ser Ala Thr Gly Lys Leu Phe Gln Phe Ala Ser Thr Ser
65 70 75 80

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

Arg Ala Glu Pro Ser Gln Leu Asp Leu Gln Gly Glu Asp Ser Ser Thr
100 105 110

Cys Ala Arg Leu Lys Glu Glu Leu Ala Glu Thr Ser Leu Arg Leu Arg
115 120 125

Gln Met Arg Gly Glu Glu Leu His Arg Leu Asn Val Glu Gln Leu Gln
130 135 140

Glu Leu Glu Lys Ser Leu Glu Ser Gly Leu Gly Ser Val Leu Lys Thr
145 150 155 160

Lys Ser Lys Lys Ile Leu Asp Glu Ile Asp Gly Leu Glu Arg Lys Arg
165 170 175

Met Gln Leu Ile Glu Glu Asn Leu Arg Leu Lys Glu Gln Leu Gln Val
180 185 190

Ser Arg Met Ser Arg Met Glu Glu Met Gln Pro Gly Pro Asp Ser Glu
195 200 205

Ile Val Tyr Glu Glu Gly Gln Ser Ser Glu Ser Val Thr Asn Ala Ser
210 215 220

Tyr Pro Arg Pro Pro Pro Asp Asn Asp Tyr Ser Ser Asp Thr Ser Leu
225 230 235 240

Lys Leu Gly Leu His Ser
245

<210> 107
<211> 305
<212> PRT
<213> Oryza sativa

<400> 107
Met Ala Ser Pro Ala Ala Gly Thr Pro Pro Phe Leu Thr Lys Thr Tyr
1 5 10 15

Ala Met Val Glu Asp Pro Ser Thr Asp Glu Thr Ile Ser Trp Asn Asp
20 25 30

Ser Gly Thr Ala Phe Val Val Trp Arg Pro Ala Glu Phe Ala Arg Asp
35 40 45

Leu Leu Pro Lys His Phe Lys His Ser Asn Phe Ser Ser Phe Val Arg
50 55 60

Gln Leu Asn Thr Tyr Gly Phe Lys Lys Val Val Ala Asp Arg Trp Glu
65 70 75 80

Phe Ala Asn Asp Cys Phe Arg Arg Gly Glu Lys His Leu Leu Gly Gly

85 90 95

Ile Gln Arg Arg Lys Gly Ser Gly Thr Gly Gly Ala Gly Ala Ala Pro
100 105 110

Ala Gly Gly Ile Pro Thr Ala Ile Pro Ile Ser Ser Pro Pro Thr Ser
115 120 125

Ser Gly Gly Glu Pro Ala Val Ser Ser Ser Pro Pro Arg Gly Ala Ala
130 135 140

Gly Ile Ala Ala Gly Val Ser Gly Ala Val Ala Glu Leu Glu Glu Glu
145 150 155 160

Asn Ala Arg Leu Arg Arg Glu Asn Ala Arg Leu Ala Arg Glu Leu Ala
165 170 175

Arg Ala Arg Arg Val Cys Asp Gly Val Arg Arg Leu Val Ser Arg Tyr
180 185 190

Asp His Asp His Gly Gly Gly Glu Glu Glu Ala Gly Glu Gly Asp Val
195 200 205

Lys Pro Met Leu Phe Gly Val Ala Ile Gly Gly Lys Arg Ser Arg Glu
210 215 220

Glu Asn Gly Glu Asp Glu Glu Glu Glu Glu Glu Glu Gly Ala Asp Glu
225 230 235 240

Asp Gly Glu Asp Asp Glu Val Glu Glu Asp Asp Glu Glu Arg Glu Arg
245 250 255

His Ala Ala Arg Arg Val Pro Val Arg Glu Gly Lys Val Arg Arg Thr
260 265 270

Thr Glu Leu Ser Asp Leu Asp Val Leu Ala Leu Ser Val Arg Ala Ala
275 280 285

Ala Ala Ala Arg Pro Gly Gly Ala Ser Arg Asp Arg Lys Ser Ser Val
290 295 300

Ser
305

<210> 108
<211> 608
<212> PRT
<213> Oryza sativa

<400> 108
Met Ala Asp Gly Val Glu Glu Gly Asn Ala Val Ala Pro Arg Gly Pro
1 5 10 15

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

Ile Ala Leu Met His Gly Ser Asp Pro Val Arg Val Glu Leu Thr Arg
35 40 45

Leu Glu Asn Glu Leu Arg Asp Lys Glu Arg Glu Leu Gly Glu Ala Gln
50 55 60

Thr Glu Ile Arg Ala Leu Arg Leu Ser Glu Arg Ala Arg Glu Lys Ala
65 70 75 80

Val Glu Glu Leu Thr Asp Glu Leu Glu Lys Met Phe Glu Lys Leu Lys
85 90 95

Leu Thr Glu Ser Leu Leu Asp Ser Lys Asn Leu Glu Val Lys Lys Ile
100 105 110

Asn Asp Glu Lys Lys Ala Ala Met Ala Ala Gln Phe Ala Ala Glu Ala
115 120 125

Thr Leu Arg Arg Val His Ala Ala Gln Lys Asp Asp Asp Met Pro Pro
130 135 140

Ile Glu Ala Ile Leu Ala Pro Leu Glu Ala Glu Leu Lys Leu Ala Arg
145 150 155 160

Gln Glu Ile Ala Lys Leu Gln Asp Asp Asn Arg Ala Leu Asp Arg Leu
165 170 175

Thr Lys Gln Lys Glu Ala Ala Leu Leu Asp Ala Glu Arg Thr Val Glu
180 185 190

Ile Ala Met Ala Lys Ala Ala Met Val Asp Asp Leu Gln Asn Lys Asn
195 200 205

Gln Glu Leu Met Lys Gln Ile Glu Ile Cys His Glu Glu Asn Lys Ile
210 215 220

Leu Asp Lys Leu Gln Arg Gln Lys Val Ala Glu Val Lys Lys Leu Ser
225 230 235 240

Leu Thr Val Lys Glu Leu Glu Glu Ala Val Leu Arg Gly Gly Ala Thr

245 250 255

Ala Asn Val Val Arg Asp Tyr Gln Arg Gln Val Gln Glu Val Asn Asp
260 265 270

Gln Lys Lys Thr Leu Glu Cys Glu Leu Ala Arg Ala Lys Val Thr Ala
275 280 285

Asn Arg Val Ala Val Val Val Ala Asn Glu Trp Lys Asp Ser Asn Asp
290 295 300

Lys Val Met Pro Val Lys Gln Trp Leu Glu Glu Arg Arg Phe Leu Gln
305 310 315 320

Gly Glu Met Gln Gln Leu Arg Asp Lys Leu Ala Val Ala Glu Arg Thr
325 330 335

Ala Arg Ser Glu Ala Gln Leu Lys Glu Lys Tyr Gln Leu Arg Leu Lys
340 345 350

Val Leu Glu Asp Gly Leu Arg Gly Pro Pro Ser Gly Ser Ser Arg Leu
355 360 365

Pro Thr Glu Gly Lys Ser Phe Ser Asn Gly Pro Ser Arg Arg Leu Ser
370 375 380

Leu Gly Gly Ala Asp Asn Met Ser Lys Leu Ser Pro Asn Gly Leu Leu
385 390 395 400

Ala Arg Arg Ser Pro Ser Phe His Ser Arg Ser Ser Leu Ser Ser Ser
405 410 415

Ser Ser Leu Val Leu Lys His Ala Lys Gly Thr Ser Lys Ser Phe Asp
420 425 430

Gly Gly Thr Arg Ser Leu Asp Arg Ser Lys Ile Asn Gly Asn Gly Ala
435 440 445

His Leu Leu Asn Arg Ser Thr Asp Ala Val Arg Asp Cys Glu Thr Asn
450 455 460

Asp Ser Trp Lys Gly Asn Ala Asp Glu Gly Thr Ile Glu Asn Thr Asn
465 470 475 480

Ser Asn Thr Asp Glu Ser Asn Lys Glu Thr Ala Asn Asn Lys Ser Ala
485 490 495

Glu Met Val Ser Gly Phe Leu Tyr Asp Met Leu Gln Lys Glu Val Ile
500 505 510

Ser Leu Arg Lys Ala Cys His Glu Lys Asp Gln Ser Leu Lys Asp Lys
515 520 525

Asp Asp Ala Ile Glu Met Leu Ala Lys Lys Val Asp Thr Leu Thr Lys
530 535 540

Ala Met Glu Val Glu Ala Lys Lys Met Arg Arg Glu Val Ala Ala Met
545 550 555 560

Glu Lys Glu Val Ala Ala Met Arg Val Asp Lys Glu Gln Glu Val Lys
565 570 575

Ala Arg Arg Leu Gly Ser Ser Lys Gly Thr Gly Ser Ser Gln Val Leu
580 585 590

Ser Gly Ser Arg Ser Ser Ser Arg Ser Gly Leu Thr Arg Asn Tyr Gln
595 600 605

<210> 109
<211> 1045
<212> PRT
<213> Sus scrofa

<400> 109
Met Ala Thr Pro Ala Gly Leu Glu Arg Trp Val Gln Asp Glu Leu His
1 5 10 15

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

Thr Ala Gln Arg Cys Ala Ser Ala Glu Glu Phe Val Gln Arg Leu Arg
35 40 45

Asp Thr Asp Thr Leu Asp Leu Ser Gly Pro Ala Arg Asp Phe Ala Leu
50 55 60

Lys Leu Trp Asn Lys Val Pro Arg Lys Ala Val Ala Glu Lys Pro Ala
65 70 75 80

Arg Ala Ala Glu Arg Glu Ala Arg Ala Leu Leu Glu Lys Asn Arg Ser
85 90 95

Tyr Arg Leu Leu Glu Asp Ser Glu Glu Ser Ser Glu Glu Ala Val Gly
100 105 110

Arg Ala Gly Ser Ser Leu Gln Lys Lys Arg Lys Lys Arg Lys His Leu

```
        115                 120                 125

Arg Lys Lys Arg Gln Glu Glu Glu Glu Glu Glu Glu Glu Glu Val
    130                 135                 140

Pro Glu Lys Gly Lys Lys Thr Thr Gly Gly Asn Lys Pro Gln Thr Glu
145                 150                 155                 160

Lys Pro Glu Ser Glu Asp Glu Trp Glu Arg Thr Glu Arg Glu Arg Leu
                165                 170                 175

Gln Asp Leu Glu Glu Arg Asp Ala Phe Ala Glu Arg Val Arg Gln Arg
            180                 185                 190

Asp Lys Asp Arg Thr Arg Asn Val Leu Glu Arg Ser Asp Lys Lys Ala
        195                 200                 205

Tyr Glu Glu Ala Gln Lys Arg Leu Lys Met Ala Glu Glu Asp Arg Lys
    210                 215                 220

Ala Met Val Pro Glu Leu Arg Lys Lys Ser Arg Arg Glu Tyr Leu Ala
225                 230                 235                 240

Lys Arg Glu Arg Glu Lys Leu Glu Asp Leu Glu Ala Glu Leu Ala Asp
                245                 250                 255

Glu Glu Phe Leu Phe Gly Asp Val Glu Leu Ser Arg His Glu Arg Arg
            260                 265                 270

Glu Leu Lys Tyr Lys Arg Arg Val Arg Asp Leu Ala Arg Glu Tyr Arg
        275                 280                 285

Ala Ala Gly Glu Gln Glu Lys Leu Glu Ala Thr Asn Arg Tyr His Met
    290                 295                 300

Pro Glu Glu Thr Arg Gly Gln Pro Thr Arg Ala Val Asp Leu Val Glu
305                 310                 315                 320

Glu Glu Ser Gly Ala Pro Gly Glu Glu Gln Arg Arg Trp Glu Glu Ala
                325                 330                 335

Arg Leu Gly Ala Ala Ser Leu Lys Phe Gly Ala Arg Asp Ala Ala Ser
            340                 345                 350

Gln Glu Pro Lys Tyr Gln Leu Val Leu Glu Glu Glu Glu Thr Ile Glu
        355                 360                 365
```

```
Phe Val Arg Ala Thr Gln Leu Gln Gly Asp Glu Glu Pro Ala Ala Pro
    370                 375                 380

Pro Ala Pro Thr Gln Ala Gln Gln Lys Glu Ser Ile Gln Ala Val Arg
385                 390                 395                 400

Arg Ser Leu Pro Val Phe Pro Phe Arg Glu Glu Leu Leu Ala Ala Val
                405                 410                 415

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

Thr Thr Gln Ile Pro Gln Tyr Leu Phe Glu Glu Gly Tyr Thr Gln Lys
        435                 440                 445

Gly Met Lys Ile Ala Cys Thr Gln Pro Arg Arg Val Ala Ala Met Ser
    450                 455                 460

Val Ala Ala Arg Val Ala Arg Glu Met Gly Val Lys Leu Gly Asn Glu
465                 470                 475                 480

Val Gly Tyr Ser Ile Arg Phe Glu Asp Cys Thr Ser Glu Arg Thr Val
                485                 490                 495

Leu Arg Tyr Met Thr Asp Gly Met Leu Leu Arg Glu Phe Leu Ser Glu
            500                 505                 510

Pro Asp Leu Ala Ser Tyr Ser Val Val Met Val Asp Glu Ala His Glu
        515                 520                 525

Arg Thr Leu His Thr Asp Ile Leu Phe Gly Leu Ile Lys Asp Val Ala
    530                 535                 540

Arg Phe Arg Pro Glu Leu Lys Val Leu Val Ala Ser Ala Thr Leu Asp
545                 550                 555                 560

Thr Ala Arg Phe Ser Thr Phe Phe Asp Asp Ala Pro Val Phe Arg Ile
                565                 570                 575

Pro Gly Arg Arg Phe Pro Val Asp Ile Phe Tyr Thr Lys Ala Pro Glu
            580                 585                 590

Ala Asp Tyr Leu Glu Ala Cys Val Val Ser Val Leu Gln Ile His Val
        595                 600                 605

Thr Gln Pro Pro Gly Asp Ile Leu Val Phe Leu Thr Gly Gln Glu Glu
    610                 615                 620
```

```
Ile Glu Ala Ala Cys Glu Met Leu Gln Asp Arg Cys Arg Arg Leu Gly
625                 630                 635                 640

Ser Lys Ile Arg Glu Leu Leu Val Leu Pro Ile Tyr Ala Asn Leu Pro
                645                 650                 655

Ser Asp Met Gln Ala Arg Ile Phe Gln Pro Thr Pro Pro Gly Ala Arg
            660                 665                 670

Lys Val Val Val Ala Thr Asn Ile Ala Glu Thr Ser Leu Thr Ile Glu
        675                 680                 685

Gly Ile Ile Tyr Val Leu Asp Pro Gly Phe Cys Lys Gln Lys Ser Tyr
    690                 695                 700

Asn Pro Arg Thr Gly Met Glu Ser Leu Thr Val Thr Pro Cys Ser Lys
705                 710                 715                 720

Ala Ser Ala Asn Gln Arg Ala Gly Arg Ala Gly Arg Val Ala Ala Gly
                725                 730                 735

Lys Cys Phe Arg Leu Tyr Thr Ala Trp Ala Tyr Gln His Glu Leu Glu
            740                 745                 750

Glu Thr Thr Val Pro Glu Ile Gln Arg Thr Ser Leu Gly Asn Val Val
        755                 760                 765

Leu Leu Leu Lys Ser Leu Gly Ile His Asp Leu Met His Phe Asp Phe
    770                 775                 780

Leu Asp Pro Pro Pro Tyr Glu Thr Leu Leu Leu Ala Leu Glu Gln Leu
785                 790                 795                 800

Tyr Ala Leu Gly Ala Leu Asn His Leu Gly Glu Leu Thr Thr Ser Gly
                805                 810                 815

Arg Lys Met Ala Glu Leu Pro Val Asp Pro Met Leu Ser Lys Met Ile
            820                 825                 830

Leu Ala Ser Glu Lys Tyr Ser Cys Ser Glu Glu Ile Leu Thr Val Ala
        835                 840                 845

Ala Met Leu Ser Val Asn Asn Ser Ile Phe Tyr Arg Pro Lys Asp Lys
    850                 855                 860

Val Val His Ala Asp Asn Ala Arg Val Asn Phe Phe Leu Pro Gly Gly
865                 870                 875                 880
```

```
Asp His Leu Val Leu Leu Asn Val Tyr Thr Gln Trp Ala Glu Ser Gly
               885                 890                 895

Tyr Ser Ser Gln Trp Cys Tyr Glu Asn Phe Val Gln Phe Arg Ser Met
           900                 905                 910

Arg Arg Ala Arg Asp Val Arg Glu Gln Leu Glu Gly Leu Leu Glu Arg
       915                 920                 925

Val Glu Val Gly Leu Ser Ser Cys Gln Gly Asp Tyr Ile Arg Val Arg
   930                 935                 940

Lys Ala Ile Thr Ala Gly Tyr Phe Tyr His Thr Ala Arg Leu Thr Arg
945                 950                 955                 960

Ser Gly Tyr Arg Thr Val Lys Gln Gln Gln Thr Val Phe Ile His Pro
               965                 970                 975

Asn Ser Ser Leu Phe Glu Glu Gln Pro Arg Trp Leu Leu Tyr His Glu
           980                 985                 990

Leu Val Leu Thr Thr Lys Glu Phe  Met Arg Gln Val Leu  Glu Ile Glu
       995                 1000                1005

Ser Ser  Trp Leu Leu Glu Val  Ala Pro His Tyr Tyr  Lys Ala Lys
   1010                1015                1020

Glu Leu  Glu Asp Pro His Ala  Lys Lys Met Pro Lys  Lys Thr Gly
   1025                1030                1035

Lys Thr  Arg Glu Glu Leu Gly
   1040                1045
```

<210> 110
<211> 723
<212> PRT
<213> Ovis aries

<400> 110

```
Met Asn Pro Thr Glu Ala Lys Ala Ile Pro Gly Ser Lys Gln Leu Glu
1               5                   10                  15

Gly Pro His Ser Pro Asn Lys Lys Arg His Lys Lys Gln Ala Val Lys
            20                  25                  30

Thr Glu Pro Glu Lys Lys Ser Gln Ser Thr Lys Pro Ser Val Val His
        35                  40                  45
```

```
Glu Lys Lys Thr Gln Glu Val Lys Pro Lys Glu His Thr Glu Pro Lys
    50                  55                  60

Ser Gln Pro Lys His Pro Ser Asp Thr Arg Ser Lys His Ala Pro Lys
65                  70                  75                  80

Glu Lys Ala Val Ser Lys Ser Ser Glu Gln Pro Pro Ser Glu Lys Ser
                85                  90                  95

Thr Lys Pro Lys Thr Lys Ser Gln Asp Glu Ile Ser Gly Gly Gly Lys
            100                 105                 110

Ser Ala Val Pro Ala Val Ala Ala Ala Ala Ser Ala Glu Pro Ala Asp
        115                 120                 125

Lys Asn Lys Glu Ser Lys Leu Leu Thr Ser Ala Val Pro Val Glu Ser
    130                 135                 140

Lys Pro Ser Lys Pro Ser Ala Lys Ser Asp Met Asp Thr Ala Leu Asp
145                 150                 155                 160

Asp Leu Ile Asp Thr Leu Gly Glu Pro Glu Glu Thr Lys Glu Asp Thr
                165                 170                 175

Thr Thr Tyr Thr Gly Pro Glu Val Ser Asp Pro Met Ser Ser Thr Tyr
            180                 185                 190

Ile Glu Glu Leu Gly Lys Arg Glu Val Thr Leu Pro Pro Lys Tyr Arg
        195                 200                 205

Glu Leu Leu Asn Lys Glu Glu Gly Ile Ala Gly Pro Pro Pro Asp Ser
    210                 215                 220

Ser Lys Pro Leu Gly Pro Asn Asp Ala Ile Asp Ala Leu Ser Ser Asp
225                 230                 235                 240

Phe Thr Cys Ser Ser Pro Thr Ala Asp Ala Lys Lys Thr Glu Lys Glu
                245                 250                 255

Lys Ser Thr Glu Glu Ala Leu Lys Ala Gln Ser Ala Gly Val Ile Arg
            260                 265                 270

Ser Ala Ala Pro Pro Lys Glu Lys Arg Arg Lys Val Glu Glu Asp Thr
        275                 280                 285

Met Thr Glu Gln Ala Leu Glu Ala Leu Ser Ala Ser Leu Gly Thr Arg
    290                 295                 300
```

```
Lys Pro Arg Pro Glu Leu Asp Pro Ser Ser Ile Lys Glu Val Asp Glu
305                 310                 315                 320

Ala Lys Ala Lys Glu Glu Lys Val Lys Lys Cys Gly Glu Asp Glu Glu
                325                 330                 335

Arg Val Pro Ser Glu Tyr Arg Leu Lys Pro Ala Thr Asp Lys Asp Gly
            340                 345                 350

Lys Pro Leu Leu Pro Glu Ala Glu Glu Lys Pro Lys Pro Leu Ser Glu
        355                 360                 365

Ser Glu Leu Ile Asp Glu Leu Ser Glu Asp Phe Asp Arg Ser Lys Cys
    370                 375                 380

Lys Glu Lys Gln Ser Lys Pro Thr Glu Lys Asn Arg Gly Ile Pro Gly
385                 390                 395                 400

Arg Cys Pro Arg Ala Cys Ala Arg Gly Cys Ala Ser Asp Leu His Val
                405                 410                 415

Phe Cys Ala Val Ser Ser Thr His Ser Ser Ser Ser Glu Gly Met Val
            420                 425                 430

Pro Asp Asp Ala Val Glu Ala Leu Ala Gly Ser Leu Gly Lys Lys Glu
        435                 440                 445

Ala Asp Pro Glu Asp Gly Lys Pro Val Glu Asp Lys Val Lys Glu Lys
    450                 455                 460

Ala Lys Glu Glu Asp Arg Glu Lys Leu Gly Glu Arg Glu Glu Thr Ile
465                 470                 475                 480

Pro Pro Asp Tyr Arg Leu Glu Glu Ala Lys Asp Lys Asp Gly Lys Pro
                485                 490                 495

Leu Pro Pro Lys Glu Val Lys Glu Pro Leu Pro Pro Leu Ser Glu Asp
            500                 505                 510

Phe Leu Leu Asp Ala Leu Ser Lys Asp Phe Thr Val Pro Ser Asp Thr
        515                 520                 525

Ser Ser Pro Gln Phe Glu Asp Ala Lys Leu Ser Val Val Val Ser Glu
    530                 535                 540

Val Val Ser Gln Thr Pro Ala Pro Thr Thr Gln Ala Ala Gly Pro Pro
```

545 550 555 560

Arg Asp Ser Ala Arg Asp Asn Lys Glu Leu Asp Asp Ala Leu Asp Gln
565 570 575

Leu Ser Asp Ser Leu Gly Gln Arg Gln Pro Asp Pro Asp Glu His Lys
580 585 590

Pro Val Glu Asp Lys Val Lys Glu Lys Ala Lys Ala Glu His Arg Asp
595 600 605

Lys Leu Gly Glu Arg Asp Asp Thr Ile Pro Pro Lys Tyr Gln His Leu
610 615 620

Leu Asp Asp Asn Lys Glu Gly Thr Pro Gly Lys Pro Lys Arg Ser Glu
625 630 635 640

Ser Pro Arg His Gln Arg Ser Pro Arg His Gln Arg Asn Leu Gln Val
645 650 655

Pro Arg Thr Pro Leu Thr Pro Ser Gln Gly Thr Trp Thr Ala Val Pro
660 665 670

Gln Leu Gln Lys Pro Gln Gln Thr Gln Gln Arg Thr Lys Thr Arg Ser
675 680 685

Leu Leu Pro Ser Asp Lys Ala Pro Arg Asn Gly Gly Lys Ala Lys Asp
690 695 700

Ser Thr Lys Ala Lys Glu Glu Thr Ser Lys Pro Lys Ala Asp Gly Lys
705 710 715 720

Ser Thr Ser

<210> 111
<211> 278
<212> PRT
<213> Ovis aries

<400> 111
Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Ala Ser Ala
1 5 10 15

Leu Pro Val Lys Pro Thr Ser Ser Gly Ser Ser Glu Glu Lys Gln Leu
20 25 30

Asn Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Lys Pro Asp Pro
35 40 45

```
Ser Gln Lys Gln Thr Phe Leu Glu Pro Gln Asn Ser Val Ser Ser Glu
    50                  55                  60

Glu Thr Asp Asp Asn Lys Gln Asn Thr Leu Pro Ser Lys Ser Asn Glu
65                  70                  75                  80

Ser Pro Glu Gln Thr Asp Asp Leu Asp Asp Asp Asp Glu Asn Ser Gln
                85                  90                  95

Glu Val Asn Ser Asp Asp Ser Asp Asp Ala Glu Thr Pro Asp Asp Ser
            100                 105                 110

Asp His Ser Asn Glu Ser His His Ser Asp Glu Ser Asp Glu Ala Asp
        115                 120                 125

Phe Pro Thr Asp Ile Pro Thr Ile Ala Val Phe Thr Pro Pro Phe Pro
    130                 135                 140

Thr Glu Ser Thr Asn Asp Gly Arg Gly Asp Ser Val Ala Tyr Gly Leu
145                 150                 155                 160

Lys Ser Lys Ser Lys Lys Phe Arg Arg Ser Asn Val Glu Ser Pro Asp
                165                 170                 175

Ala Thr Glu Glu Asp Phe Thr Ser His Ile Glu Ser Glu Glu Met His
            180                 185                 190

Asp Ala Pro Lys Lys Thr Ser Gln Leu Thr Asp His Ser Glu Glu Thr
        195                 200                 205

Asn Ser Asp Glu Leu Pro Lys Glu Leu Thr Pro Lys Ala Lys Glu Glu
    210                 215                 220

Ser Lys His Ser Asn Arg Ile Glu Ser Gln Glu Asn Ser Lys Leu Ser
225                 230                 235                 240

Gln Glu Phe His Ser Leu Glu Asp Lys Leu Asp Leu Asp His Lys Ser
                245                 250                 255

Glu Glu Asp Lys Arg Leu Lys Ile Arg Ile Ser His Glu Leu Asp Ser
            260                 265                 270

Val Ser Ser Glu Val Asn
        275
```

<210> 112

<211> 148
<212> PRT
<213> Oryza sativa

<400> 112
Met Gly Gly Lys Glu Leu Ser Glu Glu Gln Val Ala Ser Met Arg Glu
1 5 10 15

Ala Phe Ser Leu Phe Asp Thr Asp Gly Asp Gly Arg Ile Ala Pro Ser
20 25 30

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

Gln Leu Arg Asp Ile Ala Ala Gln Glu Lys Leu Thr Ala Pro Phe Asp
50 55 60

Phe Pro Arg Phe Leu Asp Leu Met Arg Ala His Leu Arg Pro Glu Pro
65 70 75 80

Phe Asp Arg Pro Leu Arg Asp Ala Phe Arg Val Leu Asp Lys Asp Ala
85 90 95

Ser Gly Thr Val Ser Val Ala Asp Leu Arg His Val Leu Thr Ser Ile
100 105 110

Gly Glu Lys Leu Glu Pro His Glu Phe Asp Glu Trp Ile Arg Glu Val
115 120 125

Asp Val Ala Pro Asp Gly Thr Ile Arg Tyr Asp Asp Phe Ile Arg Arg
130 135 140

Ile Val Ala Lys
145

<210> 113
<211> 559
<212> PRT
<213> Triticum aestivum

<220>
<221> MOD_RES
<222> (284)..(284)
<223> Any amino acid

<400> 113
Met Asp Asp Asp Phe Asp Ile Pro Ala Gly Asp Asp Met Met Met Gly
1 5 10 15

Asp Gly Met Gly Asp Phe Gly Gly Ala Glu Gly Pro Gly Met Lys Val
20 25 30

```
Gly Glu Glu Asn Glu Ile Gly Lys Gln Gly Leu Lys Lys Lys Leu Leu
        35                  40                  45

Lys Glu Gly Glu Gly Trp Asp Thr Pro Glu Val Gly Asp Glu Val Glu
    50                  55                  60

Val His Tyr Thr Gly Thr Leu Leu Asp Gly Lys Lys Phe Asp Ser Ser
65                  70                  75                  80

Arg Asp Arg Asp Asp Thr Phe Lys Phe Lys Leu Gly Gln Gly Gln Val
                85                  90                  95

Ile Lys Gly Trp Asp Gln Gly Ile Lys Thr Met Lys Lys Gly Glu Asn
            100                 105                 110

Ala Leu Phe Thr Ile Pro Pro Glu Leu Ala Tyr Gly Glu Ser Gly Ser
        115                 120                 125

Pro Pro Thr Ile Pro Ala Asn Ala Thr Leu Gln Phe Asp Val Glu Leu
    130                 135                 140

Leu Ser Trp Thr Ser Val Arg Asp Ile Ala Lys Asp Gly Gly Ile Phe
145                 150                 155                 160

Lys Lys Ile Leu Lys Glu Gly Asp Lys Trp Glu Asn Pro Lys Asp Pro
                165                 170                 175

Asp Glu Val Phe Val Lys Tyr Glu Ala Arg Leu Glu Asp Gly Thr Val
            180                 185                 190

Val Ser Lys Ser Glu Gly Val Glu Phe Thr Val Lys Asp Gly His Leu
        195                 200                 205

Cys Pro Ala Leu Ala Lys Ala Val Lys Thr Met Lys Lys Gly Glu Lys
    210                 215                 220

Val Leu Leu Ala Val Lys Pro Gln Tyr Gly Phe Gly Glu Met Gly Arg
225                 230                 235                 240

Pro Ala Ala Gly Glu Gly Gly Ala Val Pro Pro Asn Ala Ser Leu Val
                245                 250                 255

Ile Asp Leu Glu Leu Val Ser Trp Lys Thr Val Thr Glu Ile Gly Asp
            260                 265                 270

Asp Lys Lys Ile Leu Lys Lys Val Leu Lys Glu Xaa Glu Gly Tyr Glu
```

```
        275                 280                 285

Arg Pro Asn Glu Gly Ala Val Val Thr Val Lys Ile Thr Gly Lys Leu
    290                 295                 300

Gln Asp Gly Thr Val Phe Leu Lys Lys Gly His Asp Glu Gln Glu Pro
305                 310                 315                 320

Phe Glu Phe Lys Thr Asp Glu Glu Ala Val Ile Glu Gly Leu Asp Arg
                325                 330                 335

Ala Val Leu Asn Met Lys Lys Gly Glu Val Ala Leu Val Thr Ile Pro
            340                 345                 350

Pro Glu Tyr Ala Tyr Gly Ser Thr Glu Ser Lys Gln Asp Ala Ile Val
        355                 360                 365

Pro Pro Asn Ser Thr Val Ile Tyr Glu Val Glu Leu Val Ser Phe Val
    370                 375                 380

Lys Asp Lys Glu Ser Trp Asp Leu Asn Asn Ser Glu Lys Ile Glu Ala
385                 390                 395                 400

Ala Gly Thr Lys Lys Glu Glu Gly Asn Ala Leu Phe Lys Ser Gly Lys
                405                 410                 415

Tyr Ala Arg Ala Ser Lys Arg Tyr Glu Lys Ala Ala Lys Phe Ile Glu
            420                 425                 430

Tyr Asp Thr Ser Phe Ser Glu Asp Glu Lys Lys Gln Ser Lys Gln Leu
        435                 440                 445

Lys Ile Thr Cys Asn Leu Asn Asn Ala Ala Cys Lys Leu Lys Leu Lys
    450                 455                 460

Asp Tyr Lys Gln Ala Glu Lys Leu Cys Thr Lys Val Leu Glu Leu Asp
465                 470                 475                 480

Ser Arg Asn Val Lys Ala Leu Tyr Arg Arg Ala Gln Ala Tyr Thr Gln
                485                 490                 495

Leu Ala Asp Leu Glu Leu Ala Glu Val Asp Ile Lys Lys Ala Leu Glu
            500                 505                 510

Ile Asp Pro Glu Asn Arg Asp Val Lys Leu Thr Tyr Lys Thr Leu Lys
        515                 520                 525
```

Glu Lys Ile Lys Glu Ile Asn Lys Lys Asp Ala Lys Phe Tyr Ser Asn
530 535 540

Met Phe Ser Lys Met Thr Lys Pro Ser Ala Glu Glu Ser Lys Ala
545 550 555

<210> 114
<211> 271
<212> PRT
<213> Sus scrofa

<400> 114
Met Ser Asp Glu Glu Val Glu His Val Glu Glu Glu Tyr Glu Glu Glu
1 5 10 15

Glu Glu Ala Gln Glu Glu Ala Pro Pro Pro Pro Ala Glu Val His Glu
20 25 30

Val His Glu Glu Val His Glu Val His Glu Pro Glu Glu Val Gln Glu
35 40 45

Glu Glu Lys Pro Arg Pro Lys Leu Thr Ala Pro Lys Ile Pro Glu Gly
50 55 60

Glu Lys Val Asp Phe Asp Asp Ile Gln Lys Lys Arg Gln Asn Lys Asp
65 70 75 80

Leu Met Glu Leu Gln Ala Leu Ile Asp Ser His Phe Glu Ala Arg Lys
85 90 95

Lys Glu Glu Glu Glu Leu Val Ala Leu Lys Glu Arg Ile Glu Lys Arg
100 105 110

Arg Ala Glu Arg Ala Glu Gln Gln Arg Ile Arg Ala Glu Lys Glu Arg
115 120 125

Glu Arg Gln Asn Arg Leu Ala Glu Glu Lys Ala Arg Arg Glu Glu Glu
130 135 140

Glu Ala Lys Arg Arg Ala Glu Asp Asp Leu Lys Lys Lys Lys Ala Leu
145 150 155 160

Ser Ser Met Gly Ala Asn Tyr Ser Ser Tyr Leu Ala Lys Ala Asp Gln
165 170 175

Lys Arg Gly Lys Lys Gln Thr Ala Arg Glu Met Lys Lys Lys Val Leu
180 185 190

Ala Glu Arg Arg Lys Pro Leu Asn Ile Asp His Leu Ser Glu Asp Lys

195 200 205

Leu Arg Asp Lys Ala Lys Glu Leu Trp Asp Ala Leu Tyr Gln Leu Glu
210 215 220

Ile Asp Lys Phe Glu Tyr Gly Glu Lys Leu Lys Arg Gln Lys Tyr Asp
225 230 235 240

Ile Ile Asn Leu Arg Ser Arg Ile Asp Gln Ala Gln Lys His Ser Lys
245 250 255

Lys Ala Gly Thr Thr Pro Lys Gly Lys Val Gly Gly Arg Trp Lys
260 265 270

<210> 115
<211> 258
<212> PRT
<213> Solanum lycopersicum

<400> 115
Met Ala Ser Pro Arg Glu Glu Asn Val Tyr Met Ala Lys Leu Ala Glu
1 5 10 15

Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu Lys Val Val
20 25 30

Ala Ala Ala Asp Gly Ala Glu Glu Leu Thr Val Glu Glu Arg Asn Leu
35 40 45

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

Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly Asn Glu
65 70 75 80

Asp His Val Ala Ser Ile Lys Glu Tyr Arg Ser Lys Ile Glu Ser Glu
85 90 95

Leu Thr Ser Ile Cys Asn Gly Ile Leu Lys Leu Leu Asp Ser Lys Leu
100 105 110

Ile Gly Ser Ala Ala Thr Gly Asp Ser Lys Val Phe Tyr Leu Lys Met
115 120 125

Lys Gly Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Ala Glu
130 135 140

Arg Lys Glu Ala Ala Glu Asn Thr Leu Ser Ala Tyr Lys Ala Ala Gln
145 150 155 160

```
Asp Ile Ala Asn Ala Glu Leu Ala Pro Thr His Pro Ile Arg Leu Gly
                165                 170                 175

Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro
            180                 185                 190

Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ala
        195                 200                 205

Glu Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile
    210                 215                 220

Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Met Gln
225                 230                 235                 240

Asp Asp Gly Thr Asp Glu Ile Lys Glu Ala Thr Pro Lys Pro Asp Asp
                245                 250                 255

Asn Glu
```

<210> 116
<211> 647
<212> PRT
<213> Oryza sativa

<400> 116

```
Met Asp Ser Ala Val Arg Pro Pro Val Asp Ala Glu Glu Ala Arg Arg
1               5                   10                  15

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

Lys Lys Gly Ser Glu Cys Glu Tyr Arg His Ser Asp Ala Ala Arg Met
        35                  40                  45

Asn Pro Arg Asp Cys Trp Tyr Trp Phe Asn Gly Asn Cys Ala Asn Pro
    50                  55                  60

Lys Cys Ser Phe Arg His Pro Pro Leu Asp Gly Leu Val Gly Ala Pro
65                  70                  75                  80

Thr Thr Pro Arg Thr Ser Gln Gln Ser Ala Pro Gln Val Ser Val Pro
                85                  90                  95

Ala Gln Ala Pro Val Pro Asn Pro Ala Ser Gly Thr Ala Lys Gln Gly
            100                 105                 110
```

```
Val Pro Cys Tyr Tyr Phe Gln Lys Gly Met Cys Val Lys Gly Asp Arg
        115                 120                 125

Cys Ala Phe Leu His Leu Pro Gln Ala Thr Gly Ser Pro Ala Pro Gln
    130                 135                 140

His Thr Thr Lys Val Phe Ala Pro Ala Ser Val Pro His Pro Gln Leu
145                 150                 155                 160

Lys Asn Ser Trp Thr Lys Pro Asn Ser Ser Ala Gln Gln Asn Ala Pro
                165                 170                 175

Pro Ala Ile Phe Asp Lys Pro Lys Asp Ser Ala His Asn Gly Lys Thr
            180                 185                 190

Ala Gln Lys Gln Asn Leu Thr Asn Arg Ala Gly His Ser Ser Gly Ile
        195                 200                 205

Ile His Asp Lys Lys Gly Ser Tyr Met Pro Ser Gly Val Thr Lys Asn
    210                 215                 220

Tyr Arg Pro Pro Pro Ser Thr Gly Asp Asp Leu Ala Glu Asn Gly Val
225                 230                 235                 240

Glu Met Gly Glu Phe Val Arg Glu Pro Ser Pro Gly Ser Asp Val Leu
                245                 250                 255

Thr Gly Gly Ala Asp Asp Asn Thr Glu Gln Ser Leu Arg Glu Asp Arg
            260                 265                 270

Gly Ala Tyr Arg Arg Thr Asn Gly Glu Gln His Ile Gly Met Leu Arg
        275                 280                 285

Gln Thr His Asp Ser Tyr Gly Phe Glu Arg Ser His Arg Gly Ser Ala
    290                 295                 300

Glu Lys Leu Leu Ser Glu Ser Arg Phe Ser Gln Arg Glu Pro Met Pro
305                 310                 315                 320

Leu Thr Ala Asp Ser Ser Asp Leu Arg Gln Arg Leu Leu Lys Gln Arg
                325                 330                 335

Arg Leu Asn Asn Pro Arg Ser Gly Gln Val Ser Asp Arg His Asn Val
            340                 345                 350

Tyr Pro Glu Asp Glu Arg His Asp Arg His Arg Gln Arg Gly Glu Glu
        355                 360                 365
```

```
Gln Ala Ser Asn Asp Gly Val Ser Ser Ser Arg Leu Arg Gly Arg Ile
    370                 375                 380

Arg Leu Pro Ala Glu Thr Thr Phe Asp Arg Leu Gly Leu Gln Pro Glu
385                 390                 395                 400

Lys Glu Arg Asp Arg Gly Pro Arg Ala Arg Leu Ser Pro Pro Ser Gln
                405                 410                 415

Thr Asp Leu Arg Gly Lys Leu His Asp Arg Leu Lys Ala Lys Pro Asn
            420                 425                 430

Glu Asp Val Ser Gly Asn Val Gln Ser Ser Leu Ser Lys Ala Asn Glu
        435                 440                 445

Asp Ala Glu Ser Leu Asn Phe Ala Gly Pro Lys Ser Leu Ala Glu Leu
    450                 455                 460

Lys Ala Lys Lys Val Ala Gly Ser Leu Met Lys Ser Ser Arg Ser Leu
465                 470                 475                 480

Thr Gly Pro Val Arg Met Thr Ser Glu Ile Val Thr Ile Lys Asp Ser
                485                 490                 495

Ser Asp Pro Val Leu Phe Asp Gly Pro Lys Pro Leu Asn Ala Ile Leu
            500                 505                 510

Lys Arg Lys Arg Glu Ala Asp Ser Gly Asn Ala Thr Asp Phe Gly Ser
        515                 520                 525

Lys Arg Glu Glu His Ser Gly Gly Asp Glu Glu Gly Ser Gln Asn Asp
    530                 535                 540

Phe Arg Asn Ile Glu Asp Asp Ile Val Gly Met Asn Thr Glu Gly Asn
545                 550                 555                 560

Gly Glu Glu Ala Phe Gln Pro Glu Asp Asp Val Val Tyr Gly Asp Ser
                565                 570                 575

Leu Ser Pro Ala Asp Asp Ile Ala Ala Glu Ala Ala Asp Asp Ala Ser
            580                 585                 590

Arg Glu Leu Glu Glu Gln Gln Asp Val Glu Thr Ala Glu Glu Tyr Asp
        595                 600                 605

Tyr Glu Met Asp Asp Val Asn Ala Ala Glu Glu Asn Asp Tyr Gln Glu
```

610 615 620

Tyr Glu Asp Glu Asp Asp Asp Leu Glu Asp Asp Asp Asp Phe Ala Arg
625 630 635 640

Lys Val Gly Val Met Ile Thr
645

<210> 117
<211> 387
<212> PRT
<213> Sus scrofa

<400> 117
Met Glu Val Leu Ala Ala Glu Thr Ile Ser Gln Gln Glu Arg Leu Gln
1 5 10 15

Ala Ile Ala Glu Lys Arg Arg Arg Gln Ala Glu Val Glu Asn Arg Arg
20 25 30

Arg Gln Leu Glu Asp Asp Arg Arg Gln Leu Gln His Leu Lys Ser Lys
35 40 45

Ala Leu Arg Glu Arg Trp Leu Leu Glu Gly Thr Pro Ser Ser Ala Ser
50 55 60

Glu Gly Asp Glu Asp Met Arg Lys Gln Met Gln Glu Asp Glu Gln Lys
65 70 75 80

Ala Arg Leu Leu Glu Glu Ser Ile Ala Arg Leu Glu Lys Glu Ile Glu
85 90 95

Glu Leu Glu Asn Ala Asp Thr Leu Pro Ala Pro Val Lys Glu Thr Gln
100 105 110

Val Ala Pro Ser Pro Gly Pro Val Val Pro Ala Pro Cys Pro Ala Gln
115 120 125

Glu Asp Arg Lys Ala Glu Val Asp Leu Asn Ala Gln Gln Thr Pro Val
130 135 140

Gly Thr Pro Lys Glu Lys Arg Ile Ser Asn Thr Pro Met Arg Met Val
145 150 155 160

Glu Gly Ser Thr Met Met Asn Ala Ala Met Tyr Ser Val Glu Ile Thr
165 170 175

Val Glu Lys Asp Lys Val Thr Gly Glu Thr Arg Val Leu Ser Ser Ala
180 185 190

```
Thr Val Leu Pro Arg Glu His Pro Pro Gln Gly Ile Lys Val Tyr Glu
        195                 200                 205

Asp Glu Thr Lys Val Val His Ala Val Asp Gly Thr Ala Glu Asn Gly
    210                 215                 220

Ile His Pro Leu Ser Ser Ser Glu Val Asp Glu Leu Ile His Lys Ala
225                 230                 235                 240

Asp Glu Val Thr Leu Ser Glu Ala Gly Ser Ala Ala Ala Pro Glu Thr
                245                 250                 255

Arg Gly Pro Ser Glu Glu Val Val Arg Thr Thr Pro Ser Arg Arg Glu
            260                 265                 270

Ile Thr Gly Val Gln Ala Gln Pro Gly Glu Ala Thr Ser Gly Pro Pro
        275                 280                 285

Gly Ile Gln Pro Gly Gln Glu Pro Pro Val Thr Met Ile Phe Met Gly
    290                 295                 300

Tyr Gln Asn Val Glu Asp Glu Ala Glu Thr Gln Lys Val Leu Gly Leu
305                 310                 315                 320

Gln Asp Thr Ile Thr Ala Glu Leu Val Val Ile Glu Asp Ala Ala Glu
                325                 330                 335

Pro Lys Glu Pro Ala Pro Pro Asn Gly Ser Ala Ala Glu Pro Leu Ala
            340                 345                 350

Thr Glu Gly Ser Arg Glu Glu Asn Gln Val Gly Pro Glu Ala Pro Ala
        355                 360                 365

Ser Asp Pro Gln Asp Leu Asp Met Lys Lys Gln Arg Cys Lys Cys Cys
    370                 375                 380

Ser Ile Met
385
```

<210> 118
<211> 258
<212> PRT
<213> Solanum tuberosum

<400> 118

```
Met Ala Ser Pro Arg Glu Glu Asn Val Tyr Met Ala Lys Leu Ala Glu
1               5                   10                  15
```

```
Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu Lys Val Val
            20                  25                  30

Ala Ala Ala Asp Gly Ala Glu Glu Leu Thr Val Glu Glu Arg Asn Leu
        35                  40                  45

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

Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly Asn Glu
65                  70                  75                  80

Asp His Val Ala Ser Ile Lys Glu Tyr Arg Ser Lys Ile Glu Ser Glu
                85                  90                  95

Leu Thr Ser Ile Cys Asn Gly Ile Leu Lys Leu Leu Asp Ser Lys Leu
            100                 105                 110

Ile Gly Ser Ala Ala Thr Gly Asp Ser Lys Val Phe Tyr Leu Lys Met
        115                 120                 125

Lys Gly Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Ala Glu
    130                 135                 140

Arg Lys Glu Ala Ala Glu Asn Thr Leu Ser Ala Tyr Lys Ala Ala Gln
145                 150                 155                 160

Asp Ile Ala Asn Ala Glu Leu Ala Pro Thr His Pro Ile Arg Leu Gly
                165                 170                 175

Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro
            180                 185                 190

Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ala
        195                 200                 205

Glu Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile
    210                 215                 220

Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Met Gln
225                 230                 235                 240

Asp Asp Gly Thr Asp Glu Ile Lys Glu Ala Ala Pro Lys Pro Asp Asn
                245                 250                 255

Asn Glu
```

<210> 119
<211> 548
<212> PRT
<213> Oryza sativa

<400> 119
Met Ala Asp Asp His Ala Ala Ala Ala Asp Leu Val Asp Gly Gly Arg
1   5   10   15

Pro Glu Gly Asp Thr His Ser Arg Glu Asp Gly Leu Ser Lys Pro Arg
            20   25   30

Asp Lys Asp Arg Glu Arg Glu Lys Asp Lys Asp Arg Glu Arg His Arg
        35   40   45

Asp Arg Asp Arg Asp Arg Gly Arg Asp Arg Asp Arg Asp Lys Asp Lys
    50   55   60

Glu Lys Asp Arg Asp Lys Glu Arg Asp Arg Asp Arg Asp Arg Asp Lys
65   70   75   80

Asp Arg Asp Arg His His Arg His His Arg Glu Arg Arg Glu His Arg
                85   90   95

Asp Arg Ser Asp Asp His Asp Arg His Arg Ser Arg Asp Ser Glu Arg
            100   105   110

Arg Arg Asp His Glu Arg Asp Gly Arg Arg Arg His Arg Ser Arg Ser
        115   120   125

Arg Ser Arg Ser Arg Gly Arg Asp Arg Arg Ser Arg Ser Arg Ser Arg
    130   135   140

Ser Lys Ser Lys Arg Val Ser Gly Phe Asp Met Ala Pro Pro Ala Gln
145   150   155   160

Ala Val Val Pro Gln Phe Pro Ala Ile Pro Thr Pro Ser Gln Phe Pro
                165   170   175

Gly Thr Ala Ile Pro Gly Met Phe Pro Asn Met Leu Pro Met Gly Val
            180   185   190

Gly Gln Phe Asn Pro Leu Val Ile Gln Pro Gln Ala Met Thr Gln Gln
        195   200   205

Ala Thr Arg His Ala Arg Arg Val Tyr Val Gly Gly Leu Pro Pro Thr
    210   215   220

```
Ala Asn Glu Gln Ser Val Ala Ile Tyr Phe Asn Gln Val Met Ala Ala
225                 230                 235                 240

Ile Gly Gly Asn Thr Ala Gly Pro Gly Asp Ala Val Leu Asn Val Tyr
                245                 250                 255

Ile Asn His Asp Lys Lys Phe Ala Phe Val Glu Met Arg Ser Val Glu
            260                 265                 270

Glu Ala Ser Asn Ala Met Ala Leu Asp Gly Ile Leu Phe Glu Gly Ala
        275                 280                 285

Pro Val Lys Val Arg Arg Pro Thr Asp Tyr Asn Pro Ser Leu Ala Ala
    290                 295                 300

Ala Leu Gly Pro Ser Gln Pro Ser Pro Asn Leu Asn Leu Ala Ala Val
305                 310                 315                 320

Gly Leu Thr Pro Gly Ser Ala Gly Gly Leu Glu Gly Pro Asp Arg Ile
                325                 330                 335

Phe Val Gly Gly Leu Pro Tyr Tyr Phe Thr Glu Ala Gln Val Arg Glu
            340                 345                 350

Leu Leu Glu Ser Phe Gly Pro Leu Arg Gly Phe Asp Leu Val Lys Asp
        355                 360                 365

Arg Glu Thr Gly Asn Ser Lys Gly Tyr Ala Phe Cys Val Tyr Gln Asp
    370                 375                 380

Leu Asn Val Thr Asp Ile Ala Cys Ala Ala Leu Asn Gly Ile Lys Met
385                 390                 395                 400

Gly Asp Lys Thr Leu Thr Val Arg Arg Ala Asn Gln Gly Ala Ala Gln
                405                 410                 415

Pro Arg Pro Glu Gln Glu Ser Ile Leu Leu Gln Ala Gln Gln Gln Val
            420                 425                 430

Gln Leu Gln Lys Leu Val Tyr Gln Val Gly Ala Leu Pro Thr Lys Val
        435                 440                 445

Val Cys Leu Thr Gln Val Val Ser Ala Asp Glu Leu Lys Asp Asp Glu
    450                 455                 460

Glu Tyr Glu Asp Ile Met Glu Asp Met Arg Leu Glu Ala Gly Lys Tyr
465                 470                 475                 480
```

Gly Asn Leu Ile Lys Val Val Ile Pro Arg Pro Asp Pro Ser Gly Leu
485 490 495

Pro Val Ala Gly Val Gly Lys Val Phe Leu Glu Tyr Ala Asp Val Asp
500 505 510

Gly Ala Thr Lys Ala Lys Thr Ala Met His Gly Arg Lys Phe Gly Gly
515 520 525

Asn Pro Val Val Ala Val Phe Tyr Pro Glu Asn Lys Phe Ser Ser Ala
530 535 540

Glu Tyr Asp Ala
545

<210> 120
<211> 543
<212> PRT
<213> Triticum aestivum

<400> 120
Met Ala Asp Asp Asn Gly Gly Gly Gly Asp Asp Tyr Val Ser Glu Ala
1 5 10 15

Val Arg Pro Glu Gly Asp Thr His Thr Arg Glu Glu Gly Leu Ser Lys
20 25 30

Ser Arg Asp Arg Asp Arg Glu Lys Asp Lys Asp Lys Glu Arg His Arg
35 40 45

Asp Arg Asp Arg Asp Arg Gly Arg Asp Arg Asp Arg Gly Arg Asp Arg
50 55 60

Asp Leu Asp Lys Asp Arg Asp Arg Asp Lys Asp Arg Asp Arg His Gln
65 70 75 80

Arg His His Arg Asp Lys Arg Glu His Arg Asp Arg Pro Asp Asp His
85 90 95

Asp Arg His Arg Ser Arg Asp Ser Glu Arg Arg Arg Asp Arg Glu Arg
100 105 110

Asp Gly His Arg Arg His Arg Ser Arg Ser Arg Ser Arg Ser Arg Gly
115 120 125

Arg Asp Asp His Arg Ser Arg Ser His Ser Lys Ser Lys Arg Val Ser
130 135 140

```
Gly Phe Asp Leu Gly Pro Thr Ala Gln Ser Val Leu Pro Gln Phe Pro
145                 150                 155                 160

Thr Ile Pro Thr Pro Ser Gln Leu Pro Gly Ser Ser Ile Pro Gly Met
                165                 170                 175

Phe Pro Asn Met Leu Pro Phe Ala Asp Gly Gln Ile Asn Pro Leu Val
            180                 185                 190

Met Gln Pro Gln Ala Met Thr Gln Gln Ala Thr Arg His Ala Arg Arg
        195                 200                 205

Val Tyr Val Gly Gly Leu Pro Pro Ser Ala Asn Glu Gln Ser Val Ala
    210                 215                 220

Ile Tyr Phe Asn Gln Val Met Ala Ala Ile Gly Gly Asn Thr Ala Gly
225                 230                 235                 240

Pro Gly Asp Ala Val Leu Asn Val Tyr Ile Asn His Asp Lys Lys Phe
                245                 250                 255

Ala Phe Val Glu Met Arg Ser Val Glu Glu Ala Ser Asn Ala Met Ala
            260                 265                 270

Leu Asp Gly Ile Leu Phe Glu Gly Ala Pro Val Lys Val Arg Arg Pro
        275                 280                 285

Thr Asp Tyr Asn Pro Ser Leu Ala Ala Ala Leu Gly Pro Ser Gln Pro
    290                 295                 300

Ser Ser Asn Leu Asn Leu Ala Ala Val Gly Leu Thr Pro Gly Ser Ala
305                 310                 315                 320

Gly Gly Leu Glu Gly Pro Asp Arg Ile Phe Val Gly Gly Leu Pro Tyr
                325                 330                 335

Tyr Phe Thr Glu Ala Gln Val Arg Glu Leu Leu Glu Ser Phe Gly Pro
            340                 345                 350

Leu Arg Gly Phe Asp Leu Val Lys Asp Arg Glu Thr Gly Asn Ser Lys
        355                 360                 365

Gly Tyr Ala Phe Cys Val Tyr Gln Asp Leu Asn Val Thr Asp Ile Ala
    370                 375                 380

Cys Ala Ala Leu Asn Gly Ile Lys Met Gly Asp Lys Thr Leu Thr Val
385                 390                 395                 400
```

```
Arg Arg Ala Asn Gln Gly Ser Ala Gln Pro Arg Pro Glu Gln Glu Asn
                405                 410                 415

Ile Leu Leu Gln Ala Gln Gln Gln Val Gln Leu Gln Lys Leu Val Tyr
            420                 425                 430

Gln Val Gly Ala Leu Pro Thr Lys Val Val Cys Leu Thr Gln Val Val
        435                 440                 445

Thr Ala Asp Glu Leu Lys Asp Asp Glu Glu Tyr Glu Asp Ile Met Glu
    450                 455                 460

Asp Met Arg Leu Glu Ala Gly Lys Tyr Gly Asn Leu Val Lys Val Val
465                 470                 475                 480

Ile Pro Arg Pro His Pro Ser Gly Glu Pro Val Ser Gly Val Gly Lys
                485                 490                 495

Val Phe Leu Glu Tyr Ala Asp Val Asp Gly Ser Thr Lys Ala Lys Thr
            500                 505                 510

Ala Met His Gly Arg Lys Phe Gly Gly Asn Pro Val Val Ala Val Phe
        515                 520                 525

Tyr Pro Glu Asn Lys Phe Ala Asp Glu Asp Tyr Asp Ala Ala Ala
    530                 535                 540
```

<210> 121
<211> 736
<212> PRT
<213> Oryza sativa

<400> 121

```
Met Lys Arg Ala Ala Asp Gly Met Glu Lys Pro Lys Phe Leu Thr Arg
1               5                   10                  15

Glu Glu Arg Glu Lys Leu Ala Leu Glu Arg Arg Gln Ala Ala Val Thr
            20                  25                  30

Asp Gln Arg Arg Ser Ala Leu Asp Leu Leu Gln Ser Leu Pro Arg Pro
        35                  40                  45

Pro Pro Pro Pro Pro Pro Pro Leu Ser Asn Pro Pro Arg Asp Ser Ser
    50                  55                  60

Ser Ser His His Arg Asp Ser Ser Asp Arg Asp Arg Asp Arg Asp Arg
65                  70                  75                  80
```

```
Asp Arg Asp Arg Asp Arg Asp Arg Asp Arg Asp Arg Glu Arg Arg Arg
                85                  90                  95

Asp Asp Asp Ser Arg Arg Asp Arg Asp Arg Asp Arg Asp Arg Asp Arg
            100                 105                 110

Gly Asp Ser Ser Arg Arg Asp Arg Asp Arg Glu Arg Gly Asp Arg Asp
        115                 120                 125

Arg Asp Arg Asp Arg Glu Arg Gly Asp Arg Asp Arg Glu Arg Gly Asp
    130                 135                 140

Arg Glu Lys Asp Arg Leu Glu Lys Met Ala Glu Arg Glu Arg Glu Lys
145                 150                 155                 160

Glu Leu Asp Ala Ile Lys Glu Gln Tyr Leu Gly Ser Lys Lys Pro Lys
                165                 170                 175

Lys Arg Val Ile Lys Pro Ser Glu Lys Phe Arg Phe Ser Phe Asp Trp
            180                 185                 190

Glu Asn Thr Glu Asp Thr Ser Arg Asp Met Asn Ser Leu Tyr Gln Ser
        195                 200                 205

Pro His Glu Ala Arg Leu Leu Tyr Gly Arg Gly Phe Leu Ala Gly Ile
    210                 215                 220

Asp Arg Arg Glu Gln Lys Lys Val Ala Ala Ala His Glu Lys Glu Thr
225                 230                 235                 240

Arg Ala Glu Gln Arg Arg Lys Ala Gly Leu Asp Asp Arg Pro Glu Asp
                245                 250                 255

Asp Ala Val Asp Lys Lys Glu Ala Asp Ala Ala Ala Lys Tyr Asp Ala
            260                 265                 270

Phe Asp Met Arg Val Asp Arg His Trp Thr Gln Lys Ser Leu Asp Glu
        275                 280                 285

Met Thr Glu Arg Asp Trp Arg Ile Phe Arg Glu Asp Phe Asn Ile Ser
    290                 295                 300

Tyr Lys Gly Ser Lys Val Pro Arg Pro Met Arg Lys Trp Ser Glu Ser
305                 310                 315                 320

Lys Leu Gly Thr Glu Leu Leu Arg Ala Val Glu Lys Ala Gly Tyr Lys
                325                 330                 335
```

```
Glu Pro Ser Pro Ile Gln Met Ala Ser Ile Pro Leu Gly Leu Gln Gln
            340                 345                 350

Arg Asp Val Ile Gly Ile Ala Glu Thr Gly Ser Gly Lys Thr Ala Ala
        355                 360                 365

Phe Val Leu Pro Met Leu Ser Tyr Ile Thr Arg Leu Pro Pro Ile Ser
    370                 375                 380

Glu Glu Asn Glu Ala Glu Gly Pro Tyr Ala Val Val Met Ala Pro Thr
385                 390                 395                 400

Arg Glu Leu Ala Gln Gln Ile Glu Glu Glu Thr Val Lys Phe Ala Thr
                405                 410                 415

Tyr Leu Gly Ile Lys Val Val Ser Ile Val Gly Gly Gln Ser Ile Glu
            420                 425                 430

Glu Gln Gly Phe Lys Ile Arg Gln Gly Cys Glu Val Val Ile Ala Thr
        435                 440                 445

Pro Gly Arg Leu Leu Asp Cys Leu Glu Arg Arg Tyr Ala Val Leu Asn
    450                 455                 460

Gln Cys Asn Tyr Val Val Leu Asp Glu Ala Asp Arg Met Ile Asp Met
465                 470                 475                 480

Gly Phe Glu Pro Gln Val Val Gly Val Leu Asp Ala Met Pro Ser Ser
                485                 490                 495

Asn Leu Lys Pro Glu Asn Glu Asp Glu Glu Leu Asp Ala Lys Thr Ile
            500                 505                 510

Tyr Arg Thr Thr Tyr Met Phe Ser Ala Thr Met Pro Pro Ala Val Glu
        515                 520                 525

Arg Leu Ala Arg Lys Tyr Leu Arg Asn Pro Val Val Val Thr Ile Gly
    530                 535                 540

Thr Ala Gly Lys Ala Thr Asp Leu Ile Thr Gln Asn Val Ile Met Thr
545                 550                 555                 560

Lys Glu Ser Glu Lys Met Ser Arg Leu Gln Lys Ile Leu Thr Asp Leu
                565                 570                 575

Gly Asp Lys Pro Ala Ile Val Phe Cys Asn Thr Lys Lys Ser Ala Asp
```

580 585 590

Ala Arg Ala Lys Asp Leu Asp Lys Ala Gly Phe Arg Val Thr Thr Leu
595 600 605

His Gly Gly Lys Ser Gln Glu Gln Arg Glu Thr Ser Leu Asp Gly Phe
610 615 620

Arg Asn Arg Arg Phe Thr Val Leu Val Ala Thr Asp Val Ala Gly Arg
625 630 635 640

Gly Ile Asp Ile Pro Asp Val Ala His Val Ile Asn Tyr Glu Met Pro
645 650 655

Ser Ser Ile Asp Thr Tyr Thr His Arg Ile Gly Arg Thr Gly Arg Ala
660 665 670

Gly Lys Lys Gly Leu Ala Thr Ser Phe Leu Thr Leu Glu Asn Thr Asp
675 680 685

Ile Phe Phe Asp Leu Lys Gln Met Leu Ile Gln Ser Asn Ser Pro Val
690 695 700

Pro Pro Glu Leu Ala Arg His Glu Ala Ser Lys Phe Lys Pro Gly Ser
705 710 715 720

Val Pro Asp Arg Pro Pro Arg Arg Asn Asp Thr Val Tyr Ala Thr His
725 730 735

<210> 122
<211> 319
<212> PRT
<213> Sus scrofa

<400> 122
Met Met Val Leu Lys Val Glu Glu Leu Val Thr Gly Lys Lys Asn Gly
1 5 10 15

Gly Gly Asp Ala Gly Glu Phe Leu Pro Glu Asp Phe Arg Asp Gly Glu
20 25 30

Tyr Glu Ala Ala Val Thr Leu Glu Lys Gln Glu Asp Leu Lys Thr Leu
35 40 45

Pro Ala His Phe Val Ser Leu Gly Glu Gln Gln Trp Lys Ile Glu Lys
50 55 60

Glu Arg Glu Ala Glu Leu Lys Lys Lys Lys Leu Glu Gln Arg Ser Lys
65 70 75 80

```
Leu Glu Asn Leu Glu Asp Leu Glu Ile Ile Ile Gln Leu Lys Lys Arg
                85                  90                  95

Lys Lys Tyr Arg Lys Thr Lys Val Pro Val Val Lys Glu Pro Glu Pro
            100                 105                 110

Glu Val Ile Thr Glu Pro Val Asp Val Pro Arg Phe Leu Lys Ala Ala
        115                 120                 125

Leu Glu Asn Lys Leu Pro Val Val Glu Lys Phe Leu Ser Asp Lys Asn
    130                 135                 140

Asn Pro Asp Val Cys Asp Glu Tyr Lys Arg Thr Ala Leu His Arg Ala
145                 150                 155                 160

Cys Leu Glu Gly His Leu Ala Ile Val Glu Lys Leu Ile Glu Ala Gly
                165                 170                 175

Ala Gln Ile Glu Phe Arg Asp Met Leu Glu Ser Thr Ala Ile His Trp
            180                 185                 190

Ala Ser Arg Gly Gly Asn Leu Asp Val Leu Lys Leu Leu Leu Asn Lys
        195                 200                 205

Gly Ala Lys Ile Ser Ala Arg Asp Lys Leu Leu Ser Thr Ala Leu His
    210                 215                 220

Val Ala Val Arg Thr Gly His Tyr Glu Cys Ala Glu His Leu Ile Ala
225                 230                 235                 240

Cys Glu Ala Asp Leu Asn Ala Lys Asp Arg Glu Gly Asp Thr Pro Leu
                245                 250                 255

His Asp Ala Val Arg Leu Asn Arg Tyr Lys Met Ile Arg Leu Leu Ile
            260                 265                 270

Thr Tyr Gly Ala Asp Leu Asn Val Lys Asn Cys Ala Gly Lys Thr Pro
        275                 280                 285

Met Asp Leu Val Leu Asn Trp Gln Asn Gly Thr Lys Ala Ile Phe Asp
    290                 295                 300

Ser Leu Lys Glu Asn Ser Tyr Lys Ala Ser Arg Ile Ala Thr Phe
305                 310                 315
```

<210> 123

<211> 287
<212> PRT
<213> Ovis aries

<400> 123
Met Ser Asp Val Glu Glu Thr Val Asp Glu Tyr Glu Glu Gln Glu Glu
1 5 10 15

Ala Ala Val Glu Glu His Glu Glu Ser Val Glu Glu Glu Ala Gly Gly
20 25 30

Glu Ala Arg Gln Gly Gly Gly Ala Ser Ala Ala Glu Asp Gly Glu Glu
35 40 45

Glu Glu Gly Arg Glu Ala Glu Asp Gly Pro Val Glu Glu Ser Lys Pro
50 55 60

Gln Ala Pro Gly Pro Phe Met Pro Asn Leu Val Pro Pro Lys Ile Pro
65 70 75 80

Asp Gly Glu Arg Val Asp Phe Asp Asp Ile His Arg Lys Arg Met Glu
85 90 95

Lys Asp Leu Asn Glu Leu Gln Thr Leu Ile Glu Ala His Phe Glu Asn
100 105 110

Arg Lys Lys Glu Glu Glu Glu Leu Val Ser Leu Lys Asp Arg Ile Glu
115 120 125

Lys Arg Arg Ala Glu Arg Ala Glu Gln Gln Arg Ile Arg Thr Glu Arg
130 135 140

Glu Lys Glu Arg Gln Ala Arg Leu Ala Glu Glu Arg Ala Arg Arg Glu
145 150 155 160

Glu Glu Glu Ser Arg Arg Lys Ala Glu Asp Glu Ala Arg Lys Lys Lys
165 170 175

Ala Leu Ser Asn Met Met His Phe Gly Gly Tyr Ile Gln Lys Ala Gln
180 185 190

Ala Glu Arg Lys Ser Gly Lys Arg Gln Thr Glu Arg Glu Lys Lys Lys
195 200 205

Lys Ile Leu Ala Glu Arg Arg Lys Val Leu Ala Ile Asp His Leu Asn
210 215 220

Glu Asp Gln Leu Arg Glu Lys Ala Arg Glu Leu Trp Gln Ser Ile Tyr
225 230 235 240

```
Asp Leu Glu Ala Glu Lys Phe Asp Leu Gln Glu Lys Phe Lys Gln Gln
                245                 250                 255

Lys Tyr Glu Ile Asn Val Leu Arg Asn Arg Val Asn Asp Asn Gln Lys
            260                 265                 270

Val Ser Lys Thr Arg Gly Lys Ala Lys Val Thr Gly Arg Trp Lys
        275                 280                 285
```

<210> 124
<211> 711
<212> PRT
<213> Oryza sativa

<400> 124

```
Met Glu Ala Asp Gly Ala Ala Ala Ala Ala Ala Ala Gly Glu Ala Ser
1               5                   10                  15

Thr Glu Ala Gly Ala Arg Pro Leu Ala Pro Glu Glu Glu Ala Leu Arg
            20                  25                  30

Arg Asn Thr Asp Cys Val Tyr Phe Leu Ala Ser Pro Leu Thr Cys Lys
        35                  40                  45

Lys Gly Asn Glu Cys Asp Phe Arg His Ser Asp Asn Ala Arg Met Asn
    50                  55                  60

Pro Arg Asp Cys Trp Tyr Trp Leu Asn Ser Asn Cys Leu Asn Pro Lys
65                  70                  75                  80

Cys Pro Phe Arg His Pro Pro Ile Asp Gly Met Phe Gly Ala Pro Thr
                85                  90                  95

Thr Gly Met Pro Ala Val Ser Ser His Tyr Ala Pro Phe Asn Ser Gly
            100                 105                 110

Lys Gln Leu Val Pro Cys Tyr Tyr Phe Lys Lys Gly Asn Cys Leu Lys
        115                 120                 125

Gly Asp Arg Cys Ala Phe Tyr His Gly Pro Gln Ser Val Gly Asn Asn
    130                 135                 140

Pro Ser Glu Gln Val Val Lys Val Ser Ser Leu Pro Leu Glu Gln Leu
145                 150                 155                 160

Gln Thr Gln Lys Asn Asp Leu Leu Gly Ile Lys Asp Ser Val Gln Ser
                165                 170                 175
```

```
Thr Asn Ser Ile Gln His Gly Ala Pro Ile Thr Asn Glu Arg Gly Lys
            180                 185                 190

Thr Ala Val Asp Arg Ser Thr Val Asn Ser Ala Arg Thr Ala Thr Val
        195                 200                 205

Ala Ile Pro Val Ala Ser Asn Ala Met Ser Cys Pro Lys Ser Glu Lys
    210                 215                 220

Val Lys Ser Ser Thr Pro Ala Ala Leu Lys Glu Ser Phe Thr Thr Ser
225                 230                 235                 240

Ser Gly Gly Asp His Pro Glu Cys Tyr Gln Asn His Phe Pro Met Asp
                245                 250                 255

Ser Asp Pro Val Arg Asp Trp Asn Gln Ser Tyr Glu Met Pro Pro Ala
            260                 265                 270

Asp Asp Leu Pro Gln Asn Ser Arg Glu Ala Asp Glu Leu Leu Gly Glu
        275                 280                 285

Ser Ser Pro Gly Phe Asp Val Leu Val Asp Asn Asp Ala Asp Gly Ala
    290                 295                 300

Ala Tyr Leu His Asp Glu Asp Phe Gly Gly Asp Met Tyr Pro Val Glu
305                 310                 315                 320

Asp Tyr Glu Tyr Ala Pro Ala Asp Phe Asp Val Arg Ala His His Glu
                325                 330                 335

Arg Glu Arg Phe Asn Gly Met Asp Glu Gln Asp Gln Met Gly His Met
            340                 345                 350

Tyr Asp Gly Tyr Glu Arg Lys Arg Arg Arg Ser Ser Glu Arg Ser Met
        355                 360                 365

Glu Arg Pro Phe His Ser Glu Arg Arg Phe Leu Gln Arg Asp Arg Asp
    370                 375                 380

Arg Val Glu Met Asp Gly Ser Asp Leu Arg His Arg Leu Arg Arg Arg
385                 390                 395                 400

Arg Ile Asn Glu Ser Ser Leu Ala Ile Ser Pro Glu Arg Asn Gly Glu
                405                 410                 415

Gln Arg Arg Arg Asp Glu Arg Tyr Arg Glu Arg Ala His Gly His Arg
            420                 425                 430
```

```
Ser His Arg Asp His His Gln Ser Ser Arg Gly Ser Thr Leu Ser Ser
        435                 440                 445

Arg Leu Gln Gly Arg Ile Lys Leu Pro Gly Arg Ser Pro Asp Arg Val
    450                 455                 460

Asp Thr Arg Ser Glu Lys Glu Arg Asp Arg Arg Arg Leu Arg Asp Arg
465                 470                 475                 480

Leu Ser Pro Val Arg Arg Thr Glu Phe Gln Gly Thr Arg His Arg Glu
                485                 490                 495

Ala Gly Gln His Glu Glu Gln Thr Gln Arg Arg Ser Ser Glu Leu Ala
            500                 505                 510

Leu Gly Ser Arg Asn Ala Asp Gly Gln His Leu Thr Lys Asp Val Pro
        515                 520                 525

Asp Ser His Asn Phe Pro His Arg Lys Asn Ser Arg Asp Ser Ser Lys
    530                 535                 540

Ala Asn Gly Ser Val Glu Pro Glu Ala Ser Leu Asp Phe Glu Gly Pro
545                 550                 555                 560

Lys Pro Leu Ser Val Ile Leu Gln Arg Lys Arg Glu Ala Ala Trp Ala
                565                 570                 575

Asn Gly Thr Ser Ala Cys Ser Pro Lys Gln Asp Lys Ser Ala Glu Val
            580                 585                 590

Ser His Arg Gln Ala Ser Leu Ala Glu Ala Glu Lys Glu Gly Asp Asn
        595                 600                 605

Ile Ile Ser Ser Asp Glu Tyr Lys Ser Gly Ser Gly Asp Glu Glu Phe
    610                 615                 620

Arg Asp Glu Gly His Ile Pro Val Glu Gly His Gly Gln Ser Ser Ser
625                 630                 635                 640

His Gly Asp Lys Leu Glu Ala Glu Asp Ile Ile Glu Val Asp Pro Val
                645                 650                 655

Glu Asn Gln Asp Ala Asp Asn Tyr Asp Gln Arg Glu Gly Glu Ser Tyr
            660                 665                 670

Tyr Glu Pro Ile Glu Gly Gln Asp Tyr Lys Ser Asp Asp Glu Asn Ala
```

675 680 685

Tyr Glu Asp Asp Asp Glu Glu Tyr Asp Asp Asp Asp Asp Phe Ala Arg
690 695 700

Lys Val Gly Val Val Phe Ser
705 710

<210> 125
<211> 155
<212> PRT
<213> Oryza sativa

<400> 125
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Ala Pro Ala Gly Lys Lys
20 25 30

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

Gly Glu Gly Lys Lys Asp Arg Ala Gly Arg Lys Lys Ala Lys Lys Ser
50 55 60

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

Pro Asp Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe
85 90 95

Ile Asn Asp Ile Phe Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala
100 105 110

Arg Tyr Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser
115 120 125

Val Arg Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu
130 135 140

Gly Thr Lys Ala Val Thr Lys Phe Thr Ser Ala
145 150 155

<210> 126
<211> 1810
<212> PRT
<213> Oryza sativa

<400> 126

```
Met Gly Asp Gly Glu Arg Arg Glu Asp Glu Asn Pro Thr Thr Ser Ala
1               5                  10                  15

Ala Asp Asp Asp Asp Asp Glu Asp Tyr Asp Glu Pro Gly Gly Gly Asn
            20                  25                  30

His Phe Leu Gly Phe Met Phe Gly Asn Val Asp Asp Ser Gly Asp Leu
        35                  40                  45

Asp Ala Asp Tyr Leu Asp Glu Asp Ala Lys Glu His Leu Phe Ala Leu
    50                  55                  60

Ala Asp Lys Leu Gly Pro Ser Leu Lys Asp Ile Asp Leu Ile Lys Pro
65                  70                  75                  80

Ser Ala Ala Pro Thr Asp Pro Ser Glu Gln Asp Tyr Asp Ala Lys Ala
                85                  90                  95

Glu Asp Ala Val Asp Tyr Glu Asp Ile Asp Glu Glu Tyr Asp Gly Pro
            100                 105                 110

Glu Val Glu Ala Ala Thr Glu Glu Asp His Leu Leu Ser Lys Lys Asp
        115                 120                 125

Tyr Phe Ser Ser Asn Ala Val Tyr Ala Ser Val Asn Ser Lys Val Ser
    130                 135                 140

Val Phe Asp Glu Glu Asn Tyr Asp Glu Asp Glu Glu Pro Pro Asn Asp
145                 150                 155                 160

Asn Asp Leu Pro Ser Asp Asn Ile Val Gln Asn Cys Thr Ser Ala Ser
                165                 170                 175

Ala Glu Gln Leu Asp Met Ala Pro Ser Asn Asp Asn Leu Ala Val Glu
            180                 185                 190

Lys Met Ser Ser Ser Leu Ser Glu Pro Glu Glu Ser Phe Glu Ser Glu
        195                 200                 205

Ala Phe Gln Lys Glu Met Val Ala Glu Glu Gln Leu Glu Ser Lys Thr
    210                 215                 220

Ala Thr Ser Leu Pro Val Leu Cys Ile Glu Asp Gly Ser Val Ile Leu
225                 230                 235                 240

Lys Phe Ser Glu Ile Phe Gly Ala Gln Glu Pro Val Arg Lys Ala Lys
                245                 250                 255
```

```
Met Asp Arg His Lys Arg Pro Val Asn Lys Glu Leu Gln Ile Thr Asn
            260                 265                 270

Phe Thr Asp Ile Val Glu Glu Asp Glu Glu Val Phe Leu Arg Ser Thr
        275                 280                 285

Ile Gln Asn Leu Ser Ala Leu Lys His Ile Lys Thr Asn Asp Asn Phe
    290                 295                 300

Val Glu Ser Asp Ser Asp Glu Ser Thr Ser Asp Val Ala Leu Arg Leu
305                 310                 315                 320

Lys Asp Ser Cys Leu Ser Glu Gln Pro Met Lys Asp Lys Asp Ile Pro
                325                 330                 335

Thr Ala Val Gln Ser Pro Val Phe Pro Asp Phe Tyr Pro Leu Glu His
            340                 345                 350

Glu Asn Trp Glu Asn Asp Ile Val Trp Gly Asn Ser Pro Thr Thr Ala
        355                 360                 365

Ile Gln Pro Cys Leu Thr Ser Cys Ala Ile Ser Lys Glu Ser Leu Asp
    370                 375                 380

Asp His Asn Glu Asp Gln Ala Glu Gly Tyr Val Ser Gly Cys Trp Asp
385                 390                 395                 400

Val Gln Asn Lys Phe His Ser Ser Ser Val Met Ala Asp Pro Phe Gly
                405                 410                 415

His Thr Glu Ile Pro Asp Ser Thr Ser Tyr Arg Ser Pro Glu Asn Ser
            420                 425                 430

Tyr Ser Pro Leu Arg Lys Glu Thr Ala Gln Glu Asn Asn Ser Leu Asp
        435                 440                 445

Glu Pro Asn Asn Ile Thr Gln Pro Val Lys Ile Asp Thr Thr Arg His
    450                 455                 460

Leu Asn Lys Leu Ser Leu Leu Asn Lys Glu Leu Leu Glu Gly Ser Trp
465                 470                 475                 480

Leu Asp Asn Ile Val Trp Asp Pro Ser Glu Asp Val Pro Lys Pro Lys
                485                 490                 495

Leu Ile Phe Asp Leu Lys Asp Asp His Met Leu Phe Glu Ile Leu Asp
            500                 505                 510
```

```
Glu Lys Asn Gly Asp His Leu Arg Ser His Ala Arg Ala Met Ile Val
        515                 520                 525

Thr Arg Pro Met Lys Thr Ser Ala Val Glu Asn Val Asp His Asn Asn
    530                 535                 540

Gln Ala Ile Ala Leu Ser Gly Arg Phe Asn Ile Ser Asn Asp Lys Phe
545                 550                 555                 560

Tyr Ser Asn Arg Lys Met Ser Gln Gln Ala Arg Ser His Ala Lys Lys
                565                 570                 575

Arg Ala Thr Met Gly Leu Lys Leu Val His Ser Val Pro Ala Gln Lys
            580                 585                 590

Leu Gln Thr Met Lys Pro Lys Leu Ser Ile Lys Glu Ile Ala Asn Phe
        595                 600                 605

His Arg Pro Lys Ala Lys Trp Tyr Pro His Glu Asn Lys Leu Thr Ala
    610                 615                 620

Arg Phe Gln Gly Asp Glu Cys Ser His Gly Pro Met Thr Ala Ile Val
625                 630                 635                 640

Met Thr Leu Gly Gly Lys Gly Val Lys Phe Leu Val Asn Ala Glu Glu
                645                 650                 655

Thr Pro Leu Ser Val Lys Ser Lys Ala Ser Lys Lys Leu Glu Phe Lys
            660                 665                 670

Pro Ser Glu Lys Ile Lys Leu Phe Cys Ser Gly Lys Glu Leu Gln Asp
        675                 680                 685

Asp Ile Ser Leu Ala Met Gln Asn Val Arg Pro Asn Ser Ile Leu His
    690                 695                 700

Val Val Arg Thr Glu Ile His Leu Trp Pro Lys Ala Gln Arg Leu Pro
705                 710                 715                 720

Gly Glu Asn Lys Pro Leu Arg Pro Pro Gly Ala Phe Arg Lys Lys Ser
                725                 730                 735

Asp Leu Ser Val Lys Asp Gly His Val Phe Leu Met Glu Tyr Cys Glu
            740                 745                 750

Glu Arg Pro Leu Leu Leu Ala Asn Ala Gly Met Ala Ala Arg Leu Cys
```

```
        755                 760                 765

Thr Tyr Tyr Gln Lys Thr Ser Pro Ser Asp Gln Thr Ala Thr Ser Leu
    770                 775                 780

Arg Ser Asn Ser Asp Gly Leu Gly Thr Met Leu Ala Ile Asp Pro Ala
785                 790                 795                 800

Asp Lys Ser Pro Phe Leu Gly Asn Ile Arg Ser Gly Ser His Gln Ser
                805                 810                 815

Cys Leu Glu Thr Asn Met Tyr Arg Ala Pro Val Phe Pro His Lys Val
            820                 825                 830

Ala Thr Thr Asp Tyr Leu Leu Val Arg Ser Pro Lys Gly Met Leu Ser
        835                 840                 845

Leu Arg Arg Ile Asp Lys Leu Tyr Ala Val Gly Gln Gln Glu Pro His
    850                 855                 860

Met Glu Val Phe Ser Pro Gly Thr Lys Asn Met Gln Asn Tyr Ile Leu
865                 870                 875                 880

Asn Arg Ile Leu Val Tyr Val Tyr Arg Glu Phe Arg Ala Arg Glu Lys
                885                 890                 895

Pro Gly Ile Ile Pro Gln Ile Arg Ala Asp Glu Leu Pro Ile Gln Pro
            900                 905                 910

Pro Ile Thr Glu Ala Ile Val Arg Lys Arg Leu Lys His Cys Ala Asp
        915                 920                 925

Leu Arg Lys Gly Pro Lys Gly His Leu Phe Tyr Ile Gln Arg Pro Asp
    930                 935                 940

Phe Arg Ile Pro Ser Glu Glu Glu Leu Arg Arg Leu Leu Thr Pro Glu
945                 950                 955                 960

Asn Val Cys Cys Tyr Glu Ser Met Gln Ala Gly Gln Tyr Arg Leu Lys
                965                 970                 975

His Leu Gly Ile Glu Lys Leu Thr Gln Pro Val Gly Leu Ala Ser Ala
            980                 985                 990

Met Asn Gln Leu Pro Asp Glu Ala  Ile Glu Leu Ala Ala  Ala Ala His
        995                 1000                1005
```

```
Ile Glu  Arg Glu Leu Gln Ile  Thr Ser Trp Asn Leu  Thr Ser Asn
    1010                1015                1020

Phe Val  Ala Cys Thr Asn Gln  Asp Lys Glu Asn Ile  Glu Arg Leu
    1025                1030                1035

Glu Ile  Thr Gly Val Gly Asp  Pro Ser Gly Arg Gly  Leu Gly Phe
    1040                1045                1050

Ser Tyr  Val Arg Val Thr Pro  Lys Ala Pro Val Ser  Asn Ser Thr
    1055                1060                1065

His Lys  Lys Lys Ser Ala Ala  Ala Lys Gly Thr Thr  Val Thr Gly
    1070                1075                1080

Thr Asp  Ala Asp Leu Arg Arg  Leu Ser Met Asp Ala  Ala Arg Glu
    1085                1090                1095

Leu Leu  Leu Lys Phe Gly Val  Pro Glu Glu Gln Ile  Asp Lys Leu
    1100                1105                1110

Thr Arg  Trp His Arg Ile Ala  Met Val Arg Lys Leu  Ser Ser Glu
    1115                1120                1125

Gln Ala  Ala Ser Gly Val Thr  Met Asp Glu Ile Pro  Val Ser Lys
    1130                1135                1140

Phe Ala  Arg Gly Gln Arg Met  Ser Phe Leu Gln Leu  Gln Gln Gln
    1145                1150                1155

Thr Lys  Glu Lys Cys Gln Glu  Ile Trp Asp Arg Gln  Ile Gln Ser
    1160                1165                1170

Leu Ser  Ala Met Asp Gly Asn  Glu Asn Gly Ser Asp  Thr Glu Ala
    1175                1180                1185

Asn Ser  Asp Leu Asp Ser Phe  Ala Gly Asp Leu Glu  Asn Leu Leu
    1190                1195                1200

Asp Ala  Glu Glu Phe Asp Asp  Glu Asp Val Gly Asn  Thr Asp Ile
    1205                1210                1215

Arg Ser  Asp Lys Met Asp Gly  Met Arg Gly Leu Lys  Met Arg Arg
    1220                1225                1230

Cys His  Thr Gln Ser Gln Ile  Asn Glu Glu Ile Gln  Asp Asp Val
    1235                1240                1245
```

```
Ala Glu  Ala Ala Leu Val Glu  Lys Leu Leu Glu Glu  Ser Asp Ser
    1250                1255                1260

Asp Met  Lys Arg Lys Lys Gln  Pro Val Glu Thr Thr  Asn Tyr Ser
    1265                1270                1275

Thr Pro  Met Tyr Asn Gln Gly  Asn Lys Met Lys Gln  Gly Lys Ala
    1280                1285                1290

Gly Gln  Met Ile Lys Ser Ser  Val Tyr Ala Gly Ala  Leu Thr Pro
    1295                1300                1305

Lys Glu  Ser Ile Pro Arg Glu  Ala Lys Glu Val Glu  Asn Phe Ala
    1310                1315                1320

Glu Gly  Ser Leu Pro Ser Lys  Leu Arg Thr Lys Thr  Gly Phe Asp
    1325                1330                1335

Ala Asn  Asp Asp Ile Ile Leu  Val Lys Arg Lys Asn  Ile Pro Gly
    1340                1345                1350

Lys Asp  Gly Phe Lys Glu Lys  Arg Gln Gly Ala Arg  Gly Asp Thr
    1355                1360                1365

Leu Val  Cys Gly Ala Cys Gly  Gln Leu Gly His Met  Arg Thr Asn
    1370                1375                1380

Lys Leu  Cys Pro Lys Tyr Gly  Glu Asp Pro Glu Thr  Ser Glu Met
    1385                1390                1395

Asp Val  Asn Ser Ile Arg Ser  His Pro Pro Asp Ile  Val Ser Asn
    1400                1405                1410

Ala Gln  Ile Lys Thr Ser Asn  Lys Arg Leu Val Ala  Lys Val Ser
    1415                1420                1425

Ser Glu  Ala Phe Glu Thr Glu  Gly Pro Glu Ser Ile  Glu Lys Ala
    1430                1435                1440

Lys Pro  Val Pro Val Lys Phe  Lys Cys Gly Ala Pro  Glu Lys Ser
    1445                1450                1455

Leu Asp  Arg Asn Met Ser Ile  Ser Ala Ser Leu Val  Ser Asp Lys
    1460                1465                1470

Arg Met  Met Asp Ala Thr Asp  Ser Lys Ser Thr Gly  Lys Val Asn
    1475                1480                1485
```

```
Lys Ile  Lys Ile Ser Asn Lys  Ile Lys Tyr Asp Asp  Tyr Pro Pro
    1490                1495                1500

Asp Thr  Pro Lys Pro Ser Val  Val Ile Arg Pro Pro  Ala Glu Val
    1505                1510                1515

Glu Lys  Asp Leu Pro Arg Lys  Lys Ile Ile Ile Lys  Gln Pro Lys
    1520                1525                1530

Val Leu  Gly Asp Gln Gln Arg  Pro Thr Glu Leu Arg  Ser Gly Gln
    1535                1540                1545

Glu Pro  Arg Lys Thr Arg Lys  Ile Val Glu Leu Ser  Ser Phe Glu
    1550                1555                1560

Lys Arg  Asp Arg Glu Asp Asp  Asn Gly Phe Ser Gly  Gln Pro Ile
    1565                1570                1575

Gln Ile  Asn Ser Ser His Asp  Arg Gly Trp Gly Leu  Val Gly Lys
    1580                1585                1590

Arg Ser  Lys Gly Ile Met Glu  Ser Ser Glu Ser Trp  Arg Ala Phe
    1595                1600                1605

Glu Glu  Gln Arg Glu Arg Gln  Glu Gln Arg Leu Ile  Glu Ala Arg
    1610                1615                1620

Ile Tyr  Asp Ala Arg Arg Glu  Asp Glu Leu Gln Lys  Ala Lys Lys
    1625                1630                1635

Lys Asn  Lys Lys Lys Lys Lys  His Glu Phe Arg Asp  Asp Asp Leu
    1640                1645                1650

Leu Asp  Pro Arg Pro Tyr Lys  Asn Asp Arg Arg Val  Pro Glu Arg
    1655                1660                1665

Gly Arg  Ala Ala Lys Arg Arg  Thr Pro Ala Asp Met  Thr Glu Tyr
    1670                1675                1680

Thr Pro  Pro Ala Lys Arg His  Arg Gly Gly Glu Val  Glu Leu Ser
    1685                1690                1695

Asn Ile  Leu Glu Lys Ile Val  Asp His Leu Arg Thr  Met Ser Cys
    1700                1705                1710

Ser Phe  Leu Phe Arg Lys Pro  Val Thr Lys Lys Glu  Ala Pro Asp
```

1715 1720 1725

Tyr Phe Asp Ile Ile Glu Arg Pro Met Asp Leu Gly Thr Ile Arg
1730 1735 1740

Asp Lys Val Arg Lys Met Glu Tyr Lys Asn Arg Glu Asp Phe Arg
1745 1750 1755

His Asp Val Ala Gln Ile Ala Leu Asn Ala His Thr Tyr Asn Leu
1760 1765 1770

Asn Arg His Pro His Ile Pro Pro Leu Ala Asp Glu Leu Leu Glu
1775 1780 1785

Leu Cys Asp Tyr Leu Leu Glu Glu Ser Ala Asp Val Leu Asp Asp
1790 1795 1800

Ala Glu Tyr Ala Ile Glu Asp
1805 1810

<210> 127
<211> 155
<212> PRT
<213> Oryza sativa

<400> 127
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Ala Pro Ala Gly Lys Lys
20 25 30

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

Gly Glu Gly Lys Lys Asp Arg Ala Gly Arg Lys Lys Ala Lys Lys Ser
50 55 60

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

Pro Asp Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe
85 90 95

Ile Asn Asp Ile Phe Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala
100 105 110

Arg Tyr Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser
115 120 125

Val Arg Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu
130 135 140

Gly Thr Lys Ala Val Thr Lys Phe Thr Ser Ala
145 150 155

<210> 128
<211> 1254
<212> PRT
<213> Sus scrofa

<400> 128
Met Glu Asp Gly Lys Pro Val Trp Ala Pro His Pro Thr Asp Gly Phe
1 5 10 15

Gln Val Gly Asn Ile Val Asp Ile Gly Pro Asp Ser Leu Thr Ile Glu
20 25 30

Pro Leu Asn Gln Lys Gly Lys Thr Phe Leu Ala Leu Ile Asn Gln Val
35 40 45

Phe Pro Ala Glu Glu Asp Ser Lys Lys Asp Val Glu Asp Asn Cys Ser
50 55 60

Leu Met Tyr Leu Asn Glu Ala Thr Leu Leu His Asn Ile Lys Val Arg
65 70 75 80

Tyr Ser Lys Asp Arg Ile Tyr Thr Tyr Val Ala Asn Ile Leu Ile Ala
85 90 95

Val Asn Pro Tyr Phe Asp Ile Pro Lys Ile Tyr Ser Ser Glu Thr Ile
100 105 110

Lys Ser Tyr Gln Gly Lys Ser Leu Gly Thr Met Pro Pro His Val Phe
115 120 125

Ala Ile Ala Asp Lys Ala Phe Arg Asp Met Lys Val Leu Lys Leu Ser
130 135 140

Gln Ser Ile Ile Val Ser Gly Glu Ser Gly Ala Gly Lys Thr Glu Asn
145 150 155 160

Thr Lys Phe Val Leu Arg Tyr Leu Thr Glu Ser Tyr Gly Thr Gly Gln
165 170 175

Asp Ile Asp Asp Arg Ile Val Glu Ala Asn Pro Leu Leu Glu Ala Phe
180 185 190

```
Gly Asn Ala Lys Thr Val Arg Asn Asn Asn Ser Ser Arg Phe Gly Lys
        195                 200                 205

Phe Val Glu Ile His Phe Asn Glu Lys Ser Ser Val Val Gly Gly Phe
    210                 215                 220

Val Ser His Tyr Leu Leu Glu Lys Ser Arg Ile Cys Val Gln Gly Lys
225                 230                 235                 240

Glu Glu Arg Asn Tyr His Ile Phe Tyr Arg Leu Cys Ala Gly Ala Ser
                245                 250                 255

Glu Asp Ile Arg Glu Arg Leu His Leu Ser Ser Pro Asp Asn Phe Arg
            260                 265                 270

Tyr Leu Asn Arg Gly Cys Thr Arg Tyr Phe Ala Asn Lys Glu Thr Asp
        275                 280                 285

Lys Gln Ile Leu Gln Asn Arg Lys Ser Pro Glu Tyr Leu Lys Ala Gly
    290                 295                 300

Ser Leu Lys Asp Pro Leu Leu Asp Asp His Gly Asp Phe Ile Arg Met
305                 310                 315                 320

Cys Thr Ala Met Lys Lys Ile Gly Leu Asp Asp Glu Glu Lys Leu Asp
                325                 330                 335

Leu Phe Arg Val Val Ala Gly Val Leu His Leu Gly Asn Ile Asp Phe
            340                 345                 350

Glu Glu Ala Gly Ser Thr Ser Gly Gly Cys Asn Leu Lys Asn Lys Ser
        355                 360                 365

Thr Gln Ala Leu Glu Tyr Cys Ala Glu Lys Leu Leu Gly Leu Asp Gln
    370                 375                 380

Asp Asp Leu Arg Val Ser Leu Thr Thr Arg Val Met Leu Thr Thr Ala
385                 390                 395                 400

Gly Gly Ala Lys Gly Thr Val Ile Lys Val Pro Leu Lys Val Glu Gln
                405                 410                 415

Ala Asn Asn Ala Arg Asp Ala Leu Ala Lys Thr Val Tyr Ser His Leu
            420                 425                 430

Phe Asp His Val Val Asn Arg Val Asn Gln Cys Phe Pro Phe Glu Thr
        435                 440                 445
```

```
Ser Ser Tyr Phe Ile Gly Val Leu Asp Ile Ala Gly Phe Glu Tyr Phe
    450                 455                 460

Glu His Asn Ser Phe Glu Gln Phe Cys Ile Asn Tyr Cys Asn Glu Lys
465                 470                 475                 480

Leu Gln Gln Phe Phe Asn Glu Arg Ile Leu Lys Glu Glu Gln Glu Leu
                485                 490                 495

Tyr Gln Lys Glu Gly Leu Gly Val Asn Glu Val His Tyr Val Asp Asn
            500                 505                 510

Gln Asp Cys Ile Asp Leu Ile Glu Ala Arg Leu Val Gly Ile Leu Asp
        515                 520                 525

Ile Leu Asp Glu Glu Asn Arg Leu Pro Gln Pro Ser Asp Gln His Phe
    530                 535                 540

Thr Ser Ala Gly His Gln Lys His Lys Asp His Phe Arg Leu Ser Ile
545                 550                 555                 560

Pro Arg Lys Ser Lys Leu Ala Ile His Arg Asn Ile Ala Tyr Asp Glu
                565                 570                 575

Gly Phe Ile Ile Arg His Phe Ala Gly Ala Val Cys Tyr Glu Thr Thr
            580                 585                 590

Gln Phe Val Glu Lys Asn Asn Asp Ala Leu His Met Ser Leu Glu Ser
        595                 600                 605

Leu Ile Cys Glu Ser Arg Asp Lys Phe Ile Arg Glu Leu Phe Glu Ser
    610                 615                 620

Ser Thr Asn Asn Asn Lys Asp Thr Lys Gln Lys Ala Gly Lys Leu Ser
625                 630                 635                 640

Phe Ile Ser Val Gly Asn Lys Phe Lys Thr Gln Leu Asn Leu Leu Leu
                645                 650                 655

Asp Lys Leu Arg Ser Thr Gly Ala Ser Phe Ile Arg Cys Ile Lys Pro
            660                 665                 670

Asn Leu Lys Met Thr Ser His His Phe Glu Gly Ala Gln Ile Leu Ser
        675                 680                 685

Gln Leu Gln Cys Ser Gly Met Val Ser Val Leu Asp Leu Met Gln Gly
```

690 695 700

Gly Phe Pro Ser Arg Ala Ser Phe His Glu Val Tyr Asn Met Tyr Lys
705 710 715 720

Lys Ser Leu Pro Asp Lys Leu Ala Arg Leu Asp Pro Arg Leu Phe Cys
725 730 735

Lys Ala Leu Phe Lys Ala Leu Gly Leu Asn Glu Ile Asp Tyr Lys Phe
740 745 750

Gly Leu Thr Lys Val Phe Phe Arg Pro Gly Lys Phe Ala Glu Phe Asp
755 760 765

Gln Ile Met Lys Ser Asp Pro Asp His Leu Ala Glu Leu Val Lys Arg
770 775 780

Val Asn His Trp Leu Ile Cys Ser Arg Trp Lys Lys Val Gln Trp Cys
785 790 795 800

Ser Leu Ser Val Ile Lys Leu Lys Asn Lys Ile Lys Tyr Arg Ala Glu
805 810 815

Ala Cys Ile Lys Met Gln Lys Thr Ile Arg Met Trp Leu Cys Lys Arg
820 825 830

Arg His Lys Pro Arg Ile Asp Gly Leu Val Lys Val Gly Thr Leu Lys
835 840 845

Lys Arg Leu Asp Lys Phe Asn Glu Val Val Ser Ala Leu Lys Asp Gly
850 855 860

Lys Gln Glu Met Ser Lys Gln Val Lys Asp Leu Glu Ile Ser Ile Asp
865 870 875 880

Ala Leu Met Ala Lys Ile Lys Ser Thr Met Met Thr Arg Glu Gln Ile
885 890 895

Gln Lys Glu Tyr Asp Ala Leu Val Lys Ser Ser Ala Val Leu Leu Ser
900 905 910

Ala Leu Gln Lys Lys Lys Gln Gln Glu Glu Glu Ala Glu Arg Leu Arg
915 920 925

Arg Ile Gln Glu Glu Met Glu Lys Glu Arg Lys Arg Arg Glu Glu Asp
930 935 940

```
Glu Gln Arg Arg Arg Lys Glu Glu Glu Glu Arg Arg Met Lys Leu Glu
945                 950                 955                 960

Met Glu Ala Lys Arg Lys Gln Glu Glu Glu Glu Arg Lys Lys Arg Glu
                965                 970                 975

Asp Asp Glu Lys Arg Ile Gln Ala Glu Val Glu Ala Gln Leu Ala Arg
            980                 985                 990

Gln Arg Glu Glu Glu Ser Gln Gln  Gln Ala Val Leu Glu  Gln Glu Arg
        995                 1000                1005

Arg Asp  Arg Glu Leu Ala Leu  Arg Ile Ala Gln Ser  Glu Ala Glu
    1010                1015                1020

Leu Ile  Ser Asp Glu Ala Gln  Ala Asp Pro Gly Leu  Arg Arg Gly
    1025                1030                1035

Pro Ala  Val Gln Ala Thr Lys  Ala Ala Ala Gly Thr  Lys Lys Tyr
    1040                1045                1050

Asp Leu  Ser Lys Trp Lys Tyr  Ala Glu Leu Arg Asp  Thr Ile Asn
    1055                1060                1065

Thr Ser  Cys Asp Ile Glu Leu  Leu Ala Ala Cys Arg  Glu Glu Phe
    1070                1075                1080

His Arg  Arg Leu Lys Val Tyr  His Ala Trp Lys Ser  Lys Asn Lys
    1085                1090                1095

Lys Arg  Asn Thr Glu Thr Glu  Gln Arg Ala Pro Lys  Ser Val Thr
    1100                1105                1110

Asp Tyr  Ala Gln Gln Asn Pro  Ala Val Gln Leu Pro  Ala Arg Gln
    1115                1120                1125

Gln Glu  Ile Glu Met Asn Arg  Gln Gln Arg Phe Phe  Arg Ile Pro
    1130                1135                1140

Phe Ile  Arg Ser Ala Asp Gln  Tyr Lys Asp Pro Gln  Asn Lys Lys
    1145                1150                1155

Lys Gly  Trp Trp Tyr Ala His  Phe Asp Gly Pro Trp  Ile Ala Arg
    1160                1165                1170

Gln Met  Glu Leu His Pro Asp  Lys Pro Pro Ile Leu  Leu Val Ala
    1175                1180                1185
```

```
Gly Lys  Asp Asp Met Glu Met  Cys Glu Leu Asn Leu  Glu Glu Thr
    1190                1195                1200


Gly Leu  Thr Arg Lys Arg Gly  Ala Glu Ile Leu Pro  Arg Gln Phe
    1205                1210                1215


Glu Glu  Ile Trp Glu Arg Cys  Gly Gly Ile Gln Tyr  Leu Gln Asn
    1220                1225                1230


Ala Ile  Glu Ser Arg Gln Ala  Arg Pro Thr Tyr Ala  Thr Ala Met
    1235                1240                1245


Leu Gln  Asn Leu Leu Lys
    1250
```

<210> 129
<211> 884
<212> PRT
<213> Oryza sativa

<400> 129

```
Met Gly Ser Thr Gly Glu Pro Asp Arg Lys Arg Arg Leu Ser Ser Ser
1               5                  10                  15


Val Ala Pro Gly Gly Gly Ala Pro Val Ser Pro Ala Lys Arg Leu Ala
            20                  25                  30


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


Tyr Lys Asn Gln Lys Leu Ser Glu Gln Leu Glu Ala His Lys Phe Glu
    50                  55                  60


Tyr Arg Ala Leu Glu Asn Lys Phe Ala Gly Leu Lys Glu Lys Gln Arg
65                  70                  75                  80


Thr His Asn Glu Thr Leu Ser Leu Val Asn Ser Ser Trp Glu Gln Leu
                85                  90                  95


Val Ala Asp Leu Lys Ser Arg Ser Phe Cys Lys Ser Gly Ser Pro Asn
            100                 105                 110


Ser Ser Pro Gly Ser Gly His Asn Asn Val Gln Lys Asp Gly Thr Cys
        115                 120                 125


Ala Pro Ile Glu Arg Asp Thr Leu Arg Ser Leu Val Glu Ser Gly Ala
    130                 135                 140
```

```
Thr Glu Ser Ser Gly Cys Leu Pro Gly Cys His Leu Gly Ser Asp Ala
145                 150                 155                 160

Pro Pro Leu His Leu Ser Thr Ala Asn Ala Leu Gly Asp Ile Phe Phe
                165                 170                 175

Pro Ser Ser Asp Leu Leu Gln Ala Asn Glu Glu Cys Ala Leu Ala Ala
            180                 185                 190

Leu Thr Lys Leu Pro Glu Asn Asp Arg Ser Lys Gln Leu Gln Ser Thr
        195                 200                 205

Ser Ser Asn Leu Leu Ser Ser Leu Asn Asn Val Val Gln Ala Leu Ser
    210                 215                 220

Asn Leu Gln Leu Lys His Lys Gln Leu Ala Glu Asp Tyr Gln Asn Gln
225                 230                 235                 240

Arg Asp Ser Ser Ala Arg Lys Arg Ala Glu His Arg Arg Leu Lys Glu
                245                 250                 255

Glu Leu Ala Ser Ala Ala Ser Glu Leu Glu Glu Thr Asn Tyr Lys Leu
            260                 265                 270

Ala Ala Leu Lys Ala Gln Arg Asp Asn Thr Gln Gly Ala Arg Ile Pro
        275                 280                 285

Tyr Pro Thr Leu Gly Asn Lys Asn Met Pro Glu Asp Lys Val Arg Asp
    290                 295                 300

Lys Gln Arg Glu Met Gln Asp Leu Glu Ala Thr His Lys Glu Leu Ser
305                 310                 315                 320

Glu Leu Ile Ser Lys Arg Leu Val Glu Ile Lys Arg Leu His Glu Glu
                325                 330                 335

Arg Ile Glu Ile Leu Asn Lys Ile Ala Thr Phe Gln Asn Ile Leu Met
            340                 345                 350

Asp Phe Lys Ser Ile Arg Ser Ser Lys Ala Phe Gln Leu Val Asn Asp
        355                 360                 365

Arg Leu Gln Lys Ser Gln Ala Glu Leu Asp His Tyr Gln Thr Leu Leu
    370                 375                 380

Glu Lys Leu Gln Val Asp Lys Asp Lys Phe Val Trp Gln Glu Arg Gln
385                 390                 395                 400
```

```
Phe Asn Leu Lys Val Asp Leu Ala Glu Ile Pro Glu Arg Val Ser Thr
                405                 410                 415

Tyr Cys Glu Ser Ser Ile Ala Asp Leu Lys Lys Asp Ile Gln Lys Leu
            420                 425                 430

Cys Asp Glu Lys Asn Met Leu Ile Leu Lys Leu Glu Glu Ala Ser Arg
        435                 440                 445

Glu Pro Gly Arg Asn Gln Val Ile Thr Lys Phe Lys Ala Leu Val Ser
    450                 455                 460

Ser Ile Pro Arg Glu Met Gly Ala Met Gln Ser Glu Met Thr Lys His
465                 470                 475                 480

Lys Glu Ala Ser Leu Glu Leu Asn Ser Leu Arg Ala Glu Val His Ser
                485                 490                 495

Leu Ser Arg Ile Leu Ser Arg Lys Glu Arg Asp Asn Glu Glu Ala Ser
            500                 505                 510

Cys Arg Ser Ala Arg Ala Gly Ser Asp Ile Thr Gln Leu Gln Ser Val
        515                 520                 525

Ile Ser Asp Leu Lys Gln Thr Asn Lys Glu Leu Lys Leu Phe Ala Asp
    530                 535                 540

Met Tyr Lys Arg Glu Ser Thr Asp Ser Arg Glu Ile Met Glu Ser Arg
545                 550                 555                 560

Asp Arg Glu Phe Leu Glu Trp Ala His Val His Ala Leu Lys Ser Ser
                565                 570                 575

Leu Asp Glu Ser Lys Leu Glu Gln Arg Val Lys Ala Ala Asn Glu Ala
            580                 585                 590

Glu Ala Ile Thr Gln Gln Arg Leu Ala Thr Ala Glu Ala Glu Ile Ala
        595                 600                 605

Glu Ser Gly Gln Lys Leu Gly Thr Ser Arg Lys Asp Leu Val Ser Leu
    610                 615                 620

Ser His Met Leu Lys Ser Lys Gln Glu Glu Cys Glu Ala Tyr Arg Val
625                 630                 635                 640

Glu Val Glu Cys Ile Gly Gln Ala Tyr Glu Asp Ile Gln Ala Gln Asn
                645                 650                 655
```

```
Gln Gln Leu Leu Gln Gln Ile Ile Glu Arg Asp Asp Asn Thr Lys
            660                 665                 670

Ile Phe Met Glu Gly Val Lys Ala Lys Gln Thr Gln Asp Ala Leu His
        675                 680                 685

Leu Glu Thr Tyr Ser Leu Arg Arg Asn Leu Gln Gln Glu Ser Ser Leu
    690                 695                 700

Met Asp Leu Tyr Asn Gln Lys Ile Val Ser Leu Glu Asp Gln Leu Lys
705                 710                 715                 720

Met Trp Ser Asp Arg Val Gly Lys Leu Gln Glu Asp Gly Trp Gln Gln
                725                 730                 735

Ser Val Ser Leu Ser Asn Tyr Gln Arg Lys Leu Val Asp Val His Arg
            740                 745                 750

Asp Ala Gln Lys Leu Met Gln Ser Leu Asp Gly Ile Gln Ala Asn Val
        755                 760                 765

Gly Ser Ser Arg Leu Glu Val Ala Asp Leu Leu Ile Glu Leu Glu Lys
    770                 775                 780

Glu Arg Phe Ser Lys Lys Arg Ile Glu Asp Asp Leu Glu Val Met Ser
785                 790                 795                 800

Arg Lys Ala Ser Ser Leu Arg Ala Lys Ala Arg Glu Ser Ala Val Leu
                805                 810                 815

Glu Lys Leu Arg His Glu Val Lys Glu Tyr Arg Gly Ile Leu Lys Cys
            820                 825                 830

Gly Ile Cys His Asp Arg Gln Lys Glu Val Val Ile Thr Lys Cys Tyr
        835                 840                 845

His Leu Phe Cys Asn Gln Cys Ile Gln Lys Ser Leu Gly Asn Arg Gln
    850                 855                 860

Arg Arg Cys Pro Ser Cys Ser Leu Ser Phe Gly Ala Asn Asp Val Lys
865                 870                 875                 880

Pro Ile Tyr Ile
```

<210> 130

<211> 884
<212> PRT
<213> Oryza sativa

<400> 130

```
Met Gly Ser Thr Gly Glu Pro Asp Arg Lys Arg Arg Leu Ser Ser Ser
1               5                  10                  15

Val Ala Pro Gly Gly Gly Ala Pro Val Ser Pro Ala Lys Arg Leu Ala
            20                  25                  30

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

Tyr Lys Asn Gln Lys Leu Ser Glu Gln Leu Glu Ala His Lys Phe Glu
    50                  55                  60

Tyr Arg Ala Leu Glu Asn Lys Phe Ala Gly Leu Lys Glu Lys Gln Arg
65                  70                  75                  80

Thr His Asn Glu Thr Leu Ser Leu Val Asn Ser Ser Trp Glu Gln Leu
                85                  90                  95

Val Ala Asp Leu Lys Ser Arg Ser Phe Cys Lys Ser Gly Ser Pro Asn
            100                 105                 110

Ser Ser Pro Gly Ser Gly His Asn Asn Val Gln Lys Asp Gly Thr Cys
        115                 120                 125

Ala Pro Ile Glu Arg Asp Thr Leu Arg Ser Leu Val Glu Ser Gly Ala
    130                 135                 140

Thr Glu Ser Ser Gly Cys Leu Pro Gly Cys His Leu Gly Ser Asp Ala
145                 150                 155                 160

Pro Pro Leu His Leu Ser Thr Ala Asn Ala Leu Gly Asp Ile Phe Phe
                165                 170                 175

Pro Ser Ser Asp Leu Leu Gln Ala Asn Glu Glu Cys Ala Leu Ala Ala
            180                 185                 190

Leu Thr Lys Leu Pro Glu Asn Asp Arg Ser Lys Gln Leu Gln Ser Thr
        195                 200                 205

Ser Ser Asn Leu Leu Ser Ser Leu Asn Asn Val Val Gln Ala Leu Ser
    210                 215                 220

Asn Leu Gln Leu Lys His Lys Gln Leu Ala Glu Asp Tyr Gln Asn Gln
225                 230                 235                 240
```

```
Arg Asp Ser Ser Ala Arg Lys Arg Ala Glu His Arg Arg Leu Lys Glu
                245                 250                 255

Glu Leu Ala Ser Ala Ala Ser Glu Leu Glu Glu Thr Asn Tyr Lys Leu
            260                 265                 270

Ala Ala Leu Lys Ala Gln Arg Asp Asn Thr Gln Gly Ala Arg Ile Pro
        275                 280                 285

Tyr Pro Thr Leu Gly Asn Lys Ser Met Pro Glu Asp Lys Val Arg Asp
    290                 295                 300

Lys Gln Arg Glu Met Gln Asp Leu Glu Ala Thr His Lys Glu Leu Ser
305                 310                 315                 320

Glu Leu Ile Ser Lys Arg Leu Val Glu Ile Lys Arg Leu His Glu Glu
                325                 330                 335

Arg Ile Glu Ile Leu Asn Lys Ile Ala Thr Phe Gln Asn Ile Leu Met
            340                 345                 350

Asp Phe Lys Ser Ile Arg Ser Ser Lys Ala Phe Gln Leu Val Asn Asp
        355                 360                 365

Arg Leu Gln Lys Ser Gln Ala Glu Leu Asp His Tyr Gln Thr Leu Leu
    370                 375                 380

Glu Lys Leu Gln Val Asp Lys Asp Lys Phe Val Trp Gln Glu Arg Gln
385                 390                 395                 400

Phe Asn Leu Lys Val Asp Leu Ala Glu Ile Pro Glu Arg Val Ser Thr
                405                 410                 415

Tyr Cys Glu Ser Ser Ile Ala Asp Leu Lys Lys Asp Ile Gln Lys Leu
            420                 425                 430

Arg Asp Glu Lys Asn Met Leu Ile Leu Lys Leu Glu Glu Ala Ser Arg
        435                 440                 445

Glu Pro Gly Arg Asn Gln Val Ile Thr Lys Phe Lys Ala Leu Val Ser
    450                 455                 460

Ser Ile Pro Arg Glu Met Gly Ala Met Gln Ser Glu Met Thr Lys His
465                 470                 475                 480

Lys Glu Ala Ser Leu Glu Leu Asn Ser Leu Arg Ala Glu Val His Ser
```

485 490 495

Leu Ser Arg Ile Leu Ser Arg Lys Glu Arg Asp Asn Glu Glu Ala Ser
500 505 510

Cys Arg Ser Ala Arg Ala Gly Ser Asp Ile Thr Gln Leu Gln Ser Val
515 520 525

Ile Ser Asp Leu Lys Gln Thr Asn Lys Glu Leu Lys Leu Phe Ala Asp
530 535 540

Met Tyr Lys Arg Glu Ser Thr Asp Ser Arg Glu Ile Met Glu Ser Arg
545 550 555 560

Asp Arg Glu Phe Leu Glu Trp Ala His Val His Ala Leu Lys Ser Ser
565 570 575

Leu Asp Glu Ser Lys Leu Glu Gln Arg Val Lys Ala Ala Asn Glu Ala
580 585 590

Glu Ala Ile Thr Gln Gln Arg Leu Ala Thr Ala Glu Ala Glu Ile Ala
595 600 605

Glu Ser Gly Gln Lys Leu Gly Thr Ser Arg Lys Asp Leu Val Ser Leu
610 615 620

Ser His Met Leu Lys Ser Lys Gln Glu Glu Cys Glu Ala Tyr Arg Val
625 630 635 640

Glu Val Glu Cys Ile Gly Gln Ala Tyr Glu Asp Ile Gln Ala Gln Asn
645 650 655

Gln Gln Leu Leu Gln Gln Ile Ile Glu Arg Asp Asp Asp Asn Thr Lys
660 665 670

Ile Phe Met Glu Gly Val Lys Ala Lys Gln Thr Gln Asp Ala Leu His
675 680 685

Leu Glu Thr Tyr Ser Leu Arg Arg Asn Leu Gln Gln Glu Ser Ser Leu
690 695 700

Met Asp Leu Tyr Asn Gln Lys Ile Val Ser Leu Glu Asp Gln Leu Lys
705 710 715 720

Met Trp Ser Asp Arg Val Gly Lys Leu Gln Glu Asp Gly Trp Gln Gln
725 730 735

```
Ser Val Ser Leu Ser Asn Tyr Gln Arg Lys Leu Val Asp Val His Arg
            740                 745                 750

Asp Ala Gln Lys Leu Met Gln Ser Leu Asp Gly Ile Gln Ala Asn Val
        755                 760                 765

Gly Ser Ser Arg Leu Glu Val Ala Asp Leu Leu Ile Glu Leu Glu Lys
    770                 775                 780

Glu Arg Phe Ser Lys Lys Arg Ile Glu Asp Asp Leu Glu Val Met Ser
785                 790                 795                 800

Arg Lys Ala Ser Ser Leu Arg Ala Lys Ala Arg Glu Ser Ala Val Leu
                805                 810                 815

Glu Lys Leu Arg His Glu Val Lys Glu Tyr Arg Gly Ile Leu Lys Cys
            820                 825                 830

Gly Ile Cys His Asp Arg Gln Lys Glu Val Val Ile Thr Lys Cys Tyr
        835                 840                 845

His Leu Phe Cys Asn Gln Cys Ile Gln Lys Ser Leu Gly Asn Arg Gln
    850                 855                 860

Arg Arg Cys Pro Ser Cys Ser Leu Ser Phe Gly Ala Asn Asp Val Lys
865                 870                 875                 880

Pro Ile Tyr Ile
```

<210> 131
<211> 230
<212> PRT
<213> Oryza sativa

<400> 131

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

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

Phe Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe
        35                  40                  45

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

Thr Ile Glu Arg Tyr Arg Thr Tyr Thr Lys Glu Asn Ile Gly Asn Lys
```

65 70 75 80

Thr Val Gln Gln Asp Ile Glu Gln Val Lys Ala Asp Ala Asp Gly Leu
85 90 95

Ala Lys Lys Leu Glu Ala Leu Glu Thr Tyr Lys Arg Lys Leu Leu Gly
100 105 110

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

Lys Leu Glu Arg Ser Leu Ile Ser Ile Arg Gly Arg Lys Thr Lys Leu
130 135 140

Leu Glu Glu Gln Val Ala Lys Leu Arg Glu Lys Glu Met Lys Leu Arg
145 150 155 160

Lys Asp Asn Glu Glu Leu Arg Glu Lys Cys Lys Asn Gln Pro Pro Leu
165 170 175

Ser Ala Pro Leu Thr Val Arg Ala Glu Asp Glu Asn Pro Asp Arg Asn
180 185 190

Ile Asn Thr Thr Asn Asp Asn Met Asp Val Glu Thr Glu Leu Phe Ile
195 200 205

Gly Leu Pro Gly Arg Ser Arg Ser Ser Gly Gly Ala Ala Glu Asp Ser
210 215 220

Gln Ala Met Pro His Ser
225 230

<210> 132
<211> 725
<212> PRT
<213> Oryza sativa

<400> 132
Met Ala Pro Pro Pro Leu His Leu Phe Ser Pro His Val Pro Ser Thr
1 5 10 15

Ser Val Ser Pro Pro Asp Pro Ala Thr Glu Ala Pro Pro Ala Pro Lys
20 25 30

Gln His Arg Gly Pro Arg Pro Ala Pro Arg Asn Pro Gly Ser Ala Lys
35 40 45

Pro Leu Thr Ala Gly Val Pro Gly Gly Arg Thr Arg Arg Ala Val Leu
50 55 60

```
Gly Ile Ile Arg Lys Val Arg Ser Leu Glu Leu Ser Asp Pro Arg Thr
65                  70                  75                  80

Pro Ser Pro Asn Gly Gly Gly Gly Ser Ser Ser Ser Ser Thr Ala Thr
                85                  90                  95

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

Glu Glu Glu Glu Glu Lys Lys Gly Ile Arg Arg Ala Val Pro Trp Ala
        115                 120                 125

Ala Ala Arg Asp Glu Glu Thr Lys Val Val Leu Arg Arg Glu Lys Lys
    130                 135                 140

Thr Arg Val Pro Thr Arg Ala Glu Thr Glu Leu Glu Ala Gly Glu Leu
145                 150                 155                 160

Glu Arg Leu Arg Arg Ala Ala Arg Gly Lys Glu Arg Trp Ala Arg Ala
                165                 170                 175

Lys Lys Ala Gly Ile Thr Asp Glu Val Val Glu Glu Val Arg Gly Gln
            180                 185                 190

Trp Ala Lys Gly Gln Glu Leu Ala Gly Val Arg Ile Val Glu Pro Leu
        195                 200                 205

Arg Arg Cys Met Asp Arg Ala Arg Glu Ile Leu Glu Ile Lys Thr Gly
    210                 215                 220

Gly Leu Val Val Trp Thr Arg Gly Gly Ile His Phe Val Tyr Arg Gly
225                 230                 235                 240

Ser Ser Tyr Leu Glu Asn Ala Lys Arg His Arg Asp Phe Val Asn Tyr
                245                 250                 255

Asn Glu Glu Leu Ser Pro Val Thr Ser Asn Asn Pro Thr Ser Gln Gly
            260                 265                 270

Lys Tyr Trp Ser Lys Asp Glu Thr Leu Thr Asn Asp Asn Asp Glu Ala
        275                 280                 285

Asp Asp Lys Asp Asp Lys Pro Ile Lys Gly Thr Leu Tyr Glu Arg Glu
    290                 295                 300

Val Asn Arg Leu Leu Asp Ser Leu Gly Pro Arg Phe Ile Asp Trp Trp
```

305 310 315 320

Trp Asn Thr Pro Leu Pro Val Asp Ala Asp Leu Leu Pro Glu Val Val
325 330 335

Pro Asp Phe Lys Thr Pro Phe Arg Gln Cys Pro Pro Gly Val Arg Pro
340 345 350

Ala Leu Ala Asp Glu Glu Leu Thr Tyr Leu Arg Lys His Ala Arg Pro
355 360 365

Leu Pro Thr His Phe Val Leu Gly Arg Asn Thr Lys Leu Gln Gly Leu
370 375 380

Ala Ala Ala Ile Leu Lys Leu Trp Glu Lys Ser Leu Ile Ala Lys Val
385 390 395 400

Ala Val Lys Val Gly Ile Gln Asn Thr Asn His Glu Gln Met Ala Arg
405 410 415

Asn Leu Lys Arg Leu Thr Gly Gly Thr Val Ile Leu Arg Asn Lys Asp
420 425 430

Tyr Ile Ile Ile Tyr Arg Gly Lys Asp Phe Leu Pro Gly Gly Val Ala
435 440 445

Glu Ser Val Ile Glu Arg Glu Ser Gln Val His Asp Gln Gln Ala Lys
450 455 460

Glu Glu Glu Ala Arg Leu Lys Met Ala Asp Ser Leu Gln Met Ile Val
465 470 475 480

Gly Leu Ser Ser Glu Arg Ser Tyr Val Gly Thr Phe Arg Glu Tyr Gln
485 490 495

Asp Phe His Asp Ser His Ala Arg Arg Thr Thr Glu Asn Asn Phe Arg
500 505 510

Ile Gln Leu Glu Ala Lys Lys His Arg Leu Glu Lys Glu Leu Lys Asp
515 520 525

Gln Glu Trp Arg Leu Ser Met Leu Thr Lys Lys Ile Glu Arg Ser Asn
530 535 540

Gln Val Leu Ala Lys Leu His Ser Ser Trp Ser Pro Ser Lys Lys Asp
545 550 555 560

```
Gly Asp Arg Glu Leu Leu Thr Glu Glu Glu Arg Arg Ile Phe Arg Lys
                565                 570                 575

Ile Gly Leu Lys Met Asp Glu His Val Leu Leu Gly Arg Arg Gly Val
            580                 585                 590

Phe Glu Gly Val Ile Glu Glu Ile His Gln His Trp Lys His Lys Glu
        595                 600                 605

Val Val Lys Val Ile Thr Lys Gln Asn Gln Ala Ser Gln Ile Thr Tyr
    610                 615                 620

Thr Ser Met Met Leu Glu Val Glu Thr Gly Gly Thr Leu Ile Ala Ile
625                 630                 635                 640

Glu Arg Phe Thr Thr Ser His Ala Ile Ile Leu Tyr Arg Gly Lys Asn
                645                 650                 655

Tyr Arg Arg Pro Thr Lys Ser Ala Pro Ser Asn Leu Leu Thr Lys Arg
            660                 665                 670

Glu Ala Leu Gln Arg Ser Ile Glu Val Gln Arg Arg Gly Ser Met Lys
        675                 680                 685

Tyr Phe Ala Gln Glu Arg Lys Lys Ser Ile Asp Glu Leu Lys Arg Glu
    690                 695                 700

Leu Arg Asn Val Thr Trp Glu Ile Arg Lys Leu Asn His Asp Thr Glu
705                 710                 715                 720

Gln Ser Trp Thr Ala
                725
```

<210> 133
<211> 582
<212> PRT
<213> Oryza sativa

<400> 133

```
Met Gly Gly Arg Ala Arg Ser Ile Leu Arg Trp Leu Arg His His Arg
1               5                   10                  15

Ser Arg Arg Val Ser Ser Ser Ser Phe His Leu Thr Thr Thr Gly Asp
            20                  25                  30

Asp Thr Val Lys Asp Leu His Asp Pro Arg Arg Glu Asp Ala Glu Gly
        35                  40                  45

Asp Gly Trp Glu Glu Val His Glu Gly Pro Glu Ser Asp Pro Glu Glu
```

```
    50                  55                  60

Tyr Ile Ala Leu Val Ser Glu Asp Ala Gly Thr His Leu Pro Val Arg
65                  70                  75                  80

Thr Glu Pro Arg Arg Met Asp Pro Ser Lys Lys Glu Pro Asp Phe Phe
                85                  90                  95

Thr Glu Tyr Gly Glu Ala Asn Arg Tyr Lys Val Ser Glu Val Ile Gly
            100                 105                 110

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

Glu Arg Val Ala Ile Lys Lys Ile Asn Asp Val Phe Asp His Val Ser
    130                 135                 140

Asp Ala Thr Arg Ile Leu Arg Glu Ile Lys Leu Leu Arg Leu Leu Arg
145                 150                 155                 160

His Pro Asp Ile Val Glu Ile Lys His Ile Met Leu Pro Pro Ser Arg
                165                 170                 175

Arg Glu Phe Arg Asp Ile Tyr Val Ile Phe Glu Leu Met Glu Ser Asp
            180                 185                 190

Leu His Gln Val Ile Lys Ala Asn Asp Asp Leu Thr Pro Glu His His
        195                 200                 205

Gln Phe Phe Leu Tyr Gln Leu Leu Arg Gly Met Lys Tyr Ile His Ala
    210                 215                 220

Ala Ser Val Phe His Arg Asp Leu Lys Pro Lys Asn Ile Leu Ala Asn
225                 230                 235                 240

Ala Asp Cys Lys Leu Lys Val Cys Asp Phe Gly Leu Ala Arg Val Ser
                245                 250                 255

Phe Asn Asp Thr Pro Ser Ala Ile Phe Trp Thr Asp Tyr Val Ala Thr
            260                 265                 270

Arg Trp Tyr Arg Ala Pro Glu Leu Cys Gly Ser Phe Phe Ser Lys Tyr
        275                 280                 285

Thr Pro Ala Ile Asp Ile Trp Ser Val Gly Cys Ile Phe Ala Glu Leu
    290                 295                 300
```

```
Leu Thr Gly Lys Pro Leu Phe Pro Gly Lys Asn Val Val His Gln Leu
305                 310                 315                 320

Asp Leu Met Thr Asp Leu Leu Gly Thr Pro Ser Ala Glu Ser Leu Ala
                325                 330                 335

Lys Ile Arg Asn Glu Lys Ala Arg Arg Tyr Leu Ser Asn Met Arg Lys
            340                 345                 350

Lys Pro Arg Val Pro Phe Thr Lys Lys Phe Pro Gly Val Asp Pro Met
        355                 360                 365

Ala Leu His Leu Leu Glu Arg Leu Leu Ala Phe Asp Pro Lys Asp Arg
    370                 375                 380

Pro Ser Ala Glu Glu Ala Leu Thr Asp Pro Tyr Phe Asn Gly Leu Ala
385                 390                 395                 400

Asn Ser Glu Arg Glu Pro Ile Ala Gln Pro Ile Ser Lys Leu Glu Phe
                405                 410                 415

Glu Phe Glu Lys Arg Lys Leu Ala Lys Asp Asp Val Arg Glu Leu Ile
            420                 425                 430

Tyr Arg Glu Ile Leu Glu Tyr His Pro His Met Leu Gln Glu Tyr Leu
        435                 440                 445

Arg Gly Gly Asp Gln Met Ser Phe Met Tyr Pro Ser Gly Val Asp Arg
    450                 455                 460

Phe Lys Arg Gln Phe Ala His Leu Glu Glu Gly Val Ser Lys Gly Glu
465                 470                 475                 480

Lys Ser Ser Pro Gln Leu Arg Gln Asn Ala Ser Leu Pro Arg Glu Arg
                485                 490                 495

Ala Ile Gly Asn Lys His Gly Asp Asp Glu Tyr His Ala Lys Leu Asn
            500                 505                 510

Val Gly Glu Lys Pro Cys His Ala Ser Val Thr Asp Gly Ile Ser Lys
        515                 520                 525

Pro Leu Met Ser Ala Arg Ser Leu Leu Lys Ser Glu Ser Ile Ser Ala
    530                 535                 540

Ser Lys Cys Ile Gly Glu Lys Pro Lys Gln Asp Arg Asp Gln Glu Asp
545                 550                 555                 560
```

```
Ser Leu Thr Glu Ser Met Asp Glu Thr Ala Asp Glu Val Ser Glu Lys
                565                 570                 575


Val Ala Gln Leu Lys Thr
            580


<210> 134
<211> 333
<212> PRT
<213> Oryza sativa

<400> 134
Met Ser Gly Phe Gly Asp Gly Tyr Val Gly Thr Ala Gln Asp Ala Val
1               5                   10                  15


Lys Ile Arg Arg Leu Glu Lys Gln Arg Glu Ala Glu Arg Arg Lys Ile
            20                  25                  30


Glu Glu Leu Lys Asn Lys Ser Ser Asp Gly Gln Pro Gly Leu Leu Gln
        35                  40                  45


Phe Gly Ser Ser Thr Ser Glu Ile Leu Glu Thr Ala Phe Lys Lys Glu
    50                  55                  60


Thr Val Gly Leu Val Thr Arg Glu Gln Tyr Val Glu Lys Arg Val Asn
65                  70                  75                  80


Ile Arg Thr Lys Ile Glu Glu Glu Glu Lys Glu Lys Leu Gln Lys Leu
                85                  90                  95


Gln Gln Glu Glu Glu Glu Leu Gln Met Gln Lys Arg Lys Lys Arg Arg
            100                 105                 110


Val Arg Gly Asp Pro Arg Leu Ser Phe Cys Asp Glu Ile Glu Asn Gly
        115                 120                 125


Ser Asp Glu Asp Glu Phe Glu Asn Gln Glu Pro Gln Lys Lys His Gly
    130                 135                 140


Pro Val Lys Leu Gly Lys Asp Pro Thr Val Glu Thr Ser Phe Leu Pro
145                 150                 155                 160


Asp Arg Glu Arg Glu Ala Glu Glu Gln Ala Glu Arg Glu Arg Leu Lys
                165                 170                 175


Lys Gln Trp Ser Arg Glu Gln Glu Leu Ile Lys Asn Glu Pro Leu Thr
            180                 185                 190
```

```
Ile Thr Tyr Ser Tyr Trp Asp Gly Thr Gly His Arg Arg Val Ile Gln
        195                 200                 205

Val Arg Lys Gly Asp Ser Ile Gly Glu Phe Leu Arg Ala Val Gln Gln
    210                 215                 220

Gln Leu Ala Pro Glu Phe Arg Glu Val Arg Thr Thr Ser Val Glu Asn
225                 230                 235                 240

Leu Leu Tyr Val Lys Glu Asp Leu Ile Ile Pro His Gln His Ser Phe
                245                 250                 255

Tyr Glu Leu Ile Ile Asn Lys Ala Arg Gly Lys Ser Gly Pro Leu Phe
            260                 265                 270

His Phe Asp Val His Glu Asp Val Arg Thr Ile Ala Asp Ala Thr Lys
        275                 280                 285

Glu Lys Asp Glu Ser His Ala Gly Lys Val Val Glu Arg His Trp Tyr
    290                 295                 300

Glu Lys Asn Lys His Ile Phe Pro Ala Ser Arg Trp Glu Ile Tyr Asp
305                 310                 315                 320

Pro Thr Lys Lys Trp Glu Arg Tyr Thr Ile His Gly Asp
                325                 330
```

<210> 135
<211> 333
<212> PRT
<213> Oryza sativa

<400> 135

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

Lys Ile Arg Arg Leu Glu Lys Gln Arg Glu Ala Glu Arg Arg Lys Ile
            20                  25                  30

Glu Glu Leu Lys Asn Lys Ser Ser Asp Gly Gln Pro Gly Leu Leu Gln
        35                  40                  45

Phe Gly Ser Ser Thr Ser Glu Ile Leu Glu Thr Ala Phe Lys Lys Glu
    50                  55                  60

Thr Val Gly Leu Val Thr Arg Glu Gln Tyr Val Glu Lys Arg Val Asn
65                  70                  75                  80

Ile Arg Thr Lys Ile Glu Glu Glu Glu Lys Glu Lys Leu Gln Lys Leu
```

85 90 95

Gln Gln Glu Glu Glu Glu Leu Gln Met Gln Lys Arg Lys Lys Arg Arg
100 105 110

Val Arg Gly Asp Pro Arg Leu Ser Phe Cys Asp Glu Ile Glu Asn Gly
115 120 125

Ser Asp Glu Asp Glu Phe Glu Asn Gln Glu Pro Gln Lys Lys His Gly
130 135 140

Pro Val Lys Leu Gly Lys Asp Pro Thr Val Glu Thr Ser Phe Leu Pro
145 150 155 160

Asp Arg Glu Arg Glu Ala Glu Glu Gln Ala Glu Arg Glu Arg Leu Lys
165 170 175

Lys Gln Trp Ser Arg Glu Gln Glu Leu Ile Lys Asn Glu Pro Leu Thr
180 185 190

Ile Thr Tyr Ser Tyr Trp Asp Gly Thr Gly His Arg Arg Val Ile Gln
195 200 205

Val Arg Lys Gly Asp Ser Ile Gly Glu Phe Leu Arg Ala Val Gln Gln
210 215 220

Gln Leu Ala Pro Glu Phe Arg Glu Val Arg Thr Thr Ser Val Glu Asn
225 230 235 240

Leu Leu Tyr Val Lys Glu Asp Leu Ile Ile Pro His Gln His Ser Phe
245 250 255

Tyr Glu Leu Ile Ile Asn Lys Ala Arg Gly Lys Ser Gly Pro Leu Phe
260 265 270

His Phe Asp Val His Glu Asp Val Arg Thr Ile Ala Asp Ala Thr Lys
275 280 285

Glu Lys Asp Glu Ser His Ala Gly Lys Val Val Glu Arg His Trp Tyr
290 295 300

Glu Lys Asn Lys His Ile Phe Pro Ala Ser Arg Trp Glu Ile Tyr Asp
305 310 315 320

Pro Thr Lys Lys Trp Glu Arg Tyr Thr Ile His Gly Asp
325 330

<210> 136
<211> 252
<212> PRT
<213> Solanum lycopersicum

<400> 136

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

Gln Ala Glu Arg Tyr Asp Glu Met Val Glu Ala Met Lys Ala Ile Ala
            20                  25                  30

Lys Met Asp Val Glu Leu Thr Val Glu Glu Arg Asn Leu Val Ser Val
        35                  40                  45

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

Ser Ser Ile Glu Gln Lys Glu Glu Ser Lys Gly His Glu Gln Asn Val
65                  70                  75                  80

Lys Arg Ile Lys Thr Tyr Arg Gln Arg Val Glu Asp Glu Leu Thr Lys
                85                  90                  95

Ile Cys Ser Asp Ile Leu Ser Val Ile Asp Glu His Leu Val Pro Ser
            100                 105                 110

Ser Thr Thr Gly Glu Ser Thr Val Phe Tyr Tyr Lys Met Lys Gly Asp
        115                 120                 125

Tyr Tyr Arg Tyr Leu Ala Glu Phe Lys Ala Gly Asp Asp Arg Lys Glu
    130                 135                 140

Ala Ser Glu Gln Ser Leu Lys Ala Tyr Glu Ala Ala Thr Ala Thr Ala
145                 150                 155                 160

Ser Ser Asp Leu Ala Pro Thr His Pro Ile Arg Leu Gly Leu Ala Leu
                165                 170                 175

Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu Arg Ala
            180                 185                 190

Cys His Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ala Glu Leu Asp
        195                 200                 205

Ser Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln Leu
    210                 215                 220

Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Leu Glu Glu Gly Gly
```

225 230 235 240

Glu His Ser Lys Gly Asp Glu Arg Gln Gly Glu Asn
245 250

<210> 137
<211> 233
<212> PRT
<213> Oryza sativa

<400> 137
Met Val Arg Gly Arg Thr Glu Leu Lys Arg Ile Glu Asn Pro Thr Ser
1 5 10 15

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

Phe Glu Leu Ser Val Leu Cys Asp Ala Glu Val Ala Leu Ile Val Phe
35 40 45

Ser Pro Arg Gly Arg Leu Tyr Glu Phe Ala Ser Ala Pro Ser Leu Gln
50 55 60

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

Lys Thr Ile Gln Gln Asp Ile Gln Gln Val Lys Asp Asp Thr Leu Gly
85 90 95

Leu Ala Lys Lys Leu Glu Ala Leu Asp Glu Ser Arg Arg Lys Ile Leu
100 105 110

Gly Glu Asn Leu Glu Gly Phe Ser Ile Glu Glu Leu Arg Gly Leu Glu
115 120 125

Met Lys Leu Glu Lys Ser Leu His Lys Ile Arg Leu Lys Lys Thr Glu
130 135 140

Leu Leu Glu Gln Gln Ile Ala Lys Leu Lys Glu Lys Glu Arg Thr Leu
145 150 155 160

Leu Lys Asp Asn Glu Asn Leu Arg Gly Lys His Arg Asn Leu Glu Ala
165 170 175

Ala Ala Leu Val Ala Asn His Met Thr Thr Thr Thr Ala Pro Ala Ala
180 185 190

Trp Pro Arg Asp Val Pro Met Thr Ser Ser Thr Ala Gly Ala Ala Asp
195 200 205

```
Ala Met Asp Val Glu Thr Asp Leu Tyr Ile Gly Leu Pro Gly Thr Glu
    210                 215                 220

Arg Ser Ser Asn Arg Ser Glu Thr Gly
225                 230

<210> 138
<211> 574
<212> PRT
<213> Sus scrofa

<400> 138
Met Ser His Gln Pro Leu Ser Cys Leu Thr Glu Lys Gly Asp Ser Pro
1               5                   10                  15

Thr Glu Thr Thr Gly Asn Gly Pro Pro Thr Leu Ala His Pro Asn Leu
            20                  25                  30

Asp Thr Phe Thr Pro His Glu Leu Leu Gln Gln Met Arg Glu Leu Leu
        35                  40                  45

Ile Glu Asn His Gln Leu Lys Glu Ala Met Lys Leu Asn Asn Gln Ala
    50                  55                  60

Met Lys Gly Arg Phe Glu Glu Leu Ser Ala Trp Thr Glu Lys Gln Lys
65                  70                  75                  80

Glu Glu Arg Leu Phe Phe Glu Thr Gln Ser Lys Glu Ala Lys Glu Arg
                85                  90                  95

Leu Thr Ala Leu Ser Leu Glu Asn Glu Lys Leu Lys Gln Glu Leu Gly
            100                 105                 110

Lys Leu Lys Gly Lys Thr Glu Arg Ser Phe Glu Asp Leu Thr Gly Asp
        115                 120                 125

Pro Arg Val Pro Lys Ala Glu Ala Glu Gln Glu Val Glu Gln Leu Lys
    130                 135                 140

Thr Gln Val Ala Arg Leu Gln Ala Glu Lys Ala Asp Leu Leu Gly Ile
145                 150                 155                 160

Val Ser Glu Leu Gln Leu Lys Leu Asn Ser Gly Gly Pro Ser Glu Asp
                165                 170                 175

Ser Phe Val Glu Ile Arg Met Ala Glu Gly Glu Ala Asp Ala Ala Met
            180                 185                 190
```

```
Lys Glu Ile Lys Thr Ser Pro Gly Pro Ile Arg Thr Asp Ser Ile Asp
        195                 200                 205

Thr Ser Lys Ser Ala Glu Gly Thr Arg Asn Tyr Leu Glu Phe Glu Glu
    210                 215                 220

Leu Thr Val Ser Gln Leu Leu Leu Cys Leu Arg Glu Gly Asn Gln Lys
225                 230                 235                 240

Val Glu Arg Leu Glu Ile Ala Leu Lys Glu Ala Lys Glu Arg Ile Leu
                245                 250                 255

Asp Phe Glu Lys Lys Ala Lys Asp Arg Ser Glu Thr Glu Thr Gln Thr
            260                 265                 270

Glu Glu His Lys Glu Gln Glu Lys Glu Glu Glu Lys Ser Pro Glu Thr
        275                 280                 285

Val Gly Ser Glu Val Glu Met Leu Asn Leu Gln Val Thr Thr Leu Phe
    290                 295                 300

Lys Glu Leu Gln Glu Ala His Thr Lys Leu Ser Glu Ala Glu Leu Met
305                 310                 315                 320

Lys Lys Arg Leu Gln Glu Lys Cys Gln Ala Leu Glu Arg Lys Asn Ser
                325                 330                 335

Ala Thr Pro Ser Glu Leu Asn Glu Lys Gln Glu Leu Leu Tyr Asn Asn
            340                 345                 350

Lys Lys Leu Glu Leu Gln Val Glu Ser Met Arg Ser Glu Ile Lys Met
        355                 360                 365

Glu Gln Ala Lys Thr Glu Glu Glu Lys Ser Lys Leu Thr Thr Leu Gln
    370                 375                 380

Leu Thr His Asn Arg Leu Leu Gln Glu Tyr Asn Asn Ala Leu Lys Thr
385                 390                 395                 400

Ile Glu Glu Leu Lys Arg Arg Glu Ser Glu Lys Val Asp Lys Val Val
                405                 410                 415

Leu Gln Glu Leu Asn Gly Lys Leu Glu Met Ala Glu Lys Ala Leu Ala
            420                 425                 430

Ser Lys Gln Leu Gln Met Asp Glu Met Lys Gln Thr Ile Ala Lys Gln
        435                 440                 445
```

```
Glu Lys Asp Leu Glu Thr Met Ala Val Leu Arg Ala Gln Met Glu Val
    450                 455                 460

Tyr Cys Ser Asp Phe His Ala Glu Arg Ala Ala Arg Glu Lys Ile His
465                 470                 475                 480

Glu Glu Lys Glu Gln Leu Ala Leu Gln Leu Ala Val Leu Leu Lys Asp
                485                 490                 495

Asp Asn Ala Phe Glu Glu Gly Ala Ser Arg Gln Ser Leu Met Glu Met
            500                 505                 510

Gln Ser Arg His Gly Ala Arg Ala Ser Asp Ala Asp Gln Gln Ala Phe
        515                 520                 525

Leu Val Gln Arg Gly Ala Glu Asp Arg Asn Trp Leu Gln Gln Gln Gln
    530                 535                 540

Gln Asn Ile Pro Ile His Ser Cys Pro Lys Cys Gly Glu Val Leu Pro
545                 550                 555                 560

Asp Ile Asp Thr Leu Leu Ile His Val Thr Asp Cys Ile Ile
                565                 570
```

<210> 139
<211> 258
<212> PRT
<213> Sus scrofa

<400> 139

```
Met Ala Ser Thr Lys Glu Arg Glu Asn Phe Val Tyr Val Ala Lys Leu
1               5                   10                  15

Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Ala Met Lys Asn
            20                  25                  30

Val Ala Asn Leu Asn Val Glu Leu Thr Val Glu Glu Arg Asn Leu Leu
        35                  40                  45

Ser Val Gly Tyr Lys Asn Val Val Gly Ala Arg Arg Ala Ser Trp Arg
    50                  55                  60

Ile Leu Ser Ser Ile Glu Gln Lys Glu Glu Ala Lys Gly Asn Asp Val
65                  70                  75                  80

Ser Val Lys Arg Ile Lys Glu Tyr Arg Leu Lys Val Glu Ser Glu Leu
                85                  90                  95
```

```
Ser Asn Ile Cys Ser Asp Ile Met Thr Val Ile Asp Glu Tyr Leu Ile
            100                 105                 110

Pro Ser Ser Ser Ser Gly Glu Pro Ser Val Phe Phe Tyr Lys Met Lys
        115                 120                 125

Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Phe Lys Ser Gly Asp Glu Arg
    130                 135                 140

Lys Glu Ala Ala Asp His Ser Met Lys Ala Tyr Gln Leu Ala Ser Thr
145                 150                 155                 160

Thr Ala Glu Ala Glu Leu Ala Ser Thr His Pro Ile Arg Leu Gly Leu
                165                 170                 175

Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu
            180                 185                 190

Arg Ala Cys His Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ser Glu
        195                 200                 205

Leu Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met
    210                 215                 220

Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Ile Pro Glu
225                 230                 235                 240

Asp Gly Glu Glu Gln Lys Val Asp Ser Ala Arg Ala Asp Gly Gly Asp
                245                 250                 255

Asp Ala
```

<210> 140
<211> 155
<212> PRT
<213> Sus scrofa

<400> 140

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

Ile Ala Asp Ser Glu Ser Glu Asp Asp Glu Asp Leu Asp Val Pro Ile
            20                  25                  30

Pro Ser Arg Phe Asp Arg Arg Val Ser Val Cys Ala Glu Thr Tyr Asn
        35                  40                  45
```

Pro Asp Glu Glu Glu Glu Asp Thr Asp Pro Arg Val Ile His Pro Lys
50 55 60

Thr Asp Gln Gln Arg Cys Arg Leu Gln Glu Ala Cys Lys Asp Ile Leu
65 70 75 80

Leu Phe Lys Asn Leu Asp Gln Glu Gln Leu Ser Gln Val Leu Asp Ala
85 90 95

Met Phe Glu Arg Thr Val Lys Val Asp Glu His Val Ile Asp Gln Arg
100 105 110

Asp Asp Gly Asp Asn Phe Tyr Val Ile Glu Arg Gly Thr Tyr Asp Ile
115 120 125

Leu Val Thr Lys Asp Asn Gln Thr Arg Ser Val Gly Gln Tyr Asp Asn
130 135 140

His Gly Ser Phe Gly Glu Leu Ala Leu Met Tyr
145 150 155

<210> 141
<211> 757
<212> PRT
<213> Sus scrofa

<400> 141
Met Ser Asp Ser Asp Glu Tyr Val Asp Leu Pro Val Ser Asp Glu Glu
1 5 10 15

Glu Trp Glu Asp Gly Glu Ser Glu Glu Asp Glu Glu Lys Val Gly Ser
20 25 30

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

Lys Asp Pro Glu Phe Tyr Lys Tyr Leu Glu Glu Cys Asp Lys Glu Leu
50 55 60

Leu Glu Phe Asp Asp Asp Asp Phe Asp Asp Asn Glu Gly Ser Ala Glu
65 70 75 80

Lys His Ser Ser Val Pro Lys Glu Glu Pro Lys Glu Ile Val Lys Pro
85 90 95

Ile Thr Met Gln Met Val Asp Ser Trp Cys Gln Gly Ala Glu Asp Gly
100 105 110

Lys Ile Gly Ser Ile Arg Ser Ile Leu Glu Ala Phe Arg Lys Ala Cys

```
        115                 120                 125

His Tyr Gly Glu Glu Ser Gly Asn Asn Ser Ala Pro Lys Phe Ser Val
    130                 135                 140

Met Ser Gly Ser Val Leu Asp Lys Val Met His Phe Val Leu Lys Asn
145                 150                 155                 160

Met Asp Arg Ile Leu Arg Glu Leu Leu Asp Ala Pro Ser Phe Gly Gly
                165                 170                 175

Lys Lys Glu Thr Val Ser Glu Leu Met Ile Thr Lys Gln Trp Lys Arg
            180                 185                 190

His Gly Arg Leu Met Arg Leu Tyr Leu Val Asn Ala Leu His Met Ile
        195                 200                 205

Thr Glu Leu Thr Asp Glu Gln Met Val Ala Phe Thr Val His Arg Val
    210                 215                 220

Arg Ala Ser Ala Val Phe Leu Ala Ala Phe Pro Ala Leu Leu Arg Lys
225                 230                 235                 240

Tyr Val Lys Ala Leu Leu His Thr Trp Ser Arg Gly Arg Gly Ala Met
                245                 250                 255

Pro Leu Val Ser Phe Leu Phe Leu Arg Asp Leu Cys Ile Gln Leu Gly
            260                 265                 270

Ser Glu Cys Leu Asp Thr Ser Leu Lys Gly Ile Tyr Lys Ala Tyr Leu
        275                 280                 285

Val Asn Cys Lys Leu Ser Lys Ser Ile Ser Gly Ser Lys Leu Gln His
    290                 295                 300

Ile Gln Phe Leu Gly Asn Cys Val Arg Glu Leu Tyr Asn Val Asp Pro
305                 310                 315                 320

Gln Ser Ala Tyr Gln His Ala Phe Val Phe Ile Arg Gln Leu Ala Val
                325                 330                 335

Ile Leu Arg Gly Ala Leu Thr Glu Arg Gly Pro Lys Thr Ser Lys Asp
            340                 345                 350

Lys Lys Gln Lys Glu Ser Ile Lys Pro Thr Lys Lys Arg Met Glu Lys
        355                 360                 365
```

```
Ser Tyr Gln Lys Val Tyr Asp Trp Gln Tyr Ile Phe Cys Leu Glu Leu
    370                 375                 380

Trp Thr Ser Val Val Cys Gly Cys Ser Ser Glu Glu Asp Leu Arg Pro
385                 390                 395                 400

Leu Ala Tyr Pro Leu Thr Gln Ile Ile His Gly Val Ala Cys Leu Val
                405                 410                 415

Pro Ser Ala Arg Tyr Phe Pro Val Arg Leu Arg Cys Val Lys Met Leu
            420                 425                 430

Asn Arg Ile Ala Glu Ala Thr Gly Thr Phe Ile Pro Val Ser Ser Leu
        435                 440                 445

Leu Leu Asp Met Leu Glu Met Lys Glu Leu Gly Gly Lys Pro Asp Ala
    450                 455                 460

Val Gly Lys Ala Val Asn Leu Phe Ser Val Lys Gln Val Asp Lys Lys
465                 470                 475                 480

Thr Val Lys Thr Arg Ala Phe Gln Glu Ala Cys Ile Phe Ser Ala Val
                485                 490                 495

Asp Glu Leu Ala Lys His Leu Ala Gln Trp Ser Tyr Ser Ile Ala Phe
            500                 505                 510

Phe Glu Met Ser Phe Leu Thr Leu Val Arg Leu Gln Asn Phe Cys Lys
        515                 520                 525

Thr Val Lys Ala Asp Arg Phe Arg Arg Glu Ile Lys Asp Leu Ile His
    530                 535                 540

Gln Ile Lys Ala Ser Ala Glu Phe Val Ser Ser Lys Arg Ala Gly Ile
545                 550                 555                 560

Gly Phe Ser Pro Asn Asp Pro Ala Val Asp Ser Phe Leu Gln Val Glu
                565                 570                 575

Lys Glu Ala Lys Ser Ser Pro Leu Ser Lys Tyr Val Ala Thr Leu His
            580                 585                 590

Gln Arg Ser Gln Asp Arg Met Asp Ser Leu Asp Asp Thr Ser Val Ile
        595                 600                 605

Val Gly Ala Glu Ser Ser Thr Phe Ser Arg Arg Leu Ser Glu Ala Gln
    610                 615                 620
```

```
Lys Arg Gln Asp Glu Gln Asp Asp Gly Glu Asp Thr Ile Ala Phe Ser
625                 630                 635                 640

Lys Asn Leu Leu Thr Glu Lys Lys Lys Thr Lys Thr Pro Lys Glu Lys
                645                 650                 655

Ser Lys Lys Arg Ala His Asn His Asp Asp Val Ala Thr Glu Glu Asp
            660                 665                 670

Ile Val Glu Asp Leu Ile Leu Ser Ser Asp Glu Glu Asp Glu Asp Glu
        675                 680                 685

Asp Lys Asn Met Glu Ser Asp Glu Asp Asp Gly Ser Met Pro Val Glu
    690                 695                 700

Asp Asp Ser Asp Asp Asp Phe Val Asp Pro Asp Ser Gln Trp Lys Lys
705                 710                 715                 720

Gln Lys Lys Glu Lys Ser Lys Lys Arg Asn Lys Arg Gln Pro Ser Lys
                725                 730                 735

Lys Gly Ser Ser Thr Thr Lys Arg Lys Glu Lys Ile Pro His Pro Lys
            740                 745                 750

Lys Lys Ala Lys His
        755
```

<210> 142
<211> 138
<212> PRT
<213> Sus scrofa

<400> 142

```
Met Ala Pro Lys Ala Glu Lys Lys Pro Val Ala Glu Lys Ala Glu Lys
1               5                   10                  15

Thr Thr Ala Ala Lys Lys Thr Lys Ala Glu Lys Arg Pro Pro Ala Ser
            20                  25                  30

Lys Glu Gly Gly Asp Lys Lys Gly Lys Lys Lys Ser Lys Lys Ser Val
        35                  40                  45

Glu Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro
    50                  55                  60

Asp Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile
65                  70                  75                  80
```

Asn Asp Ile Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg
85 90 95

Tyr Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val
100 105 110

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

Thr Lys Ala Val Thr Lys Phe Thr Ser Ala
130 135

<210> 143
<211> 60
<212> PRT
<213> Triticum aestivum

<400> 143
Pro Gly Arg Leu Arg Thr Ala Tyr Thr Asn Thr Gln Leu Leu Glu Leu
1 5 10 15

Glu Lys Glu Phe His Phe Asn Lys Tyr Leu Cys Arg Pro Arg Arg Val
20 25 30

Glu Ile Ala Ala Leu Leu Asp Leu Thr Glu Arg Gln Val Lys Leu Trp
35 40 45

Phe Gln Asn Arg Arg Met Lys His Lys Arg Gln Thr
50 55 60

<210> 144
<211> 199
<212> PRT
<213> Oryza sativa

<400> 144
Met Glu Asn Glu Phe Gln Asp Gly Lys Thr Glu Val Ile Glu Ala Trp
1 5 10 15

Tyr Met Asp Asp Ser Glu Glu Asp Gln Arg Leu Pro His His Arg Glu
20 25 30

Pro Lys Glu Phe Ile His Val Asp Lys Leu Thr Glu Leu Gly Val Ile
35 40 45

Ser Trp Arg Leu Asn Pro Asp Asn Trp Glu Asn Cys Glu Asn Leu Lys
50 55 60

Arg Ile Arg Glu Ala Arg Gly Tyr Ser Tyr Val Asp Ile Cys Asp Val
65 70 75 80

```
Cys Pro Glu Lys Leu Pro Asn Tyr Glu Thr Lys Ile Lys Ser Phe Phe
                85                  90                  95

Glu Glu His Leu His Thr Asp Glu Glu Ile Arg Tyr Cys Leu Glu Gly
            100                 105                 110

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

Ala Leu Lys Lys Gly Gly Met Ile Val Leu Pro Ala Gly Met Tyr His
    130                 135                 140

Arg Phe Thr Leu Asp Thr Asp Asn Tyr Ile Lys Ala Met Arg Leu Phe
145                 150                 155                 160

Val Gly Asp Pro Val Trp Thr Pro Tyr Asn Arg Pro His Asp His Leu
                165                 170                 175

Pro Ala Arg Lys Glu Phe Leu Ala Lys Leu Leu Lys Ser Glu Gly Glu
            180                 185                 190

Asn Gln Ala Val Glu Gly Phe
        195
```

<210> 145
<211> 124
<212> PRT
<213> Salmo salar

<400> 145

```
Met Ser Ser Gly Lys Val Lys Ala Gly Glu Leu Trp Asn Lys Ser Lys
1               5                   10                  15

Asp Asp Leu Thr Lys Gln Leu Ala Glu Leu Lys Thr Glu Leu Gly Gln
            20                  25                  30

Leu Arg Ile Gln Lys Val Ala Ser Ser Gly Ser Lys Leu Asn Arg Ile
        35                  40                  45

His Asp Ile Arg Lys Ser Ile Ala Arg Val Leu Thr Val Ile Asn Ala
    50                  55                  60

Lys Gln Arg Ala Gln Leu Arg Leu Phe Tyr Lys Asn Lys Lys Tyr Ala
65                  70                  75                  80

Pro Leu Asp Leu Arg Ala Lys Gln Thr Arg Ala Ile Arg Arg Arg Leu
                85                  90                  95
```

Ser Pro Asp Glu Lys Ser Arg Val Leu Glu Lys Thr Lys Lys Arg Thr
100 105 110

Val His Phe Pro Gln Arg Lys Phe Ala Ile Lys Ala
115 120

<210> 146
<211> 262
<212> PRT
<213> Solanum lycopersicum

<400> 146
Met Ser Ala Gln Ala Glu Leu Ser Arg Glu Glu Asn Val Tyr Met Ala
1 5 10 15

Lys Leu Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met
20 25 30

Glu Lys Val Ala Lys Thr Val Asp Ser Glu Glu Leu Thr Val Glu Glu
35 40 45

Arg Asn Leu Leu Ser Val Ala Tyr Lys Asn Val Ile Gly Ala Arg Arg
50 55 60

Ala Ser Trp Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg
65 70 75 80

Gly Asn Glu Asp Arg Val Thr Leu Ile Lys Asp Tyr Arg Gly Lys Ile
85 90 95

Glu Thr Glu Leu Thr Lys Ile Cys Asp Gly Ile Leu Lys Leu Leu Glu
100 105 110

Ser His Leu Val Pro Ser Ser Thr Ala Pro Glu Ser Lys Val Phe Tyr
115 120 125

Leu Lys Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Phe Lys Thr
130 135 140

Gly Ala Glu Arg Lys Asp Ala Ala Glu Asn Thr Met Val Ala Tyr Lys
145 150 155 160

Ala Ala Gln Asp Ile Ala Leu Ala Glu Leu Pro Pro Thr His Pro Ile
165 170 175

Arg Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu
180 185 190

Asn Ser Pro Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu

195 200 205

Ala Ile Ser Glu Leu Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser
210 215 220

Thr Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser
225 230 235 240

Asp Ile Ser Glu Asp Thr Ala Glu Glu Ile Arg Glu Ala Pro Lys Arg
245 250 255

Asp Ser Ser Glu Gly Gln
260

<210> 147
<211> 119
<212> PRT
<213> Oryza sativa

<400> 147
Met Ala Lys Ser Ser Phe Lys Leu Asp His Thr Leu Glu Arg Arg Gln
1 5 10 15

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

Ile Val Glu Lys Ala Glu Arg Ser Asp Ile Pro Asp Ile Asp Lys Lys
35 40 45

Lys Tyr Leu Val Pro Ala Asp Leu Thr Val Gly Gln Phe Val Tyr Val
50 55 60

Val Arg Lys Arg Ile Lys Leu Ser Pro Glu Lys Ala Ile Phe Ile Phe
65 70 75 80

Val Lys Asn Thr Leu Pro Pro Thr Ala Ala Leu Met Ser Ala Ile Tyr
85 90 95

Glu Glu Asn Lys Asp Glu Asp Gly Phe Leu Tyr Met Thr Tyr Ser Gly
100 105 110

Glu Asn Thr Phe Gly Leu Leu
115

<210> 148
<211> 137
<212> PRT
<213> Oryza sativa

<400> 148

Lys Pro Ala Glu Lys Lys Pro Ala Glu Lys Thr Pro Val Ala Glu Lys
1 5 10 15

Ala Pro Ala Glu Lys Lys Pro Lys Ala Gly Lys Lys Leu Pro Lys Asp
20 25 30

Ala Ala Ala Gly Asp Lys Lys Lys Lys Arg Ser Lys Lys Ala Val Glu
35 40 45

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
50 55 60

Ile Gly Ile Ser Ser Lys Ala Met Gly Ile Met Asn Ser Phe Ile Asn
65 70 75 80

Asp Ile Phe Glu Lys Leu Ala Gln Glu Ala Ser Arg Leu Ala Arg Tyr
85 90 95

Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ala Val Arg
100 105 110

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
115 120 125

Lys Ala Val Thr Lys Phe Thr Ser Ser
130 135

<210> 149
<211> 42
<212> PRT
<213> Zea mays

<400> 149
Met Ala Asp Lys Pro Asp Met Gly Glu Ile Asn Ser Phe Asp Lys Ala
1 5 10 15

Lys Leu Lys Lys Thr Glu Thr Gln Glu Lys Asn Thr Leu Pro Thr Lys
20 25 30

Glu Thr Ile Glu Gln Glu Lys Gln Ala Lys
35 40

<210> 150
<211> 46
<212> PRT
<213> Oryza sativa

<400> 150
Arg Gly Pro Asp Ala Pro Gly Pro Ala Ser Lys Arg Val Arg Thr Ala
1 5 10 15

Tyr Thr Ser Ala Gln Leu Val Glu Leu Glu Lys Glu Phe His Phe Asn
            20   25   30

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

<210> 151
<211> 40
<212> PRT
<213> Oryza sativa

<400> 151
Ala Thr Tyr Asn Ile Lys Leu Ile Thr Pro Glu Gly Thr Lys Glu Ile
1   5   10   15

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

Leu Asp Leu Pro Tyr Ser Cys Arg
        35   40

<210> 152
<211> 88
<212> PRT
<213> Triticum aestivum

<400> 152
Met Val Lys Leu Arg Leu Lys Arg Cys Gly Arg Lys Gln Arg Ala Val
1   5   10   15

Tyr Arg Ile Val Ala Ile Asp Val Arg Ser Arg Arg Glu Gly Lys Asp
            20   25   30

Leu Gln Lys Val Gly Phe Tyr Asp Pro Ile Lys Asn Gln Thr Tyr Leu
        35   40   45

Asn Val Pro Ala Ile Leu Tyr Phe Leu Glu Lys Gly Ala Gln Pro Thr
    50   55   60

Glu Thr Val Gln Asp Ile Leu Lys Lys Ala Glu Val Phe Lys Glu Leu
65   70   75   80

Arg Leu Asn Gln Pro Lys Phe Asn
                85

<210> 153
<211> 152
<212> PRT
<213> Sus scrofa

<400> 153

```
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1               5                   10                  15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Thr Pro Ala Gly Lys Lys
            20                  25                  30

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

Gly Gly Asp Lys Lys Gly Lys Lys Lys Ala Lys Lys Ser Val Glu Thr
    50                  55                  60

Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile
65                  70                  75                  80

Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp
                85                  90                  95

Ile Phe Glu Lys Leu Ala Gly Glu Ala Ala Lys Leu Ala Arg Tyr Asn
            100                 105                 110

Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu
        115                 120                 125

Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys
    130                 135                 140

Ala Val Thr Lys Phe Thr Ser Ser
145                 150
```

<210> 154
<211> 128
<212> PRT
<213> Salmo salar

<400> 154

```
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1               5                   10                  15

Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp
            20                  25                  30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
    50                  55                  60

Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Ile Ile Glu Pro
```

65 70 75 80

Ser Leu Arg Gln Leu Ala Gln Lys Tyr Asn Cys Asp Lys Met Ile Cys
85 90 95

Arg Lys Cys Tyr Ala Arg Leu His Pro Arg Ala Val Asn Cys Arg Lys
100 105 110

Lys Lys Cys Gly His Thr Asn Asn Leu Arg Pro Lys Lys Lys Val Lys
115 120 125

<210> 155
<211> 71
<212> PRT
<213> Zea mays

<400> 155
Gly Pro Asp Arg Lys Arg Gly Arg Gln Thr Tyr Thr Arg Tyr Gln Thr
1 5 10 15

Leu Glu Leu Glu Lys Glu Phe His Phe Asn Arg Tyr Leu Thr Arg Arg
20 25 30

Arg Arg Ile Glu Ile Ala His Ala Leu Cys Leu Thr Glu Arg Gln Ile
35 40 45

Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys Glu His Lys
50 55 60

Glu Glu Gly Pro Ala Ala Ser
65 70

<210> 156
<211> 221
<212> PRT
<213> Salmo salar

<400> 156
Met Gly Ile Ser Arg Asp Ser Met His Lys Arg Arg Ala Thr Gly Gly
1 5 10 15

Lys Gln Lys Ala Trp Arg Lys Lys Arg Lys Tyr Glu Leu Gly Arg Gln
20 25 30

Pro Ala Asn Thr Lys Leu Ser Ser Asn Lys Thr Val Arg Arg Val Arg
35 40 45

Val Arg Gly Gly Asn Val Lys Trp Arg Ala Leu Arg Leu Asp Thr Gly
50 55 60

```
Asn Tyr Ser Trp Gly Ser Glu Ala Val Thr Arg Lys Thr Arg Ile Leu
65                  70                  75                  80

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

Leu Val Lys Ser Ala Ile Val Gln Val Asp Ala Ala Pro Phe Lys Gln
            100                 105                 110

Trp Tyr Leu Thr His Tyr Gly Val Asp Ile Gly Arg Lys Lys Lys Thr
        115                 120                 125

Pro Ala Ala Lys Lys Asp Asn Ala Glu Gly Gln Glu Val Glu Ala Ala
    130                 135                 140

Ala Glu Glu Thr Lys Lys Ser Asn His Val Thr Arg Lys Leu Glu Lys
145                 150                 155                 160

Arg Lys Glu Gly Arg Thr Leu Asp Pro His Ile Glu Glu Gln Phe Gly
                165                 170                 175

Ser Gly Arg Leu Leu Ala Cys Ile Ser Ser Arg Pro Gly Gln Cys Gly
            180                 185                 190

Arg Ala Asp Gly Tyr Ile Leu Glu Gly Lys Glu Leu Glu Phe Tyr Met
        195                 200                 205

Lys Lys Leu Gln Arg Lys Lys Gly Lys Ser Ala Val Ala
    210                 215                 220
```

<210> 157
<211> 260
<212> PRT
<213> Solanum lycopersicum

<400> 157

```
Met Ala Ala Ala His Thr Pro Arg Glu Glu Asn Val Tyr Met Ala Lys
1               5                   10                  15

Leu Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu
            20                  25                  30

Lys Val Ser Ala Asn Ala Asp Ser Glu Glu Leu Thr Val Glu Glu Arg
        35                  40                  45

Asn Leu Leu Ser Val Ala Tyr Lys Asn Val Ile Gly Ala Arg Arg Ala
    50                  55                  60

Ser Trp Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly
```

65 70 75 80

Asn Glu Asp His Val Ala Val Ile Arg Asp Tyr Arg Ser Lys Ile Glu
85 90 95

Ser Glu Leu Ser Asn Ile Cys Asp Gly Ile Leu Lys Leu Leu Asp Thr
100 105 110

Arg Leu Ile Pro Ser Ala Ser Ser Gly Asp Ser Lys Val Phe Tyr Leu
115 120 125

Lys Met Lys Gly Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly
130 135 140

Ala Glu Arg Lys Glu Ala Ala Glu Ser Thr Leu Thr Gly Tyr Lys Ser
145 150 155 160

Ala Gln Asp Ile Ala Asn Ala Glu Leu Pro Pro Thr His Pro Ile Arg
165 170 175

Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn
180 185 190

Ser Pro Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala
195 200 205

Ile Ala Glu Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr
210 215 220

Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp
225 230 235 240

Met Gln Asp Asp Gly Ala Asp Glu Ile Lys Glu Ala Ala Pro Lys Ala
245 250 255

Asp Glu Gln Gln
260

<210> 158
<211> 88
<212> PRT
<213> Oryza sativa

<400> 158
Ala Asp Arg Glu Leu Lys Glu Met Leu Leu Lys Lys Tyr Ser Gly Cys
1 5 10 15

Leu Ser Arg Leu Arg Ser Glu Phe Leu Lys Lys Arg Lys Lys Gly Lys
20 25 30

Leu Pro Lys Asp Ala Arg Ser Ala Leu Met Asp Trp Trp Asn Thr His
35 40 45

Tyr Arg Trp Pro Tyr Pro Thr Glu Glu Asp Lys Val Arg Leu Ala Ala
50 55 60

Ala Thr Gly Leu Asp Pro Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln
65 70 75 80

Arg Lys Arg His Trp Lys Pro Ser
85

<210> 159
<211> 82
<212> PRT
<213> Oryza sativa

<400> 159
Met Ala Met Arg Leu Ala Ala Ala Ala Ala Phe Val Arg Arg Leu Val
1 5 10 15

Pro Ala Arg Asn Pro Val Ile Ser Ala Glu Ala Glu Ala Val Thr Cys
20 25 30

Gly Arg Gly Asp Lys Lys Thr Lys Arg Gly Lys Arg Phe Lys Gly Ser
35 40 45

Tyr Gly Asn Ala Arg Pro Lys Arg Glu Lys Lys Ile Glu Arg Ile Lys
50 55 60

Asp Arg Val Glu Val Pro Arg Ser Thr Pro Trp Pro Leu Pro Phe Lys
65 70 75 80

Leu Ile

<210> 160
<211> 36
<212> PRT
<213> Triticum aestivum

<400> 160
Thr Lys Gly Leu Val Leu Gly Ile Tyr Ser Lys Glu Lys Glu Asp Asp
1 5 10 15

Ala Pro Gln Phe Thr Ser Ala Gly Glu Asn Phe Asp Lys Trp Val Ser
20 25 30

Gly Lys Leu Arg

35

<210> 161
<211> 69
<212> PRT
<213> Triticum aestivum

<220>
<221> MOD_RES
<222> (51)..(51)
<223> Any amino acid

<400> 161
Glu Pro Ala Thr Gly Arg Val Ile Ala Thr Leu Thr Cys Ser Gly Glu
1 5 10 15

Lys Glu Val Asn Leu Ala Val Gln Asp Ala Lys Ala Ala Phe Lys Ile
20 25 30

Trp Ser Gln Lys Ser Gly Met Glu Arg Cys Arg Ile Leu Leu Glu Ala
35 40 45

Ala Arg Xaa Ile Arg Glu Arg Lys Glu Glu Ile Ala Thr Met Glu Thr
50 55 60

Ile Asn Asn Gly Lys
65

<210> 162
<211> 248
<212> PRT
<213> Sus scrofa

<400> 162
Met Thr Glu Asn Ser Val Pro Val Ile Lys Phe Thr Gln His Ile Val
1 5 10 15

Thr Thr Asn Lys His Val Phe Ser Glu His Asn Glu Lys Ser Asn Ser
20 25 30

Glu Leu Gln Arg Val Val Arg Ile Ile Leu Thr Asp Ala Asp Ala Thr
35 40 45

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

His Val Thr Glu Ile Asn Leu Met Pro Ser Thr Lys Ser Ile Gly Asp
65 70 75 80

Arg Lys Arg Arg Ser Val Ser Pro Asp Ser Asp Val Thr Arg Arg Lys
85 90 95

```
Lys Phe Arg Gly Val Arg Gln Arg Pro Trp Gly Arg Trp Ala Ala Glu
            100                 105                 110

Ile Arg Asp Pro Thr Arg Gly Lys Arg Val Trp Leu Gly Thr Tyr Asp
        115                 120                 125

Thr Pro Glu Glu Ala Ala Val Val Tyr Asp Lys Ala Ala Val Lys Leu
    130                 135                 140

Lys Gly Pro Asp Ala Val Thr Asn Phe Pro Val Ser Thr Thr Ala Glu
145                 150                 155                 160

Val Thr Val Thr Val Thr Glu Thr Glu Thr Glu Ser Val Ala Asp Gly
                165                 170                 175

Gly Asp Lys Ser Glu Asn Asp Val Ala Leu Ser Pro Thr Ser Val Leu
            180                 185                 190

Cys Asp Asn Asp Phe Ala Pro Phe Asp Asn Leu Gly Phe Cys Glu Val
        195                 200                 205

Asp Ala Phe Gly Phe Asp Val Asp Ser Leu Phe Arg Leu Pro Asp Phe
    210                 215                 220

Ala Met Thr Glu Lys Tyr Tyr Gly Asp Glu Phe Gly Glu Phe Asp Phe
225                 230                 235                 240

Asp Asp Phe Ala Leu Glu Ala Arg
                245
```

<210> 163
<211> 146
<212> PRT
<213> Oryza sativa

<400> 163

```
Met Glu Ile Leu Gly Phe Thr Val Met Gly Gly Gly Ser Pro Ala Trp
1               5                   10                  15

Ile Glu Val Pro Glu Lys Ser Lys Ser Ala Phe Trp Glu Leu Met Arg
            20                  25                  30

Arg Lys Val His Arg Tyr Val Ile Phe Lys Ile Asp Asp Arg Arg Glu
        35                  40                  45

Glu Ile Val Val Glu Lys Thr Gly Ala Pro Trp Glu Ser Tyr Asp Asp
    50                  55                  60
```

```
Phe Thr Ala Ser Leu Pro Ala Asp Ala Val Tyr Asp Leu Asp Phe Val
65                  70                  75                  80

Ser Asp Asp Asn Cys Arg Lys Ser Lys Ile Phe Phe Ile Ser Trp Ser
                85                  90                  95

Pro Ser Leu Ser Cys Ile Arg Ala Lys Thr Ile Tyr Ala Val Trp Arg
            100                 105                 110

Asn Gln Phe Arg His Glu Leu Asp Gly Val His Phe Glu Ile Gln Ala
        115                 120                 125

Thr Asp Pro Asp Asp Met Asp Leu Glu Val Leu Arg Gly Arg Ala Asn
    130                 135                 140

Arg Thr
145
```

<210> 164
<211> 144
<212> PRT
<213> Oryza sativa

<400> 164

```
Met Pro Lys Asn Lys Gly Lys Gly Gly Lys Asn Arg Lys Arg Gly Lys
1               5                   10                  15

Asn Glu Ala Asp Asp Asp Lys Arg Glu Leu Val Phe Lys Glu Asp Gly
            20                  25                  30

Gln Glu Tyr Ala Gln Val Thr Arg Met Leu Gly Asn Gly Arg Cys Glu
        35                  40                  45

Ala Ile Cys Val Asp Gly Thr Lys Arg Leu Cys His Ile Arg Gly Lys
    50                  55                  60

Met His Lys Lys Val Trp Ile Ala Ala Gly Asp Ile Val Leu Val Gly
65                  70                  75                  80

Leu Arg Asp Tyr Gln Asp Asp Lys Ala Asp Val Ile Leu Lys Tyr Met
                85                  90                  95

Asn Asp Glu Ala Arg Leu Leu Lys Ala Tyr Gly Glu Leu Pro Asp Thr
            100                 105                 110

Val Arg Leu Asn Glu Gly Val Asp Val Asp Gly Pro Glu Glu Gly Glu
        115                 120                 125
```

Gly Asp Ser Asp Tyr Ile Gln Phe Glu Asp Glu Asp Ile Asp Lys Ile
130 135 140

<210> 165
<211> 119
<212> PRT
<213> Oryza sativa

<400> 165
Ser Gly Ser Cys Glu Phe Lys Thr Cys Trp Lys Ala Met Pro Pro Phe
1 5 10 15

Arg Lys Val Gly Asn Val Leu Lys Glu Lys Phe Asp Gly Ala Thr Glu
20 25 30

Val Glu Gln Ser Glu Ile Gly Ser Thr Lys Val Leu Val Pro Lys Asn
35 40 45

Ser Gln Phe Lys Pro His Thr Asp Glu Asp Leu Val Tyr Leu Asp Ser
50 55 60

Ser Pro Asp Phe Cys Asp His Asp Leu Lys Asn Gly Val Leu Gly Thr
65 70 75 80

Ser Gly Arg Gln Cys Asn Lys Thr Ser Lys Ala Ile Asp Gly Cys Glu
85 90 95

Leu Met Cys Cys Gly Arg Gly Phe His Thr Asp Glu Val Glu Val Val
100 105 110

Glu Arg Cys Ser Cys Lys Phe
115

<210> 166
<211> 148
<212> PRT
<213> Zea mays

<400> 166
Met Gly Asp Phe Asp Gly Glu Gln Lys Glu Leu Ile Lys Lys Leu Val
1 5 10 15

Asn Phe Arg Met Ile Asp Gly Lys Arg Thr Arg Val Arg Ala Ile Val
20 25 30

Tyr Lys Thr Phe His Arg Leu Ala Arg Thr Glu Arg Asp Val Ile Lys
35 40 45

Leu Met Val Asp Ala Val Asp Asn Ile Lys Pro Ile Cys Glu Val Val
50 55 60

```
Lys Val Gly Val Ala Gly Thr Ile Tyr Asp Val Pro Gly Ile Val Ala
65                  70                  75                  80

Arg Asp Arg Gln Gln Thr Leu Ala Ile Arg Trp Ile Leu Gly Ala Ala
                85                  90                  95

Phe Lys Arg Arg Ile Ser Tyr Arg Ile Ser Leu Glu Lys Cys Ser Phe
            100                 105                 110

Ala Glu Ile Leu Asp Ala Tyr Arg Lys Arg Gly Ile Ser Arg Lys Arg
        115                 120                 125

Arg Glu Asn Leu His Gly Leu Ala Ser Thr Asn Arg Ser Phe Ala His
    130                 135                 140

Phe Arg Trp Trp
145
```

<210> 167
<211> 152
<212> PRT
<213> Oryza sativa

<400> 167

```
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Ala Ala
1               5                   10                  15

Gly Glu Glu Lys Ser Ala Glu Lys Ala Pro Ala Gly Lys Lys Pro Lys
            20                  25                  30

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

Ala Gly Asp Lys Lys Gly Arg Lys Lys Ala Lys Lys Ser Val Glu Thr
    50                  55                  60

Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile
65                  70                  75                  80

Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp
                85                  90                  95

Ile Phe Glu Lys Leu Ala Gln Glu Ala Ala Arg Leu Ala Arg Tyr Asn
            100                 105                 110

Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu
        115                 120                 125
```

Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys
130 135 140

Ala Val Thr Lys Phe Thr Ser Asn
145 150

<210> 168
<211> 103
<212> PRT
<213> Ovis aries

<400> 168
Met Glu Lys Ser Lys Arg Leu Phe Met Lys Ser Lys Arg Ser Phe Arg
1 5 10 15

Arg Arg Leu Pro Pro Ile Gln Ser Gly Asp Arg Ile Asp Tyr Lys Asn
20 25 30

Met Gly Leu Ile Ser Arg Phe Ile Ser Glu Gln Gly Lys Ile Leu Ser
35 40 45

Arg Arg Val Asn Arg Leu Thr Leu Lys Gln Gln Arg Leu Ile Thr Ile
50 55 60

Ala Ile Lys Gln Ala Arg Ile Leu Ser Ser Leu Pro Phe Leu Asn Asn
65 70 75 80

Glu Lys Gln Phe Glu Lys Ser Glu Ser Thr Ala Arg Thr Thr Thr Leu
85 90 95

Arg Lys Lys Lys Tyr Arg Asn
100

<210> 169
<211> 42
<212> PRT
<213> Salmo salar

<400> 169
Thr Tyr Cys Ala Glu Ile Ala His Asn Val Ser Thr Lys Lys Arg Lys
1 5 10 15

Glu Ile Val Glu Arg Ala Ala Gln Leu Asp Ile Val Val Pro Thr Lys
20 25 30

Leu Ala Arg Ala Pro Ser Gln Glu Asp Glu
35 40

<210> 170
<211> 324
<212> PRT

<213> Meleagris gallopavo

<400> 170

```
Tyr Pro Asn Thr Phe Trp Met Asn Pro Gln Tyr Leu Ile Lys Leu Glu
1               5                   10                  15

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

Val Gly Leu Ile Gln Lys His Arg Arg Arg Gln Arg Lys Met Gly Glu
        35                  40                  45

Asp Met His Thr Ile Gly Phe Gly Ile Tyr Glu Val Pro Glu Glu Leu
    50                  55                  60

Thr Gly Gln Thr Asn Ile His Leu Ser Lys Asn Phe Phe Leu Thr His
65                  70                  75                  80

Arg Ala Arg Glu Arg Ser Asp Thr Phe Ile Asn Leu Arg Glu Val Leu
                85                  90                  95

Asn Arg Phe Lys Leu Pro Pro Gly Glu Tyr Ile Leu Val Pro Ser Thr
            100                 105                 110

Phe Glu Pro Asn Lys Asp Gly Asp Phe Cys Ile Arg Val Phe Ser Glu
        115                 120                 125

Lys Lys Ala Asp Tyr Gln Val Val Asp Asp Glu Ile Glu Ala Asp Leu
    130                 135                 140

Glu Glu Asn Asp Ala Ser Glu Asp Asp Ile Asp Asp Gly Phe Arg Arg
145                 150                 155                 160

Leu Phe Ala Gln Leu Ala Gly Glu Asp Ala Glu Ile Ser Ala Phe Glu
                165                 170                 175

Leu Gln Thr Ile Leu Arg Arg Val Leu Ala Lys Arg Gln Asp Ile Lys
            180                 185                 190

Ser Asp Gly Phe Ser Ile Glu Thr Cys Arg Ile Met Val Asp Met Leu
        195                 200                 205

Asp Ser Asp Gly Ser Ala Lys Leu Gly Leu Lys Glu Phe Tyr Ile Leu
    210                 215                 220

Trp Thr Lys Ile Gln Lys Tyr Gln Lys Ile Tyr Arg Glu Ile Asp Val
225                 230                 235                 240
```

```
Asp Arg Ser Gly Thr Met Asn Ser Tyr Glu Met Arg Lys Ala Leu Glu
                245                 250                 255

Glu Ala Gly Phe Lys Leu Pro Cys Gln Leu His Gln Val Ile Val Ala
            260                 265                 270

Arg Phe Ala Asp Asp Gln Leu Ile Ile Asp Phe Asp Asn Phe Val Arg
        275                 280                 285

Cys Leu Val Arg Leu Glu Thr Leu Phe Arg Ile Ser Lys Gln Leu Asp
    290                 295                 300

Ser Glu Asn Thr Gly Thr Ile Glu Leu Asp Leu Ile Ser Trp Leu Cys
305                 310                 315                 320

Phe Ser Val Leu
```

<210> 171
<211> 66
<212> PRT
<213> Sus scrofa

<400> 171

```
Met Ala Lys Gly Lys Asp Ile Arg Val Ile Val Ile Leu Glu Cys Thr
1               5                   10                  15

Gly Cys Asp Lys Lys Ser Val Asn Lys Glu Ser Thr Gly Ile Ser Arg
            20                  25                  30

Tyr Ile Thr Lys Lys Asn Arg Gln Asn Thr Pro Ser Arg Leu Glu Leu
        35                  40                  45

Arg Lys Phe Cys Pro Arg Cys Cys Lys His Thr Ile His Ala Glu Ile
    50                  55                  60

Lys Lys
65
```

<210> 172
<211> 312
<212> PRT
<213> Sus scrofa

<400> 172

```
Met Lys Arg Pro Thr Ser Ser Ser Arg Lys Ser Lys Lys Gln Gly Glu
1               5                   10                  15

Asp Leu Ala Phe Ser Glu Glu Gly Ser Leu Pro Ala Val Thr Met Glu
            20                  25                  30
```

```
Gln Lys Asp Glu Ala Glu Met Glu Glu Val Asp Asp Glu Glu Glu Glu
        35                  40                  45

Glu Val Asp Glu Asp Met Ala Gly Gly His Ala Ala Gln Ser Pro Ser
    50                  55                  60

Pro Ser Cys Gly Leu Gly Glu Lys Lys Arg Arg Leu Ala Leu Glu Gln
65                  70                  75                  80

Val Arg Ala Leu Glu Arg Ser Phe Asp Thr Asp Asn Lys Leu Asp Pro
                85                  90                  95

Asp Arg Lys Ala Arg Ile Ala Arg Asp Leu Gly Leu Gln Pro Arg Gln
            100                 105                 110

Val Ala Val Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys Thr Lys Gln
        115                 120                 125

Leu Glu Arg Asp Phe Ala Ala Leu Arg Ala Gln His Asn Asp Ala Leu
    130                 135                 140

Arg Ala Asp Cys Asp Ala Leu Arg Arg Asp Lys Asp Ala Leu Ala Ala
145                 150                 155                 160

Glu Ile Arg Glu Leu Arg Glu Lys Leu Pro Thr Lys Pro Ala Asp Thr
                165                 170                 175

Ala Ala Ser Val Lys Val Glu Ala Gly Asn Asp Ala Ala Ala Gly Ala
            180                 185                 190

Ala Ala Ala Thr Val Cys Lys Asp Gly Ser Ser Asp Asp Ser Asp Ser
        195                 200                 205

Ser Val Val Phe Asn Asp Glu Ala Ser Pro Tyr Ser Gly Ala Ala Phe
    210                 215                 220

Ile Gly Phe Gly Pro Ser Phe Leu Val Asp Asp Ala Ser Ala Ala Thr
225                 230                 235                 240

Val Gly Cys Ser Ser Ser Leu Pro Ala Leu Glu Ser Lys Trp His Gly
                245                 250                 255

Pro Tyr Ser Asp Asp Ser Cys Lys Gly Gly Val Tyr Gly Phe Thr Glu
            260                 265                 270

Glu Trp Leu Ala Ala Cys Ser Gly Glu Met Ala Gly Asn Asp Ala Ala
        275                 280                 285
```

Gly Phe Phe Ser Asp Glu His Ala Ser Asn Leu Asn Phe Gly Trp Cys
290 295 300

Ala Ser Gly Asn Glu Gly Trp Glu
305 310

<210> 173
<211> 66
<212> PRT
<213> Triticum aestivum

<400> 173
His Glu Lys Glu Leu Ile Glu Ala Leu Gln Glu Val Leu Lys Lys Leu
1 5 10 15

Lys Ser Lys Arg Ile Pro Ile Tyr Glu Lys Lys Tyr Gly Gln Val Pro
20 25 30

Met Cys Asp Ala Gly Glu Gln Cys Ala Val Arg Lys Gly Ala Arg Ile
35 40 45

Gly Lys Leu Cys Asp Cys Pro Arg Gly Thr Ser Cys Asn Ser Phe Leu
50 55 60

Leu Lys
65

<210> 174
<211> 155
<212> PRT
<213> Sus scrofa

<400> 174
Met Ser Ser Lys Leu Asn Ala Leu Phe Ser Asp Ser Tyr Val Asp Val
1 5 10 15

Ser Gln Tyr Arg Asp Gln His Phe Lys Gly Asn Arg Tyr Glu Gln Glu
20 25 30

Lys Leu Leu Lys Gln Ala Asn Thr Leu Tyr Val Gly Asn Leu Ser Phe
35 40 45

Tyr Thr Thr Glu Glu Gln Val Tyr Glu Leu Phe Ser Lys Ser Gly Asp
50 55 60

Val Lys Arg Ile Ile Ile Gly Leu Asp Lys Val Lys Lys Thr Ala Cys
65 70 75 80

Gly Phe Cys Phe Val Glu Tyr Tyr Thr Arg Thr Asp Ala Glu Asn Ala

85 90 95

Met Arg Phe Val Asn Gly Thr Arg Leu Asp Asp Arg Ile Ile Arg Thr
100 105 110

Asp Trp Asp Ala Gly Phe Lys Glu Gly Arg Gln Tyr Gly Arg Gly Lys
115 120 125

Ser Gly Gly Gln Val Arg Asp Glu Tyr Arg Gln Asp Tyr Asp Pro Ala
130 135 140

Arg Gly Gly Tyr Gly Lys Val Val Ser Arg Pro
145 150 155

<210> 175
<211> 66
<212> PRT
<213> Salmo salar

<400> 175
Met Ala Lys Gly Lys Asp Val Arg Ile Arg Val Ile Leu Gln Cys Val
1 5 10 15

Ser Cys Val Arg Lys Gly Ala Asn Glu Glu Ser Ala Gly Ile Ser Arg
20 25 30

Tyr Ser Thr Gln Lys Asn Arg His Asn Thr Pro Gly Gln Leu Glu Leu
35 40 45

Arg Lys Phe Cys Arg Tyr Cys Arg Lys His Thr Ile His Ala Glu Ile
50 55 60

Lys Lys
65

<210> 176
<211> 110
<212> PRT
<213> Oryza sativa

<400> 176
Met Asp Lys Ser Lys Arg Leu Phe Val Lys Ser Lys Gln Ser Ile Arg
1 5 10 15

Arg Ser Ser Pro Leu Ile Gln Ser Gly Asp Arg Ile Asp Tyr Lys Asn
20 25 30

Leu Ser Leu Leu Phe Lys Phe Ile Ser Arg Gln Gly Lys Ile Leu Ser
35 40 45

Arg Arg Val Asn Lys Leu Thr Leu Lys Gln Gln Arg Leu Ile Thr Ile
50 55 60

Ala Ile Lys Gln Ala Arg Ile Leu Ser Leu Leu Pro Phe Val Asn Ser
65 70 75 80

Ser Ser Phe Val Asn Asn Ala Lys Lys Lys Tyr Glu Lys Arg Lys Ser
85 90 95

Ile Thr Arg Thr Arg Thr Pro Val Leu Lys Lys Lys Lys Lys
100 105 110

<210> 177
<211> 115
<212> PRT
<213> Ovis aries

<400> 177
Met Glu Glu Glu Lys His His His His His Leu Phe His His Lys Asp
1 5 10 15

Lys Ala Glu Glu Gly Pro Val Asp Tyr Glu Lys Glu Ile Lys His His
20 25 30

Lys His Leu Glu Gln Ile Gly Lys Leu Gly Thr Val Ala Ala Gly Ala
35 40 45

Tyr Ala Leu His Glu Lys His Glu Ala Lys Lys Asp Pro Glu His Ala
50 55 60

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

Ala Gly Gly Phe Ala Phe His Glu His His Glu Lys Lys Asp Ala Lys
85 90 95

Lys Glu Glu Lys Lys Lys Leu Arg Gly Asp Thr Thr Ile Ser Ser Lys
100 105 110

Leu Leu Phe
115

<210> 178
<211> 426
<212> PRT
<213> Glycine max

<400> 178
Met Leu Gly Pro Pro Arg Arg Gly Pro Ala Tyr Lys Thr Lys Leu Cys
1 5 10 15

```
Ala Leu Trp Gln Arg Gly Asn Cys Asn Arg Asp Thr Cys Ser Phe Ala
            20                  25                  30

His Gly His Gly Asp Ile Arg Arg Pro Pro Ser Ser Arg Gly Ala Phe
        35                  40                  45

Thr His His Pro Gly Arg Arg Asp Tyr Arg Ala Gly Asp Phe Arg Gly
    50                  55                  60

Arg Ile Asp Arg Arg Phe Ser Pro Arg Arg Arg His Ser Pro Gly Arg
65                  70                  75                  80

Glu Ser Arg Gly His Arg Pro Leu Tyr Asp Arg Arg Pro Ser Ser Arg
                85                  90                  95

Glu Arg Asp Ser Ser Tyr Ser Arg Ser Pro Ser Arg Lys Ser Glu Arg
            100                 105                 110

Arg His Glu Lys Lys Thr Asp Asp Gly Glu Thr Asn Ser Ser Arg Ser
        115                 120                 125

Leu Ser Leu Ser Asp Asn Asn Asp Glu Lys Lys Lys Asp Lys Phe Ser
    130                 135                 140

Ser Gly Asp Glu Lys Glu Asp His Glu Lys Gln Leu Lys Gln Ile Arg
145                 150                 155                 160

Leu Asp Met Glu Ala Leu Arg Asp Asp Lys Thr Gln Met Glu Val Ile
                165                 170                 175

Leu Asp Glu Lys Ile Asp Glu Val Arg Lys Ile Ser Ser Lys Val Asn
            180                 185                 190

Asp Leu Glu Val Gln Leu Arg Arg Glu Lys Asp Glu Cys His Arg Met
        195                 200                 205

Thr Ser Lys Met Lys Lys Phe Ile Lys Ala His Ala Arg Phe Leu Lys
    210                 215                 220

Ala Gln Glu Glu Val Lys Arg Ser Gln Ala Arg Phe Glu Arg Leu Gly
225                 230                 235                 240

Asp Leu Leu Ala Ser Asp Ile Leu Lys Arg Gly Ala Asn Glu Glu Gly
                245                 250                 255

Ser Ser Val Asn Glu Asp Leu Asn Glu Arg Ser Pro Asn Thr Ala Ala
            260                 265                 270
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```
Thr Lys Lys Arg Ser Ile Pro Tyr Ser Thr Ser Glu Glu Ala Lys Ala
        275                 280                 285

Val Lys Lys Arg Arg Glu Arg Asp Ser Asp Thr Met Thr Arg Ser Asp
    290                 295                 300

Lys Tyr Arg Ser Asp Val Thr Asp Phe Asp Lys Thr Ser Lys Gly Thr
305                 310                 315                 320

Glu Ala Thr Lys Ser Leu Tyr Leu Lys Lys Lys Leu Trp Glu Asp Glu
                325                 330                 335

Lys Ser Lys Leu Gly Ala Asn Ile Phe Thr Glu Lys Val Lys Gly Ser
            340                 345                 350

Pro Val Arg His Val Leu Pro Ser Thr Gly Met Ala Ala His Ala Ile
        355                 360                 365

Asp Asp Leu Asn Glu Ala Ile Glu Leu Glu Asp Arg His Glu Ser Ile
    370                 375                 380

Asp Ala Leu Leu Glu Asn Asp Ala Asp Asp Lys Thr Arg Ser Pro Ala
385                 390                 395                 400

Ile Pro Leu Gln Pro Pro Pro Val Val Gln Asn Ala Tyr Glu Gln Tyr
                405                 410                 415

Glu Gly Asp Asp Glu Glu Val Asp Val Glu
            420                 425
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<210> 179
<211> 229
<212> PRT
<213> Ovis aries

<400> 179

```
Met Ser Ser Leu Arg Asn Ala Ile Gln Arg Arg Ala His Lys Glu Arg
1               5                   10                  15

Ala Gln Pro Glu Ser Arg Lys Lys Phe Gly Leu Leu Glu Lys His Lys
            20                  25                  30

Asp Tyr Ile Val Arg Ala Lys Ala Phe His Gln Lys Glu Glu Thr Ile
        35                  40                  45

Arg Lys Leu Lys Glu Lys Ala Ser Phe Arg Asn Pro Asp Glu Phe Tyr
    50                  55                  60
```

Phe Lys Met Ile Asn Ser Lys Thr Val Asp Gly Ile His Arg Pro Lys
65 70 75 80

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

Lys Asp Met Gly Tyr Ile Leu Gln Gly Ile Gln Ser Glu Lys Lys Lys
100 105 110

Ile Glu Lys Leu Ser Ser Met Leu His Glu Leu Asp Asn Lys Arg Pro
115 120 125

Asn Lys His Val Tyr Phe Ala Glu Asp Arg Glu Glu Val Lys Glu Ile
130 135 140

Gln Ser Arg Ile Glu Gln Lys Ser Ser Ser Leu Gly Leu Asp Asn Ile
145 150 155 160

Pro Ser Arg Ile Lys Arg Lys Thr Ala Ser Ser Tyr Arg Glu Leu Glu
165 170 175

Glu Arg Lys Gln Arg Val Gln Lys Leu Glu Lys Leu Tyr Ala Asp Met
180 185 190

Ala Leu Gln Lys Glu Leu Lys Lys Pro Gly Arg Lys Arg Lys Leu Arg
195 200 205

Glu Asp Glu Ile Glu Asn Gln Thr Ser Arg Pro Val Tyr Lys Trp Arg
210 215 220

Ala Gln Arg Lys Arg
225

<210> 180
<211> 66
<212> PRT
<213> Zea mays

<400> 180
Met Ala Lys Gly Lys Asp Val Arg Val Lys Val Ile Leu Glu Cys Thr
1 5 10 15

Gly Cys Val Arg Lys Ser Val Asn Lys Gly Ser Arg Gly Val Ser Arg
20 25 30

Tyr Ile Thr Gln Lys Asn Arg His Asn Thr Pro Ser Arg Leu Glu Leu
35 40 45

Arg Lys Phe Cys Pro Tyr Cys Tyr Lys His Thr Ile His Gly Glu Ile
50 55 60

Lys Lys
65

<210> 181
<211> 342
<212> PRT
<213> Triticum aestivum

<400> 181
Met Gln Pro Pro Pro Met Arg Glu Arg Gln Arg Trp Arg Pro Glu Glu
1 5 10 15

Asp Ala Ile Leu Leu Ala Tyr Val Arg Gln Tyr Gly Pro Arg Glu Trp
20 25 30

Ser Leu Val Ser Gln Arg Met Asn Arg Pro Leu His Arg Asp Ala Lys
35 40 45

Ser Cys Leu Glu Arg Trp Lys Asn Tyr Leu Arg Pro Gly Ile Lys Lys
50 55 60

Gly Ser Leu Thr Asp Asp Glu Gln Arg Leu Val Ile Arg Leu Gln Ala
65 70 75 80

Lys His Gly Asn Lys Trp Lys Lys Ile Ala Ala Glu Val Pro Gly Arg
85 90 95

Thr Ala Lys Arg Leu Gly Lys Trp Trp Glu Val Phe Lys Glu Lys Gln
100 105 110

Gln Arg Glu Leu Arg Asp Arg Asp Arg Arg Arg Leu Pro Pro Pro Leu
115 120 125

Asp Gly Asp Glu Arg Gly Cys Ala Gly Gly Arg Tyr Asp Trp Leu Leu
130 135 140

Glu Asp Phe Ala Asp Lys Leu Val Asn Asp His His Arg Arg Met Met
145 150 155 160

Ala Ala Pro Ile Leu Pro Pro Trp Met Ser Ser Ser Pro Ser Ser Ser
165 170 175

Ser Ser Pro Ser Val Thr Leu Ser Leu Ala Ser Ala Ala Val Ala Pro
180 185 190

Ala Pro Ala Ala Pro Pro Pro Thr Trp Gly Gly Gly Gly Gly Gly Glu

195 200 205

Val Val Val Ala Glu Leu Met Glu Cys Cys Arg Glu Met Glu Glu Gly
210 215 220

Gln Arg Ala Trp Ala Ala His Arg Lys Glu Ala Ala Trp Arg Met Lys
225 230 235 240

Arg Val Glu Met Gln Leu Glu Thr Glu Arg Ala Cys Arg Arg Arg Glu
245 250 255

Ala Thr Glu Glu Phe Glu Ala Lys Met Arg Ala Leu Arg Glu Glu Gln
260 265 270

Ala Ala Ala Val Glu Arg Val Glu Ala Glu Tyr Arg Glu Lys Met Ala
275 280 285

Gly Leu Arg Arg Asp Ala Glu Ala Lys Glu Gln Lys Met Ala Glu Gln
290 295 300

Trp Ala Ala Lys His Ala Arg Leu Ala Lys Phe Leu Asp Gln Val Ala
305 310 315 320

Ala Cys Arg Arg Trp Pro Pro Val Glu Ile Asn Gly Gly Gly Gly Gly
325 330 335

Gly Pro Gly Gly Gly Arg
340

<210> 182
<211> 30
<212> PRT
<213> Sus scrofa

<400> 182
Ala Pro Leu Glu Asp Glu Asp Asp Leu Glu Leu Leu Glu Lys Val Lys
1 5 10 15

Arg Asp Arg Lys Lys Arg Leu Glu Arg Gln Gly Ala Ile Asn
20 25 30

<210> 183
<211> 379
<212> PRT
<213> Sus scrofa

<400> 183
Met Gly Ile Lys Gly Leu Thr Lys Leu Leu Ala Asp Asn Ala Pro Lys
1 5 10 15

```
Ala Met Lys Glu Gln Lys Phe Glu Ser Tyr Phe Gly Arg Lys Ile Ala
            20                  25                  30

Val Asp Ala Ser Met Ser Ile Tyr Gln Phe Leu Ile Val Val Gly Arg
        35                  40                  45

Thr Gly Met Glu Thr Leu Thr Asn Glu Ala Gly Glu Val Thr Ser His
    50                  55                  60

Leu Gln Gly Met Phe Asn Arg Thr Ile Arg Leu Leu Glu Ala Gly Ile
65                  70                  75                  80

Lys Pro Val Tyr Val Phe Asp Gly Lys Pro Pro Asp Met Lys Lys Gln
                85                  90                  95

Glu Leu Ala Lys Arg Tyr Ser Lys Arg Asp Asp Ala Thr Lys Asp Leu
            100                 105                 110

Thr Glu Ala Val Glu Val Gly Asp Lys Asp Ala Ile Glu Lys Leu Ser
        115                 120                 125

Lys Arg Thr Val Lys Val Thr Arg Gln His Asn Glu Asp Cys Lys Arg
    130                 135                 140

Leu Leu Arg Leu Met Gly Val Pro Val Val Glu Ala Pro Ser Glu Ala
145                 150                 155                 160

Glu Ala Glu Cys Ala Ala Leu Cys Ile Asn Asp Lys Val Phe Ala Val
                165                 170                 175

Ala Ser Glu Asp Met Asp Ser Leu Thr Phe Gly Ala Pro Arg Phe Leu
            180                 185                 190

Arg His Leu Met Asp Pro Ser Ser Lys Lys Ile Pro Val Met Glu Phe
        195                 200                 205

Asp Val Ala Lys Val Leu Glu Glu Leu Glu Leu Thr Met Asp Gln Phe
    210                 215                 220

Ile Asp Leu Cys Ile Leu Cys Gly Cys Asp Tyr Cys Asp Ser Ile Lys
225                 230                 235                 240

Gly Ile Gly Gly Gln Thr Ala Leu Lys Leu Ile Arg Gln His Gly Ser
                245                 250                 255

Ile Glu Ser Ile Leu Glu Asn Leu Asn Lys Asp Arg Tyr Gln Ile Pro
            260                 265                 270
```

Glu Asp Trp Pro Tyr Gln Glu Ala Arg Arg Leu Phe Lys Glu Pro Asn
275 280 285

Val Thr Leu Asp Ile Pro Glu Leu Lys Trp Thr Ala Pro Asp Glu Glu
290 295 300

Gly Leu Ile Ser Phe Leu Val Lys Asp Asn Gly Phe Asn Glu Asp Arg
305 310 315 320

Val Thr Lys Ala Ile Glu Lys Ile Lys Ser Ala Lys Asn Lys Ser Ser
325 330 335

Gln Gly Arg Leu Glu Ser Phe Phe Lys Pro Thr Ala Thr Thr Ser Ala
340 345 350

Pro Leu Lys Arg Lys Glu Thr Ser Asp Lys Thr Ser Lys Ala Ala Ala
355 360 365

Asn Lys Lys Thr Lys Ala Gly Gly Lys Lys Lys
370 375

<210> 184
<211> 123
<212> PRT
<213> Oryza sativa

<400> 184
Met Ala Lys Ile Lys Ala Arg Asp Leu Arg Gly Lys Lys Lys Glu Glu
1 5 10 15

Leu Leu Lys Gln Leu Glu Asp Leu Lys Val Glu Leu Ser Gln Leu Arg
20 25 30

Val Ala Lys Val Thr Gly Gly Ala Ala Ser Lys Leu Ser Lys Ile Arg
35 40 45

Val Val Arg Lys Ser Ile Ala Arg Val Leu Thr Val Ile Asn Gln Thr
50 55 60

Gln Lys Glu Asn Leu Arg Lys Phe Tyr Lys Gly Lys Lys Tyr Lys Pro
65 70 75 80

Leu Asp Leu Arg Pro Lys Lys Thr Arg Ala Met Arg Arg Arg Leu Asn
85 90 95

Lys His Glu Glu Asn Leu Lys Thr Lys Lys Gln Gln Arg Lys Glu Arg
100 105 110

Leu Tyr Pro Leu Arg Lys Phe Ala Val Lys Ala
        115   120

<210> 185
<211> 150
<212> PRT
<213> Oryza sativa

<400> 185
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Ala Glu
1   5   10   15

Glu Lys Ala Gly Glu Lys Ala Pro Ala Ala Gly Lys Lys Pro Lys Ala
            20   25   30

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

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

Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly Ile
65   70   75   80

Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp Ile Phe
                85   90   95

Glu Lys Leu Ala Gly Glu Ala Ala Lys Leu Ala Arg Tyr Asn Lys Lys
            100   105   110

Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu Val Leu
        115   120   125

Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala Val
    130   135   140

Thr Lys Phe Thr Ser Ser
145   150

<210> 186
<211> 93
<212> PRT
<213> Sus scrofa

<400> 186
Met Ala Ser Gly Gln Gln Glu Arg Ser Gln Leu Asp Arg Lys Ala Arg
1   5   10   15

Glu Gly Glu Thr Val Val Pro Gly Gly Thr Gly Gly Lys Ser Leu Glu
            20   25   30

Ala His Glu Asn Leu Ala Glu Gly Arg Ser Arg Gly Gly Gln Thr Arg
35 40 45

Arg Glu Gln Met Gly Glu Glu Gly Tyr Ser Glu Met Gly Arg Lys Gly
50 55 60

Gly Leu Ser Thr Asn Asp Glu Ser Gly Gly Glu Arg Ala Ala Arg Glu
65 70 75 80

Gly Ile Asp Ile Asp Glu Ser Lys Phe Lys Thr Lys Ser
85 90

<210> 187
<211> 135
<212> PRT
<213> Oryza sativa

<400> 187
Met Val Lys Phe Leu Lys Pro Asn Lys Ala Val Ile Leu Leu Gln Gly
1 5 10 15

Arg Tyr Ala Gly Lys Lys Ala Val Ile Val Lys Thr Phe Asp Asp Gly
20 25 30

Thr Arg Glu Lys Pro Tyr Gly His Cys Leu Val Ala Gly Ile Lys Lys
35 40 45

Phe Pro Ser Lys Val Ile Lys Lys Asp Ser Ala Lys Lys Thr Ala Lys
50 55 60

Lys Ser Arg Val Lys Ala Phe Val Lys Leu Val Asn Tyr Gln His Leu
65 70 75 80

Met Pro Thr Arg Tyr Thr Leu Asp Val Asp Leu Lys Asp Ala Val Val
85 90 95

Pro Asp Val Leu Gln Ser Lys Asp Lys Lys Val Thr Ala Leu Lys Glu
100 105 110

Thr Lys Lys Ser Leu Glu Glu Arg Phe Lys Thr Gly Lys Asn Arg Trp
115 120 125

Phe Phe Thr Lys Leu Arg Phe
130 135

<210> 188
<211> 85
<212> PRT
<213> Triticum aestivum

<400> 188
Met Leu Lys Leu Arg Leu Lys Arg Cys Gly Arg Lys Gln Gln Ala Val
1 5 10 15

Tyr Arg Ile Val Ala Ile Asp Val Arg Ser Arg Arg Glu Gly Arg Asp
20 25 30

Leu Arg Lys Val Gly Phe Tyr Asp Pro Ile Lys Asn Gln Thr Cys Leu
35 40 45

Asn Val Pro Ala Ile Leu Tyr Phe Leu Glu Lys Gly Ala Gln Pro Thr
50 55 60

Arg Thr Val Tyr Asp Ile Leu Arg Lys Ala Glu Phe Phe Lys Glu Lys
65 70 75 80

Glu Ser Thr Leu Ser
85

<210> 189
<211> 1533
<212> PRT
<213> Oryza sativa

<400> 189
Met Glu Val Ser Pro Leu Gln Pro Val Asn Glu Asn Met Gln Val Asn
1 5 10 15

Lys Thr Lys Lys Asn Glu Glu Ala Lys Lys Arg Leu Ser Ile Glu Arg
20 25 30

Ile Tyr Gln Lys Lys Thr Gln Leu Glu His Ile Leu Leu Arg Pro Asp
35 40 45

Thr Tyr Ile Gly Ser Val Glu Ser Val Thr Gln Gln Met Trp Val Tyr
50 55 60

Asp Glu Asp Ile Gly Ile Asn Tyr Arg Glu Val Thr Phe Val Pro Gly
65 70 75 80

Leu Tyr Lys Ile Phe Asp Glu Ile Leu Val Asn Ala Ala Asp Asn Lys
85 90 95

Gln Arg Asp Pro Lys Met Ser Cys Ile Arg Val Thr Ile Asp Pro Glu
100 105 110

Asn Asn Leu Ile Ser Ile Trp Asn Asn Gly Lys Gly Ile Pro Val Val
115 120 125

```
Glu His Lys Val Glu Lys Met Tyr Val Pro Ala Leu Ile Phe Gly Gln
    130                 135                 140

Leu Leu Thr Ser Ser Asn Tyr Asp Asp Glu Glu Lys Lys Val Thr Gly
145                 150                 155                 160

Gly Arg Asn Gly Tyr Gly Ala Lys Leu Cys Asn Ile Phe Ser Thr Lys
                165                 170                 175

Phe Thr Val Glu Thr Ala Ser Arg Glu Tyr Lys Lys Met Phe Lys Gln
            180                 185                 190

Thr Trp Met Asp Asn Met Gly Arg Ala Gly Glu Met Glu Leu Lys Pro
        195                 200                 205

Phe Asn Gly Glu Asp Tyr Thr Cys Ile Thr Phe His Pro Asp Leu Ser
    210                 215                 220

Lys Phe Lys Met Gln Ser Leu Asp Lys Asp Ile Val Ala Leu Met Val
225                 230                 235                 240

Arg Arg Ala Tyr Asp Ile Ala Gly Ser Thr Lys Asp Val Lys Val Phe
                245                 250                 255

Leu Asn Gly Asn Lys Leu Pro Val Lys Gly Phe Arg Ser Tyr Val Asp
            260                 265                 270

Leu Tyr Leu Lys Asp Lys Val Asp Glu Thr Gly Asn Pro Leu Lys Ile
        275                 280                 285

Ile His Glu Gln Val Asn His Arg Trp Glu Val Cys Leu Thr Met Ser
    290                 295                 300

Glu Lys Gly Phe Gln Gln Ile Ser Phe Val Asn Ser Ile Ala Thr Ser
305                 310                 315                 320

Lys Gly Gly Arg His Val Asp Tyr Val Ala Asp Gln Ile Val Ala Lys
                325                 330                 335

Leu Val Asp Val Val Lys Lys Lys Asn Lys Gly Gly Val Ala Val Lys
            340                 345                 350

Ala His Gln Val Lys Asn His Met Trp Ile Phe Val Asn Ala Leu Ile
        355                 360                 365

Glu Asn Pro Thr Phe Asp Ser Gln Thr Lys Glu Asn Met Thr Leu Gln
    370                 375                 380
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Val Lys Ser Phe Gly Ser Thr Cys Gln Leu Ser Glu Lys Phe Ile Lys
385                 390                 395                 400

Ala Ala Ile Gly Cys Gly Ile Val Glu Ser Ile Leu Asn Trp Val Lys
                405                 410                 415

Phe Lys Ala Gln Val Gln Leu Asn Lys Lys Cys Ser Ala Val Lys His
            420                 425                 430

Asn Arg Ile Lys Gly Ile Pro Lys Leu Asp Asp Ala Asn Asp Ala Gly
        435                 440                 445

Gly Arg Asn Ser Thr Glu Cys Thr Leu Ile Leu Thr Glu Gly Asp Ser
    450                 455                 460

Ala Lys Thr Leu Ala Val Ser Gly Leu Gly Val Val Gly Arg Asp Lys
465                 470                 475                 480

Tyr Gly Val Phe Pro Leu Arg Gly Lys Ile Leu Asn Val Arg Glu Ala
                485                 490                 495

Ser His Lys Gln Ile Met Glu Asn Ala Glu Ile Asn Asn Ile Ile Lys
            500                 505                 510

Ile Val Gly Leu Gln Tyr Lys Lys Asn Tyr Glu Asp Glu Asp Ser Leu
        515                 520                 525

Lys Thr Leu Arg Tyr Gly Lys Ile Met Ile Met Thr Asp Gln Asp Gln
    530                 535                 540

Asp Gly Ser His Ile Lys Gly Leu Leu Ile Asn Phe Ile His His Asn
545                 550                 555                 560

Trp Pro Ser Leu Leu Arg His Arg Phe Leu Glu Glu Phe Ile Thr Pro
                565                 570                 575

Ile Val Lys Val Ser Lys Asn Lys Gln Glu Met Ala Phe Tyr Ser Leu
            580                 585                 590

Pro Glu Phe Glu Glu Trp Lys Ser Ser Thr Pro Asn His Lys Lys Trp
        595                 600                 605

Lys Val Lys Tyr Tyr Lys Gly Leu Gly Thr Ser Thr Ser Lys Glu Ala
    610                 615                 620

Lys Glu Tyr Phe Ala Asp Met Lys Arg His Arg Ile Gln Phe Lys Tyr
```

625 630 635 640

Ser Gly Pro Glu Asp Asp Ala Ala Ile Ser Leu Ala Phe Ser Lys Lys
645 650 655

Gln Ile Asp Asp Arg Lys Glu Trp Leu Thr His Phe Met Glu Asp Arg
660 665 670

Arg Gln Arg Lys Leu Leu Gly Leu Pro Glu Asp Tyr Leu Tyr Gly Gln
675 680 685

Thr Thr Thr Tyr Leu Thr Tyr Asn Asp Phe Ile Asn Lys Glu Leu Ile
690 695 700

Leu Phe Ser Asn Ser Asp Asn Glu Arg Ser Ile Pro Ser Met Val Asp
705 710 715 720

Gly Leu Lys Pro Gly Gln Arg Lys Val Leu Phe Thr Cys Phe Lys Arg
725 730 735

Asn Asp Lys Arg Glu Val Lys Val Ala Gln Leu Ala Gly Ser Val Ala
740 745 750

Glu Met Ser Ser Tyr His His Gly Glu Met Ser Leu Met Met Thr Ile
755 760 765

Ile Asn Leu Ala Gln Asn Phe Val Gly Ser Asn Asn Leu Asn Leu Leu
770 775 780

Gln Pro Ile Gly Gln Phe Gly Thr Arg Leu His Gly Gly Lys Asp Ser
785 790 795 800

Ala Ser Pro Arg Tyr Ile Phe Thr Met Leu Ser Pro Leu Ala Arg Leu
805 810 815

Leu Phe Pro Pro Lys Asp Asp His Thr Leu Lys Phe Leu Tyr Asp Asp
820 825 830

Asn Gln Arg Val Glu Pro Glu Trp Tyr Ile Pro Ile Ile Pro Met Val
835 840 845

Leu Ile Asn Gly Ala Glu Gly Ile Gly Thr Gly Trp Ser Cys Lys Ile
850 855 860

Pro Asn Phe Asp Val Arg Glu Val Val Asn Asn Ile Arg Leu Leu Met
865 870 875 880

```
Asp Gly Glu Glu Pro Leu Pro Met Leu Pro Ser Tyr Lys Asn Phe Lys
                885                 890                 895

Gly Thr Ile Glu Glu Leu Ala Pro Asn Gln Tyr Val Ile Ser Gly Glu
            900                 905                 910

Val Ala Ile Leu Asn Ser Thr Thr Ile Glu Ile Ser Glu Leu Pro Ile
        915                 920                 925

Arg Thr Trp Thr Gln Thr Tyr Lys Glu Gln Val Leu Glu Pro Met Leu
    930                 935                 940

Asn Gly Thr Glu Lys Thr Pro Pro Leu Ile Thr Asp Tyr Arg Glu Tyr
945                 950                 955                 960

His Thr Asp Thr Thr Val Lys Phe Val Val Lys Met Thr Glu Glu Lys
                965                 970                 975

Leu Ala Glu Ala Glu Arg Val Gly Leu His Lys Val Phe Lys Leu Gln
            980                 985                 990

Thr Ser Leu Thr Cys Asn Ser Met  Val Leu Phe Asp His  Val Gly Cys
        995                 1000                1005

Leu Lys  Lys Tyr Asp Thr Val  Leu Asp Ile Leu Arg  Asp Phe Phe
    1010                1015                1020

Glu Leu  Arg Leu Lys Tyr Tyr  Gly Leu Arg Lys Glu  Trp Leu Leu
    1025                1030                1035

Gly Met  Leu Gly Ala Glu Ser  Ala Lys Leu Asn Asn  Gln Ala Arg
    1040                1045                1050

Phe Ile  Leu Glu Lys Ile Asp  Gly Lys Ile Ile Ile  Glu Asn Lys
    1055                1060                1065

Pro Lys  Lys Glu Leu Ile Lys  Val Leu Ile Gln Arg  Gly Tyr Asp
    1070                1075                1080

Ser Asp  Pro Val Lys Ala Trp  Lys Glu Ala Gln Gln  Lys Val Pro
    1085                1090                1095

Asp Glu  Glu Glu Asn Glu Glu  Ser Asp Asn Glu Lys  Glu Ala Asp
    1100                1105                1110

Lys Ser  Asp Ser Val Ala Asp  Ser Gly Pro Thr Phe  Asn Tyr Leu
    1115                1120                1125
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```
Leu Asp  Met Pro Leu Trp Tyr  Leu Thr Lys Glu Lys  Lys Asp Glu
    1130                1135                1140

Leu Cys  Lys Leu Arg Asn Glu  Lys Glu Gln Glu Leu  Glu Thr Leu
    1145                1150                1155

Lys Arg  Lys Ser Pro Ser Asp  Leu Trp Lys Glu Asp  Leu Ala Ala
    1160                1165                1170

Phe Ile  Glu Glu Leu Glu Ala  Val Glu Ala Lys Glu  Lys Gln Asp
    1175                1180                1185

Glu Gln  Ile Gly Leu Pro Gly  Lys Gly Gly Lys Ala  Lys Gly Lys
    1190                1195                1200

Lys Thr  Gln Met Ala Glu Val  Leu Pro Ser Pro Cys  Gly Lys Arg
    1205                1210                1215

Val Ile  Pro Arg Val Thr Val  Glu Met Lys Ala Glu  Ala Glu Lys
    1220                1225                1230

Lys Ile  Lys Lys Lys Ile Lys  Ser Glu Asn Thr Glu  Gly Ser Pro
    1235                1240                1245

Gln Glu  Asp Gly Met Glu Val  Glu Gly Leu Lys Gln  Arg Leu Glu
    1250                1255                1260

Lys Lys  Gln Lys Arg Glu Pro  Gly Thr Lys Thr Lys  Lys Gln Thr
    1265                1270                1275

Thr Leu  Pro Phe Lys Pro Ile  Lys Lys Ala Lys Lys  Arg Asn Pro
    1280                1285                1290

Trp Ser  Asp Ser Glu Ser Asp  Ile Ser Ser Asp Glu  Ser Asn Phe
    1295                1300                1305

Asn Val  Pro Pro Arg Glu Lys  Glu Pro Arg Arg Ala  Ala Ala Lys
    1310                1315                1320

Thr Lys  Phe Thr Val Asp Leu  Asp Ser Asp Glu Asp  Phe Ser Asp
    1325                1330                1335

Ala Asp  Glu Lys Thr Arg Asp  Glu Asp Phe Val Pro  Ser Asp Thr
    1340                1345                1350

Ser Pro  Gln Lys Ala Glu Thr  Ser Pro Lys His Thr  Asn Lys Glu
    1355                1360                1365
```

Pro Lys Pro Gln Lys Ser Thr Pro Ser Val Ser Asp Phe Asp Ala
1370 1375 1380

Asp Asp Ala Lys Asp Asn Val Pro Pro Ser Pro Ser Ser Pro Val
1385 1390 1395

Ala Asp Phe Pro Ala Val Thr Glu Thr Ile Lys Pro Val Ser Lys
1400 1405 1410

Lys Asn Val Thr Val Lys Lys Thr Ala Ala Lys Ser Gln Ser Ser
1415 1420 1425

Thr Ser Thr Thr Gly Ala Lys Lys Arg Ala Ala Pro Lys Gly Ala
1430 1435 1440

Lys Lys Asp Pro Asp Leu Asp Ser Asp Val Ser Lys Lys Pro Asn
1445 1450 1455

Pro Pro Lys Pro Lys Gly Arg Arg Lys Arg Lys Pro Ser Thr Ser
1460 1465 1470

Asp Asp Ser Asp Ser Asn Phe Glu Lys Met Ile Ser Lys Ala Val
1475 1480 1485

Thr Ser Lys Lys Pro Lys Gly Glu Ser Asp Asp Phe His Leu Asp
1490 1495 1500

Leu Asp Leu Ala Val Ala Ser Arg Ala Lys Ser Gly Arg Thr Lys
1505 1510 1515

Lys Pro Ile Lys Tyr Leu Glu Glu Ser Asp Glu Asp Asp Leu Phe
1520 1525 1530

<210> 190
<211> 24
<212> PRT
<213> Solanum lycopersicum

<400> 190
Phe Glu Asn Lys Val Pro Glu Lys Gln Lys Leu Phe Gln Glu Asp Asn
1 5 10 15

Gly Ile Pro Val His Leu Lys Gly
20

<210> 191
<211> 209
<212> PRT

<213> Solanum lycopersicum

<400> 191
Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Ser Thr Asn
1 5 10 15

Arg Gln Val Thr Phe Ser Lys Arg Arg Ser Gly Ile Leu Lys Lys Ala
20 25 30

Arg Glu Ile Ser Val Leu Cys Asp Ala Glu Val Gly Val Val Ile Phe
35 40 45

Ser Ser Ala Gly Lys Leu Tyr Asp Tyr Cys Ser Pro Lys Thr Ser Leu
50 55 60

Ser Arg Ile Leu Glu Lys Tyr Gln Thr Asn Ser Gly Lys Ile Leu Trp
65 70 75 80

Asp Glu Lys His Lys Ser Leu Ser Ala Glu Ile Asp Arg Ile Lys Lys
85 90 95

Glu Asn Asp Asn Met Gln Ile Glu Leu Arg His Leu Lys Gly Glu Asp
100 105 110

Leu Asn Ser Leu Gln Pro Lys Glu Leu Ile Met Ile Glu Glu Ala Leu
115 120 125

Asp Asn Gly Ile Val Asn Val Asn Asp Lys Leu Met Asp His Trp Glu
130 135 140

Arg His Val Arg Thr Asp Lys Met Leu Glu Asp Glu Asn Lys Leu Leu
145 150 155 160

Ala Phe Lys Leu His Gln Gln Asp Ile Ala Leu Ser Gly Ser Met Arg
165 170 175

Asp Leu Glu Leu Gly Tyr His Pro Asp Arg Asp Phe Ala Ala Gln Met
180 185 190

Pro Ile Thr Phe Arg Val Gln Pro Ser His Pro Asn Leu Gln Glu Asn
195 200 205

Asn

<210> 192
<211> 274
<212> PRT
<213> Oryza sativa

<400> 192
Met Glu Arg Gly Glu Gly Arg Arg Gly Asp Cys Ser Val Gln Val Arg
1 5 10 15

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

Thr Ile Lys Trp Trp Lys Glu Gln Asn Gln Lys Leu Gln Glu Glu Asn
35 40 45

Ser Ser Arg Lys Ala Pro Ala Lys Gly Ser Lys Lys Gly Cys Met Ala
50 55 60

Gly Lys Gly Gly Pro Glu Asn Ser Asn Cys Ala Tyr Arg Gly Val Arg
65 70 75 80

Gln Arg Thr Trp Gly Lys Trp Val Ala Glu Ile Arg Glu Pro Asn Arg
85 90 95

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

His Ala Tyr Asp Glu Ala Ala Arg Ala Met Tyr Gly Pro Thr Ala Arg
115 120 125

Val Asn Phe Ala Asp Asn Ser Thr Asp Ala Asn Ser Gly Cys Thr Ser
130 135 140

Ala Pro Ser Leu Met Met Ser Asn Gly Pro Ala Thr Ile Pro Ser Asp
145 150 155 160

Glu Lys Asp Glu Leu Glu Ser Pro Pro Phe Ile Val Ala Asn Gly Pro
165 170 175

Ala Val Leu Tyr Gln Pro Asp Lys Lys Asp Val Leu Glu Arg Val Val
180 185 190

Pro Glu Val Gln Asp Val Lys Thr Glu Gly Ser Asn Gly Leu Lys Arg
195 200 205

Val Cys Gln Glu Arg Lys Asn Met Glu Val Cys Glu Ser Glu Gly Ile
210 215 220

Val Leu His Lys Glu Val Asn Ile Ser Tyr Asp Tyr Phe Asn Val His
225 230 235 240

Glu Val Val Glu Met Ile Ile Val Glu Leu Ser Ala Asp Gln Lys Thr

245 250 255

Glu Val His Glu Glu Tyr Gln Glu Gly Asp Asp Gly Phe Ser Leu Phe
260 265 270

Ser Tyr

<210> 193
<211> 137
<212> PRT
<213> Zea mays

<220>
<221> MOD_RES
<222> (12)..(12)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (41)..(41)
<223> Any amino acid

<400> 193
Asp Pro Lys Asp Arg Lys Lys Ile Gln Phe Ser Xaa Pro Ala Pro Pro
1 5 10 15

Ser Gln Leu Asp Pro Arg Gln Leu Glu Met Ile Arg Arg Arg Arg Pro
20 25 30

Thr Pro Ala Met Leu Phe Arg Leu Xaa Glu His Ser Ser Pro Glu Glu
35 40 45

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

Ser Lys Arg Pro Asn Pro Cys Ala Tyr Thr Pro Pro Ser Leu Lys Ala
65 70 75 80

Val Gln Arg Ile Ala Glu Ser His Leu Gln Ser Ile Ser Asn Leu Gly
85 90 95

Glu Asn Gln Ala Ser Glu Glu Glu Asp Glu Leu Gly Glu Leu Arg Glu
100 105 110

Leu Gly Tyr Pro Arg Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu
115 120 125

Glu Glu Glu Glu Glu Glu Asp Ser Gln
130 135

<210> 194
<211> 75
<212> PRT
<213> Spinacia oleracea

<400> 194
Arg Lys Arg Gly Ser Gln Thr Tyr Thr Arg Tyr Gln Thr Leu Glu Leu
1 5 10 15

Glu Lys Glu Phe His Phe Asn Arg Tyr Leu Thr Arg Arg Arg Arg Val
20 25 30

Glu Ile Ala His Val Leu Cys Leu Thr Glu Arg Gln Ile Lys Ile Trp
35 40 45

Phe Gln Asn Arg Arg Met Lys Trp Lys Lys Asp His Lys Asp Glu Ser
50 55 60

Ser Ser Ser Asn Leu Ser Ala Asn Ser Glu Asn
65 70 75

<210> 195
<211> 274
<212> PRT
<213> Sus scrofa

<400> 195
Met Glu Arg Gly Glu Gly Arg Arg Gly Asp Cys Ser Val Gln Val Arg
1 5 10 15

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

Thr Ile Lys Trp Trp Lys Glu Gln Asn Gln Lys Leu Gln Glu Glu Asn
35 40 45

Ser Ser Arg Lys Ala Pro Ala Lys Gly Ser Lys Lys Gly Cys Met Ala
50 55 60

Gly Lys Gly Gly Pro Glu Asn Ser Asn Cys Ala Tyr Arg Gly Val Arg
65 70 75 80

Gln Arg Thr Trp Gly Lys Trp Val Ala Glu Ile Arg Glu Pro Asn Arg
85 90 95

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

His Ala Tyr Asp Glu Ala Ala Arg Ala Met Tyr Gly Pro Thr Ala Arg
115 120 125

```
Val Asn Phe Ala Asp Asn Ser Thr Asp Ala Asn Ser Gly Cys Thr Ser
    130                 135                 140

Ala Pro Ser Leu Met Met Ser Asn Gly Pro Ala Thr Ile Pro Ser Asp
145                 150                 155                 160

Glu Lys Asp Glu Leu Glu Ser Pro Pro Phe Ile Val Ala Asn Gly Pro
                165                 170                 175

Ala Val Leu Tyr Gln Pro Asp Lys Lys Asp Val Leu Glu Arg Val Val
            180                 185                 190

Pro Glu Val Gln Asp Val Lys Thr Glu Gly Ser Asn Gly Leu Lys Arg
        195                 200                 205

Val Cys Gln Glu Arg Lys Thr Met Glu Val Cys Glu Ser Glu Gly Ile
    210                 215                 220

Val Leu His Lys Glu Val Asn Ile Ser Tyr Asp Tyr Phe Asn Val His
225                 230                 235                 240

Glu Val Val Glu Met Ile Ile Val Glu Leu Ser Ala Asp Gln Lys Thr
                245                 250                 255

Glu Val His Glu Glu Tyr Gln Glu Gly Asp Asp Gly Phe Ser Leu Phe
            260                 265                 270

Ser Tyr
```

<210> 196
<211> 693
<212> PRT
<213> Solanum tuberosum

```
<400> 196
Met Ala Ala Gly Ser His Gly Gly Tyr Arg Gly Tyr Glu Val Ala Arg
1               5                   10                  15

Glu Arg Glu His Asp Val Gly Val Ser Arg Arg Ser Lys Glu His Tyr
            20                  25                  30

His His Arg His Pro Ser Arg His Arg Asp Ser Glu Arg Arg Arg Asp
        35                  40                  45

Gly Gly Arg Ser Gly Gly Arg Glu Leu Ser Asn Gly Tyr Ser His Arg
    50                  55                  60
```

```
Arg Asp Ser Pro Arg Pro Pro Pro Arg Arg Arg Pro Ser Glu Gly Arg
65                  70                  75                  80

Thr Glu Asp Arg Glu Pro Gly Glu Val Ser Gly Gly Ser Gly Ser Glu
                85                  90                  95

Arg Ser Gly Glu Arg Pro Met Lys Thr Gly Glu Pro Arg Glu Asn Gly
            100                 105                 110

Val Thr Arg Val Ser Lys Glu Glu Ala Lys Met Ser Pro Ser Lys Lys
        115                 120                 125

Arg Lys Gln Ser Pro Val Ile Trp Asp Arg Asn Gly Ser Lys Arg Gln
    130                 135                 140

Ala Arg Asp Pro Val Arg Gly Ile Arg Glu Val Asp Ala Val Val Ala
145                 150                 155                 160

Glu Ile Ile Met His Gln Ser His Ser Leu Pro Val Met Ser Ser Leu
                165                 170                 175

Ser Ser Ile Gly Asp Gly His Ser Pro Met Ile Leu Asp Val Ser Val
            180                 185                 190

Asp Lys Val Gln Glu Tyr Glu Lys Asn Arg Ile Val Asp Glu Glu Glu
        195                 200                 205

Glu Gly Tyr Pro Thr Met Arg Asn Ile Leu Thr Ser Arg Trp Ala Asp
    210                 215                 220

Ala Gly Asp Glu Glu Glu Asn Val Phe Val Pro Lys Lys Lys Lys Ser
225                 230                 235                 240

Val Ser Pro Val Asp Ser Ile Glu Arg Gly Ser Thr Lys Lys Val Thr
                245                 250                 255

Ser Pro Glu Ser Gly Glu Val Leu Val Tyr Asn Ser Val Arg Ser Ser
            260                 265                 270

Ser Arg Ser Ser Asp Ser Gly Val Leu Gln Gly Ser Ala Asn Arg Asp
        275                 280                 285

Leu Glu Val Glu Lys Gly Asp Asn Ile Asp Val Glu Glu Ala Ala Asp
    290                 295                 300

Asp Asp Tyr Pro Ala Gly His Leu Leu Asp Ser Asp Phe Glu Gly Glu
305                 310                 315                 320
```

```
Asp Cys Arg Ser Glu Thr Pro Glu Cys Thr Arg Ser Pro Arg Arg Cys
                325                 330                 335

Ile Asn Met Leu Gln Gly Cys Arg Ser Val Asp Glu Phe Glu Arg Leu
            340                 345                 350

Asn Thr Ile Asn Glu Gly Thr Tyr Gly Val Val Phe Arg Val Arg Asp
        355                 360                 365

Lys Arg Thr Gly Glu Ile Val Ala Leu Lys Lys Val Lys Met Glu Lys
    370                 375                 380

Glu Arg Glu Gly Phe Pro Leu Thr Ser Leu Arg Glu Met Asn Ile Leu
385                 390                 395                 400

Leu Ser Phe His His Pro Ser Ile Val Glu Val Lys Glu Val Val Val
                405                 410                 415

Gly Ser Asn Asp Arg Asp Ile Phe Met Val Met Glu Tyr Met Glu His
            420                 425                 430

Asp Leu Lys Gly Val Met Glu Thr Met Lys Gln Pro Tyr Ser Gln Ser
        435                 440                 445

Glu Val Lys Cys Leu Met Leu Gln Leu Leu Glu Gly Val Lys Tyr Leu
    450                 455                 460

His Asp Asn Trp Val Leu His Arg Asp Leu Lys Thr Ser Asn Leu Leu
465                 470                 475                 480

Leu Asn Asn Arg Gly Glu Leu Lys Ile Cys Asp Phe Gly Leu Ser Arg
                485                 490                 495

Gln Tyr Gly Ser Pro Leu Lys Pro Tyr Thr Gln Leu Val Val Thr Leu
            500                 505                 510

Trp Tyr Arg Ala Pro Glu Leu Leu Leu Gly Ala Lys Asp Tyr Ser Thr
        515                 520                 525

Ala Ile Asp Met Trp Ser Leu Gly Cys Ile Met Gly Glu Leu Leu Ser
    530                 535                 540

Lys Gly Pro Leu Phe Asn Gly Lys Ser Glu Ile Asp Gln Leu Asp Lys
545                 550                 555                 560

Ile Phe Arg Thr Leu Gly Thr Pro Asp Glu Asn Ile Trp Pro Gly Tyr
```

565 570 575

Ser Lys Leu Pro Gly Ala Thr Val Lys Phe Gly Lys Gln Thr His Asn
580 585 590

Arg Leu Arg Asp Lys Phe Arg Ala Val Ser Phe Thr Gly Gly Pro Met
595 600 605

Leu Ser Glu Ala Gly Phe Asp Leu Leu Asn Arg Leu Leu Thr Tyr Asp
610 615 620

Pro Glu Lys Arg Ile Ser Ala Glu Asp Ala Leu Asn His Glu Trp Phe
625 630 635 640

Arg Glu Leu Pro Leu Pro Arg Ser Lys Asp Phe Met Pro Thr Phe Pro
645 650 655

Ala Leu Asn Glu Gln Asp Arg Arg Phe Lys Lys His Met Lys Ser Pro
660 665 670

Asp Pro Leu Glu Glu Gln Arg Met Lys Glu Gln Gly Asn Asn Gly Asp
675 680 685

Arg Gly Leu Phe Gly
690

<210> 197
<211> 380
<212> PRT
<213> Oryza sativa

<400> 197
Met Gly Ile Lys Gly Leu Thr Lys Leu Leu Ala Asp Asn Ala Pro Lys
1 5 10 15

Ala Met Lys Glu Gln Lys Phe Glu Ser Tyr Phe Gly Arg Arg Ile Ala
20 25 30

Val Asp Ala Ser Met Ser Ile Tyr Gln Phe Leu Ile Val Val Gly Arg
35 40 45

Thr Gly Met Glu Thr Leu Thr Asn Glu Ala Gly Glu Val Thr Ser His
50 55 60

Leu Gln Gly Met Phe Asn Arg Thr Ile Arg Leu Leu Glu Ala Gly Ile
65 70 75 80

Lys Pro Val Tyr Val Phe Asp Gly Lys Pro Pro Asp Leu Lys Lys Gln
85 90 95

```
Glu Leu Ala Lys Arg Tyr Ser Lys Arg Glu Asp Ala Thr Lys Glu Leu
            100                 105                 110

Thr Glu Ala Val Glu Glu Gly Asp Lys Asp Ala Ile Glu Lys Phe Ser
        115                 120                 125

Lys Arg Thr Val Lys Val Thr Lys Gln His Asn Glu Glu Cys Lys Arg
    130                 135                 140

Leu Leu Arg Leu Met Gly Val Pro Val Val Glu Ala Pro Cys Glu Ala
145                 150                 155                 160

Glu Ala Glu Cys Ala Ala Leu Cys Ile Asn Asp Met Val Tyr Ala Val
                165                 170                 175

Ala Ser Glu Asp Met Asp Ser Leu Thr Phe Gly Ala Pro Arg Phe Leu
            180                 185                 190

Arg His Leu Met Asp Pro Ser Ser Lys Lys Ile Pro Val Met Glu Phe
        195                 200                 205

Glu Val Ala Lys Val Leu Glu Glu Leu Glu Leu Thr Met Asp Gln Phe
    210                 215                 220

Ile Asp Leu Cys Ile Leu Ser Gly Cys Asp Tyr Cys Asp Ser Ile Lys
225                 230                 235                 240

Gly Ile Gly Gly Gln Thr Ala Leu Lys Leu Ile Arg Gln His Gly Ser
                245                 250                 255

Ile Glu Ser Ile Leu Glu Asn Ile Asn Lys Asp Arg Tyr Gln Ile Pro
            260                 265                 270

Glu Asp Trp Pro Tyr Gln Glu Ala Arg Arg Leu Phe Lys Glu Pro Asn
        275                 280                 285

Val Thr Leu Asp Ile Pro Glu Leu Lys Trp Asn Ala Pro Asp Glu Glu
    290                 295                 300

Gly Leu Val Glu Phe Leu Val Lys Glu Asn Gly Phe Asn Gln Asp Arg
305                 310                 315                 320

Val Thr Lys Ala Ile Glu Lys Ile Lys Phe Ala Lys Asn Lys Ser Ser
                325                 330                 335

Gln Gly Arg Leu Glu Ser Phe Phe Lys Pro Val Val Ser Thr Ser Val
```

340 345 350

Pro Leu Lys Arg Lys Asp Thr Ser Glu Lys Pro Thr Lys Ala Val Ala
355 360 365

Asn Lys Lys Thr Lys Gly Ala Gly Gly Lys Lys Lys
370 375 380

<210> 198
<211> 17
<212> PRT
<213> Oryza sativa

<400> 198
Ala Glu Val Gln Asp Lys Gly Glu Phe Leu Ala Glu Gly Gly Gly Val
1 5 10 15

Arg

<210> 199
<211> 20
<212> PRT
<213> Oryza sativa

<400> 199
Gly Tyr Leu Asp Tyr Asp Glu Val Asp Asp Asn Arg Ala Lys Leu Pro
1 5 10 15

Leu Asp Ala Arg
20

<210> 200
<211> 721
<212> PRT
<213> Oryza sativa

<400> 200
Met Pro Arg Arg Lys Lys Lys Gly Lys Glu Ala Ser Gly Ala Gln Asn
1 5 10 15

Leu Glu Lys Lys Asp Ala Glu Thr Ala Ser Ser Val Ser Val Lys Lys
20 25 30

Lys Arg Arg Ile Glu Asp Gly Phe Ile Val Ile Ser Asp Ser Asp Gly
35 40 45

Glu Glu Pro Lys Glu Glu Asn Gly Leu Gln Lys Thr Lys Ile Lys Gln
50 55 60

Ser Ser Arg Ala Lys Cys Leu Ala Lys Arg Lys Ile Ala Gln Met Thr
65 70 75 80

```
Glu Glu Glu Gln Phe Ala Leu Ala Leu Lys Met Ser Glu Gln Glu Ala
                85                  90                  95

Arg Glu Val Asn Ser Gln Glu Glu Glu Glu Glu Glu Leu Leu Arg Lys
            100                 105                 110

Ala Ile Ala Glu Ser Leu Asn Ser Cys Arg Pro Ser Asp Ala Ser Ala
        115                 120                 125

Thr Arg Ser Arg Pro Leu Ala Thr Gly Pro Ser Ser Glu Ser His Gln
    130                 135                 140

Glu Lys Ser Thr Asp Ser Gly Thr Thr Glu Gly Ile Trp Gln Leu Val
145                 150                 155                 160

Pro Pro Ser Leu Phe Lys Gly Ser His Ile Ser Gln Gly Asn Glu Ser
                165                 170                 175

Glu Glu Arg Glu Glu Pro Trp Asp His Asn Glu Asn Thr Glu Glu Glu
            180                 185                 190

Pro Val Ser Val Ser Ser Gly Ser Trp Asp Gln Ser Ser Gln Pro Val
        195                 200                 205

Phe Glu Asn Glu Asn Val Lys Cys Phe Asp Arg Cys Thr Gly His Leu
    210                 215                 220

Ala Glu His Thr Gln Cys Gly Lys Pro Gln Asn Glu Cys Gly Arg Gly
225                 230                 235                 240

Ser Ala Phe Leu Lys Ala Val Gln Gly Ser Gly Asp Thr Ser Arg His
                245                 250                 255

Cys Leu Pro Thr Leu Ala Asp Ala Lys Gly Leu Gln Asp Thr Gly Gly
            260                 265                 270

Thr Val Asn Tyr Phe Trp Gly Ile Pro Phe Cys Pro Asp Gly Val Asp
        275                 280                 285

Pro Asn Gln Tyr Thr Lys Val Ile Leu Cys Gln Leu Glu Val Tyr Gln
    290                 295                 300

Lys Ser Leu Lys Met Ala Gln Arg Gln Leu Leu Asn Lys Lys Gly Phe
305                 310                 315                 320

Gly Glu Pro Val Leu Pro Arg Pro Pro Ser Leu Ile Gln Asn Glu Cys
```

325 330 335

Gly Gln Gly Glu Gln Ala Ser Glu Lys Asn Glu Gly Ile Ser Glu Asp
340 345 350

Met Gly Asp Glu Asp Lys Glu Glu Arg Gln Glu Ser Arg Ala Ser Val
355 360 365

Trp Arg Ala Lys Thr Lys Asp Phe Gln Glu Gly Pro Ile Lys Thr Leu
370 375 380

Lys Glu Lys Leu Leu Leu Glu Glu Glu Pro Thr Thr Ser His Gly Gln
385 390 395 400

Ser Ser Gln Gly Leu Phe Val Glu Glu Thr Ser Glu Glu Gly Asn Ser
405 410 415

Val Pro Ala Ser Gln Ser Ile Ala Ala Leu Thr Gly Lys Arg Ser Ser
420 425 430

Val Leu Met Pro Glu Ser Ser Ala Glu Glu Ile Thr Val Cys Pro Glu
435 440 445

Thr Gln Leu Ser Ser Pro Glu Thr Phe Asp Leu Glu Lys Glu Gly Phe
450 455 460

Pro Asp Ser Arg Glu Thr Leu Tyr Glu Val Ser Ile Met Ala Asp Lys
465 470 475 480

Glu Val Asp Asn Arg Glu Asp Ala Lys Lys Glu Ile His Thr Ser Thr
485 490 495

Phe Ser Ser Ser Thr Gln Val Ser Cys Pro Leu Cys Asp Gln Gly Phe
500 505 510

Pro Pro Thr Lys Ile Glu Arg His Ala Met Tyr Cys Asn Gly Leu Met
515 520 525

Gly Gly Asp Thr Val Leu Thr Arg Arg Gln Lys Glu Ala Lys Asn Lys
530 535 540

Ser Asp Asn Gly Ile Ala Ala Gln Thr Ser Leu Asp Ile Asp Lys Asn
545 550 555 560

Glu Lys Cys Tyr Leu Cys Lys Ser Leu Val Pro Phe Arg Glu Tyr Gln
565 570 575

```
Cys His Val Glu Ser Cys Leu Gln Leu Ala Arg Val Asp Gln Gly Asp
            580                 585                 590

Gly Pro Glu Glu Ser Gly Arg Leu Cys Leu Ala Val Asp Gly Lys Arg
        595                 600                 605

Pro Gln Gln Leu Lys Asn Leu Lys Glu Lys Asp Arg Ser Glu Gly Arg
    610                 615                 620

Leu Ile Ser Leu Leu Glu Gln Ser Glu Tyr Lys Thr Thr Asp Ala Glu
625                 630                 635                 640

Ile Lys Thr Lys Phe Ser Glu Thr Gly Asp Phe Arg Val Pro Ser Ala
                645                 650                 655

Gly Val Glu Glu Ala Gly Cys Ser Arg Glu Met Gln Ser Ser Leu Ala
            660                 665                 670

His Leu Asp Leu Asn Glu Ser Pro Ile Lys Ser Phe Val Ser Val Ser
        675                 680                 685

Glu Ala Ala Asp Cys Leu Val Asp Phe Lys Lys Gln Leu Thr Ala Arg
    690                 695                 700

Pro Gly Ser Arg Thr Arg Thr Lys Ala Gly Arg Gly Arg Arg Arg Lys
705                 710                 715                 720

Ser
```

<210> 201
<211> 265
<212> PRT
<213> Oryza sativa

<400> 201

```
Met Lys Ala Val Val Leu Thr Leu Ala Val Leu Phe Leu Thr Gly Ser
1               5                   10                  15

Gln Ala Arg His Phe Trp Gln Gln Asp Asp Pro Gln Ser Pro Trp Asp
            20                  25                  30

Arg Val Lys Asp Phe Ala Thr Val Tyr Val Asp Ala Ile Lys Asp Ser
        35                  40                  45

Gly Arg Asp Tyr Val Ala Gln Phe Glu Ala Ser Ala Leu Gly Lys His
    50                  55                  60

Leu Asn Leu Lys Leu Leu Asp Asn Trp Asp Ser Leu Gly Ser Thr Phe
```

65 70 75 80

Thr Lys Val Arg Glu Gln Leu Gly Pro Val Thr Gln Glu Phe Trp Asp
85 90 95

Asn Leu Glu Lys Glu Thr Glu Ala Leu Arg Gln Glu Met Ser Lys Asp
100 105 110

Leu Glu Glu Val Lys Lys Lys Val Gln Pro Tyr Leu Asp Asp Phe Gln
115 120 125

Asn Lys Trp Gln Glu Glu Met Glu Thr Tyr Arg Gln Lys Met Ala Pro
130 135 140

Leu Gly Ala Glu Phe Arg Glu Gly Ala Arg Gln Lys Val Gln Glu Leu
145 150 155 160

Gln Glu Lys Leu Ser Pro Leu Ala Glu Glu Leu Arg Asp Arg Leu Arg
165 170 175

Ala His Val Glu Ala Leu Arg Gln His Val Ala Pro Tyr Ser Asp Asp
180 185 190

Leu Arg Gln Arg Met Ala Ala Arg Phe Glu Ala Leu Lys Glu Gly Gly
195 200 205

Gly Ser Leu Ala Glu Tyr Gln Ala Lys Ala Gln Glu Gln Leu Lys Ala
210 215 220

Leu Gly Glu Lys Ala Lys Pro Ala Leu Glu Asp Leu Arg Gln Gly Leu
225 230 235 240

Leu Pro Val Leu Glu Asn Leu Lys Val Ser Ile Leu Ala Ala Ile Asp
245 250 255

Glu Ala Ser Lys Lys Leu Asn Ala Gln
260 265

<210> 202
<211> 609
<212> PRT
<213> Solanum tuberosum

<400> 202
Met Ala Ser Ala Gly Asp Arg Arg Gly Gly Gly Gly Pro Pro Gly Ser
1 5 10 15

Gly Asp Asp Ser Gly Gly Gly Trp Glu Thr Val Glu Lys Arg Val Lys
20 25 30

```
Lys Pro Ala Gln Gln Val Gly Lys Gly Gln Trp Gly Gln Trp Asn Ser
        35                  40                  45

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

Phe His His Ser Gly Asn Thr Leu Val Arg His Ser Asp Arg Arg Pro
65                  70                  75                  80

Ala Arg Gly Thr Pro Arg Pro Pro Pro Gln Asn Arg Ser Thr Gly Ala
                85                  90                  95

Glu Leu Gln Ala Pro Arg Gly Val Val Thr Ala Pro Leu Ala Asn Gly
            100                 105                 110

Trp Gln Trp Gly Ala Arg Ser Cys Pro Pro Gly Thr Glu Ser Lys Glu
        115                 120                 125

Gly Gly Leu Pro Leu Ser Gly Cys Asp Pro Glu Thr Asp Asn Ala Glu
    130                 135                 140

Gly Asp Asp Thr Ser Asp Asp Asp Asn Asp Asp Asp Met Ser Asp Asp
145                 150                 155                 160

Leu Ser Asp Asp Tyr Asp Ser Asp Ala Ser Glu Lys Ser Phe Glu Thr
                165                 170                 175

Arg Lys Asn His Lys Leu Phe Lys Gly Phe Phe Glu Val Leu Asp Ala
            180                 185                 190

Leu Ser Val Glu Gln Leu Asn Glu Pro Thr Arg Gln Trp His Cys Pro
        195                 200                 205

Ala Cys Lys Asn Gly Pro Gly Ala Ile Asp Trp Tyr Lys Gly Leu Gln
    210                 215                 220

Pro Leu Met Thr His Ala Lys Thr Lys Gly Ser Ile Lys Val Lys Arg
225                 230                 235                 240

His Arg Glu Leu Ala Ser Leu Leu Glu Glu Glu Leu Ser Arg Arg Gly
                245                 250                 255

Thr Ser Val Val Pro Ser Gly Glu Gln Phe Arg Lys Trp Lys Gly Leu
            260                 265                 270

Arg Glu Gly Thr Asp Arg Glu Ile Val Trp Pro Pro Met Val Val Val
```

```
        275                 280                 285

Met Asn Thr Val Leu Glu Gln Asp Glu Asp Asp Lys Trp Lys Gly Met
    290                 295                 300

Gly Asn Gln Glu Leu Ile Asp Tyr Phe Ser Glu Tyr Ala Ala Ser Lys
305                 310                 315                 320

Ala Arg His Ala Tyr Gly Pro Asn Gly His Arg Gly Met Ser Val Leu
                325                 330                 335

Ile Phe Asp Ser Ser Ala Val Gly Tyr Met Glu Ala Glu Arg Leu His
            340                 345                 350

Asp His Phe Val Arg Gln Arg Thr Asp Arg Asn Thr Trp Asn Ser Ala
        355                 360                 365

His Lys Val Thr Phe Leu Pro Gly Gly Lys Arg Gln Leu Tyr Gly Phe
    370                 375                 380

Leu Ala Thr Lys Asp Asp Met Glu Thr Phe Asn Arg His Cys His Gly
385                 390                 395                 400

Lys Ser Arg Leu Lys Tyr Glu Met Arg Ser Tyr Asn Glu Met Val Val
                405                 410                 415

Thr Gln Met Lys Gln Met Ser Glu Asp Asn Gln Gln Leu Asn Tyr Leu
            420                 425                 430

Lys Asn Lys Met Val Lys Lys Glu Gln His Ser Lys Leu Val Glu Asp
        435                 440                 445

Thr Leu Ser Val Val Thr Gln Lys Leu Arg Glu Thr Met Glu Glu Asn
    450                 455                 460

Thr Ile Val Arg Asn Lys Ala Lys Glu Lys His Leu Glu Tyr Glu Lys
465                 470                 475                 480

Glu Met Lys Tyr Gln Glu Glu Phe Phe His Asp Gln Ile Glu Lys Ile
                485                 490                 495

His Lys Pro Thr Glu Glu Lys Glu Ile Lys Phe Glu Lys Leu Leu Gln
            500                 505                 510

Glu Glu Arg Ala Lys Ala Arg Gln Ser Asp Val Asp Ser Gly Ser Thr
        515                 520                 525
```

```
Glu Asp Arg Arg Gln Arg Lys Glu Lys Ile Gln Asn Phe Ile Asp Cys
    530                 535                 540

Gln Val Lys Asp Val Glu Glu Phe Glu Ala Glu Arg Asp Lys Leu Ile
545                 550                 555                 560

Lys Leu His Glu Glu Lys Lys Val Lys Leu Lys Lys Glu Tyr Leu Ala
                565                 570                 575

Lys Glu Phe Glu Leu Glu Lys Glu Leu Asp Thr Ala Leu Thr Ala Leu
            580                 585                 590

Met Asp Lys His Lys Pro Asp Ile Phe Lys Ser Ser Thr Ser Pro Ser
        595                 600                 605

Thr
```

<210> 203
<211> 103
<212> PRT
<213> Sus scrofa

<400> 203

```
Met Ala Lys Lys Ser Leu Ile Gln Arg Glu Arg Lys Arg Gln Lys Leu
1               5                   10                  15

Glu Gln Lys Tyr His Leu Ile Arg Arg Ser Ser Lys Lys Lys Ile Arg
            20                  25                  30

Ser Lys Val Tyr Pro Leu Ser Leu Ser Glu Lys Thr Lys Met Arg Glu
        35                  40                  45

Lys Leu Gln Ser Leu Pro Arg Asn Ser Ala Pro Thr Arg Leu His Arg
    50                  55                  60

Arg Cys Phe Leu Thr Gly Arg Pro Arg Ala Asn Tyr Arg Asp Phe Gly
65                  70                  75                  80

Leu Ser Gly His Ile Leu Arg Glu Met Val Tyr Ala Cys Leu Leu Pro
                85                  90                  95

Gly Ala Thr Arg Ser Ser Trp
            100
```

<210> 204
<211> 196
<212> PRT
<213> Oryza sativa

<400> 204
Met Gly Arg Gly Arg Ser Glu Ile Lys Arg Ile Glu Asn Pro Thr Gln
1 5 10 15

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

Arg Glu Leu Ala Val Leu Cys Asp Ala Asp Leu Leu Leu Leu Leu Phe
35 40 45

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

Val Arg Glu Phe Val Glu Arg Tyr Glu Ala Thr Thr His Thr Lys Val
65 70 75 80

Trp Ala Asp Ile Arg Gln Glu Arg Arg Ala Glu Leu Glu Lys Val Gly
85 90 95

Ser Met Cys Asp Leu Leu Glu Lys Gln Leu Arg Phe Met Thr Val Asp
100 105 110

Asp Gly Glu Glu Tyr Thr Val Pro Ser Leu Glu Ala Leu Glu His Asn
115 120 125

Leu Glu Ala Ala Met Arg Lys Val Arg Ser Glu Lys Asp Arg Lys Ile
130 135 140

Gly Gly Glu Ile Cys Tyr Leu Gln Asn Ile Ile Arg Gly Arg Gln Glu
145 150 155 160

Glu Arg Tyr Gly Leu Cys Asp Lys Ile Ala His Ala Gln Thr Leu Lys
165 170 175

Asp Val Glu Cys Gly Ser Thr Ser Leu Ser Asn Gly Leu Asp Leu Lys
180 185 190

Leu Gly Phe Asn
195

<210> 205
<211> 261
<212> PRT
<213> Oryza sativa

<400> 205
Met Thr Ala Ser Lys Asp Arg Glu Asn Phe Val Tyr Ile Ala Lys Leu
1 5 10 15

```
Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Ser Met Lys Asn
            20                  25                  30

Val Ala Asn Leu Asp Val Glu Leu Thr Val Glu Glu Arg Asn Leu Leu
        35                  40                  45

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

Ile Leu Ser Ser Ile Glu Gln Lys Glu Glu Thr Lys Gly Asn Glu Leu
65                  70                  75                  80

Asn Ala Lys Arg Ile Lys Glu Tyr Arg Gln Lys Val Glu Leu Glu Leu
                85                  90                  95

Ser Asn Ile Cys Asn Asp Val Met Arg Val Ile Asp Glu His Leu Ile
            100                 105                 110

Pro Ser Ala Ala Ala Gly Glu Ser Thr Val Phe Tyr Tyr Lys Met Lys
        115                 120                 125

Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Phe Lys Ser Gly Asn Glu Lys
    130                 135                 140

Lys Glu Ala Ala Asp Gln Ser Met Lys Ala Tyr Glu Ser Ala Thr Ala
145                 150                 155                 160

Ala Ala Glu Ala Asp Leu Pro Pro Thr His Pro Ile Arg Leu Gly Leu
                165                 170                 175

Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu
            180                 185                 190

Arg Ala Cys His Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ser Glu
        195                 200                 205

Leu Asp Thr Leu Asn Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met
    210                 215                 220

Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Ile Pro Glu
225                 230                 235                 240

Asp Gly Glu Asp Ala Gln Lys Val Asn Gly Thr Ala Lys Leu Gly Gly
                245                 250                 255

Gly Glu Asp Ala Glu
            260
```

<210> 206
<211> 101
<212> PRT
<213> Oryza sativa

<400> 206
Met Ser Asp Gln Glu Ala Lys Pro Ser Thr Glu Asp Leu Gly Asp Lys
1   5   10   15

Lys Glu Gly Glu Tyr Ile Lys Leu Lys Val Ile Gly Gln Asp Ser Ser
            20   25   30

Glu Ile His Phe Lys Val Lys Met Thr Thr His Leu Lys Lys Leu Lys
        35   40   45

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

Leu Phe Glu Gly Gln Arg Ile Ala Asp Asn His Thr Pro Lys Glu Leu
65   70   75   80

Gly Met Glu Glu Glu Asp Val Ile Glu Val Tyr Gln Glu Gln Thr Gly
                85   90   95

Gly His Ser Thr Val
            100

<210> 207
<211> 245
<212> PRT
<213> Zea mays

<400> 207
Met Asp Lys Asn Glu Leu Val Gln Lys Ala Lys Leu Ala Glu Gln Ala
1   5   10   15

Glu Arg Tyr Asp Asp Met Ala Ala Cys Met Lys Ser Val Thr Glu Gln
            20   25   30

Gly Ala Glu Leu Ser Asn Glu Glu Arg Asn Leu Leu Ser Val Ala Tyr
        35   40   45

Lys Asn Val Val Gly Ala Arg Arg Ser Ser Trp Arg Val Val Ser Ser
    50   55   60

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

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

```
Val Leu Ser Leu Leu Glu Lys Phe Leu Ile Pro Asn Arg Ser Gln Pro
            100                 105                 110

Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly Asp Tyr Tyr Arg Tyr
        115                 120                 125

Leu Ala Glu Val Ala Ala Gly Asp Asp Lys Lys Gly Ile Val Asp Gln
    130                 135                 140

Ser Gln Gln Ala Tyr Gln Glu Ala Phe Glu Ile Ser Lys Lys Glu Met
145                 150                 155                 160

Gln Pro Thr His Pro Ile Arg Leu Gly Leu Ala Leu Asn Phe Ser Val
                165                 170                 175

Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu Lys Ala Cys Ser Leu Ala
            180                 185                 190

Lys Thr Ala Phe Asp Glu Ala Ile Ala Glu Leu Asp Thr Leu Ser Glu
        195                 200                 205

Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln Leu Leu Arg Asp Asn
    210                 215                 220

Leu Thr Leu Trp Thr Ser Asp Thr Gln Gly Asp Glu Ala Glu Ala Gly
225                 230                 235                 240

Glu Gly Gly Glu Asn
                245
```

<210> 208
<211> 95
<212> PRT
<213> Spinacia oleracea

<400> 208

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

Ala Arg Glu Gly Gln Thr Val Val Pro Gly Gly Thr Gly Gly Lys Ser
            20                  25                  30

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

Thr Arg Lys Glu Gln Met Gly Glu Glu Gly Tyr Arg Glu Met Gly Arg
    50                  55                  60
```

Lys Gly Gly Leu Ser Thr Gly Asp Glu Ser Gly Gly Glu Arg Ala Ala
65 70 75 80

Arg Glu Gly Ile Asp Ile Asp Glu Ser Lys Tyr Lys Thr Lys Ser
85 90 95

<210> 209
<211> 145
<212> PRT
<213> Glycine max

<400> 209
Met Ala Pro Lys Ala Ala Ala Gly Lys Lys Pro Ala Glu Lys Lys Pro
1 5 10 15

Val Glu Glu Lys Lys Ala Glu Glu Val Pro Ala Glu Lys Lys Pro Lys
20 25 30

Ala Gly Lys Lys Leu Pro Lys Asp Ala Gly Arg Pro Asp Lys Lys Lys
35 40 45

Lys Arg Ala Lys Lys Ser Ile Glu Thr Tyr Lys Ile Tyr Ile Phe Lys
50 55 60

Val Leu Lys Gln Val His Pro Asp Ile Gly Ile Ser Ser Lys Ser Met
65 70 75 80

Gly Ile Met Asn Ser Phe Ile Asn Asp Ile Phe Glu Lys Leu Ala Gln
85 90 95

Glu Ser Ser Arg Leu Ala Arg Tyr Asn Lys Lys Pro Thr Ile Thr Ser
100 105 110

Arg Glu Ile Gln Thr Ala Val Arg Leu Val Leu Pro Gly Glu Leu Ala
115 120 125

Lys His Ala Val Ser Glu Gly Thr Lys Ala Val Thr Lys Phe Thr Ser
130 135 140

Ser
145

<210> 210
<211> 582
<212> PRT
<213> Triticum aestivum

<400> 210
Lys Glu Asp Leu Val Lys Gln His Ala Lys Val Ala Glu Glu Ala Ile
1 5 10 15

```
Ala Gly Trp Glu Lys Ala Glu Asn Glu Val Ala Val Leu Lys Gln Gln
            20                  25                  30

Leu Asp Ala Ala Val Gln Gln Asn Leu Thr Leu Glu Val Arg Val Ser
        35                  40                  45

His Leu Asp Gly Ala Leu Lys Glu Cys Val Arg Gln Leu Arg Gln Ala
    50                  55                  60

Arg Asp Glu Gln Glu Lys Met Ile Gln Asp Ala Met Ala Glu Lys Asn
65                  70                  75                  80

Glu Met Glu Ser Glu Lys Thr Ala Leu Glu Lys Gln Leu Leu Lys Leu
                85                  90                  95

Gln Thr Gln Val Glu Ala Gly Lys Ala Glu Met Pro Thr Ser Thr Asp
            100                 105                 110

Pro Asp Ile Leu Val Arg Leu Lys Tyr Leu Glu Lys Glu Asn Ala Ala
        115                 120                 125

Leu Lys Ile Glu Leu Val Ser Cys Ser Glu Val Leu Glu Ile Arg Thr
    130                 135                 140

Ile Glu Arg Asp Leu Ser Thr Gln Ala Ala Glu Thr Ala Ser Lys Gln
145                 150                 155                 160

Gln Leu Glu Ser Ile Lys Lys Leu Thr Lys Leu Glu Val Glu Cys Arg
                165                 170                 175

Lys Leu Gln Ala Met Ala Arg Lys Ser Ser Pro Phe Asn Asp Gln Arg
            180                 185                 190

Ser Ser Ala Val Ser Ser Phe Tyr Val Asp Ser Val Thr Asp Ser Gln
        195                 200                 205

Ser Asp Ser Gly Glu Arg Leu Asn Thr Val Asp Asn Asp Ala Leu Lys
    210                 215                 220

Met Ser Lys Leu Glu Thr Arg Glu Tyr Glu Pro Ser Cys Ser Asn Ser
225                 230                 235                 240

Trp Ala Ser Ala Leu Ile Ala Glu Leu Asp Gln Phe Lys Asn Glu Lys
                245                 250                 255

Ala Met Pro Lys Thr Leu Ala Ala Cys Ser Ile Glu Ile Asp Met Met
```

```
            260                 265                 270

Asp Asp Phe Leu Glu Met Glu Gln Leu Ala Ala Leu Ser Glu Thr Ala
        275                 280                 285

Asn Lys Thr Pro Ser Val Thr Ser Asp Ala Val Pro His Asp Ser Pro
    290                 295                 300

Asn Ile Glu Asn Pro Leu Ala Ala Glu Tyr Asn Ser Ile Ser Gln Arg
305                 310                 315                 320

Val Val Glu Leu Glu Gln Lys Leu Glu Lys Ile Glu Ala Glu Lys Ala
                325                 330                 335

Glu Leu Glu Asn Ala Phe Asn Glu Ser Gln Asp Ala Leu Lys Val Ser
            340                 345                 350

Ser Leu Gln Leu Lys Glu Thr Gln Thr Arg Leu Glu Gly Leu Gln Lys
        355                 360                 365

Glu Leu Asp Val Val Asn Glu Ser Lys Glu Leu Leu Glu Phe Gln Leu
    370                 375                 380

Tyr Gly Met Glu Val Glu Ala Arg Thr Met Ser Val Asn Ile Asp Ser
385                 390                 395                 400

Leu Lys Thr Glu Val Glu Lys Glu Lys Ser Leu Ser Ser Glu Met Glu
                405                 410                 415

Ala Lys Cys His Glu Leu Glu Asn Asp Leu Arg Lys Lys Ser Gln Glu
            420                 425                 430

Ala Glu Ala Gln Gln Thr Ser Gly Ser Asn Ser Glu Leu Lys Ile Lys
        435                 440                 445

Gln Glu Asp Leu Ala Val Ala Ala Asp Lys Leu Ala Glu Cys Gln Lys
    450                 455                 460

Thr Ile Ala Ser Leu Gly Lys Gln Leu Gln Ser Leu Ala Thr Leu Glu
465                 470                 475                 480

Asp Phe Leu Thr Asp Thr Ala Asn Leu Pro Gly Gly Gly Ala Val Val
                485                 490                 495

Ala Lys Ala Gly Gly Glu Leu Trp Lys Leu His Val Asn Glu Thr Phe
            500                 505                 510
```

Thr Pro Lys Arg Asp Ser Asp Pro Thr Lys Val Glu Glu Asn Val Ser
515 520 525

His Ser Thr Asn Glu Asn Glu Gly Glu Ser Pro Ala Ser Ser Ser Ser
530 535 540

Ser Ser Thr Ser Ser Thr Thr Gln Ala Ser Thr Gly Lys Ser Lys Asn
545 550 555 560

Gly Phe Gly Lys Leu Phe Ser Arg Ser Lys Ser Gly Val Pro Thr Leu
565 570 575

Lys Val Ile Glu Asp Lys
580

<210> 211
<211> 567
<212> PRT
<213> Oryza sativa

<400> 211
Met Gly Arg Ser Arg Gly Val Pro Asn Ser Gly Asp Asp Glu Thr Asn
1 5 10 15

His Arg Ser Lys Arg Arg Arg Val Ala Ser Ser Gly Asp Ala Pro Asp
20 25 30

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

Ala Leu Tyr His Cys Asn Tyr Cys Asn Lys Asp Ile Ser Gly Lys Ile
50 55 60

Arg Ile Lys Cys Ser Lys Cys Pro Asp Phe Asp Leu Cys Val Glu Cys
65 70 75 80

Phe Ser Val Gly Ala Glu Val Thr Pro His Arg Ser Asn His Pro Tyr
85 90 95

Arg Val Met Asp Asn Leu Ser Phe Pro Leu Ile Cys Pro Asp Trp Asn
100 105 110

Ala Asp Glu Glu Ile Leu Leu Leu Glu Gly Ile Glu Met Tyr Gly Leu
115 120 125

Gly Asn Trp Ala Glu Val Ala Glu His Val Gly Thr Lys Thr Lys Ala
130 135 140

Gln Cys Ile Asp His Tyr Thr Thr Ala Tyr Met Asn Ser Pro Cys Tyr

```
145                 150                 155                 160

Pro Leu Pro Asp Met Ser His Val Asn Gly Lys Asn Arg Lys Glu Leu
                165                 170                 175

Leu Ala Met Ala Lys Val Gln Gly Glu Ser Lys Lys Val Leu Pro Gly
            180                 185                 190

Asp Leu Thr Pro Lys Asp Glu Ser Pro Phe Ser Pro Pro Arg Val Lys
        195                 200                 205

Val Glu Asp Ala Leu Gly Glu Gly Leu Ala Gly Arg Ser Pro Ser His
    210                 215                 220

Ile Ala Gly Gly Ala Asn Lys Lys Ala Ser Asn Val Gly Gln Phe Lys
225                 230                 235                 240

Asp Gly Ala Asn Val Ala Lys Val Glu Asp Gly His Val Asp Arg Ser
                245                 250                 255

Ile Gly Val Lys Lys Pro Arg Tyr Ser Ala Asp Glu Gly Pro Ser Leu
            260                 265                 270

Thr Glu Leu Ser Gly Tyr Asn Ser Lys Arg His Glu Phe Asp Pro Glu
        275                 280                 285

Tyr Asp Asn Asp Ala Glu Gln Ala Leu Ala Glu Met Glu Phe Lys Glu
    290                 295                 300

Thr Asp Ser Glu Thr Asp Arg Glu Leu Lys Leu Arg Val Leu Arg Ile
305                 310                 315                 320

Tyr Leu Ser Arg Leu Asp Glu Arg Lys Arg Arg Lys Glu Phe Ile Leu
                325                 330                 335

Glu Arg Asn Leu Leu Phe Pro Asn Pro Leu Glu Lys Asp Leu Thr Asn
            340                 345                 350

Glu Asp Lys Glu Val Tyr His Arg Tyr Lys Val Phe Met Arg Phe Leu
        355                 360                 365

Ser Lys Glu Glu His Glu Ala Leu Val Arg Ser Val Leu Glu Glu Arg
    370                 375                 380

Lys Ile Arg Arg Arg Ile Gln Glu Leu Gln Glu Cys Arg Ser Ala Gly
385                 390                 395                 400
```

```
Cys Arg Thr Leu Ala Glu Ala Lys Ile His Ile Glu Gln Lys Arg Lys
                405                 410                 415

Lys Glu His Glu Val Asn Ala Gln Lys Ala Lys Glu Ser Gly Gln Leu
            420                 425                 430

Leu Ser Asn Thr Lys Val Val His Lys Thr Asn Arg Pro Met Lys Ile
        435                 440                 445

Glu Ser Asp Gly Asn Leu Asp Gln Lys Lys Gly Gly Ala Ser Leu Asp
    450                 455                 460

Ser Thr Gly Arg Asp Ser Pro Lys Thr Thr Gly His Ala Gly Thr Lys
465                 470                 475                 480

His Trp Asp Asp Trp Asp Ile Val Gly Phe Pro Gly Ala Glu Leu Leu
                485                 490                 495

Ser Thr Ser Glu Lys Asn Leu Cys Cys Gln Asn Arg Leu Leu Pro Asn
            500                 505                 510

His Tyr Leu Lys Met Gln Glu Val Leu Met Gln Glu Ile Phe Lys Gly
        515                 520                 525

Ser Val Ala Lys Lys Glu Asp Ala His Val Leu Phe Lys Val Asp Pro
    530                 535                 540

Ala Lys Val Asp Asn Val Tyr Asp Met Val Thr Lys Lys Leu Gly Thr
545                 550                 555                 560

Asn Glu Glu Ala Pro Thr Val
                565
```

<210> 212
<211> 138
<212> PRT
<213> Oryza sativa

<400> 212

```
Met Asp Thr Glu Arg Ser Ser Glu Ile Cys Gly Asn Val Pro Asp Val
1               5                   10                  15

Thr Leu Ser Thr Pro Lys Gly Lys Val Phe Ser Thr Pro Lys Gly Ala
            20                  25                  30

His Lys Arg Thr Pro Tyr Ser Gly His Thr Lys Val Asn Ser Ser Phe
        35                  40                  45

Lys Ser Pro Val Gln Thr Ser Ser Thr Ser Pro Ala Lys Pro Glu Glu
```

50 55 60

Glu Ile Glu Glu Leu Lys Lys Arg Arg Ala Lys Leu Asp Ser Glu Ile
65 70 75 80

Ala Leu Leu Glu Lys Asp Gly Ile Arg Val Asp Glu Leu Glu Gln His
85 90 95

Ile Asp Leu Leu His Glu Tyr Asn Asp Ile Lys Asp Ile Gly Gln Ser
100 105 110

Leu Val Gly Arg Ile Ala Ala Leu Arg Gly Val Thr Thr Arg Asp Leu
115 120 125

Tyr Gly Gln Phe Gly Leu Glu Leu Asp Asp
130 135

<210> 213
<211> 304
<212> PRT
<213> Sus scrofa

<400> 213
Met Gly Gly Phe Val Lys Thr Gln Lys Thr Asn Ala Tyr Tyr Lys Arg
1 5 10 15

Phe Gln Val Lys Phe Lys Arg Arg Arg Gln Gly Lys Thr Asp Tyr Arg
20 25 30

Ala Arg Ile Arg Leu Thr Asn Gln Asp Lys Asn Lys Tyr Asn Thr Pro
35 40 45

Lys Tyr Arg Phe Val Val Arg Phe Thr Asn Lys Asp Ile Thr Ala Gln
50 55 60

Ile Val Tyr Ala Thr Ile Ala Gly Asp Ile Val Met Ala Ala Ala Tyr
65 70 75 80

Ser His Glu Leu Pro Arg Tyr Gly Leu Glu Val Gly Leu Thr Asn Tyr
85 90 95

Ala Ala Ala Tyr Cys Thr Gly Leu Leu Leu Ala Arg Arg Val Leu Lys
100 105 110

Leu Arg Gly Leu Asp Gln Glu Tyr Glu Gly Asn Ile Glu Ala Thr Gly
115 120 125

Glu Asp Tyr Tyr Val Glu Pro Ala Asp Glu Arg Arg Pro Phe Arg Ala
130 135 140

```
Leu Leu Asp Val Gly Leu Ile Arg Thr Thr Thr Gly Asn Arg Val Phe
145                 150                 155                 160

Gly Ala Leu Lys Gly Ala Leu Asp Gly Gly Leu Asp Ile Pro His Ser
                165                 170                 175

Asp Lys Arg Phe Ala Gly Phe Lys Lys Asp Glu Lys Gln Leu Asp Ser
            180                 185                 190

Asp Ile His Arg Lys Tyr Ile Tyr Gly Gly His Val Ala Asp Tyr Met
        195                 200                 205

Arg Ser Met Ala Glu Glu Glu Pro Glu Lys Phe Gln Ala His Phe Ser
    210                 215                 220

Glu Tyr Leu Lys Lys Gly Ile Asp Ala Asp Gly Met Glu Ala Leu Tyr
225                 230                 235                 240

Lys Lys Val His Ala Ala Ile Arg Ala Asp Pro Thr Met Ala Lys Ser
                245                 250                 255

Thr Lys Lys Glu Pro Ala Thr His Lys Arg Tyr Asn Leu Lys Lys Leu
            260                 265                 270

Thr Tyr Glu Gln Arg Lys Ala Ser Leu Val Glu Arg Leu Asn Ala Leu
        275                 280                 285

Asn Ser Ser Ala Gly Ala Asp Asp Asp Asp Glu Glu Glu Asp Asp Glu
    290                 295                 300


<210> 214
<211> 239
<212> PRT
<213> Pisum sativum

<400> 214
Met Gly Gln Lys Ile Asn Pro Leu Gly Phe Arg Leu Gly Thr Thr Gln
1               5                   10                  15

Lys His His Ser Phe Trp Phe Ala Gln Pro Lys Asn Tyr Ser Glu Gly
            20                  25                  30

Leu Gln Glu Asp Lys Lys Ile Arg Asp Cys Ile Lys Asn Tyr Ile Gln
        35                  40                  45

Lys Asn Arg Lys Lys Gly Ser Asn Arg Lys Ile Glu Ser Asp Ser Ser
    50                  55                  60
```

Ser Glu Val Ile Thr His Asn Arg Lys Met Asp Ser Gly Ser Ser Ser
65 70 75 80

Glu Val Ile Thr His Ile Glu Ile Gln Lys Glu Ile Asp Thr Ile His
85 90 95

Val Ile Ile His Ile Gly Phe Pro Asn Leu Leu Lys Lys Lys Gly Ala
100 105 110

Ile Glu Glu Leu Glu Lys Asp Leu Gln Lys Glu Ile Asn Ser Val Asn
115 120 125

Gln Arg Phe Asn Ile Ser Ile Glu Lys Val Lys Glu Pro Tyr Arg Gln
130 135 140

Pro Asn Ile Leu Ala Glu Tyr Ile Ala Phe Gln Leu Lys Asn Arg Val
145 150 155 160

Ser Phe Arg Lys Ala Met Lys Lys Ala Ile Glu Leu Thr Lys Lys Ala
165 170 175

Asp Ile Arg Gly Val Lys Val Lys Ile Ala Gly Arg Leu Gly Gly Lys
180 185 190

Glu Ile Ala Arg Ala Glu Ser Ile Lys Lys Gly Arg Leu Pro Leu Gln
195 200 205

Thr Ile Arg Ala Lys Ile Asp Tyr Cys Cys Tyr Pro Ile Arg Thr Ile
210 215 220

Tyr Gly Val Leu Gly Val Lys Ile Trp Ile Phe Val Asp Glu Glu
225 230 235

<210> 215
<211> 719
<212> PRT
<213> Glycine max

<400> 215
Met Glu Glu Val Arg Arg His His His Phe Ile Lys Val Met Val Gly
1 5 10 15

Glu Phe Ala Arg Arg Leu Glu Ile Pro Gln Gly Phe Leu Ile His Ile
20 25 30

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

```
Lys Gly Thr Leu Gln Asn Ser Glu Gly Lys Thr Trp Pro Val Glu Leu
    50                  55                  60

Glu Lys Leu Asp Gly His Val Phe Leu Thr Thr Gly Trp Ala Lys Phe
65                  70                  75                  80

Val Glu Asp Asn Ser Leu Arg Glu Tyr Glu Phe Leu Leu Phe Arg Tyr
                85                  90                  95

Asp Asp Asn Met His Phe Met Val Leu Pro Phe Gly Leu Asn Ala Cys
            100                 105                 110

Glu Lys Val Ile Arg Ser Ser Gly Ser Pro Gln Gly Lys Leu Pro Cys
        115                 120                 125

Asp Ile Phe Cys Cys Thr Lys Arg Gly Arg Asp Gly Asp Arg Leu Thr
    130                 135                 140

Glu Ala Ala Asn Ser Leu Thr Pro Ser His Ser Gln Val Leu Gln Arg
145                 150                 155                 160

Thr Thr Gln Gly His Glu Leu Ile Ser Pro Gln Ser Phe Pro Asp Gln
                165                 170                 175

His Glu Val Cys Gly Ser Lys Asp Gly Leu Asp Glu His Leu Ser Leu
            180                 185                 190

Asn Gly Pro Met Glu Asp Asp Lys Ala Asn Ala Ile Ala Glu Val Met
        195                 200                 205

Ser Ile Leu Asp Val Asp Lys Val Thr Val Glu Leu Phe Cys Ala Met
    210                 215                 220

Leu Val Phe Tyr Lys Trp Asn Val Asp Ala Val Ala Glu Asp Phe Asp
225                 230                 235                 240

Ile Cys Arg Gly Lys Pro Gln Ile Gln Asn Leu Phe Leu Lys His Lys
                245                 250                 255

Leu His Phe Gln Phe Asp Ile Val Lys Arg Lys Leu Arg Lys Phe Phe
            260                 265                 270

Pro Pro Asp Asp Tyr Tyr Ser Ser Pro Ile Leu Glu Ser Arg Lys Cys
        275                 280                 285

Ser Leu Glu Glu Pro Lys Leu Ser Asn Gln Pro Leu Gln Cys Asp Leu
    290                 295                 300
```

```
Thr Thr Glu Lys Cys Arg Leu Val Asp Glu His Asp Leu Cys Asn Phe
305                 310                 315                 320

Ser Gln Lys Lys Arg Arg Lys Arg Gly Ser Phe Cys Ser Pro Glu Thr
                325                 330                 335

Pro Arg Arg Ser Pro Arg Leu Ala Arg Gln Asn Asn Ser His Asp Ser
            340                 345                 350

Ala Glu Asn Thr Leu Lys Glu Arg Ser Glu Glu Arg Gln Pro Ser Pro
        355                 360                 365

Asp Ser Met Ile Asp Gln Ala Glu Ser Arg Ser Glu Gln Ala Cys Leu
    370                 375                 380

Cys His Asp Lys Thr Asp Ser Gly Ser Leu Phe Gln Asp Ser Lys Lys
385                 390                 395                 400

Val Lys Pro Ala His Gly Glu Val Asp Leu Cys Glu Glu Pro Gln His
                405                 410                 415

Asn Gln Gly Glu Asn Glu Gly Asn Leu Asp Gln Val Asn Asn Lys Glu
            420                 425                 430

Thr Asp Glu Glu Gln Ile Glu Arg Asn Ala Val Glu Thr Ser Glu Ser
        435                 440                 445

Phe Thr Arg Arg Gly Cys Ile Lys Ser Ser Pro Ala Ser Cys Glu Val
    450                 455                 460

Pro Ala Cys Leu Arg Ile Asn Glu Leu Ser Leu Thr Trp Lys Pro Ala
465                 470                 475                 480

Glu His Val Asn Pro Leu Glu Lys Val Leu Leu Asp Ile Gln Arg Asp
                485                 490                 495

Asn Phe Met Lys Thr Ile Ser His Val Gln Gly Ile Ile Arg Asn His
            500                 505                 510

Pro Ser Asp Leu Leu Thr Ala Asp Val Ile Thr Val Val Val Gln Lys
        515                 520                 525

Glu Ile Phe Lys Trp Asn Cys Cys Leu Lys Asp Arg Asp Ala Gln Arg
    530                 535                 540

Ile Val Asn Ala Leu Leu Glu His Ala Arg Lys Ile Lys Glu Met His
545                 550                 555                 560
```

```
Asn Phe Asn Ser Glu Met Arg Lys Glu Glu Phe Ser Ala Lys Leu Lys
                565                 570                 575

Val His Leu Lys Trp Gln Leu Lys Glu Val Glu Thr Ile Tyr Thr Ser
            580                 585                 590

Leu Glu Leu Asp Tyr Lys Lys Ala Thr Ser Asp Asp Asn Ile Ala Phe
        595                 600                 605

Ser Met Leu His Asp Lys Lys Lys Lys Leu His Asn Leu Gln Asp Glu
    610                 615                 620

Ile Thr Gly Leu Gln Gln Ser Leu Glu Met Lys Lys Asp Glu Met Gln
625                 630                 635                 640

Lys Leu Ala His Gln Val Ala Glu His Glu Ser Val Phe Gln Lys Ser
                645                 650                 655

Leu Met Glu Arg Leu Arg Ile Lys Glu Val Met Lys Gly Tyr Glu Gln
            660                 665                 670

Thr Leu Ala Glu Val Lys Val Gln Leu Thr Ser Thr Glu Val Gly Ser
        675                 680                 685

Ile Asp Ile Glu Ala Leu Val Lys Val Glu Met Asp Asn Met Thr Lys
    690                 695                 700

Glu Ile Glu Leu Ser Lys Glu Ser Leu Leu Asn Ile Thr Phe His
705                 710                 715


<210> 216
<211> 85
<212> PRT
<213> Sus scrofa

<400> 216
Glu Leu Lys Glu Met Leu Leu Lys Lys Tyr Ser Gly Cys Leu Ser Arg
1               5                   10                  15

Leu Arg Ser Glu Phe Leu Lys Lys Arg Lys Lys Gly Lys Leu Pro Lys
            20                  25                  30

Asp Ala Arg Ser Ala Leu Met Asp Trp Trp Asn Thr His Tyr Arg Trp
        35                  40                  45

Pro Tyr Pro Thr Glu Glu Asp Lys Val Arg Leu Ala Ala Met Thr Gly
    50                  55                  60
```

Leu Asp Pro Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg
65 70 75 80

His Trp Lys Pro Ser
85

<210> 217
<211> 103
<212> PRT
<213> Sus scrofa

<400> 217
Met Ala Lys Lys Ser Leu Ile Gln Arg Glu Lys Lys Arg Gln Lys Leu
1 5 10 15

Glu Gln Lys Tyr His Leu Ile Arg Gln Ser Leu Lys Lys Lys Ile Arg
20 25 30

Ser Lys Val Ser Pro Leu Ser Leu Ser Glu Lys Thr Lys Met Arg Glu
35 40 45

Lys Leu Gln Ser Leu Pro Arg Asn Ser Ala Pro Thr Arg Leu His Arg
50 55 60

Arg Cys Phe Leu Thr Gly Arg Pro Arg Ala Asn Tyr Arg His Phe Gly
65 70 75 80

Leu Ser Gly His Val Leu Arg Glu Met Val Tyr Glu Cys Leu Leu Pro
85 90 95

Gly Ala Thr Arg Ser Ser Trp
100

<210> 218
<211> 269
<212> PRT
<213> Oryza sativa

<400> 218
Met Arg Ser Pro Ala Ala Leu Leu Pro Val Val Ala Asp Gly Gly Gly
1 5 10 15

Gly Val Gly Val Glu Glu Glu Met Asp Val Asp Glu Asp Met Ala Met
20 25 30

Cys Gly Gly Arg Gly Gly Gly Gly Gly Glu Lys Lys Arg Arg Leu Ser
35 40 45

Val Glu Gln Val Arg Ala Leu Glu Arg Ser Phe Glu Thr Glu Asn Lys
50 55 60

```
Leu Glu Pro Glu Arg Lys Ala Arg Leu Ala Arg Asp Leu Gly Leu Gln
65                  70                  75                  80

Pro Arg Gln Val Ala Val Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys
                85                  90                  95

Thr Lys Gln Leu Glu Arg Asp Tyr Ala Ala Leu Arg Gln Ser Tyr Asp
            100                 105                 110

Ala Leu Arg Ala Asp His Asp Ala Leu Arg Arg Asp Lys Asp Ala Leu
        115                 120                 125

Leu Ala Glu Ile Lys Glu Leu Lys Gly Lys Leu Gly Asp Glu Asp Ala
    130                 135                 140

Ala Ala Ser Phe Ser Ser Val Lys Glu Glu Glu Asp Pro Ala Ala Ser
145                 150                 155                 160

Asp Ala Asp Pro Pro Ala Thr Gly Ala Pro Gln Gly Ser Ser Glu Ser
                165                 170                 175

Asp Ser Ser Ala Val Leu Asn Asp Ala Glu Ile Leu Pro His Lys Pro
            180                 185                 190

Ala Pro Ala Ala Ala Ala Asp Ala Ala Ala Ser Glu Glu Thr Glu Ala
        195                 200                 205

Val Val Thr Gly Ala Ala Leu Leu His His Ala Glu Val Phe Phe His
    210                 215                 220

Gly Gln Leu Leu Lys Val Asp Asp Asp Glu Ala Ala Phe Leu Gly Asp
225                 230                 235                 240

Asp Gly Ala Ala Cys Gly Gly Phe Phe Ala Asp Glu His Leu Pro Ser
                245                 250                 255

Leu Pro Trp Trp Ala Glu Pro Thr Glu Gln Trp Thr Thr
            260                 265
```

<210> 219
<211> 155
<212> PRT
<213> Oryza sativa

<400> 219

```
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1               5                   10                  15
```

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
            20   25   30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
    50   55   60

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

Lys Lys Lys Thr Tyr Thr Lys Pro Lys Lys Gln Lys His Lys His Lys
                85   90   95

Lys Val Lys Leu Ala Val Leu Gln Phe Tyr Lys Val Asp Asp Ala Thr
            100   105   110

Gly Lys Val Thr Arg Leu Arg Lys Glu Cys Pro Asn Ala Glu Cys Gly
        115   120   125

Ala Gly Thr Phe Met Ala Asn His Phe Asp Arg His Tyr Cys Gly Lys
    130   135   140

Cys Gly Leu Thr Tyr Val Tyr Asn Gln Gln Ala
145   150   155

<210> 220
<211> 258
<212> PRT
<213> Oryza sativa

<400> 220
Met Ala Pro Lys Arg Gly Gly Arg Ala Pro Val Pro Ala Lys Lys Lys
1   5   10   15

Thr Glu Lys Val Thr Asn Pro Leu Phe Glu Lys Arg Pro Lys Gln Phe
            20   25   30

Gly Ile Gly Gly Ala Leu Pro Pro Lys Lys Asp Leu His Arg Phe Val
        35   40   45

Lys Trp Pro Lys Val Val Arg Ile Gln Arg Gln Arg Arg Ile Leu Lys
    50   55   60

Gln Arg Leu Lys Val Pro Pro Ala Leu Asn Gln Phe Thr Arg Thr Leu
65   70   75   80

```
Asp Lys Asn Leu Ala Thr Asn Leu Phe Lys Met Leu Leu Lys Tyr Arg
                85                  90                  95

Pro Glu Asp Lys Ala Ala Lys Lys Glu Arg Leu Leu Lys Arg Ala Gln
            100                 105                 110

Ala Glu Ala Glu Gly Lys Thr Val Glu Ala Lys Lys Pro Ile Val Val
        115                 120                 125

Lys Tyr Gly Leu Asn His Val Thr Tyr Leu Ile Glu Gln Ser Lys Ala
    130                 135                 140

Gln Leu Val Val Ile Ala His Asp Val Asp Pro Ile Glu Leu Val Val
145                 150                 155                 160

Trp Leu Pro Ala Leu Cys Arg Lys Met Glu Val Pro Tyr Cys Ile Val
                165                 170                 175

Lys Gly Lys Ala Arg Leu Gly Ser Ile Val His Lys Lys Thr Ala Ser
            180                 185                 190

Val Leu Cys Leu Thr Thr Val Lys Asn Glu Asp Lys Leu Glu Phe Ser
        195                 200                 205

Lys Ile Leu Glu Ala Ile Lys Ala Asn Phe Asn Asp Lys Phe Asp Glu
    210                 215                 220

Val Arg Lys Lys Trp Gly Gly Gly Val Met Gly Ser Lys Ser Gln Ala
225                 230                 235                 240

Lys Thr Lys Ala Arg Glu Lys Leu Leu Ala Lys Glu Ala Ala Gln Arg
                245                 250                 255

Met Thr
```

<210> 221
<211> 633
<212> PRT
<213> Pisum sativum

<400> 221

```
Met Ser Phe Ser Lys Trp Gly Gly Lys Pro Ser Asn Ser Ser Glu Lys
1               5                   10                  15

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

Gly Asp Ile Gly Leu Asn Ser Glu Gln Asn Glu Gly Trp Glu Val Tyr
```

```
        35                  40                  45

Ala Arg Lys Pro Lys Asn Lys Gly Gly Ser Ser Ala Gly Lys Gln Trp
    50                  55                  60

Ala Pro Gln Asn Pro Ser Pro Lys Ala Trp Gly Asn Gln Asn Thr Lys
65                  70                  75                  80

Ala Trp Gly His Pro Asp Val Gly Lys Lys Ser Gly Thr Arg Asn Asn
                85                  90                  95

Ala Gly Ser Gly Arg Gly Ser Gly Asn Asn Trp Ser Thr Pro Ser Asp
            100                 105                 110

Pro Gln Lys Leu Ala Arg Pro His Leu Tyr Asp Gly Gly Phe Pro Ser
        115                 120                 125

Ser Ala Pro Val Pro Pro Ala Leu Lys Asn Gly Trp Asp Trp Ser Ser
    130                 135                 140

Arg Val Ala Ser Ala His Pro Lys Asp Asn Ser Gln Val Ala Ala Ala
145                 150                 155                 160

Ala Asp Asp Asp Lys Ala Ser Glu His Asp Ala Glu Asp Asn Glu Leu
                165                 170                 175

Asp Phe Leu Asp Glu Ser Asp Asp Asp Leu His Ser Asp Asp Phe Asp
            180                 185                 190

Ser Asp Val Gly Glu Met Ser Tyr Glu Thr Arg Lys Lys Asn Pro Trp
        195                 200                 205

Phe Asn Gln Leu Phe His Ser Leu Asp Ser Leu Thr Val Thr Glu Ile
    210                 215                 220

Asn Glu Pro Glu Arg Gln Trp His Cys Pro Ala Cys Lys Gly Gly Pro
225                 230                 235                 240

Gly Ala Ile Glu Trp Phe Thr Gly Leu Gln Ser Leu Met Thr His Ala
                245                 250                 255

Lys Thr Lys Gly Leu Arg Val Lys Ile His Arg Glu Leu Ala Glu Leu
            260                 265                 270

Leu Glu Glu Asp Leu Arg Gln Arg Gly Thr Ser Val Val Pro Pro Gly
        275                 280                 285
```

```
Glu Val Tyr Gly Arg Trp Gly Gly Met Glu Phe Lys Asp Lys Glu Ile
    290                 295                 300

Val Trp Pro Pro Met Val Ile Ile Met Asn Thr Arg Leu Asp Lys Asp
305                 310                 315                 320

Glu Asn Asp Lys Trp Ile Gly Met Gly Asn Gln Glu Leu Leu Glu Tyr
                325                 330                 335

Phe Ser Ser Tyr Ala Ala Val Lys Ala Arg His Ser Tyr Gly Pro Gln
            340                 345                 350

Gly His Arg Gly Met Ser Leu Leu Ile Phe Glu Ala Ser Ala Val Gly
        355                 360                 365

Tyr Ile Glu Ala Asp Arg Leu Ser Glu His Phe Ser Glu Asn Gly Arg
    370                 375                 380

Asn Arg Asp Ala Trp Glu Arg Arg Ser Ala Arg Phe Tyr Pro Gly Gly
385                 390                 395                 400

Lys Arg Leu Leu Tyr Gly Tyr Met Ala Asp Lys Lys Asp Ile Asp Asn
                405                 410                 415

Phe Asn Gln His Ser Ala Gly Lys Ser Lys Leu Lys Phe Glu Met Arg
            420                 425                 430

Ser Tyr Lys Glu Ala Val Trp Asn Pro Ala Lys Gln Met Arg Glu Asp
        435                 440                 445

Asn Gln Gln Leu Ile Trp Phe Lys Asn Lys Ala Ala Lys His Gln Met
    450                 455                 460

Gln Ala Lys Ala Leu Glu Glu Ser Leu Ser Leu Val Ser Glu Lys His
465                 470                 475                 480

Arg Gln Thr Leu Glu Glu Asn Lys Ile Val Arg Leu Lys Thr Lys Met
                485                 490                 495

His His Glu Gln Ile Lys Glu Glu Met Glu Phe Gln Glu Gln Phe Phe
            500                 505                 510

Lys Asp Gln Ile Lys Ile Ile His Asp Ala Arg Thr Ala Arg Glu Asp
        515                 520                 525

Asn Phe Glu Lys Thr Gln Gln Glu Gln Arg Glu Met Val Lys Gln Ser
    530                 535                 540
```

Asn Ala Asn Thr Ala Ser Val Glu Asp His Arg Val Arg Ala Glu Lys
545 550 555 560

Val Ala Lys Phe Ile Lys Leu Gln Asp Lys Glu Met Glu Glu Phe Val
565 570 575

Glu Glu Arg Glu Asn Leu Met Arg Thr His Asp Asp Arg Ile Ala Ala
580 585 590

Leu Arg Arg Lys Tyr Trp Glu Glu Glu Val Glu Leu Glu Arg Lys Phe
595 600 605

Asp Leu Glu Leu Ser Lys Leu Met Glu Lys Tyr Ser Pro Lys Gln Ser
610 615 620

Asp Glu Val Asn Ser Ser Gly Thr Met
625 630

<210> 222
<211> 101
<212> PRT
<213> Capra hircus

<400> 222
Met Asp Lys Ser Lys Arg Pro Phe Leu Lys Phe Lys Arg Ser Phe Arg
1 5 10 15

Arg Arg Leu Pro Pro Ile Gln Ser Gly Asp Arg Ile Asp Tyr Arg Asn
20 25 30

Met Ser Leu Ile Ser Arg Phe Ile Ser Glu Gln Gly Lys Ile Leu Ser
35 40 45

Arg Arg Val Asn Arg Leu Thr Leu Lys Gln Gln Arg Leu Ile Thr Leu
50 55 60

Ala Ile Lys Gln Ala Arg Ile Leu Ser Leu Leu Pro Phe Leu Asn Asn
65 70 75 80

Glu Lys Gln Phe Glu Arg Thr Glu Ser Thr Ala Arg Thr Thr Gly Phe
85 90 95

Lys Ala Arg Asn Lys
100

<210> 223
<211> 1048
<212> PRT
<213> Oryza sativa

<400> 223
Met Asp Gly Ala Val Arg Gly Gln Gly Cys Val Gly Arg Leu Arg Ser
1 5 10 15

Phe Asn Lys Thr Lys Lys Lys Asn Arg Asn Cys Ser Asp Asp Met Arg
20 25 30

Asn Gly Asp Asp Glu Glu Lys Lys Tyr Ser His His Asp Met Lys Asn
35 40 45

Asn Leu Arg Asn Asp Ala Asn Glu Glu Lys Arg Lys Ser Ser Asp Asp
50 55 60

Met Arg Asp Gly Asp Phe Glu Glu Lys Lys Lys Cys Ser Arg His Asp
65 70 75 80

Met Lys Lys Asn Leu Arg Asn Asp Ala Asn Glu Glu Lys Arg Lys Ser
85 90 95

Ser Asp Asp Met Arg Asp Gly Asp Asp Glu Glu Lys Lys Cys Ser Arg
100 105 110

Gln Asp Met Lys Lys Asn Leu Arg Asn Asp Ala Asp Glu Glu Lys Arg
115 120 125

Lys Ser Ser Asp Asp Met Arg Asp Gly Asp Asp Glu Glu Lys Lys Lys
130 135 140

Arg Ser Arg His Asp Met Lys Lys Asn Ser Arg Asn Asp Ala Asp Glu
145 150 155 160

Glu Lys Arg Lys Arg Lys Arg Lys Cys Ser Asp Asp Leu Lys Lys Ser
165 170 175

Val Val Asn Asp Ala Ser Lys Glu Ala Thr Ser His Ser Asp Trp Arg
180 185 190

Lys Asn Arg Lys Ala Gly Ser Asp Ala Glu Gln Arg Gly Lys Lys Leu
195 200 205

Leu Asn Gly Asp Lys Lys Ala Lys Ser Arg Lys Val Thr Thr Pro Phe
210 215 220

Phe Glu Lys Met Arg Lys Ile Lys Met Gln Arg Thr Ser Asn Gln Asn
225 230 235 240

Gly Glu Lys Asn Met Lys Ser Asp Gly Asp Ser Tyr Lys Lys Thr Val

```
                245                 250                 255

Pro Leu Ser Val Asn Lys Gly Lys Met Glu Lys Asp Gly Thr Asn Lys
            260                 265                 270

Arg Thr Leu Ser Asn Thr Leu Val Ala Lys Glu Arg Lys Met Arg Pro
        275                 280                 285

Ser Asp Ser Met Glu Met Lys Met Lys Lys Lys Lys Arg Asp Ala Ser
    290                 295                 300

Phe Val Gln Pro Asp Glu Arg Thr Ala Gln Thr Phe Ser Thr Lys Asn
305                 310                 315                 320

Lys Glu Lys Lys Arg Lys Ala Pro Ser Thr Pro Leu Lys Arg Glu Gln
                325                 330                 335

Lys Glu Arg Val Ala Ser Ser Asp Asn Lys Lys Glu Thr Lys Lys Ala
            340                 345                 350

Cys Ile Val Ala Ile Gly Asn Glu Lys Lys Asn Cys Arg Asp Gly Lys
        355                 360                 365

Lys Lys Lys Arg Lys Ala Ala Phe Ala Phe Phe Lys Phe Val Arg Asp
    370                 375                 380

Glu Phe Glu Glu Leu Leu Phe Ile Pro Pro Ala Val Ala Pro Ser Leu
385                 390                 395                 400

Lys Asp Leu Ile Asp Arg His Val Tyr Leu Glu Asp Ser Glu Gly Lys
                405                 410                 415

Cys Ser Lys Ile Arg Leu Ser Val Val Asp Gly Ser Leu Ala Phe Tyr
            420                 425                 430

Glu Gly Trp Asn Ser Phe Val Ser Glu His Cys Ile Lys Trp Gly Glu
        435                 440                 445

Phe Leu Leu Phe Glu Tyr Thr Pro Glu Ser Thr Phe Ser Val Arg Val
    450                 455                 460

Phe Gly Ile Asp Ser Cys Glu Arg Leu His Phe Ser Val Lys Ser Gly
465                 470                 475                 480

Gly Lys Gly Ala Val Lys Lys Arg Lys Glu Arg His Thr Leu Ser Asp
                485                 490                 495
```

```
Asp Leu Ile Ser His Tyr Asn Gly Gln Tyr Gln Asp Ser Glu Asp Ile
            500                 505                 510

His Asp Gly Pro Asn Val Ser Gly Glu Ser Pro Arg Ser Lys Glu Pro
        515                 520                 525

Lys Ile Thr Val Asp Ala Glu Ile Gly Thr Arg Asn Leu Val Ala Lys
    530                 535                 540

Ser Ile Asn Ala Ala Ser Glu Thr Gln Asp Ser Glu Arg Val Glu Ser
545                 550                 555                 560

Gly Ile Gly Tyr Gly Ser Leu Gly Ala Leu Gly Asn Lys Val Arg Asn
                565                 570                 575

Leu Ser Asn Gly Glu Cys Asp Thr Arg Ser Asp Ser Val Phe Cys Ile
            580                 585                 590

Gln Glu Lys Thr Arg Arg Ser Glu Val Ile Ile Ile Ser Asp Glu Ala
        595                 600                 605

Tyr Ser Thr Gln Val Asp Glu Asp Thr Met Lys Gln Thr Ala Pro Ser
    610                 615                 620

Glu Ala Ser Glu Ile His His Val Thr Ile Asn Thr Gln Lys Asp Leu
625                 630                 635                 640

Glu Arg Val Val Asp Gly Val Cys Cys Glu Ser Ser Val Ala Leu Asn
                645                 650                 655

Asn Lys Met Gly Asn Leu Ile Leu Gly Glu Pro Lys Asn Lys Asn Ile
            660                 665                 670

Ser Pro Ala Cys Ser Thr Glu Lys Thr Asn Gly Ser Glu Ile Thr Pro
        675                 680                 685

Thr Thr Gly Val Ile Pro Leu Thr Gln Glu Asn Ile Asp Thr Val Lys
    690                 695                 700

Leu Asn Thr Leu Ser Cys Phe Glu Glu Asp Arg Ser Thr Thr Arg Glu
705                 710                 715                 720

Ser Glu Leu Ala Ala Ala Ile Pro Thr Thr Ser Glu Thr His Asp Ser
                725                 730                 735

Asp Lys Asp Leu Gly Gln Lys His Gln Arg Asn Ser Val Gln Val Asn
            740                 745                 750
```

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

Ser Gly Asn Ile Phe Arg Ile Tyr Glu Ala Pro Ala Gly Thr Arg Cys
    770                 775                 780

Leu Glu Lys Trp Lys Arg Gly Ile Val Asn Gly Arg Ala Ala Leu Asp
785                 790                 795                 800

Asp Ile Gly Gln Val Arg Pro Glu Lys Thr Gln Lys Ala Gly Glu Lys
                805                 810                 815

Leu Val Gly Asn Cys Gly Ala Met Gly Glu Ser Pro Val Asp Leu Arg
            820                 825                 830

Ile Glu Ser Asp Val Thr Asp Thr Cys Leu Lys Pro Ile Leu Asn Ile
        835                 840                 845

Pro Ile Glu Glu Leu Ser Ile Leu Asp Ser Val Ser Ile Ser Lys Cys
    850                 855                 860

Gly Arg Ser Arg Thr Glu Val Asn His Leu Phe Asn Gln Lys Gly Ala
865                 870                 875                 880

Thr Val Gln Leu Gln Thr Lys Lys Glu Pro Leu Lys Pro Thr Gly Ser
                885                 890                 895

Ser Gly Asn Arg Lys Gly Asp Lys Ile Ala Val Ser Val Asn Arg Val
            900                 905                 910

Phe Ala His Gln Ser Glu Leu Gln Ile Pro Gln Gln Glu Asn Gly Asn
        915                 920                 925

Phe Thr Ser Cys Val Thr Pro Val Ala Leu Leu Pro Ala Lys Ala Glu
    930                 935                 940

Leu Leu Asp Leu Asp Asp His Ser Leu Gln Phe Cys Ile Pro Ser Thr
945                 950                 955                 960

Ile Gln Lys Trp Leu Glu Leu Pro Lys Ser Leu Pro Ile Thr Cys Arg
                965                 970                 975

Gln Lys Gly Arg Tyr Asp Arg Asn Val Val Ile Leu Lys Asp Pro Met
            980                 985                 990

Arg Arg Leu Trp Pro Val Phe Tyr  His Asp Lys Pro Val  Phe Val Gly
        995                 1000                1005
```

Phe Thr Ala Gly Trp Lys Pro Phe Ala Ala Ala Asn Asn Leu Gln
1010 1015 1020

Ala Gly Asp Val Cys Lys Phe Val Lys Glu Met Asp Glu Asp Glu
1025 1030 1035

Leu Ala Phe Gln Val Tyr Ile Thr Arg Lys
1040 1045

<210> 224
<211> 575
<212> PRT
<213> Oryza sativa

<400> 224
Met Ser Glu Leu Leu Phe Glu Thr Tyr Gly Val Pro Ser Ile Gly Asn
1 5 10 15

Asp Thr Tyr Leu Phe Val Pro Leu Leu Ser Ile Val His Gly Ser Phe
20 25 30

Glu Val Arg Ile Val Asp Ala Lys Asp Val Ser Ser Tyr Phe Leu Lys
35 40 45

Gly Glu Pro Val Leu Gly Ala Cys Cys Arg Thr Asn Val Gly Gly Phe
50 55 60

His Ile Thr Asp Phe Leu Arg Gln Leu Leu Ser Leu Lys Tyr Pro Tyr
65 70 75 80

His Ser Ala Ser Ile Thr Trp Glu Lys Ala Glu Glu Leu Lys Lys Glu
85 90 95

His Cys Tyr Val Ala Leu Asp Tyr Met Ser Glu Leu Gln Ile Phe Lys
100 105 110

Asn Asn Lys Glu Glu Ala Glu Glu Lys Thr Arg Tyr Trp Gln Leu Pro
115 120 125

Trp Val Pro Pro Pro Val Glu Glu Pro Pro Ser Glu Glu Glu Leu Ala
130 135 140

Arg Lys Ala Ala Leu Lys Glu Lys Ala Gly Gln Arg Leu Arg Asp Met
145 150 155 160

Ala Ala Ala Lys Arg Ser Gln Lys Ile Ala Glu Leu Glu Lys Gln Leu
165 170 175

```
Ser Tyr Leu Glu Glu Leu Met Glu Gln Leu Asp Gly Ala Glu Glu Glu
            180                 185                 190

Glu Ala Thr Ala Ile Leu Gly Arg Ser Gly Tyr Leu Ser Gln Gln Glu
        195                 200                 205

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

Gly Glu Ser Asn Gly Asn Glu Glu Lys Ala Asp Ala Ser Gly Val Asp
225                 230                 235                 240

Lys Tyr Pro Leu Val Ser Val Pro Asp Glu Thr Leu Thr Pro Glu Gln
                245                 250                 255

Leu Lys Glu Lys Lys Lys Gln Ile Leu Leu Lys Thr Thr Thr Glu Gly
            260                 265                 270

Arg Met Arg Ala Lys Gln Arg Arg Ala Glu Glu Glu Ala Leu Arg Glu
        275                 280                 285

Lys Gln Glu Glu Glu Arg Arg Leu Glu Asn Pro Glu Leu Tyr Leu Glu
    290                 295                 300

Glu Leu Arg Ala Arg Tyr Ser Glu Leu Ser Asp Arg Val Asp Gln Arg
305                 310                 315                 320

Lys Arg Gln Lys Leu Asn Gly Gly Lys Thr Asn Gly Asn His Asn Ser
                325                 330                 335

Ser Gly Gly Val Gly Arg Gly Glu Arg Leu Asn Ala Ala Gln Lys Glu
            340                 345                 350

Arg Met Arg Leu Leu Thr Ser Ala Ala Phe Asp Arg Gly Lys Gly Glu
        355                 360                 365

Asp Thr Phe Gly Thr Arg Asp Glu Asp Trp Leu Val Tyr Lys Lys Met
    370                 375                 380

Ser Lys Asp Asn Asp Asp Asp Asp Asp Gly Asn Asp Asp Asp Glu Ser
385                 390                 395                 400

Glu Leu Ala Arg Ile Ala Ser Lys Ile Gln Asp Met Asp Pro Thr Phe
                405                 410                 415

Val Asn Lys Ala Glu Ala Val Gln Gln Thr Pro Glu Pro Pro Lys Val
            420                 425                 430
```

Arg Thr Leu Thr Ala Glu Asp Tyr Arg Ile Ser Ile Gly Ile Glu Arg
435 440 445

Phe Arg Cys Pro Glu Ile Leu Phe Gln Pro Gly Met Ile Gly Ile Asp
450 455 460

Gln Ala Gly Ile Asp Glu Met Val Ser Ile Ser Leu Arg Arg Leu Met
465 470 475 480

Glu Asp Glu Ala Val Lys Glu Arg Leu Cys Gln Ser Ile Leu Val Thr
485 490 495

Gly Gly Cys Ser Leu Ile Pro Gly Met Ile Pro Arg Leu Glu Ser Gly
500 505 510

Ile Arg Gln Phe Arg Pro Tyr Leu Ser Pro Leu Lys Leu Val Arg Ala
515 520 525

Ala Asp Pro Leu Ile Asp Ala Trp Arg Gly Ala Ala Ala Phe Ala Ala
530 535 540

Ser Ser Lys Phe Gly Arg His Thr Phe Ser Leu Ala Asp Tyr Arg Glu
545 550 555 560

His Gly Glu Asn Leu Phe His Arg Tyr Asn Ile Val Tyr Ser Leu
565 570 575

<210> 225
<211> 594
<212> PRT
<213> Solanum tuberosum

<400> 225
Met Ser Gly Ser Gly Asp Arg Arg Gly Gly Gly Pro Pro Gly Ser His
1 5 10 15

Ser Gly Trp Glu Thr Met Gly Lys Lys Ser Lys Lys Pro Gly Gln Ala
20 25 30

Gly Gly Arg Gln Trp Ala Pro Trp Ser Ser Thr Asn Val Thr Pro Asn
35 40 45

Thr Ala Arg Pro Ala Trp Gly Gly Ser Gly Ser Ser His Pro Ser Gly
50 55 60

Thr Ser Trp Ala Gln Ala Pro Asp His Gly Ala Ala Thr Arg Gly Asn
65 70 75 80

```
Pro Arg Pro Pro Ser Gln Thr Ser Arg Pro Val Leu Ala Pro Pro Leu
                85                  90                  95

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

Val Lys Lys Asp Asp Ala Pro Pro Ser Gly Ser Val Pro Glu Val Glu
        115                 120                 125

Asn Val Asp Gly Asn Asn Thr Ser Asp Asp Asp Asp Asp Asp Asp Asp
    130                 135                 140

Asp Leu Ser Asp Asp Ile Ser Asp Asp Tyr Asp Ser Asp Ala Ser Glu
145                 150                 155                 160

Lys Ser Phe Glu Thr Arg Lys Thr Asn Lys Trp Phe Lys Glu Phe Phe
                165                 170                 175

Glu Val Leu Asn Thr Leu Ser Leu Glu Gln Ile Asn Glu Gln Thr Arg
            180                 185                 190

Gln Trp His Cys Pro Ala Cys Lys Asn Gly Pro Gly Ala Ile Asp Trp
        195                 200                 205

Tyr Lys Gly Leu Gln Pro Leu Val Ser His Ala Arg Thr Lys Gly Ser
    210                 215                 220

Thr Arg Val Lys Leu His Arg Glu Leu Ala Ala Leu Leu Glu Glu Glu
225                 230                 235                 240

Leu Ser Arg Arg Gly Thr Ser Val Leu Pro Ala Gly Glu Gln Phe Gly
                245                 250                 255

Lys Trp Lys Gly Leu Gln Glu Ser Thr Asp Arg Glu Ile Val Trp Pro
            260                 265                 270

Pro Met Val Ile Val Met Asn Thr Phe Leu Glu Lys Asp Glu Asp Asp
        275                 280                 285

Lys Trp Lys Gly Met Gly Asn Gln Glu Leu Leu Asp Tyr Phe Gly Glu
    290                 295                 300

Tyr Glu Ala Ser Lys Ala Arg His Ala Tyr Gly Pro Ser Gly His Arg
305                 310                 315                 320

Gly Met Ser Val Leu Ile Phe Glu Ser Ser Ala Val Gly Tyr Met Glu
                325                 330                 335
```

```
Ala Glu Arg Leu His Lys His Phe Val Asn Gln Gly Thr Asp Arg Asn
            340                 345                 350

Ser Trp His Leu Arg Lys Val Arg Phe Val Pro Gly Gly Lys Arg Gln
        355                 360                 365

Leu Tyr Gly Phe Leu Ala Asn Lys Glu Asp Met Glu Ala Phe Asn Lys
    370                 375                 380

His Cys His Gly Lys Ser Arg Leu Lys Tyr Glu Met Arg Ser Tyr Asn
385                 390                 395                 400

Glu Met Val Val Ile Gln Met Lys Gln Met Ser Glu Asp Asn Gln Gln
                405                 410                 415

Leu Asn Tyr Leu Lys Asn Lys Met Val Lys Thr Glu Gln Arg Ser Lys
            420                 425                 430

Ala Val Glu Glu Ser Leu Gly Val Val Thr Gln Lys Leu Arg Glu Thr
        435                 440                 445

Ile Glu Glu Asn Ile Phe Val Arg Ser Lys Ala Lys Glu Lys His Met
    450                 455                 460

Glu Tyr Glu Glu Glu Met Lys Ser Gln Glu Glu Ile Phe His Gly Leu
465                 470                 475                 480

Ile Glu Asp Ile His Lys Ala Thr Glu Asp Lys Glu Lys Gln Phe Glu
                485                 490                 495

Lys Leu Leu Gln Glu Glu Arg Ser Lys Ala Arg Arg Phe Asp Val Asp
            500                 505                 510

Ser Gly Thr Met Lys Asp Arg Gln Leu Arg Lys Glu Tyr Val Gln Lys
        515                 520                 525

Phe Ile Asp Cys Gln Val Lys Asp Val Ala Glu Phe Glu Val Glu Arg
    530                 535                 540

Asp Glu Leu Ile Lys Val His Glu Asp Lys Lys Leu Lys Leu Lys Lys
545                 550                 555                 560

Glu Tyr Met Asp Leu Glu Leu Glu Leu Glu Lys Glu Phe Asp Ala Ala
                565                 570                 575

Leu Thr Gly Leu Met Glu Lys His Lys Pro Asp Thr Phe Glu Ala Ser
```

580 585 590

Ser Ser

<210> 226
<211> 154
<212> PRT
<213> Oryza sativa

<400> 226
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Val Ala Glu
1 5 10 15

Glu Glu Pro Ser Glu Lys Ala Ala Pro Ala Glu Lys Ala Pro Ala Gly
20 25 30

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

Lys Glu Gly Gly Asp Lys Lys Gly Arg Lys Lys Ala Lys Lys Ser Val
50 55 60

Glu Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro
65 70 75 80

Asp Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile
85 90 95

Asn Asp Ile Phe Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala Arg
100 105 110

Tyr Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val
115 120 125

Arg Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly
130 135 140

Thr Lys Ala Val Thr Lys Phe Thr Ser Ser
145 150

<210> 227
<211> 199
<212> PRT
<213> Oryza sativa

<400> 227
Met Glu Asn Glu Phe Gln Asp Gly Lys Thr Glu Val Ile Glu Ala Trp
1 5 10 15

Tyr Met Asp Asp Ser Glu Glu Asp Gln Arg Leu Pro His His Arg Glu
20 25 30

Pro Lys Glu Phe Ile His Val Asp Lys Leu Thr Glu Leu Gly Val Ile
35 40 45

Ser Trp Arg Leu Asn Pro Asp Asn Trp Glu Asn Cys Glu Asn Leu Lys
50 55 60

Arg Ile Arg Glu Ala Arg Gly Tyr Ser Tyr Val Asp Ile Cys Asp Val
65 70 75 80

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

Glu Glu His Leu His Thr Asp Glu Glu Ile Arg Tyr Cys Leu Glu Gly
100 105 110

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

Ala Leu Lys Lys Gly Gly Met Ile Val Leu Pro Ala Gly Met Tyr His
130 135 140

Arg Phe Thr Leu Asp Thr Asp Asn Tyr Ile Lys Ala Met Arg Leu Phe
145 150 155 160

Val Gly Asp Pro Val Trp Thr Pro Tyr Asn Arg Pro His Asp His Leu
165 170 175

Pro Ala Arg Lys Glu Phe Leu Ala Lys Leu Leu Lys Ser Glu Gly Glu
180 185 190

Asn Gln Ala Val Glu Gly Phe
195

<210> 228
<211> 427
<212> PRT
<213> Solanum lycopersicum

<400> 228
Met Ile Tyr Thr Ala Ile Asp Thr Phe Tyr Leu Thr Asp Glu Gln Leu
1 5 10 15

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

Ala Leu Arg Val Tyr Gly Cys Asp Leu Ile Gln Glu Ser Gly Ile Leu

```
        35                  40                  45

Leu Lys Leu Pro Gln Ala Val Met Ala Thr Ala Gln Val Leu Phe His
    50                  55                  60

Arg Phe Tyr Cys Lys Lys Ser Phe Val Arg Phe Ser Val Lys Arg Val
65                  70                  75                  80

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

Arg Ser Lys His Ile Ile Ile Val Phe His Arg Met Glu Cys Arg Arg
            100                 105                 110

Glu Asn Val Pro Ile Glu His Leu Asp Val Phe Ser Lys Lys Tyr Ser
        115                 120                 125

Asp Leu Lys His Asp Leu Val Arg Thr Glu Arg His Leu Leu Lys Glu
    130                 135                 140

Met Gly Phe Ile Cys His Val Glu His Pro His Lys Phe Ile Ser Asn
145                 150                 155                 160

Tyr Leu Ala Thr Leu Glu Ala Pro Glu Leu Thr Gln Glu Ala Trp Asn
                165                 170                 175

Leu Ala Asn Asp Ser Leu Arg Thr Thr Leu Cys Val Arg Phe Lys Ser
            180                 185                 190

Glu Val Val Ala Cys Gly Val Val Tyr Ala Ala Ala Arg Arg His Gly
        195                 200                 205

Val Pro Leu Pro Glu Asp Pro Pro Trp Trp Asn Val Phe Asp Ala Asp
    210                 215                 220

Glu Ala Gly Ile Gln Glu Val Cys Arg Val Leu Ala His Leu Tyr Ser
225                 230                 235                 240

Leu Pro Lys Ser Gln Tyr Ile Gln Val Tyr Lys Asp Asn Asp Ser Phe
                245                 250                 255

Thr His Arg Arg Thr Ser Asp Thr Asn Ala Ser Lys Glu Ser Pro Ala
            260                 265                 270

Thr Thr Val Ala Ser Asp Lys Gly Thr Pro Val Pro Ser Ser Ser Ser
        275                 280                 285
```

```
Gln Glu Lys Asp Ala Leu Ile Lys Ala Gly Ser Asp Lys Val Lys Glu
    290                 295                 300

Lys Gly Asp Asp Asp Gly Lys Thr Leu Pro Ser Glu Pro Asn Gly Lys
305                 310                 315                 320

Glu Gly Pro Ala Val Asn Leu Lys Ser Glu Lys Ser Glu Ser Asn Val
                325                 330                 335

Asp Arg Ser Arg Glu Arg Glu Arg Asp Arg Ser Arg Gly Arg Asp Arg
            340                 345                 350

Asp Ser Arg Gly Arg Asp Ser Asp Arg Asp Ser Lys Gly Arg Asp Ser
        355                 360                 365

Asp Arg Glu Arg Glu Arg Asp Arg Glu Ala Asp Arg Asp Arg Gln Arg
    370                 375                 380

Arg His His Ser Lys Asp Arg Ser Ser Gly Tyr Ser Asp Lys Glu Lys
385                 390                 395                 400

Ser Arg His Arg Ser Ser Arg Asp Arg Gly Asp His Tyr Ser Ser His
                405                 410                 415

Ser Ser Arg Asp Lys Asp Arg His Arg Arg Gln
            420                 425
```

<210> 229
<211> 110
<212> PRT
<213> Oryza sativa

<400> 229

```
Met Thr Thr Lys Ile Arg Ile Val Ile Arg Ser Phe Asp His Pro Phe
1               5                   10                  15

Leu Glu Asn His Phe Gly Gly Leu Pro Pro Tyr Thr Trp Lys Ile Gly
            20                  25                  30

Leu Pro Glu Ser Arg Val Leu Tyr Thr Val Leu Arg Ser Pro His Ile
        35                  40                  45

Asp Lys Lys Ser Arg Glu Gln Phe Glu Met Glu Ile Lys Lys Lys Tyr
    50                  55                  60

Leu Val Ile Lys Thr Glu Lys His Glu Leu Arg Lys Lys Phe Phe Trp
65                  70                  75                  80

Leu Lys Arg Gln Arg Leu Phe Gly Ala Gln Tyr Glu Ile Leu Phe Phe
```

85 90 95

Cys Lys Thr Arg Ser Asp Lys Gly Lys Leu Gln Arg Leu Leu
100 105 110

<210> 230
<211> 128
<212> PRT
<213> Oryza sativa

<400> 230
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp
20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
50 55 60

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

Ser Leu Arg Gln Leu Ala Gln Lys Tyr Asn Cys Asp Lys Met Ile Cys
85 90 95

Arg Lys Cys Tyr Ala Arg Leu His Pro Arg Ala Val Asn Cys Arg Lys
100 105 110

Lys Lys Cys Gly His Thr Asn Asn Leu Arg Pro Lys Lys Lys Val Lys
115 120 125

<210> 231
<211> 360
<212> PRT
<213> Zea mays

<400> 231
Met Glu Lys Tyr Glu Ala Val Arg Asp Ile Gly Ser Gly Asn Phe Gly
1 5 10 15

Val Ala Arg Leu Met Arg Asn Arg Glu Thr Arg Glu Leu Val Ala Val
20 25 30

Lys Cys Ile Glu Arg Gly His Arg Ile Asp Glu Asn Val Tyr Arg Glu
35 40 45

```
Ile Ile Asn His Arg Ser Leu Arg His Pro Asn Ile Ile Arg Phe Lys
    50                  55                  60

Glu Val Ile Leu Thr Pro Thr His Leu Met Ile Val Met Glu Phe Ala
65                  70                  75                  80

Ala Gly Gly Glu Leu Phe Asp Arg Ile Cys Asp Arg Gly Arg Phe Ser
                85                  90                  95

Glu Asp Glu Ala Arg Tyr Phe Phe Gln Gln Leu Ile Cys Gly Val Ser
            100                 105                 110

Tyr Cys His His Met Gln Ile Cys His Arg Asp Leu Lys Leu Glu Asn
        115                 120                 125

Val Leu Leu Asp Gly Ser Pro Ala Pro Arg Leu Lys Ile Cys Asp Phe
    130                 135                 140

Gly Tyr Ser Lys Ser Ser Val Leu His Ser Arg Pro Lys Ser Ala Val
145                 150                 155                 160

Gly Thr Pro Ala Tyr Ile Ala Pro Glu Val Leu Ser Arg Arg Glu Tyr
                165                 170                 175

Asp Gly Lys Leu Ala Asp Val Trp Ser Cys Gly Val Thr Leu Tyr Val
            180                 185                 190

Met Leu Val Gly Ala Tyr Pro Phe Glu Asp Gln Asp Asp Pro Lys Asn
        195                 200                 205

Ile Arg Lys Thr Ile Gln Arg Ile Met Ser Val Gln Tyr Lys Ile Pro
    210                 215                 220

Asp Tyr Val His Ile Ser Ala Glu Cys Lys Gln Leu Ile Ala Arg Ile
225                 230                 235                 240

Phe Val Asn Asn Pro Leu Arg Arg Ile Thr Met Lys Glu Ile Lys Ser
                245                 250                 255

His Pro Trp Phe Leu Lys Asn Leu Pro Arg Glu Leu Thr Glu Thr Ala
            260                 265                 270

Gln Ala Met Tyr Tyr Arg Arg Asp Asn Ser Val Pro Ser Phe Ser Asp
        275                 280                 285

Gln Thr Ser Glu Glu Ile Met Lys Ile Val Gln Glu Ala Arg Thr Met
    290                 295                 300
```

Pro Lys Ser Ser Arg Thr Gly Tyr Trp Ser Asp Ala Gly Ser Asp Glu
305 310 315 320

Glu Glu Lys Glu Glu Glu Glu Arg Pro Glu Glu Asn Glu Glu Glu Glu
325 330 335

Glu Asp Glu Tyr Asp Lys Arg Val Lys Glu Val His Ala Ser Gly Glu
340 345 350

Leu Arg Met Ser Ser Leu Arg Ile
355 360

<210> 232
<211> 154
<212> PRT
<213> Oryza sativa

<400> 232
Ile Ser Gly Met Ser Gly Arg Lys Ala Ser Gly Ser Ser Pro Thr Ser
1 5 10 15

Pro Ile Asn Ala Asn Lys Val Glu Asn Glu Asp Ala Phe Leu Glu Glu
20 25 30

Val Ala Glu Glu Lys Pro His Val Lys Pro Tyr Phe Thr Lys Thr Ile
35 40 45

Leu Asp Met Asp Val Val Glu Gly Ser Ala Ala Arg Phe Asp Cys Lys
50 55 60

Val Glu Gly Tyr Pro Asp Pro Glu Val Met Trp Phe Lys Asp Asp Asn
65 70 75 80

Pro Val Lys Glu Ser Arg His Phe Gln Ile Asp Tyr Asp Glu Glu Gly
85 90 95

Asn Cys Ser Leu Thr Ile Ser Glu Val Cys Gly Asp Asp Asp Ala Lys
100 105 110

Tyr Thr Cys Lys Ala Val Asn Ser Leu Gly Glu Ala Thr Cys Thr Ala
115 120 125

Glu Leu Leu Val Glu Thr Met Gly Lys Glu Gly Glu Gly Glu Gly Glu
130 135 140

Gly Glu Glu Asp Glu Glu Glu Glu Glu Glu
145 150

<210> 233
<211> 139
<212> PRT
<213> Zea mays

<400> 233
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Val Glu
1 5 10 15

Glu Lys Ala Glu Lys Lys Pro Lys Ala Glu Lys Arg Val Pro Gly Ala
20 25 30

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

Val Glu Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His
50 55 60

Pro Asp Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe
65 70 75 80

Ile Asn Asp Ile Phe Glu Lys Leu Ala Gln Glu Ala Ala Arg Leu Ala
85 90 95

Arg Tyr Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser
100 105 110

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

Gly Thr Lys Ala Val Thr Lys Phe Thr Ser Ser
130 135

<210> 234
<211> 358
<212> PRT
<213> Triticum aestivum

<400> 234
Met Asp Pro Ala Ala Ala Gly Ile Val Lys Glu Glu Met Leu Glu Ser
1 5 10 15

Gln Gln Gln Gln Arg Gln Glu Asp Gly Gly Ala Ala Pro Arg Pro Met
20 25 30

Glu Gly Leu His Glu Val Gly Pro Pro Pro Phe Leu Thr Lys Thr Tyr
35 40 45

Asp Leu Val Glu Asp Pro Ala Thr Asp Gly Val Val Ser Trp Ser Arg
50 55 60

```
Ala Gly Asn Ser Phe Val Val Trp Asp Pro His Val Phe Ala Asp Leu
65                  70                  75                  80

Leu Leu Pro Arg Leu Phe Lys His Asn Asn Phe Ser Ser Phe Val Arg
                85                  90                  95

Gln Leu Asn Thr Tyr Gly Phe Arg Lys Val Asp Pro Asp Arg Trp Glu
            100                 105                 110

Phe Ala Asn Glu Gly Phe Leu Arg Gly Gln Arg His Leu Leu Lys Thr
        115                 120                 125

Ile Lys Arg Arg Lys Pro Pro Ser Asn Ala Pro Pro Ser Gln Gln Gln
    130                 135                 140

Ser Leu Thr Ser Cys Leu Glu Val Gly Glu Phe Gly Phe Glu Glu Glu
145                 150                 155                 160

Ile Asp Arg Leu Lys Arg Asp Lys Asn Ile Leu Ile Thr Glu Val Val
                165                 170                 175

Lys Leu Arg Gln Glu Gln Gln Ala Thr Lys Asp His Val Lys Ala Met
            180                 185                 190

Glu Asp Arg Leu Arg Ala Ala Glu Gln Lys Gln Val Gln Met Met Gly
        195                 200                 205

Phe Leu Ala Arg Ala Met Arg Asn Pro Glu Phe Phe Gln Gln Leu Ala
    210                 215                 220

Gln Gln Lys Glu Lys Arg Lys Glu Leu Glu Asp Ala Ile Ser Lys Lys
225                 230                 235                 240

Arg Arg Arg Pro Ile Asp Asn Val Pro Phe Tyr Asp Pro Gly Glu Thr
                245                 250                 255

Ser Gln Thr Glu Gln Leu Asp Ser Pro Tyr Leu Phe Asp Ser Gly Val
            260                 265                 270

Leu Asn Glu Leu Ser Glu Pro Gly Ile Pro Glu Leu Glu Asn Leu Ala
        275                 280                 285

Val Asn Ile Gln Asp Leu Gly Lys Gly Lys Val Asp Glu Glu Arg Gln
    290                 295                 300

Asn Gln Thr Asn Gly Gln Ala Glu Leu Gly Asp Asp Phe Trp Ala Glu
305                 310                 315                 320
```

```
Leu Leu Val Glu Asp Phe Thr Gly Lys Glu Glu Gln Ser Glu Leu Asp
                325                 330                 335

Gly Lys Ile Asp Gly Ile Asp Glu Leu Ala Gln Gln Leu Gly Tyr Leu
            340                 345                 350

Ser Ser Thr Ser Pro Lys
        355
```

<210> 235
<211> 260
<212> PRT
<213> Salmo salar

<400> 235

```
Met Ala Asp Ser Ser Arg Glu Glu Asn Val Tyr Leu Ala Lys Leu Ala
1               5                   10                  15

Glu Gln Ala Glu Arg Tyr Glu Glu Met Ile Glu Phe Met Glu Lys Val
            20                  25                  30

Ala Lys Thr Ala Asp Val Glu Glu Leu Thr Val Glu Glu Arg Asn Leu
        35                  40                  45

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

Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly Asn Glu
65                  70                  75                  80

Asp His Val Asn Thr Ile Lys Glu Tyr Arg Ser Lys Ile Glu Ala Asp
                85                  90                  95

Leu Ser Lys Ile Cys Asp Gly Ile Leu Ser Leu Leu Glu Ser Asn Leu
            100                 105                 110

Ile Pro Ser Ala Ser Thr Ala Glu Ser Lys Val Phe His Leu Lys Met
        115                 120                 125

Lys Gly Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Thr Glu
    130                 135                 140

Arg Lys Glu Ala Ala Glu Asn Thr Leu Leu Ala Tyr Lys Ser Ala Gln
145                 150                 155                 160

Asp Ile Ala Leu Ala Glu Leu Ala Pro Thr His Pro Ile Arg Leu Gly
                165                 170                 175
```

```
Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro
            180                 185                 190

Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ser
        195                 200                 205

Glu Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile
    210                 215                 220

Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Asn Ala
225                 230                 235                 240

Asp Asp Val Gly Asp Asp Ile Lys Glu Ala Ser Lys Pro Glu Ser Gly
                245                 250                 255

Glu Gly Gln Gln
            260
```

<210> 236
<211> 384
<212> PRT
<213> Oryza sativa

<400> 236

```
Met Gly Leu Leu Cys Ser Lys Ser Asn Arg Tyr Asn Asp Ala Lys Ala
1               5                   10                  15

Glu Glu Asn Ala Gln Thr Ala Glu Ile Glu Arg Arg Ile Glu Leu Glu
            20                  25                  30

Thr Lys Ala Glu Lys His Ile Arg Lys Leu Leu Leu Leu Gly Ala Gly
        35                  40                  45

Glu Ser Gly Lys Ser Thr Ile Phe Lys Gln Ile Lys Leu Leu Phe Gln
    50                  55                  60

Thr Gly Phe Asp Glu Ala Glu Leu Lys Ser Tyr Leu Pro Val Val His
65                  70                  75                  80

Ala Asn Val Tyr Gln Thr Ile Lys Leu Leu His Asp Gly Ser Lys Glu
                85                  90                  95

Phe Ala Gln Asn Asp Val Asp Phe Ser Lys Tyr Val Ile Ser Thr Glu
            100                 105                 110

Asn Lys Asp Ile Gly Glu Lys Leu Ser Glu Ile Gly Gly Arg Leu Asp
        115                 120                 125
```

```
Tyr Pro Arg Leu Thr Lys Glu Leu Ala Gln Glu Ile Glu Ser Ile Trp
    130                 135                 140

Lys Asp Ala Ala Ile Gln Glu Thr Tyr Ala Arg Gly Asn Glu Leu Gln
145                 150                 155                 160

Val Pro Asp Cys Thr His Tyr Phe Met Glu Asn Leu Gln Arg Leu Ser
                165                 170                 175

Asp Ala Asn Tyr Val Pro Thr Lys Glu Asp Val Leu Leu Ala Arg Val
            180                 185                 190

Arg Thr Thr Gly Val Val Glu Ile Gln Phe Ser Pro Val Gly Glu Asn
        195                 200                 205

Lys Lys Ser Gly Glu Val Tyr Arg Leu Phe Asp Val Gly Gly Gln Arg
    210                 215                 220

Asn Glu Arg Arg Lys Trp Ile His Leu Phe Glu Gly Val Ser Ala Val
225                 230                 235                 240

Ile Phe Cys Val Ala Ile Ser Glu Tyr Asp Gln Thr Leu Phe Glu Asp
                245                 250                 255

Glu Asn Lys Asn Arg Met Met Glu Thr Lys Glu Leu Phe Glu Trp Val
            260                 265                 270

Leu Lys Gln Gln Cys Phe Glu Lys Thr Ser Phe Met Leu Phe Leu Asn
        275                 280                 285

Lys Phe Asp Ile Phe Glu Lys Lys Ile Leu Asp Val Pro Leu Asn Val
    290                 295                 300

Cys Glu Trp Phe Lys Asp Tyr Gln Pro Val Ser Thr Gly Lys Gln Glu
305                 310                 315                 320

Ile Glu His Ala Tyr Glu Phe Val Lys Lys Lys Phe Glu Glu Ser Tyr
                325                 330                 335

Phe Gln Ser Thr Ala Pro Asp Ser Val Asp Arg Val Phe Lys Ile Tyr
            340                 345                 350

Arg Thr Thr Ala Leu Asp Gln Lys Val Val Lys Lys Thr Phe Lys Leu
        355                 360                 365

Val Asp Glu Thr Leu Arg Arg Arg Asn Leu Phe Glu Ala Gly Leu Leu
    370                 375                 380
```

<210> 237
<211> 179
<212> PRT
<213> Oryza sativa

<400> 237
Met Ala Arg Glu Gly Leu Gly Leu Glu Ile Thr Glu Leu Arg Leu Gly
1 5 10 15

Leu Ser Cys Gly Glu Pro Lys Lys Asn Glu Lys Lys Arg Met Phe Ser
20 25 30

Glu Ile Asp Gly Gly Val Glu Glu Asn Gly Gly Ser Gly Asp Arg Lys
35 40 45

Ser Val Asp Lys Lys Asn Gln Val Val Gly Trp Pro Pro Val Cys Ser
50 55 60

Tyr Arg Lys Lys Asn Met Asn Glu Gly Ser Lys Met Tyr Met Lys Val
65 70 75 80

Ser Met Asp Gly Ala Pro Tyr Leu Arg Lys Ile Asp Leu Cys Leu His
85 90 95

Lys Gly Tyr Leu Glu Leu Ala Leu Ala Leu Glu Lys Leu Phe Asp Cys
100 105 110

Cys Gly Ile Glu Glu Ala Leu Lys Asp Ala Glu Asn Cys Glu His Val
115 120 125

Pro Ile Tyr Glu Asp Lys Asp Gly Asp Trp Met Leu Val Gly Asp Val
130 135 140

Pro Trp Glu Met Phe Ile Glu Ser Cys Lys Arg Leu Arg Ile Met Lys
145 150 155 160

Arg Ser Asp Ala Lys Gly Phe Asp Leu Gln Pro Lys Gly Ser Leu Lys
165 170 175

Arg Phe Ile

<210> 238
<211> 101
<212> PRT
<213> Capsicum annuum

<400> 238
Met Asp Lys Ser Lys Arg Pro Phe Ile Lys Ser Lys Arg Ser Phe Arg
1 5 10 15

```
Arg Arg Leu Pro Pro Ile Gln Ser Gly Asp Arg Ile Asp Tyr Arg Asn
            20                  25                  30

Met Ser Leu Ile Ser Arg Phe Ile Ser Glu Gln Gly Lys Ile Leu Ser
        35                  40                  45

Arg Arg Val Asn Arg Leu Thr Leu Lys Gln Gln Arg Leu Ile Thr Ser
    50                  55                  60

Ala Ile Lys Gln Ala Arg Ile Leu Ser Leu Leu Pro Phe Leu Asn Asn
65                  70                  75                  80

Glu Lys Gln Phe Glu Arg Thr Glu Ser Thr Thr Arg Thr Ala Asn Phe
                85                  90                  95

Arg Thr Lys Asn Lys
            100
```

<210> 239
<211> 19
<212> PRT
<213> Zea mays

<400> 239

```
Ala Asp Asp Ser Asp Pro Val Gly Gly Glu Phe Leu Ala Glu Gly Gly
1               5                   10                  15

Gly Val Arg
```

<210> 240
<211> 304
<212> PRT
<213> Zea mays

<400> 240

```
Met Gly Gly Phe Val Lys Thr Gln Lys Thr Asn Ala Tyr His Lys Arg
1               5                   10                  15

Phe Gln Val Lys Phe Lys Arg Arg Arg Gln Gly Lys Thr Asp Tyr Arg
            20                  25                  30

Ala Arg Ile Arg Leu Thr Asn Gln Asp Lys Asn Lys Tyr Asn Thr Pro
        35                  40                  45

Lys Tyr Arg Phe Val Val Arg Phe Thr Asn Lys Asp Ile Thr Ala Gln
    50                  55                  60

Ile Val Tyr Ala Thr Ile Ala Gly Asp Ile Val Met Ala Ala Ala Tyr
```

65 70 75 80

Ser His Glu Leu Pro Arg Tyr Gly Leu Glu Val Gly Leu Thr Asn Tyr
85 90 95

Ala Ala Ala Tyr Cys Thr Gly Leu Leu Leu Ala Arg Arg Val Leu Lys
100 105 110

Leu Arg Gly Leu Asp Gln Glu Tyr Glu Gly Asn Ile Glu Ala Thr Gly
115 120 125

Glu Asp Tyr Tyr Val Glu Pro Ala Asp Glu Arg Arg Pro Phe Arg Ala
130 135 140

Leu Leu Asp Val Gly Leu Ile Arg Thr Thr Thr Gly Asn Arg Val Phe
145 150 155 160

Gly Ala Leu Lys Gly Ala Leu Asp Gly Gly Leu Asp Ile Pro His Ser
165 170 175

Asp Lys Arg Phe Ala Gly Phe Lys Lys Asp Glu Lys Gln Leu Asp Ser
180 185 190

Asp Ile His Arg Lys Tyr Ile Tyr Gly Gly His Val Ala Asp Tyr Met
195 200 205

Arg Ser Met Ala Glu Glu Glu Pro Glu Lys Phe Gln Ala His Phe Ser
210 215 220

Glu Tyr Leu Lys Lys Gly Ile Asp Ala Asp Gly Met Glu Ala Leu Tyr
225 230 235 240

Lys Lys Val His Ala Ala Ile Arg Ala Asp Pro Thr Met Ala Lys Ser
245 250 255

Thr Lys Lys Glu Pro Ala Thr His Lys Arg Tyr Asn Leu Lys Lys Leu
260 265 270

Thr Tyr Glu Gln Arg Lys Ala Ser Leu Val Glu Arg Leu Asn Ala Leu
275 280 285

Asn Ser Ser Ala Gly Ala Asp Asp Asp Asp Glu Glu Glu Asp Asp Glu
290 295 300

<210> 241
<211> 384
<212> PRT
<213> Oryza sativa

<400> 241
Met Gly Leu Val Cys Ser Arg Asn Arg Arg Tyr Arg Asp Ser Asp Pro
1 5 10 15

Glu Glu Asn Ala Gln Ala Ala Glu Ile Glu Arg Arg Ile Glu Ser Glu
20 25 30

Thr Lys Ala Glu Lys His Ile Gln Lys Leu Leu Leu Leu Gly Ala Gly
35 40 45

Glu Ser Gly Lys Ser Thr Ile Phe Lys Gln Ile Lys Leu Leu Phe Gln
50 55 60

Thr Gly Phe Asp Glu Ala Glu Leu Arg Ser Tyr Thr Pro Val Ile Phe
65 70 75 80

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

Leu Ala Gln Asn Asp Leu Asn Ser Ala Lys Tyr Val Ile Ser Asp Glu
100 105 110

Ser Lys Asp Ile Gly Glu Lys Leu Ser Glu Ile Gly Ser Arg Leu Asp
115 120 125

Tyr Pro His Leu Thr Lys Asp Leu Ala Lys Glu Ile Glu Thr Leu Trp
130 135 140

Glu Asp Ala Ala Ile Gln Glu Thr Tyr Ala Arg Gly Asn Glu Leu Gln
145 150 155 160

Val Pro Asp Cys Thr Lys Tyr Phe Met Glu Asn Leu Gln Arg Leu Ser
165 170 175

Asp Ala Asn Tyr Val Pro Thr Lys Gly Asp Val Leu Tyr Ala Arg Val
180 185 190

Arg Thr Thr Gly Val Val Glu Ile Gln Phe Ser Pro Val Gly Glu Asn
195 200 205

Lys Arg Ser Gly Glu Val Tyr Arg Leu Phe Asp Val Gly Gly Gln Arg
210 215 220

Asn Glu Arg Arg Lys Trp Ile His Leu Phe Glu Gly Val Thr Ala Val
225 230 235 240

Ile Phe Cys Ala Ala Ile Ser Glu Tyr Asp Gln Thr Leu Phe Glu Asp

245 250 255

Glu Ser Lys Asn Arg Leu Met Glu Thr Lys Glu Leu Phe Glu Trp Ile
260 265 270

Leu Lys Gln Pro Cys Phe Glu Lys Thr Ser Phe Met Leu Phe Leu Asn
275 280 285

Lys Phe Asp Ile Phe Glu Lys Lys Ile Leu Asn Val Pro Leu Asn Val
290 295 300

Cys Glu Trp Phe Lys Asp Tyr Gln Pro Val Ser Ser Gly Lys Gln Glu
305 310 315 320

Ile Glu His Ala Tyr Glu Phe Val Lys Lys Lys Phe Glu Glu Leu Tyr
325 330 335

Phe Gln Ser Ser Ala Pro Asp Arg Val Asp Arg Val Phe Lys Ile Tyr
340 345 350

Arg Thr Thr Ala Leu Asp Gln Lys Val Val Lys Lys Thr Phe Lys Leu
355 360 365

Val Asp Glu Thr Leu Arg Arg Arg Asn Leu Phe Glu Ala Gly Leu Leu
370 375 380

<210> 242
<211> 85
<212> PRT
<213> Oryza sativa

<400> 242
Met Val Lys Leu Arg Leu Lys Arg Cys Gly Arg Lys Gln Gln Ala Ile
1 5 10 15

Tyr Arg Ile Val Ala Ile Asp Val Arg Ser Arg Arg Glu Gly Arg Asp
20 25 30

Leu Arg Lys Val Gly Phe Tyr Asp Pro Ile Lys Asn Gln Thr Cys Leu
35 40 45

Asn Val Pro Ala Ile Leu Tyr Phe Leu Glu Lys Gly Ala Gln Pro Thr
50 55 60

Arg Thr Val Tyr Asp Ile Leu Arg Lys Ala Glu Phe Phe Lys Asp Lys
65 70 75 80

Glu Arg Thr Leu Ser
85

<210> 243
<211> 231
<212> PRT
<213> Sus scrofa

<400> 243
Met Gly Ser Arg Leu Thr Gln Asp Glu Phe His Pro Phe Ile Glu Ala
1 5 10 15

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

Ala Arg Lys Arg Lys Tyr Phe Lys Lys His Glu Lys Arg Met Ser Lys
35 40 45

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

Val Lys Gln Lys Trp Ala Ser Arg Leu Leu Ala Lys Leu Arg Lys Asp
65 70 75 80

Ile Arg Pro Glu Cys Arg Glu Asp Phe Val Leu Ala Ile Thr Gly Lys
85 90 95

Lys Ala Pro Gly Cys Val Leu Ser Asn Pro Asp Gln Lys Gly Lys Met
100 105 110

Arg Arg Ile Asp Cys Leu Arg Gln Ala Asp Lys Val Trp Arg Leu Asp
115 120 125

Leu Val Met Val Ile Leu Phe Lys Gly Ile Pro Leu Glu Ser Thr Asp
130 135 140

Gly Glu Arg Leu Val Lys Ala Ala Gln Cys Gly His Pro Val Leu Cys
145 150 155 160

Val Gln Pro His His Ile Gly Val Ala Val Lys Glu Leu Asp Leu Tyr
165 170 175

Leu Ala Tyr Phe Val Arg Glu Arg Gly Glu Ala Gly Arg Ala Arg Gly
180 185 190

Arg Gly Ser Asp Gly Arg Glu Gly Met Arg Arg Ala Ser Gln Ser Gly
195 200 205

Arg Pro Gly Glu Ser Gly Pro Ala Gly Leu Arg Asp Gln Ala Gly Thr
210 215 220

Arg Ser Leu Gly Trp Ala Gly
225 230

<210> 244
<211> 276
<212> PRT
<213> Capra hircus

<400> 244
Met Asp Ser Ala Cys Lys Pro Thr Gln Arg Arg Leu Asp Ala Ala Gly
1 5 10 15

Phe Trp Gln Ile Trp Gln Arg Phe Asp Ala Asp Glu Lys Gly Tyr Ile
20 25 30

Glu Glu Lys Glu Leu Asp Ala Phe Phe His His Val Leu Thr Lys Leu
35 40 45

Gly Thr Asp Asp Ala Val Met Glu Glu Asn Val Trp Lys Met Lys Gln
50 55 60

Gln Phe Met Ala Ala His Asp Val Ser Lys Asp Gly His Ile Gln Met
65 70 75 80

Lys Glu Leu Ala Cys Leu Phe Leu Ser Glu Asp Glu Asn Phe Leu Leu
85 90 95

Leu Phe Arg Gln Glu Thr Pro Leu Asp Ser Ser Val Glu Phe Met Gln
100 105 110

Ile Trp Arg Lys Tyr Asp Ala Asp Ser Ser Gly Phe Ile Ser Ala Ala
115 120 125

Glu Leu Cys Asn Phe Leu Arg Asp Leu Phe Leu His His Lys Lys Ala
130 135 140

Ile Ser Glu Ala Lys Leu Glu Glu Tyr Thr Gly Thr Met Met Lys Ile
145 150 155 160

Phe Asp Lys Asn Lys Asp Gly Arg Leu Asp Leu Asn Asp Leu Ala Arg
165 170 175

Ile Leu Ala Leu Gln Glu Asn Phe Leu Leu Gln Phe Lys Met Asp Ala
180 185 190

Cys Ser Thr Glu Glu Arg Lys Arg Asp Phe Glu Lys Ile Phe Ala His
195 200 205

```
Tyr Asp Val Ser Lys Thr Gly Ala Leu Glu Gly Pro Glu Val Asp Gly
    210                 215                 220

Phe Val Lys Asp Met Met Glu Leu Val Gln Pro Ser Ile Ser Gly Val
225                 230                 235                 240

Asp Leu Asp Lys Phe Arg Glu Ile Leu Leu Arg His Cys Asp Val Asn
                245                 250                 255

Lys Asp Gly Lys Ile Gln Lys Ser Glu Leu Ala Leu Cys Leu Gly Leu
            260                 265                 270

Lys Ile Asn Pro
        275
```

<210> 245
<211> 451
<212> PRT
<213> Spinacia oleracea

<400> 245

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

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

Gly Ile Lys Thr Asn Val Val Asn Met Val Asp Ile Ala Lys Ala Leu
        35                  40                  45

Ala Arg Pro Ala Ser Tyr Thr Thr Lys Tyr Phe Gly Cys Glu Leu Gly
    50                  55                  60

Ala Gln Ser Lys Phe Asp Glu Lys Thr Gly Ile Ser Leu Val Asn Gly
65                  70                  75                  80

Ala His Asp Thr Ala Lys Leu Ala Gly Leu Leu Glu Val Phe Ile Lys
                85                  90                  95

Lys Tyr Val Gln Cys Tyr Gly Cys Gly Asn Pro Glu Thr Glu Ile Leu
            100                 105                 110

Ile Ser Lys Thr Gln Met Ile Ser Leu Lys Cys Ala Ala Cys Gly Phe
        115                 120                 125

Val Ser Asp Val Asp Met Arg Asp Lys Leu Thr Thr Phe Ile Leu Lys
    130                 135                 140

Asn Pro Pro Glu Gln Lys Lys Gly Gly Lys Asp Lys Lys Ala Met Arg
```

```
145                 150                 155                 160

Arg Ala Glu Lys Glu Arg Leu Lys Glu Gly Glu Ala Ala Asp Glu Glu
                165                 170                 175

Gln Lys Lys Leu Lys Lys Asp Ala Lys Lys Lys Gly Ser Lys Asp Ser
            180                 185                 190

Thr Ala Lys Gly Leu Lys Lys Lys Ala Thr Thr Ala Thr Gly Ser Asp
        195                 200                 205

Glu Asp His Ser Ser Ser Pro Thr Arg Ser His Asp Gly Asp Lys Ala
    210                 215                 220

Ala Ala Asp Asp Asp Asp Asp Asp Val Gln Trp Gln Thr Asp Thr Ser
225                 230                 235                 240

Ile Glu Ala Ala Lys Gln Arg Met Gln Glu Gln Leu Ser Ala Ala Thr
                245                 250                 255

Ala Glu Met Val Met Leu Ser Thr Glu Glu Thr Glu Lys Lys Met Lys
            260                 265                 270

Gln Pro Thr His Lys Asp Gly Ser Thr Asn Gly Ser Ala Lys Glu Ile
        275                 280                 285

Pro Asn Asp Lys Pro Ala Val Thr Lys Pro Ser Pro Tyr Glu Glu Leu
    290                 295                 300

Ile Gly Asp Ile Lys Ala Ser Leu Gly Ser Ala Pro Thr Pro Ser Gln
305                 310                 315                 320

Leu Lys Ala Val Leu Ala Ser Ser Thr Leu Pro Pro Gln Asp Val Met
                325                 330                 335

Asn Ala Pro Leu Glu Ala Leu Phe Gly Gly Val Gly Lys Gly Phe Thr
            340                 345                 350

Lys Glu Val Val Lys Asn Lys Lys Tyr Leu Ala Val Ala Val Pro Asp
        355                 360                 365

Glu Gly Ala Gln Thr Leu Leu Val Gln Ala Ile Glu Ala Phe Gly Gly
    370                 375                 380

Lys Cys Asn Pro Glu Ala Leu Lys Glu Val Pro Val Val Leu Lys Ala
385                 390                 395                 400
```

Leu Tyr Asp Gly Asp Ile Leu Asp Glu Glu Thr Ile Val Asp Trp Tyr
405 410 415

Asn Asp Ala Val Ala Ala Gly Lys Asp Ser Gln Val Val Lys Asn Ala
420 425 430

Lys Pro Phe Val Glu Trp Leu Gln Ser Ala Glu Ser Asp Glu Glu Gly
435 440 445

Asp Asp Glu
450

<210> 246
<211> 107
<212> PRT
<213> Sus scrofa

<400> 246
Met Thr Glu Lys Lys Asn Arg Arg Glu Lys Lys Asn Pro Arg Glu Ala
1 5 10 15

Lys Ile Thr Phe Glu Gly Leu Val Met Glu Ala Leu Pro Asn Gly Met
20 25 30

Phe Arg Val Arg Leu Glu Asn Asp Thr Ile Ile Leu Gly Tyr Ile Ser
35 40 45

Gly Lys Ile Arg Ser Ser Ser Ile Arg Ile Leu Met Gly Asp Arg Val
50 55 60

Lys Ile Glu Val Ser Arg Tyr Asp Ser Ser Lys Gly Arg Ile Ile Tyr
65 70 75 80

Arg Leu Pro His Lys Asp Ser Lys Arg Thr Glu Asp Ser Lys Asp Thr
85 90 95

Glu Asp Leu Lys Asp Thr Lys Asp Ser Lys Gly
100 105

<210> 247
<211> 265
<212> PRT
<213> Sus scrofa

<400> 247
Met Ala Arg Glu Lys Ile Gln Ile Lys Lys Ile Asp Asn Ser Thr Ala
1 5 10 15

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

```
Glu Glu Leu Ser Val Leu Cys Asp Ala Asp Val Ala Leu Ile Ile Phe
        35                  40                  45

Ser Ser Thr Gly Lys Leu Phe Asp Tyr Ser Ser Ser Ser Met Lys Gln
    50                  55                  60

Ile Leu Glu Arg Arg Asp Leu His Ser Lys Asn Leu Glu Lys Leu Asp
65                  70                  75                  80

Gln Pro Ser Leu Glu Leu Gln Leu Val Glu Asn Ser Asn Tyr Ser Arg
                85                  90                  95

Leu Ser Lys Glu Ile Ser Glu Lys Ser His Arg Leu Arg Gln Met Arg
            100                 105                 110

Gly Glu Glu Leu Gln Gly Leu Asn Ile Glu Glu Leu Gln Gln Leu Glu
        115                 120                 125

Arg Ser Leu Glu Thr Gly Leu Ser Arg Val Ile Glu Arg Lys Gly Asp
    130                 135                 140

Lys Ile Met Arg Glu Ile Asn Gln Leu Gln Gln Lys Gly Met His Leu
145                 150                 155                 160

Met Glu Glu Asn Glu Lys Leu Arg Gln Gln Val Met Glu Ile Ser Asn
                165                 170                 175

Asn Asn Asn Asn Asn Asn Asn Gly Tyr Arg Glu Ala Gly Val Val Ile
            180                 185                 190

Phe Glu Pro Glu Asn Gly Phe Asn Asn Asn Asn Asn Glu Asp Gly Gln
        195                 200                 205

Ser Ser Glu Ser Val Thr Asn Pro Cys Asn Ser Ile Asp Pro Pro Pro
    210                 215                 220

Gln Asp Asp Asp Ser Ser Asp Thr Ser Leu Lys Leu Gly Leu Ala Thr
225                 230                 235                 240

Leu Leu Arg Leu Lys Arg Ser Lys Ala Arg Cys Gly Tyr Phe Cys Met
                245                 250                 255

Leu Leu Glu Glu Gly Glu Lys Lys Lys
            260                 265
```

<210> 248
<211> 145

<212> PRT
<213> Salmo salar

<400> 248
Met Pro Lys Ile Lys Thr Ser Arg Val Lys Tyr Pro Glu Gly Trp Glu
1 5 10 15

Leu Ile Glu Pro Thr Leu Arg Asp Leu Glu Ala Lys Met Arg Glu Ala
20 25 30

Glu Asn Asp Pro His Asp Gly Lys Arg Lys Cys Glu Ala Leu Trp Pro
35 40 45

Ile Phe Arg Ile Ser His Gln Lys Ser Arg Tyr Ile Tyr Asp Leu Tyr
50 55 60

Tyr Arg Arg Lys Glu Ile Ser Lys Glu Leu Tyr Glu Phe Cys Leu Asp
65 70 75 80

Gln Gly His Ala Asp Lys Asn Leu Ile Ala Lys Trp Lys Lys Pro Gly
85 90 95

Tyr Glu Arg Leu Cys Cys Leu Arg Cys Ile Gln Thr Arg Asp His Asn
100 105 110

Phe Ala Thr Thr Cys Val Cys Arg Val Pro Lys His Leu Arg Glu Glu
115 120 125

Lys Val Ile Glu Cys Val His Cys Gly Cys Arg Gly Cys Ala Ser Gly
130 135 140

Asp
145

<210> 249
<211> 132
<212> PRT
<213> Zea mays

<400> 249
Met Val Val Leu Gln Pro Asp Pro Phe Leu Ser Glu Leu Thr Ser Met
1 5 10 15

Tyr Glu Arg Ser Thr Glu Lys Gly Ser Val Trp Val Thr Met Lys Arg
20 25 30

Ser Ser Met Lys Cys Gln Ala Arg Leu Lys Lys Met Ala Ala Lys Gly
35 40 45

Glu Ala Val Glu Tyr Arg Cys Leu Val Arg Ala Thr Asp Gly Lys Lys

50 55 60

Asn Ile Cys Thr Ala Leu Ser Ala Lys Glu Tyr Leu Lys Phe Gln Ala
65 70 75 80

Ser Tyr Ala Thr Val Leu Lys Ala His Met His Ala Leu Lys Lys Arg
85 90 95

Glu Arg Lys Asp Lys Lys Lys Ala Ala Glu Val Glu Lys Ile Pro Glu
100 105 110

Lys Ala Pro Lys Lys Gln Lys Lys Ala Pro Ser Ser Lys Lys Ser Ala
115 120 125

Gly Ser Lys Ser
130

<210> 250
<211> 128
<212> PRT
<213> Oryza sativa

<400> 250
Met Thr Arg Val Lys Arg Gly Tyr Ile Ala Arg Arg Arg Arg Lys Lys
1 5 10 15

Ile Arg Phe Phe Ala Ser Ser Phe Arg Gly Ala His Ser Arg Leu Thr
20 25 30

Arg Thr Ile Ala Gln Gln Lys Ile Arg Ala Leu Val Ser Ala His Arg
35 40 45

Asp Arg Asp Arg Gln Lys Arg Asp Phe Arg Arg Leu Trp Ile Thr Arg
50 55 60

Ile Asn Ala Ala Ile Arg Glu Arg Gly Val Tyr Tyr Asn Tyr Ser Lys
65 70 75 80

Phe Ile His Asp Leu Tyr Lys Arg Gln Leu Leu Leu Asn Arg Lys Ile
85 90 95

Leu Ala Gln Ile Ala Ile Leu Asn Pro Asn Cys Ile Tyr Met Ile Tyr
100 105 110

Asn Glu Ile Ile Lys Lys Glu Asp Cys Lys Lys Tyr Leu Glu Ile Ile
115 120 125

<210> 251
<211> 150

<212> PRT
<213> Zea mays

<400> 251
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Ala Glu
1 5 10 15

Glu Lys Ala Gly Glu Lys Ala Pro Ala Ala Gly Lys Lys Pro Lys Ala
20 25 30

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

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

Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly Ile
65 70 75 80

Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp Ile Phe
85 90 95

Glu Lys Leu Ala Gly Glu Ala Ala Lys Leu Ala Arg Tyr Asn Lys Lys
100 105 110

Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu Val Leu
115 120 125

Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala Val
130 135 140

Thr Lys Phe Thr Ser Ser
145 150

<210> 252
<211> 139
<212> PRT
<213> Oryza sativa

<400> 252
Met Ala Asn Ser Ser Ser Gly Leu Ala Val Ser Asp Glu Cys Lys Val
1 5 10 15

Lys Phe Arg Asp Leu Lys Ala Arg Arg Ser Phe Arg Phe Ile Val Phe
20 25 30

Arg Ile Asp Asp Lys Asp Met Glu Ile Lys Val Asp Arg Leu Gly Glu
35 40 45

Pro Asn Gln Gly Tyr Gly Asp Phe Thr Asp Ser Leu Pro Ala Asp Glu

50 55 60

Cys Arg Tyr Ala Ile Tyr Asp Leu Asp Phe Thr Thr Val Glu Asn Cys
65 70 75 80

Gln Lys Ser Lys Ile Phe Phe Phe Ser Trp Ser Pro Asp Thr Ala Arg
85 90 95

Thr Arg Ser Lys Met Leu Tyr Ala Ser Ser Lys Asp Arg Phe Arg Arg
100 105 110

Glu Leu Asp Gly Ile Gln Cys Glu Ile Gln Ala Thr Asp Pro Ser Glu
115 120 125

Met Ser Leu Asp Ile Val Lys Ser Arg Thr Asn
130 135

<210> 253
<211> 100
<212> PRT
<213> Triticum aestivum

<400> 253
Met Ser Ala Ala Gly Glu Glu Asp Lys Lys Pro Ala Gly Gly Glu Gly
1 5 10 15

Gly Gly Ala His Ile Asn Leu Lys Val Lys Gly Gln Asp Gly Asn Glu
20 25 30

Val Phe Phe Arg Ile Lys Arg Ser Thr Gln Leu Lys Lys Leu Met Asn
35 40 45

Ala Tyr Cys Asp Arg Gln Ser Val Asp Met Asn Ala Ile Ala Phe Leu
50 55 60

Phe Asp Gly Arg Arg Leu Arg Gly Glu Gln Thr Pro Asp Glu Leu Glu
65 70 75 80

Met Glu Asp Gly Asp Glu Ile Asp Ala Met Leu His Gln Thr Gly Gly
85 90 95

Cys Leu Pro Ala
100

<210> 254
<211> 339
<212> PRT
<213> Sus scrofa

<400> 254

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

His Ser Thr Pro Pro Ser Ala Tyr Gly Ser Val Lys Ala Tyr Thr Asn
            20                  25                  30

Phe Asp Ala Glu Arg Asp Ala Leu Asn Ile Glu Thr Ala Ile Lys Thr
        35                  40                  45

Lys Gly Val Asp Glu Val Thr Ile Val Asn Ile Leu Thr Asn Arg Ser
    50                  55                  60

Asn Glu Gln Arg Gln Asp Ile Ala Phe Ala Tyr Gln Arg Arg Thr Lys
65                  70                  75                  80

Lys Glu Leu Ala Ser Ala Leu Lys Ser Ala Leu Ser Gly His Leu Glu
                85                  90                  95

Thr Val Ile Leu Gly Leu Leu Lys Thr Pro Ala Gln Tyr Asp Ala Ser
            100                 105                 110

Glu Leu Lys Ala Ser Met Lys Gly Leu Gly Thr Asp Glu Asp Ser Leu
        115                 120                 125

Ile Glu Ile Ile Cys Ser Arg Thr Asn Gln Glu Leu Gln Glu Ile Asn
    130                 135                 140

Arg Val Tyr Lys Glu Met Tyr Lys Thr Asp Leu Glu Lys Asp Ile Val
145                 150                 155                 160

Ser Asp Thr Ser Gly Asp Phe Arg Lys Leu Met Val Ala Leu Ala Lys
                165                 170                 175

Gly Arg Arg Ala Glu Asp Gly Ser Val Ile Asp Tyr Glu Leu Ile Asp
            180                 185                 190

Gln Asp Ala Arg Asp Leu Tyr Asp Ala Gly Val Lys Arg Lys Gly Thr
        195                 200                 205

Asp Val Pro Lys Trp Ile Ser Ile Met Thr Glu Arg Ser Val Cys His
    210                 215                 220

Leu Gln Lys Val Phe Glu Arg Tyr Lys Ser Tyr Ser Pro Tyr Asp Met
225                 230                 235                 240

Leu Glu Ser Ile Lys Lys Glu Val Lys Gly Asp Leu Glu Asn Ala Phe
                245                 250                 255
```

```
Leu Asn Leu Val Gln Cys Ile Gln Asn Lys Pro Leu Tyr Phe Ala Asp
            260                 265                 270

Arg Leu Tyr Asp Ser Met Lys Gly Lys Gly Thr Arg Asp Lys Val Leu
        275                 280                 285

Ile Arg Ile Met Val Ser Arg Ser Glu Val Asp Met Leu Lys Ile Arg
    290                 295                 300

Ser Glu Phe Lys Lys Lys Tyr Gly Lys Ser Leu Tyr Tyr Tyr Ile Gln
305                 310                 315                 320

Gln Asp Thr Lys Gly Asp Tyr Gln Lys Ala Leu Leu Tyr Leu Cys Gly
                325                 330                 335

Gly Asp Asp
```

<210> 255
<211> 153
<212> PRT
<213> Pisum sativum

<400> 255

```
Met Ala Pro Lys Ala Asp Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1               5                   10                  15

Glu Glu Pro Ala Thr Glu Lys Ala Glu Lys Ala Pro Ala Gly Lys Lys
            20                  25                  30

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

Gly Gly Glu Gly Lys Lys Gly Lys Lys Lys Ala Lys Lys Ser Val Glu
    50                  55                  60

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
65                  70                  75                  80

Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn
                85                  90                  95

Asp Ile Phe Glu Lys Leu Ala Ala Glu Ser Ala Lys Leu Ala Arg Tyr
            100                 105                 110

Asn Lys Lys Pro Thr Val Thr Ser Arg Glu Ile Gln Thr Ser Val Arg
        115                 120                 125
```

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
130 135 140

Lys Ala Val Thr Lys Phe Thr Ser Ser
145 150

<210> 256
<211> 100
<212> PRT
<213> Salmo salar

<400> 256
Met Glu Leu Leu Gly Glu Tyr Val Gly Gln Asp Gly Gln Arg Gln Arg
1 5 10 15

Leu Arg Val Pro Cys Glu Ala Pro Gly Asn Ala Asp His Phe Gln Gly
20 25 30

Leu Leu Ser Gly Val Ala Arg Met Lys Glu Leu Val Ala Glu Leu Phe
35 40 45

Gly Ser Pro Val Gln Gly Glu Ala Gln Asp Arg Val Ala Ala Ala Pro
50 55 60

Glu Glu Ala Leu Asp Gly Asp Asp Glu Asp Asp Ala Glu Asp Glu Asn
65 70 75 80

Asn Ile Asp Asn Arg Thr Asn Ser Asp Gly Pro Thr Ala Lys Arg Pro
85 90 95

Lys Pro Pro Ser
100

<210> 257
<211> 306
<212> PRT
<213> Triticum aestivum

<400> 257
Met Gly Cys Asp Gly Gly Thr Ile Pro Lys Arg His Glu Leu Val Lys
1 5 10 15

Gly Pro Lys Lys Val Glu Lys Val Asp Lys Asp Ala Glu Leu Val Ala
20 25 30

Gln Trp Asn Tyr Cys Thr Leu Ser Gln Glu Ile Leu Arg Arg Pro Ile
35 40 45

Val Ala Cys Glu Leu Gly Arg Leu Tyr Asn Lys Asp Ala Val Ile Glu
50 55 60

```
Phe Leu Leu Asp Lys Ser Ser Glu Lys Ala Leu Gly Lys Ala Ala Ser
65                  70                  75                  80

His Ile Lys Ser Ile Lys Asn Val Thr Glu Leu Arg Leu Ser Asp Asn
                85                  90                  95

Pro Ala Trp Glu Gly Asp Lys Gly Ser Thr Lys Gly Asp Lys His Asp
            100                 105                 110

Asp Leu Gln Arg Ala Arg Phe Ile Cys Pro Val Val Gly Leu Glu Met
        115                 120                 125

Asn Gly Arg His Arg Phe Cys Tyr Leu Arg Cys Cys Gly Cys Val Phe
    130                 135                 140

Ser Glu Arg Ala Leu Lys Glu Ile Lys Ala Glu Val Cys His Thr Cys
145                 150                 155                 160

Gly Ala Ala Phe Gln Glu Asp Asp Val Ile Val Leu Asn Gly Thr Lys
                165                 170                 175

Glu Asp Val Ala Met Leu Gln Thr Arg Met Glu Glu Arg Arg Leu Arg
            180                 185                 190

Ala Lys Leu Gly Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
        195                 200                 205

Ser Lys Ser Asp Ile Ser Glu Glu Ala Pro Gly Pro Ser Lys Met Lys
    210                 215                 220

Ala Gly Lys Pro Glu Glu Thr Ser Leu Asp Ser Arg Glu Lys Lys Thr
225                 230                 235                 240

Ser Ser Ala Pro Arg Ser Ala Ala Ala His Gly Ser Ser Ser Gly Lys
                245                 250                 255

Ala Gly Lys Pro Val Cys Gly Ala Pro Lys Arg Ser Ile Ala Asp Ser
            260                 265                 270

Gly Glu Ser Glu Ala Tyr Lys Ser Leu Phe Thr Thr His Ser Ser Ala
        275                 280                 285

Lys Arg Ser Lys Glu Glu Ser Ala His Trp Val Thr His Thr Ser Tyr
    290                 295                 300

Cys Phe
305
```

<210> 258
<211> 153
<212> PRT
<213> Solanum lycopersicum

<400> 258
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Ala Pro Ala Gly Lys Lys
            20 25 30

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

Gly Glu Gly Lys Lys Ala Gly Arg Lys Lys Ala Lys Lys Ser Val Glu
    50 55 60

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
65 70 75 80

Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn
                85 90 95

Asp Ile Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg Tyr
            100 105 110

Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg
        115 120 125

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
    130 135 140

Lys Ala Val Thr Lys Phe Thr Ser Ala
145 150

<210> 259
<211> 108
<212> PRT
<213> Sus scrofa

<400> 259
Met Ala Ala Thr Ala Leu Ala Val Arg Ser Arg Ile Gly Ala Trp Ser
1 5 10 15

Val Trp Ala Met Gln Ser Arg Gly Phe Ser Ser Asp Thr Pro Glu Gly
            20 25 30

Val Arg Ser Gly Ala Gly Ala Val Arg Asp Ala Gly Gly Ala Phe Gly

35 40 45

Lys Lys Glu Gln Ala Asp Glu Glu Arg Tyr Phe Arg Ala Arg Ala Arg
50 55 60

Glu Gln Leu Ala Ala Leu Lys Lys His His Glu Asn Glu Ile Ser His
65 70 75 80

His Val Lys Glu Ile Glu Arg Leu Gln Lys Glu Ile Glu Arg His Lys
85 90 95

Gln Ser Ile Lys Lys Leu Lys Asn Asp Asp Asp Asp
100 105

<210> 260
<211> 166
<212> PRT
<213> Ovis aries

<400> 260
Met Ala Ser Gly Val Thr Val Asn Asp Glu Val Ile Lys Val Phe Asn
1 5 10 15

Asp Met Lys Val Arg Lys Ser Ser Thr Gln Glu Glu Ile Lys Lys Arg
20 25 30

Lys Lys Ala Val Leu Phe Cys Leu Ser Asp Asp Lys Arg Gln Ile Ile
35 40 45

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

Glu Asp Pro Tyr Thr Ser Phe Val Lys Leu Leu Pro Leu Asn Asp Cys
65 70 75 80

Arg Tyr Ala Leu Tyr Asp Ala Thr Tyr Glu Thr Lys Glu Ser Lys Lys
85 90 95

Glu Asp Leu Val Phe Ile Phe Trp Ala Pro Glu Ser Ala Pro Leu Lys
100 105 110

Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Ala Ile Lys Lys Lys Phe
115 120 125

Thr Gly Ile Lys His Glu Trp Gln Val Asn Gly Leu Asp Asp Ile Lys
130 135 140

Asp Arg Ser Thr Leu Gly Glu Lys Leu Gly Gly Asn Val Val Val Ser
145 150 155 160

Leu Glu Gly Lys Pro Leu
165

<210> 261
<211> 103
<212> PRT
<213> Oryza sativa

<400> 261
Met Ala Lys Lys Ser Leu Ile Gln Arg Glu Lys Lys Arg Gln Lys Leu
1 5 10 15

Glu Gln Lys Tyr His Leu Ile Arg Arg Ser Ser Lys Lys Lys Ile Arg
20 25 30

Ser Lys Val Ser Pro Leu Ser Leu Ser Glu Lys Thr Lys Met Gln Glu
35 40 45

Lys Leu Gln Ser Leu Pro Arg Asn Ser Ala Pro Thr Arg Leu His Arg
50 55 60

Arg Cys Phe Leu Thr Gly Arg Pro Arg Ala Asn Tyr Arg Asp Phe Gly
65 70 75 80

Leu Ser Gly His Ile Leu Arg Glu Met Val Tyr Ala Cys Leu Leu Pro
85 90 95

Gly Ala Thr Arg Ser Ser Trp
100

<210> 262
<211> 152
<212> PRT
<213> Sus scrofa

<400> 262
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Ala Glu Lys Ala Pro Ala Ala Gly Lys Lys Pro Lys
20 25 30

Ala Glu Lys Arg Leu Pro Ala Gly Lys Gly Glu Lys Gly Gly Ala Gly
35 40 45

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

Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile

65 70 75 80

Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp
85 90 95

Ile Phe Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala Arg Tyr Asn
100 105 110

Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu
115 120 125

Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys
130 135 140

Ala Val Thr Lys Phe Thr Ser Ala
145 150

<210> 263
<211> 125
<212> PRT
<213> Oryza sativa

<400> 263
Met Pro Thr Lys Asn Gln Leu Ile Arg His Gly Arg Glu Glu Lys Arg
1 5 10 15

Arg Thr Asp Arg Thr Arg Ala Leu Asp Gln Cys Pro Gln Lys Gln Gly
20 25 30

Val Cys Leu Arg Val Ser Thr Arg Thr Pro Lys Lys Pro Asn Ser Ala
35 40 45

Leu Arg Lys Ile Ala Lys Val Arg Leu Ser Asn Arg His Asp Ile Phe
50 55 60

Ala Tyr Ile Pro Gly Glu Gly His Asn Leu Gln Glu His Ser Ile Val
65 70 75 80

Leu Val Arg Gly Gly Arg Val Lys Asp Leu Pro Gly Val Lys Phe His
85 90 95

Cys Ile Arg Gly Val Lys Asp Leu Leu Gly Ile Pro Asp Arg Arg Lys
100 105 110

Gly Arg Ser Lys Tyr Gly Ala Glu Arg Pro Lys Ser Lys
115 120 125

<210> 264
<211> 123

<212> PRT
<213> Sus scrofa

<400> 264
Ser Gly Ser Cys Glu Val Lys Thr Cys Trp Trp Ala Gln Pro Asp Phe
1 5 10 15

Arg Ala Ile Gly Asp Tyr Leu Lys Asp Lys Tyr Asp Ser Ala Ser Glu
20 25 30

Met Val Val Glu Lys His Arg Glu Ser Arg Gly Trp Val Glu Thr Leu
35 40 45

Arg Ala Lys Tyr Ala Leu Phe Lys Pro Pro Thr Glu Arg Asp Leu Val
50 55 60

Tyr Tyr Glu Asn Ser Pro Asn Phe Cys Glu Pro Asn Pro Glu Thr Gly
65 70 75 80

Leu Phe Gly Thr Arg Asp Arg Thr Cys Asn Val Thr Ser His Gly Ile
85 90 95

Asp Gly Cys Asp Leu Leu Cys Cys Gly Arg Gly His Asn Thr Arg Thr
100 105 110

Glu Lys Arg Lys Glu Lys Cys His Cys Ile Phe
115 120

<210> 265
<211> 295
<212> PRT
<213> Oryza sativa

<400> 265
Met Glu Phe Trp Gly Val Glu Val Lys Val Gly Gln Thr Val Thr Val
1 5 10 15

Asp Pro Met Asp Pro Val Asp Ser Tyr Ile His Ile Ser Gln Val Ala
20 25 30

Leu Gly Glu Ala Lys Lys Asp Lys Pro Asn Glu Pro Val Val Leu Tyr
35 40 45

Leu Lys Val Gly Glu Gln Lys Ile Val Leu Gly Thr Leu Ser Arg Asp
50 55 60

Gly Ile Pro His Leu Ser Leu Asp Leu Val Leu Asp Ser Asp Ser Glu
65 70 75 80

Leu Ser His Thr Ser Lys Ser Ala Ser Val Phe Phe Cys Gly Tyr Lys

85 90 95

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

Glu Asp Glu Glu Leu Ala Leu Glu Gly Gln Asp Asn Gly Lys Pro Glu
115 120 125

Leu Lys Ala Glu Gly Ala Lys Val Thr Lys Pro Ser Lys Ser Ile Pro
130 135 140

Lys Ile Gly Ala Pro Ala Lys Ala Ala Asp Pro Lys Lys Asp Glu Asp
145 150 155 160

Asp Asp Ser Asp Asp Glu Ser Asp Asp Asp Leu Ala Gly Glu Asp Glu
165 170 175

Ser Gly Ser Ser Asp Glu Met Asp Asp Asp Ser Asn Ser Glu Glu Glu
180 185 190

Ser Asp Gly Asp Asp Glu Glu Thr Pro Ala Lys Lys Val Asp Gln Gly
195 200 205

Lys Lys Arg Pro Asn Glu Ser Ala Ala Lys Thr Pro Ile Ser Ala Lys
210 215 220

Lys Ala Lys Thr Ala Thr Pro Glu Lys Thr Asp Gly Lys Lys Ser Val
225 230 235 240

His Val Ala Thr Pro His Pro Ser Lys Lys Gly Gly Lys Thr Pro Asn
245 250 255

Ser Thr Lys Gly Gln Thr Pro Asn Ser Ala Gly Gln Leu Ser Cys Ala
260 265 270

Ser Cys Lys Lys Ser Phe Thr Asn Glu Ala Gly Leu Gln Gln His Lys
275 280 285

Lys Ala Lys His Gly Gly Gln
290 295

<210> 266
<211> 119
<212> PRT
<213> Malus domestica

<400> 266
Met Ala Arg Thr Ser Phe Lys Leu Glu His Pro Leu Glu Arg Arg Gln
1 5 10 15

```
Ala Glu Ser Ala Arg Ile Arg Glu Lys Tyr Ser Asp Arg Ile Pro Val
            20                  25                  30

Ile Val Glu Lys Ala Asp Lys Thr Asp Val Pro Glu Ile Asp Lys Lys
        35                  40                  45

Lys Tyr Leu Val Pro Ala Asp Leu Thr Val Gly Gln Phe Val Tyr Val
    50                  55                  60

Val Arg Lys Arg Ile Lys Leu Ser Pro Glu Lys Ala Ile Phe Val Phe
65                  70                  75                  80

Val Lys Asn Thr Leu Pro Pro Thr Ala Ser Leu Met Ser Ala Ile Tyr
                85                  90                  95

Glu Glu Asn Lys Asp Glu Asp Gly Phe Leu Tyr Met Thr Tyr Ser Gly
            100                 105                 110

Glu Asn Thr Phe Gly Ser Ala
        115
```

<210> 267
<211> 146
<212> PRT
<213> Sus scrofa

<400> 267

```
Ser Glu Thr Ile Asp Leu Gln Gly Gly Lys Ala Phe Gly Leu Leu Lys
1               5                   10                  15

Ala Gln Gln Glu Gly Arg Leu Asn Glu Ile Asn Lys Gln Phe Leu Asp
            20                  25                  30

Asp Pro Lys Tyr Ser Ser Asp Glu Asp Leu Ser Arg Lys Leu Glu Ala
        35                  40                  45

Phe Lys Gln Lys Tyr Met Glu Phe Asp Leu Asn Gly Asn Gly Asp Ile
    50                  55                  60

Asp Ile Met Ser Leu Lys Arg Met Leu Glu Lys Leu Gly Val Pro Lys
65                  70                  75                  80

Thr His Leu Glu Leu Lys Lys Leu Ile Lys Glu Val Ser Ser Gly Ser
                85                  90                  95

Gly Glu Thr Phe Ser Tyr Ser Ile Phe Leu Lys Met Met Leu Gly Lys
            100                 105                 110
```

Arg Ser Ala Ile Leu Lys Met Ile Leu Met Tyr Glu Glu Lys Ala Arg
115 120 125

Glu Gln Glu Lys Pro Thr Gly Pro Pro Ala Lys Lys Ala Ile Ser Glu
130 135 140

Leu Pro
145

<210> 268
<211> 151
<212> PRT
<213> Oryza sativa

<400> 268
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Thr Glu Lys Val Glu Lys Ala Pro Ala Gly Lys Lys
20 25 30

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

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

Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly
65 70 75 80

Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp Ile
85 90 95

Phe Glu Lys Leu Ala Ala Glu Ser Ala Lys Leu Ala Arg Tyr Asn Lys
100 105 110

Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu Val
115 120 125

Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala
130 135 140

Val Thr Lys Phe Thr Ser Ser
145 150

<210> 269
<211> 120
<212> PRT
<213> Salmo salar

<400> 269
Met Ala Glu Pro Ala Lys Lys Lys Pro Lys Lys Leu Pro Lys Lys Asp
1 5 10 15

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

Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly
35 40 45

Ile Ser Ser Lys Ala Met Gly Ile Met Asn Ser Phe Ile Asn Asp Ile
50 55 60

Phe Glu Lys Leu Ala Ser Glu Ala Ser Arg Leu Ala Arg Tyr Asn Lys
65 70 75 80

Lys Ser Thr Ile Thr Pro Arg Glu Ile Gln Thr Ala Val Arg Leu Leu
85 90 95

Leu Pro Gly Glu Val Ala Lys His Lys Val Ser Glu Ala Thr Lys Ala
100 105 110

Val Thr Lys Phe Thr Ser Gly Ala
115 120

<210> 270
<211> 191
<212> PRT
<213> Oryza sativa

<400> 270
Met Ser Gly Gly Gly Thr Glu Thr Pro Thr Gly Cys Glu Ala Pro Ser
1 5 10 15

Gly Gly Gly Gly Gly Gly Gly Arg Lys Arg Asp Ser Leu Gly Thr Thr
20 25 30

Ser Ser Pro Ala His Leu Ile Ile Lys Asp Leu Gly Glu Ile His Ser
35 40 45

Arg Leu Leu Asp His Arg Pro Val Ile Gln Gly Glu Thr Arg Tyr Phe
50 55 60

Val Lys Glu Phe Glu Glu Lys Arg Gly Leu Arg Glu Met Arg Ala Leu
65 70 75 80

Glu Asn Leu Lys Asn Met Ile His Glu Thr Asn Glu His Thr Leu Pro
85 90 95

```
Thr Cys Thr Glu Thr Met Glu Asp Ser Leu Ser His Val Leu Gln Arg
            100                 105                 110

Leu Gln Ala Ala Thr Ala Ser Val Cys Arg Leu Gln Gln Arg Glu Gln
        115                 120                 125

Glu Arg Lys Lys Val His Asn Asp His Leu Ile Ala Ser Glu Lys Gln
    130                 135                 140

His Ile Met Gln Trp Glu Asp Phe Met Lys Glu Gln His Ser Lys Gln
145                 150                 155                 160

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

Gln Tyr Ala Glu Met Glu Lys Asp Leu Ala Lys Phe Ser Thr Phe
            180                 185                 190
```

<210> 271
<211> 249
<212> PRT
<213> Ovis aries

<400> 271

```
Met Ala Ala Leu Arg Val Gln Pro Glu Ala Gln Ala Lys Val Asp Val
1               5                   10                  15

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

Phe Pro Lys Lys Ile Ser Glu Leu Asp Ala Phe Leu Lys Glu Pro Ala
        35                  40                  45

Leu Asn Glu Ala Asn Leu Ser Asn Leu Lys Ala Pro Leu Asp Ile Pro
    50                  55                  60

Val Pro Asp Pro Val Lys Glu Lys Glu Lys Glu Glu Arg Lys Lys Gln
65                  70                  75                  80

Gln Glu Lys Glu Asp Lys Asp Glu Lys Lys Lys Gly Glu Asp Glu Asp
                85                  90                  95

Lys Gly Pro Pro Cys Gly Pro Val Asn Cys Asn Glu Lys Ile Val Val
            100                 105                 110

Leu Leu Gln Arg Leu Lys Pro Glu Ile Lys Asp Val Ile Glu Gln Leu
        115                 120                 125
```

Asn Leu Val Thr Thr Trp Leu Gln Leu Gln Ile Pro Arg Ile Glu Asp
130 135 140

Gly Asn Asn Phe Gly Val Ala Val Gln Glu Lys Val Phe Glu Leu Met
145 150 155 160

Thr Ala Leu His Thr Lys Leu Glu Gly Phe His Thr Gln Ile Ser Lys
165 170 175

Tyr Phe Ser Glu Arg Gly Asp Ala Val Ala Lys Ala Ala Lys Gln Pro
180 185 190

His Val Gly Asp Tyr Arg Gln Leu Val His Glu Leu Asp Glu Ala Glu
195 200 205

Tyr Arg Asp Ile Arg Leu Met Val Met Glu Ile Arg Asn Ala Tyr Ala
210 215 220

Val Leu Tyr Asp Ile Ile Leu Lys Asn Phe Glu Lys Leu Lys Lys Pro
225 230 235 240

Arg Gly Glu Thr Lys Gly Met Ile Tyr
245

<210> 272
<211> 270
<212> PRT
<213> Sus scrofa

<400> 272
Met Glu Asp Gln Met Ala Asn Leu Arg Leu Thr Asp Phe Glu Phe Phe
1 5 10 15

Arg Ile Ile Leu Pro Gly Ser Ser Lys Thr Lys Leu Lys Leu Pro Tyr
20 25 30

Lys Phe Ala Arg Glu Leu Gly Asp Arg Glu Leu Arg Glu Ala Arg Leu
35 40 45

Arg Val Ala Gly Glu Gly Arg Arg Pro Trp Asp Val Lys Val Phe Asp
50 55 60

Asp Asp Val Ser Gly Asp Val Tyr Leu Gly Arg Gly Trp Gln Glu Phe
65 70 75 80

Ala Arg Ala His Asp Leu Arg Asp Gly His Phe Leu Val Phe Arg Tyr
85 90 95

Asp Gly Ala Ala Ala Phe Thr Val Thr Val Phe Asp Glu Thr Met Cys

100 105 110

Arg Arg Asp Tyr Arg Arg His His Asp Ala Ala Glu Ser Gly Ser Ser
115 120 125

Ser Ser Ser Asp Ser Ser Asp Ala Ala Ala Ala Val Ala Thr Ala Ala
130 135 140

Ala Glu Gly Val Gly Asp Val Ala Leu Ser Gln Phe Ala Val Thr Leu
145 150 155 160

Arg Gln Cys Asn Leu Glu Asp Lys Gln Ala Gln Tyr Leu Asn Val Pro
165 170 175

Met Glu Phe Gln Glu Ala His Glu Tyr Ala Arg Arg Glu Lys Val Val
180 185 190

Leu Arg Met Arg Gly Glu Ala Trp Thr Val Arg Leu Lys His Ser Arg
195 200 205

Arg Glu Arg Gly Gln Arg Thr Ala Phe Arg Tyr Gly Trp His Arg Phe
210 215 220

Cys Val Asp Asn Gly Leu Ala Val Gly Asp Thr Cys Phe Phe Arg Val
225 230 235 240

Leu Arg Glu Gly Asp Leu Arg Arg Gly Gly Ala Ala Asp Asp His Val
245 250 255

Leu Lys Val Ala Val Arg Lys Ala Asp Gly Thr Thr Leu Glu
260 265 270

<210> 273
<211> 317
<212> PRT
<213> Zea mays

<400> 273
Met Arg Val Leu Trp Val Ala Leu Val Val Thr Leu Leu Ala Gly Cys
1 5 10 15

Arg Thr Glu Asp Glu Pro Gly Pro Pro Pro Glu Val His Val Trp Trp
20 25 30

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

Arg Phe Trp Asp Tyr Leu Arg Trp Val Gln Ser Leu Ser Asp Gln Val
50 55 60

```
Gln Glu Glu Leu Leu Ser Thr Lys Val Thr Gln Glu Leu Thr Glu Leu
65                  70                  75                  80

Ile Glu Glu Ser Met Lys Glu Val Lys Ala Tyr Arg Glu Glu Leu Glu
                85                  90                  95

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

Glu Leu Gln Ala Ala Gln Ala Arg Val Gly Ala Asp Met Glu Asp Val
        115                 120                 125

Arg Asn Arg Leu Val Leu Tyr Arg Ser Glu Val His Asn Met Leu Gly
    130                 135                 140

Gln Thr Thr Glu Glu Leu Arg Ser Arg Leu Ala Ser His Leu Arg Asn
145                 150                 155                 160

Val Arg Lys Arg Leu Val Arg Asp Thr Glu Asp Leu Gln Lys Arg Leu
                165                 170                 175

Ala Val Tyr Gln Ala Gly Leu Arg Glu Gly Ala Glu Arg Ser Val Ser
            180                 185                 190

Ala Leu Arg Glu Arg Leu Gly Pro Leu Val Glu Gln Gly Arg Leu Arg
        195                 200                 205

Ala Ala Thr Leu Ser Thr Arg Ala Gly Gln Pro Leu Arg Glu Arg Ala
    210                 215                 220

Glu Ala Trp Gly Gln Lys Leu Arg Gly Arg Leu Glu Glu Met Gly Ser
225                 230                 235                 240

Arg Thr Arg Asp Arg Leu Asp Glu Met Arg Asp Glu Leu Glu Glu Val
                245                 250                 255

Arg Thr Lys Val Glu Glu Gln Gly Ser Gln Leu Arg Leu Gln Ala Glu
            260                 265                 270

Ala Phe Gln Ala Arg Leu Lys Gly Trp Phe Glu Pro Leu Val Glu Asp
        275                 280                 285

Met Arg Arg Gln Trp Ala Gly Leu Val Glu Arg Met Gln Ser Ala Val
    290                 295                 300

Ser Ile Ser Ser Ser Thr Ser Ala Pro Ser Asp Asn Gln
```

305 310 315

<210> 274
<211> 198
<212> PRT
<213> Oryza sativa

<400> 274
Met Glu Asn Gln Phe Gln Asp Gly Lys Glu Glu Val Ile Glu Ala Trp
1 5 10 15

Tyr Met Asp Asp Ser Glu Glu Asp Gln Arg Leu Pro His His Arg Glu
20 25 30

Pro Lys Glu Phe Ile Pro Leu Ser Lys Leu Ser Glu Leu Gly Ile Leu
35 40 45

Ser Trp Arg Leu Asn Ala Asp Asp Trp Glu Asn Asp Glu Asn Leu Lys
50 55 60

Lys Ile Arg Glu Ala Arg Gly Tyr Ser Tyr Met Asp Ile Cys Asp Val
65 70 75 80

Cys Pro Glu Lys Leu Pro Asn Tyr Glu Ala Lys Leu Lys Asn Phe Phe
85 90 95

Glu Glu His Leu His Thr Asp Glu Glu Ile Arg Tyr Cys Leu Glu Gly
100 105 110

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

Ala Val Lys Lys Gly Gly Met Ile Val Leu Pro Ala Gly Met Tyr His
130 135 140

Arg Phe Thr Leu Asp Ser Asp Asn Tyr Ile Lys Ala Met Arg Leu Phe
145 150 155 160

Val Gly Glu Pro Val Trp Thr Pro Tyr Asn Arg Pro His Asp His Leu
165 170 175

Pro Ala Arg Lys Glu Tyr Val Glu Lys Ile Ile Asn Arg Gly Gly Thr
180 185 190

Gln Ala Val Glu Ala Arg
195

<210> 275
<211> 79

<212> PRT
<213> Sus scrofa

<400> 275
Met Ser Ala Gln Lys Ser Pro Ala Glu Leu Lys Ser Ile Phe Glu Lys
1 5 10 15

Tyr Ala Ala Lys Glu Gly Asp Pro Asn Gln Leu Ser Lys Glu Glu Leu
20 25 30

Lys Gln Leu Ile Gln Ala Glu Phe Pro Ser Leu Leu Lys Gly Pro Arg
35 40 45

Thr Leu Asp Asp Leu Phe Gln Glu Leu Asp Lys Asn Gly Asp Gly Glu
50 55 60

Val Ser Phe Glu Glu Phe Gln Val Leu Val Lys Lys Ile Ser Gln
65 70 75

<210> 276
<211> 139
<212> PRT
<213> Zea mays

<400> 276
Met Ala Asn Ser Ser Ser Gly Val Ala Ile His Asp Asp Cys Lys Leu
1 5 10 15

Lys Phe Asn Glu Leu Gln Ser Lys Arg Met His Arg Phe Ile Thr Phe
20 25 30

Met Met Asp Asn Lys Gly Lys Glu Ile Ile Val Asp Lys Ile Gly Asp
35 40 45

Arg Thr Thr Ser Tyr Glu Asp Phe Thr Ser Ser Leu Pro Glu Gly Asp
50 55 60

Cys Arg Phe Ala Ile Tyr Asp Phe Asp Phe Leu Thr Ala Glu Asp Val
65 70 75 80

Pro Lys Ser Arg Ile Phe Tyr Ile Leu Trp Ser Pro Asp Asn Ala Lys
85 90 95

Val Arg Ser Lys Met Leu Tyr Ala Ser Ser Asn Glu Arg Phe Lys Lys
100 105 110

Glu Leu Asn Gly Ile Gln Leu Glu Val Gln Ala Thr Asp Ala Gly Glu
115 120 125

Ile Ser Leu Asp Ala Leu Lys Asp Arg Val Lys

130 135

<210> 277
<211> 616
<212> PRT
<213> Sus scrofa

<400> 277

```
Met Ala Glu Ala Lys Thr His Trp Leu Gly Ala Ser Leu Ser Leu Ile
1               5                   10                  15

Leu Leu Ile Phe Leu Leu Ala Thr Ala Glu Ala Ala Ser Phe Gln Arg
            20                  25                  30

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

Arg Phe Ala Ser Pro Glu Met Ile Arg Ala Leu Glu Tyr Ile Glu Lys
    50                  55                  60

Leu Arg Gln Gln Ala His Lys Glu Glu Ser Ser Pro Asp Tyr Asn Pro
65                  70                  75                  80

Tyr Gln Gly Val Ser Val Pro Leu Gln Gln Lys Glu Asn Ser Asp Leu
                85                  90                  95

Pro Glu Ser Ser Arg Asp Ser Leu Ser Glu Asp Glu Trp Met Lys Ile
            100                 105                 110

Leu Leu Glu Ala Leu Arg Gln Ala Glu Asn Glu Pro Gln Ser Ser Leu
        115                 120                 125

Lys Glu Asn Lys Pro Tyr Thr Leu Asn Ser Glu Lys Asn Phe Pro Met
    130                 135                 140

Asp Met Pro Asp Asp Tyr Glu Thr Gln Gln Trp Pro Glu Arg Lys Leu
145                 150                 155                 160

Glu His Met Arg Phe Pro Pro Met Tyr Glu Glu Asn Ser Arg Asp Asn
                165                 170                 175

Pro Phe Lys Arg Thr Asn Glu Ile Val Glu Glu Gln Tyr Thr Pro Gln
            180                 185                 190

Ser Leu Ala Thr Leu Glu Ser Val Phe Gln Glu Leu Gly Lys Leu Thr
        195                 200                 205

Gly Pro Asn Asn Gln Lys Arg Glu Arg Val Asp Glu Glu Gln Lys Leu
    210                 215                 220
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Tyr Thr Asp Asp Glu Asp Asp Ile Tyr Lys Ala Asn Asn Ile Ala Tyr
225                 230                 235                 240

Glu Asp Val Val Gly Gly Glu Asp Trp Asn Pro Val Glu Glu Lys Ile
                245                 250                 255

Glu Ser Gln Thr Gln Glu Glu Val Arg Asp Ser Lys Glu Asn Ile Glu
            260                 265                 270

Lys Asn Glu Gln Ile Asn Asp Glu Met Lys Arg Ser Gly Gln Met Gly
        275                 280                 285

Leu Gln Asp Glu Asp Leu Arg Lys Glu Gly Lys Asp Gln Leu Ser Glu
    290                 295                 300

Asp Val Ser Lys Val Ile Ala Tyr Leu Lys Arg Leu Val Asn Ala Val
305                 310                 315                 320

Gly Ser Gly Lys Ser Gln Asn Gly Gln Asn Gly Glu Arg Ala Asn Arg
                325                 330                 335

Leu Phe Glu Lys Pro Leu Asp Ser Gln Ser Ile Tyr Gln Leu Ile Glu
            340                 345                 350

Leu Ser Arg Asn Leu Gln Ile Pro Pro Glu Asp Leu Ile Asp Met Leu
        355                 360                 365

Lys Thr Gly Glu Lys Pro Asn Ala Ser Val Glu Pro Glu Gln Glu Leu
    370                 375                 380

Glu Ile Pro Val Asp Leu Asp Asp Ile Ser Glu Val Asp Leu Asp His
385                 390                 395                 400

Pro Asp Leu Phe Gln Asn Lys Met Leu Ser Lys Asn Gly Tyr Ser Lys
                405                 410                 415

Thr Pro Gly Arg Ala Val Ser Glu Ala Leu Pro Asp Gly Leu Ser Val
            420                 425                 430

Glu Asp Ile Leu Asn Leu Leu Gly Met Glu Asn Ala Ala Asn Gln Lys
        435                 440                 445

Pro Pro Tyr Phe Pro Asn Gln Tyr Asn Arg Glu Lys Ile Leu Pro Arg
    450                 455                 460

Leu Pro Tyr Gly Pro Gly Arg Ala Lys Ala Asn Gln Leu Pro Lys Ala
```

465 470 475 480

Val Trp Met Pro Asp Val Glu Asn Arg Gln Met Ala Tyr Asp Asn Leu
485 490 495

Asn Asp Lys Asp Gln Glu Leu Gly Glu Tyr Leu Ala Arg Met Leu Val
500 505 510

Lys Tyr Pro Glu Ile Met Asn Ser Asn Gln Val Lys Arg Val Pro Ser
515 520 525

Gln Gly Ser Ser Glu Asp Asp Leu Gln Glu Glu Asn Gln Ile Glu Gln
530 535 540

Ala Ile Lys Glu Arg Leu Asn Gln His Ser Ser Gln Glu Thr Asp Lys
545 550 555 560

Leu Ala Leu Val Ser Lys Arg Leu Pro Val Ala Thr Pro Lys Ser Asp
565 570 575

Asp Ala Pro Asn Arg Gln Tyr Leu Asp Glu Asp Leu Leu Met Lys Val
580 585 590

Leu Glu Tyr Leu Asn Gln Glu Lys Ala Glu Lys Gly Arg Glu His Ile
595 600 605

Ala Lys Arg Ala Met Glu Asn Met
610 615

<210> 278
<211> 40
<212> PRT
<213> Spinacia oleracea

<400> 278
Ser Arg Gly Ile Ser Arg Tyr Ile Thr Lys Lys Asn Arg His Asn Thr
1 5 10 15

Pro Ser Arg Leu Glu Leu Arg Lys Phe Cys Pro Phe Cys Cys Lys His
20 25 30

Met Ile His Ala Glu Ile Lys Lys
35 40

<210> 279
<211> 91
<212> PRT
<213> Sus scrofa

<400> 279

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

Glu Gly Glu Thr Val Val Pro Gly Gly Thr Gly Gly Lys Ser Val Glu
20 25 30

Ala Gln Glu His Leu Ala Glu Gly Arg Ser Arg Gly Gly Gln Thr Arg
35 40 45

Arg Glu Gln Leu Gly Gln Gln Gly Tyr Ser Glu Met Gly Lys Lys Gly
50 55 60

Gly Leu Ser Thr Thr Asp Glu Ser Gly Gly Glu Arg Ala Ala Arg Glu
65 70 75 80

Gly Val Thr Ile Asp Glu Ser Lys Phe Thr Lys
85 90

<210> 280
<211> 207
<212> PRT
<213> Sus scrofa

<400> 280
Met Asp Asp Asn Leu Gln Leu Gly Asp Ser Gly Val Val Lys Asn Val
1 5 10 15

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

Leu Glu Glu Ser Arg His Val Arg Lys Ser Ser Ser Ser Thr Ser Met
35 40 45

Gly Glu Val Pro Pro Pro Lys Pro Ala Arg Arg Gln Gly Gly Trp Ala
50 55 60

Glu Glu Thr Ser Gly Ser Ala Lys Ser Gly Arg Arg Pro Ala Val Val
65 70 75 80

Glu Asp Val Glu Asp Arg Arg Leu Arg Pro Gln Thr Pro Gln Gly Ser
85 90 95

Asp Asp Glu Gly Asp Ile Pro Val Ile Pro Asp Leu Asp Glu Val Gln
100 105 110

Glu Glu Asp Leu Thr Met Gln Val Ala Ala Pro Pro Ser Ile Gln Val
115 120 125

Asn Arg Val Met Thr Tyr Arg Asp Leu Asp Asn Asp Leu Met Lys Tyr

130 135 140

Ser Ala Phe Gln Thr Leu Asp Gly Glu Ile Asp Leu Lys Leu Leu Thr
145 150 155 160

Lys Val Leu Ala Pro Glu Gln Glu Val Arg Glu Glu Asp Val Gly Trp
165 170 175

Asp Trp Asp Arg Leu Phe Thr Glu Val Ser Ser Glu Leu Leu Thr Glu
180 185 190

Trp Asp Gln Gly Glu Lys Glu Glu Gln Val Pro Leu Pro Val Leu
195 200 205

<210> 281
<211> 152
<212> PRT
<213> Solanum lycopersicum

<400> 281
Met Ser Leu Val Ile Pro Glu Lys Phe Gln His Ile Leu Arg Val Leu
1 5 10 15

Asn Thr Asn Ile Asp Gly Arg Arg Lys Ile Ala Phe Ala Ile Thr Ala
20 25 30

Ile Lys Gly Val Gly Arg Arg Tyr Ala His Val Val Leu Arg Lys Ala
35 40 45

Asp Ile Asp Leu Thr Lys Arg Ala Gly Glu Leu Thr Glu Asp Glu Val
50 55 60

Glu Arg Val Ile Thr Ile Met Gln Asn Pro Arg Gln Tyr Lys Ile Pro
65 70 75 80

Asp Trp Phe Leu Asn Arg Gln Lys Asp Val Lys Asp Gly Lys Tyr Ser
85 90 95

Gln Val Leu Ala Asn Gly Leu Asp Asn Lys Leu Arg Glu Asp Leu Glu
100 105 110

Arg Leu Lys Lys Ile Arg Ala His Arg Gly Leu Arg His Phe Trp Gly
115 120 125

Leu Arg Val Arg Gly Gln His Thr Lys Thr Thr Gly Arg Arg Gly Arg
130 135 140

Thr Val Gly Val Ser Lys Lys Lys
145 150

<210> 282
<211> 254
<212> PRT
<213> Solanum tuberosum

<400> 282
Met Ala Arg Glu Glu Asn Val Tyr Met Ala Lys Leu Ala Glu Gln Ala
1   5   10   15

Glu Arg Tyr Glu Glu Met Val Gln Phe Met Glu Lys Val Ser Thr Ser
            20   25   30

Leu Gly Ser Glu Glu Leu Thr Val Glu Glu Arg Asn Leu Leu Ser Val
        35   40   45

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

Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly Asn Glu Glu His Val
65   70   75   80

Lys Cys Ile Lys Glu Tyr Arg Ser Lys Ile Glu Ser Glu Leu Ser Asp
                85   90   95

Ile Cys Asp Gly Ile Leu Lys Leu Leu Asp Ser Asn Leu Ile Pro Ser
            100   105   110

Ala Ser Asn Gly Asp Ser Lys Val Phe Tyr Leu Lys Met Lys Gly Asp
        115   120   125

Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Ala Glu Arg Lys Glu
    130   135   140

Ala Ala Glu Ser Thr Leu Ser Ala Tyr Lys Ala Ala Gln Asp Ile Ala
145   150   155   160

Asn Thr Glu Leu Ala Pro Thr His Pro Ile Arg Leu Gly Leu Ala Leu
                165   170   175

Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Asp Arg Ala
            180   185   190

Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ala Glu Leu Asp
        195   200   205

Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln Leu
    210   215   220

Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Met Gln Asp Asp Gly
225 230 235 240

Ala Asp Glu Ile Lys Glu Thr Lys Asn Asp Asn Glu Gln Gln
245 250

<210> 283
<211> 83
<212> PRT
<213> Glycine max

<400> 283
Met Cys Ile Leu Ser Phe Leu Lys Ser Asp Gln Ser Ser Ser Tyr Asp
1 5 10 15

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

Ser Met Pro Pro Gln Cys Ser Cys Glu Asp Ile Arg Leu Asn Ser Cys
35 40 45

His Ser Asp Cys Lys Ser Cys Met Cys Thr Arg Ser Gln Pro Gly Gln
50 55 60

Cys Arg Cys Leu Asp Thr Asn Asp Phe Cys Tyr Lys Pro Cys Lys Ser
65 70 75 80

Arg Asp Asp

<210> 284
<211> 385
<212> PRT
<213> Spinacia oleracea

<400> 284
Met Gly Leu Leu Cys Ser Arg Asn Arg Arg Tyr Asn Asp Ala Asp Ala
1 5 10 15

Glu Glu Asn Ala Gln Thr Ala Glu Ile Glu Arg Arg Ile Glu Val Arg
20 25 30

Asn Glu Arg Ala Glu Lys His Ile Gln Lys Leu Leu Leu Leu Gly Ala
35 40 45

Gly Glu Ser Gly Lys Ser Thr Ile Phe Lys Gln Ile Lys Leu Leu Phe
50 55 60

Gln Thr Gly Phe Asp Glu Ala Glu Leu Lys Ser Tyr Leu Pro Val Ile
65 70 75 80

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His Ala Asn Val Tyr Gln Thr Ile Lys Leu Leu His Asp Gly Ser Lys
                85                  90                  95

Glu Phe Ala Gln Asn Asp Val Asp Ser Ser Lys Tyr Val Ile Ser Asn
            100                 105                 110

Glu Asn Lys Glu Ile Gly Glu Lys Leu Leu Glu Ile Gly Gly Arg Leu
        115                 120                 125

Asp Tyr Pro Tyr Leu Ser Lys Glu Leu Ala Gln Glu Ile Glu Asn Leu
    130                 135                 140

Trp Lys Asp Pro Ala Ile Gln Glu Thr Tyr Ala Arg Gly Ser Glu Leu
145                 150                 155                 160

Gln Ile Pro Asp Cys Thr Asp Tyr Phe Met Glu Asn Leu Gln Arg Leu
                165                 170                 175

Ser Asp Ala Asn Tyr Val Pro Thr Lys Glu Asp Val Leu Tyr Ala Arg
            180                 185                 190

Val Arg Thr Thr Gly Val Val Glu Ile Gln Phe Ser Pro Val Gly Glu
        195                 200                 205

Asn Lys Lys Ser Asp Glu Val Tyr Arg Leu Phe Asp Val Gly Gly Gln
    210                 215                 220

Arg Asn Glu Arg Arg Lys Trp Ile His Leu Phe Glu Gly Val Ser Ala
225                 230                 235                 240

Val Ile Phe Cys Ala Ala Ile Ser Glu Tyr Asp Gln Thr Leu Phe Glu
                245                 250                 255

Asp Glu Asn Arg Asn Arg Met Met Glu Thr Lys Glu Leu Phe Glu Trp
            260                 265                 270

Ile Leu Lys Gln Pro Cys Phe Glu Lys Thr Ser Phe Met Leu Phe Leu
        275                 280                 285

Asn Lys Phe Asp Ile Phe Glu Lys Lys Ile Leu Lys Val Pro Leu Asn
    290                 295                 300

Val Cys Glu Trp Phe Lys Asp Tyr Gln Pro Val Ser Thr Gly Lys Gln
305                 310                 315                 320

Glu Ile Glu His Ala Tyr Glu Phe Val Lys Lys Lys Phe Glu Glu Ser
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325 330 335

Tyr Phe Gln Ser Thr Ala Pro Asp Arg Val Asp Arg Val Phe Lys Ile
340 345 350

Tyr Arg Thr Thr Ala Leu Asp Gln Lys Val Val Lys Lys Thr Phe Lys
355 360 365

Leu Val Asp Glu Thr Leu Arg Arg Arg Asn Leu Leu Glu Ala Gly Leu
370 375 380

Leu
385

<210> 285
<211> 61
<212> PRT
<213> Sus scrofa

<220>
<221> MOD_RES
<222> (42)..(42)
<223> Any amino acid

<400> 285
Ile Leu Asn Ser Pro Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe
1 5 10 15

Asp Glu Ala Ile Ser Glu Leu Asp Ser Leu Gly Glu Glu Ser Tyr Lys
20 25 30

Asp Ser Thr Leu Ile Met Gln Leu Leu Xaa Asp Asn Leu Thr Leu Trp
35 40 45

Thr Ser Asp Thr Asn Glu Asp Gly Gly Asp Glu Ile Lys
50 55 60

<210> 286
<211> 139
<212> PRT
<213> Solanum lycopersicum

<400> 286
Met Ser Asn Ser Ala Ser Gly Met Ala Val Cys Asp Glu Cys Lys Leu
1 5 10 15

Lys Phe Leu Glu Leu Lys Ala Lys Arg Ser Phe Arg Phe Ile Val Phe
20 25 30

Lys Ile Asn Glu Lys Val Gln Gln Val Val Val Asp Arg Leu Gly Gln
35 40 45

```
Pro Gly Glu Ser Tyr Asp Asp Phe Thr Ala Cys Leu Pro Ala Asp Glu
    50                  55                  60

Cys Arg Tyr Ala Val Phe Asp Phe Asp Phe Val Thr Asp Glu Asn Cys
65                  70                  75                  80

Gln Lys Ser Lys Ile Phe Phe Ile Ser Trp Ala Pro Asp Thr Ser Arg
                85                  90                  95

Val Arg Ser Lys Met Leu Tyr Ala Ser Ser Lys Asp Arg Phe Lys Arg
            100                 105                 110

Glu Leu Asp Gly Ile Gln Val Glu Leu Gln Ala Thr Asp Pro Ser Glu
        115                 120                 125

Met Ser Met Asp Ile Val Lys Ser Arg Ala Leu
    130                 135

<210> 287
<211> 540
<212> PRT
<213> Triticum aestivum

<400> 287
Met Glu Lys Ala Lys Leu Ser Ser Ala Leu Phe Ala Gly Thr His Phe
1               5                   10                  15

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

Pro Ala Pro Asp Val Ala Ser Ala Ala Ala Pro Ser Pro Glu Lys Lys
        35                  40                  45

Arg Lys Arg Gln Ser Lys Ala Lys Ala Lys Lys Ser Lys Lys Arg Arg
    50                  55                  60

Ala Glu Gly Ala Asp Ser Ala Ser Asp Ala Val Glu Gly Phe Ser Val
65                  70                  75                  80

Phe Lys Gly Leu Ala Ala Lys Lys Asp Glu Asp Asp Ser Glu Lys Lys
                85                  90                  95

Val Glu Thr Gly Lys Ser Glu Asp Ser Glu Val Val Arg Arg Arg Lys
            100                 105                 110

Glu Val Glu Arg Glu Ile Glu Arg Ala Ala Ile Leu Arg Lys Lys Phe
        115                 120                 125
```

```
Asp Ile His Ile Ser Gly Gln Asn Val Pro Ala Pro Leu Glu Asn Phe
    130                 135                 140

Glu Glu Leu Val Ser Arg Tyr Gly Cys Asp Ser Tyr Leu Val Gly Asn
145                 150                 155                 160

Leu Ser Lys Leu Gly Phe Gln Glu Pro Thr Pro Ile Gln Arg Gln Ala
                165                 170                 175

Ile Pro Ile Leu Leu Ser Gly Arg Glu Cys Phe Ala Cys Ala Pro Thr
            180                 185                 190

Gly Ser Gly Lys Thr Leu Ala Phe Leu Phe Pro Ile Leu Met Lys Ile
        195                 200                 205

Lys Pro Gly Ser Lys Glu Gly Val Lys Ala Val Ile Leu Cys Pro Thr
    210                 215                 220

Arg Glu Leu Ala Ala Gln Thr Thr Arg Glu Cys Lys Lys Leu Ala Lys
225                 230                 235                 240

Gly Arg Lys Phe Tyr Ile Lys Leu Met Thr Lys Asp Leu Ser Lys Ser
                245                 250                 255

Gly Asn Phe Lys Asp Met His Cys Asp Ile Leu Ile Ser Thr Pro Leu
            260                 265                 270

Arg Leu Asp His Ala Val Gln Lys Arg Asp Leu Asp Leu Ser Arg Val
        275                 280                 285

Glu Tyr Leu Val Leu Asp Glu Ser Asp Lys Leu Phe Glu Leu Gly Phe
    290                 295                 300

Val Glu Val Ile Asp Ser Val Val Lys Ala Cys Ser Asn Pro Ser Ile
305                 310                 315                 320

Ile Arg Ser Leu Phe Ser Ala Thr Leu Pro Asp Ser Ile Glu Thr Leu
                325                 330                 335

Ala Arg Thr Ile Met His Asp Ala Val Arg Val Ile Val Gly Arg Lys
            340                 345                 350

Asn Ser Ala Ser Ser Leu Ile Lys Gln Lys Leu Ile Phe Ala Gly Thr
        355                 360                 365

Glu Lys Gly Lys Leu Leu Ala Leu Arg Gln Ser Phe Ala Glu Ser Leu
    370                 375                 380
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Asn Pro Pro Val Leu Ile Phe Val Gln Ser Lys Glu Arg Ala Lys Glu
385                 390                 395                 400

Leu Tyr Lys Glu Leu Ala Phe Asp Asp Val Arg Ala Asp Val Ile His
                405                 410                 415

Ala Asp Leu Asp Glu Glu Gln Arg Gln Asp Ala Val Asp Asn Leu Arg
            420                 425                 430

Ala Gly Lys Thr Trp Val Leu Ile Ala Thr Glu Val Ile Ala Arg Gly
        435                 440                 445

Met Asp Phe Lys Gly Val Asn Cys Val Ile Asn Tyr Asp Phe Pro Glu
    450                 455                 460

Ser Ala Ser Ala Tyr Ile His Arg Ile Gly Arg Ser Gly Arg Ala Gly
465                 470                 475                 480

Arg Ser Gly Glu Ala Ile Thr Phe Phe Thr Glu Glu Asp Lys Pro Phe
                485                 490                 495

Leu Arg Asn Ile Ala Asn Val Leu Ile Ser Ser Gly Cys Glu Val Pro
            500                 505                 510

Ser Trp Ile Lys Ala Leu Pro Lys Leu Lys Arg Lys Lys His Arg Val
        515                 520                 525

Asn Arg Asp Pro Ile Ser Thr Leu Pro Asp Glu Asp
    530                 535                 540


<210> 288
<211> 155
<212> PRT
<213> Solanum tuberosum

<400> 288
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1               5                   10                  15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
            20                  25                  30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
    50                  55                  60
```

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

Lys Lys Lys Thr Tyr Thr Lys Pro Lys Lys Ile Lys His Lys His Lys
85 90 95

Lys Val Lys Leu Ala Val Leu Gln Phe Tyr Lys Val Asp Asp Ala Thr
100 105 110

Gly Lys Val Thr Arg Leu Arg Lys Glu Cys Pro Asn Asn Asp Cys Gly
115 120 125

Ala Gly Thr Phe Met Ala Asn His Phe Asp Arg His Tyr Cys Gly Lys
130 135 140

Cys Gly Leu Thr Tyr Val Tyr Asn Gln Lys Ala
145 150 155

<210> 289
<211> 22
<212> PRT
<213> Triticum aestivum

<220>
<221> MOD_RES
<222> (1)..(1)
<223> Any amino acid

<400> 289
Xaa Ser Gly Lys Val Leu Ser Glu Glu Glu Lys Ala Ala Ala Asn Val
1 5 10 15

Tyr Ile Lys Lys Met Glu
20

<210> 290
<211> 100
<212> PRT
<213> Oryza sativa

<400> 290
Met Ala Arg Lys Ser Val Ile Gln Arg Glu Lys Lys Arg Gln Lys Leu
1 5 10 15

Glu Gln Lys Tyr His Leu Ile Arg Arg Ser Ser Lys Lys Glu Ile Ser
20 25 30

Lys Val Pro Ser Leu Ser Asp Lys Trp Lys Ile His Gly Lys Leu Glu
35 40 45

Ser Leu Pro Arg Asn Ser Ala Pro Ile Arg Leu His Arg Arg Cys Phe
50 55 60

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

His Ile Leu Arg Glu Met Val His Ala Cys Leu Leu Pro Gly Ala Thr
85 90 95

Arg Ser Ser Trp
100

<210> 291
<211> 834
<212> PRT
<213> Oryza sativa

<400> 291
Glu Asn Glu Asn Leu Gly Asp Glu Ile Leu Glu Asp Phe Glu Thr Tyr
1 5 10 15

Trp Glu Asp Val Asn Asp Arg Leu Met Val Ser Arg Met Val Ser Asp
20 25 30

Ser Val Ile Lys Gly Ile Val Ser Ala Val Glu Gln Glu Ala Ala Glu
35 40 45

Arg Leu Val Thr Lys Asp Met Glu Leu Ala Asn Leu Lys Glu Tyr Leu
50 55 60

Gln Phe His Glu Gly Gly Leu Ser Lys Thr Glu Leu Glu Ser Phe Gly
65 70 75 80

Ser Leu Met Ser Gln Asn Glu Leu Glu Ser Met Asp Phe Arg Lys Cys
85 90 95

Met Thr Leu Ser Asp Val Phe Met Glu His Gly Lys Met Gly Glu Phe
100 105 110

Leu Asp Gly Leu Arg Ser Leu Ala Lys Asp Glu Phe Lys Lys Leu Lys
115 120 125

Lys Ser Ile Asp Glu Leu Arg Gly Ser Asn Ser Val Ser Asn Lys Ile
130 135 140

Ser Arg Ser Glu Met Ala Lys Leu Glu Gly Ile Leu Gln Glu Lys Glu
145 150 155 160

Ser Gly Ile Trp Val Gln Leu Asp Lys Thr Leu Asp Asn Ile Arg Met

```
                165                 170                 175

Met Val Asp Thr Val Phe Lys Arg Met Asp Val Met Leu Gln Leu Ser
            180                 185                 190

Lys Thr Ser Leu His His Trp Gln Glu Glu His Leu Ile Lys Val Glu
        195                 200                 205

Leu Glu Ser Met Val Met Gln Cys Val Ile Arg Thr Val Gln Glu Glu
    210                 215                 220

Phe Glu Tyr Lys Leu Trp Asp Gln Tyr Ala Gln Leu Cys Gly Asp Arg
225                 230                 235                 240

Asn Glu Lys Leu Asn Ala Ile Ser Ser Leu Arg Thr Glu Leu Asp Ala
                245                 250                 255

Val Leu Lys Ser Leu Ser Ser Ser Glu Asn Gly His Val Thr Ser His
            260                 265                 270

Gly Ser His Asp Ala Asp Phe Phe Thr Arg Lys Lys Ser Ser Glu Tyr
        275                 280                 285

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

Ser Lys Thr Asp Ile Pro Glu Asn Phe Asp Ala Val Thr Leu Lys His
305                 310                 315                 320

Met Ser Lys Asp Glu Met Val Thr Tyr Phe Asn Asn Ile Met Thr Lys
                325                 330                 335

Met Lys Arg His His Glu Ser Ile Leu Gln Lys Lys Thr Asp Glu Tyr
            340                 345                 350

Phe Val Leu Arg Ala Glu Tyr Leu Asn Leu Arg Gly Gly Ser Val Val
        355                 360                 365

Pro His Lys Lys Asp Lys Gly Glu Ser Asp Ile Leu Arg Lys Lys Ile
    370                 375                 380

Pro Glu Ile Ile Phe Lys Leu Asp Asp Ile Leu Val Glu Asn Glu Lys
385                 390                 395                 400

His Pro Ala Phe Thr Gln Glu Thr Leu Ser Phe Gly Asn Leu Lys Asp
                405                 410                 415
```

```
Arg Leu Asp Asn Leu Leu Ser Glu Asn His Gln Leu Arg Asp Leu Val
            420                 425                 430

Lys Glu Lys Lys Asn Glu Val Lys Ser Leu Leu Ser Gln Val Ser Asp
        435                 440                 445

Ala Thr Glu Lys Arg Leu Gln His Ser Leu Ala Glu Ala Gly Met Leu
    450                 455                 460

Lys Gln Ile Gly Glu Leu Asn Leu Ala Met Glu Glu Ser Leu Ile Gly
465                 470                 475                 480

Gly Ser Val Arg Glu Asp Val Tyr Thr Cys Phe Leu Arg Asp Leu Ser
                485                 490                 495

Gly Gly Ala Arg Asn Glu Val Glu Glu Leu Asn Leu Gly Phe Asn Met
            500                 505                 510

Ile Asn Glu Ser Asn Asp Thr Ser Ala Gly Ser Thr Arg Lys Ile Glu
        515                 520                 525

Ile Glu Asp Leu Glu Met Glu Cys Leu Ile Met Gln Glu Ile Cys Gly
    530                 535                 540

Val Ile Ser Gly Glu Gly Ile Lys Glu Ala Lys Asp Met Leu Lys Glu
545                 550                 555                 560

Leu Tyr Leu Glu His Leu Asn Glu Lys Glu Ile Arg Thr Ser Leu Asp
                565                 570                 575

Thr Lys Leu Ile Glu Met Glu Asn Lys Leu Lys Phe Glu Val Glu Glu
            580                 585                 590

Lys Asp Arg Leu Met Gln Met Glu Lys Leu Val Asn Glu Lys Glu Lys
        595                 600                 605

Leu Ala Thr Asp Ala Ser Ala Ala Leu Ala Lys Glu Arg Val Gln Ser
    610                 615                 620

Glu Gln Val Arg Gln Glu Leu Asn Ala Ala Lys Glu Phe Ala Ser Gln
625                 630                 635                 640

Gln Gln Thr Leu Ala Ser Gly Cys Asn Lys Glu Val Asn Val Ile Lys
                645                 650                 655

Gly Gln Leu Ala Glu Ala Val Glu Arg Ile Glu Val Leu Lys Glu Glu
            660                 665                 670
```

Val Ala Gln Leu Asn Ile Ser Leu Glu Glu Lys Thr Glu Glu Leu Lys
675 680 685

Glu Ala Asn His Arg Ala Asn Met Val Leu Ala Ile Ser Glu Glu Arg
690 695 700

Gln Thr Leu Leu Ser Ser Leu Glu Ser Lys Glu Ile Ala Leu Arg Lys
705 710 715 720

Gln Val Glu Lys Ile Ile Gly Asn Ile Asn Glu Ser Ser Lys Met Ile
725 730 735

Ala Asp Phe Glu Cys Arg Val Thr Gly Arg Leu Lys Thr Asn Asn Ala
740 745 750

Arg Phe Glu His Ser Phe Ser Gln Met Asp Cys Leu Val Lys Lys Ala
755 760 765

Asn Leu Leu Arg Arg Thr Thr Leu Leu Tyr Gln Gln Arg Leu Glu Lys
770 775 780

Arg Cys Ser Asp Leu Lys Leu Ala Glu Ala Glu Val Asp Leu Leu Gly
785 790 795 800

Asp Glu Val Asp Thr Leu Leu Ser Leu Val Glu Lys Ile Tyr Ile Ala
805 810 815

Leu Asp His Tyr Ser Pro Val Leu Gln His Tyr Pro Gly Asp Tyr Gly
820 825 830

Asp Ser

<210> 292
<211> 112
<212> PRT
<213> Oryza sativa

<400> 292
Met Ser Ala Glu Val Pro Glu Ala Ala Ser Ala Glu Glu Gln Lys Glu
1 5 10 15

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

Lys Ala Arg Tyr Pro His Leu Gly Gln Lys Pro Gly Gly Ser Asp Phe
35 40 45

Leu Arg Lys Arg Leu Gln Lys Gly Gln Lys Tyr Phe Asp Ser Gly Asp
50 55 60

Tyr Asn Met Ala Lys Ala Lys Met Lys Asn Lys Gln Leu Pro Thr Ala
65 70 75 80

Ala Pro Asp Lys Thr Glu Val Thr Gly Asp His Ile Pro Thr Pro Gln
85 90 95

Asp Leu Pro Gln Arg Lys Pro Ser Leu Val Ala Ser Lys Leu Ala Gly
100 105 110

<210> 293
<211> 113
<212> PRT
<213> Ovis aries

<400> 293
Met Thr Glu Lys Lys Asn Arg Arg Glu Lys Lys Asn Pro Arg Glu Ala
1 5 10 15

Lys Val Thr Phe Glu Gly Leu Val Thr Glu Ala Leu Pro Asn Gly Met
20 25 30

Phe Arg Val Arg Leu Glu Asn Asp Thr Ile Ile Leu Gly Tyr Ile Ser
35 40 45

Gly Lys Ile Arg Ser Ser Ser Ile Arg Ile Leu Met Gly Asp Arg Val
50 55 60

Lys Ile Glu Val Ser Arg Tyr Asp Ser Ser Lys Gly Arg Ile Ile Tyr
65 70 75 80

Arg Leu Pro His Lys Asp Ser Lys Arg Ile Glu Asp Ser Lys Asp Ser
85 90 95

Glu Asp Leu Lys Asp Ser Glu Asp Leu Lys Asp Thr Lys Asp Ser Lys
100 105 110

Asp

<210> 294
<211> 248
<212> PRT
<213> Sus scrofa

<400> 294
Met Glu Arg Ala Ser Leu Ile Gln Lys Ala Lys Leu Ala Glu Gln Ala
1 5 10 15

```
Glu Arg Tyr Glu Asp Met Ala Ala Phe Met Lys Ser Ala Val Glu Lys
            20                  25                  30

Gly Glu Glu Leu Ser Cys Glu Glu Arg Asn Leu Leu Ser Val Ala Tyr
        35                  40                  45

Lys Asn Val Val Gly Gly Gln Arg Ala Ala Trp Arg Val Leu Ser Ser
    50                  55                  60

Ile Glu Gln Lys Ser Asn Glu Glu Ser Ser Glu Glu Lys Gly Pro Glu
65                  70                  75                  80

Val Gln Glu Tyr Arg Glu Lys Val Glu Thr Glu Leu Arg Gly Val Cys
                85                  90                  95

Asp Thr Val Leu Gly Leu Leu Asp Thr His Leu Ile Lys Glu Ala Gly
            100                 105                 110

Asp Ala Glu Ser Arg Val Phe Tyr Leu Lys Met Lys Gly Asp Tyr Tyr
        115                 120                 125

Arg Tyr Leu Ala Glu Val Ala Thr Gly Asp Asp Lys Lys Arg Ile Ile
    130                 135                 140

Asp Ser Ala Arg Ser Ala Tyr Gln Glu Ala Met Asp Ile Ser Lys Lys
145                 150                 155                 160

Glu Met Pro Pro Thr Asn Pro Ile Arg Leu Gly Leu Ala Leu Asn Phe
                165                 170                 175

Ser Val Phe His Tyr Glu Ile Ala Asn Ser Pro Glu Glu Ala Ile Ser
            180                 185                 190

Leu Ala Lys Thr Thr Phe Asp Glu Ala Met Ala Asp Leu His Thr Leu
        195                 200                 205

Ser Glu Asp Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln Leu Leu Arg
    210                 215                 220

Asp Asn Leu Thr Leu Trp Thr Ala Asp Asn Ala Gly Glu Glu Gly Gly
225                 230                 235                 240

Glu Ala Pro Glu Glu Pro Gln Ser
                245
```

<210> 295
<211> 490

<212> PRT
<213> Oryza sativa

<400> 295

```
Met Asp Gly Ile Gln Thr Ser Asp Ser Ser His His Gly Ile Val Glu
1               5                   10                  15

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

Leu Gly Ala Ser Trp Tyr Phe Ser Arg Lys Glu Ile Glu Glu Asn Ser
        35                  40                  45

Leu Ser Arg Arg Asp Gly Ile Asp Leu Lys Lys Glu Ser Tyr Leu Arg
    50                  55                  60

Lys Ser Tyr Cys Thr Phe Leu Gln Asp Leu Gly Met Arg Leu Lys Val
65                  70                  75                  80

Pro Gln Val Thr Ile Ala Thr Ala Ile Val Phe Cys His Arg Phe Phe
                85                  90                  95

Leu Arg Gln Ser His Ala Lys Asn Asp Arg Arg Thr Ile Ala Thr Val
            100                 105                 110

Cys Met Phe Leu Ala Gly Lys Val Glu Glu Thr Pro Arg Pro Leu Lys
        115                 120                 125

Asp Val Ile Leu Ile Ser Tyr Glu Ile Ile His Lys Lys Asp Ala Ala
    130                 135                 140

Ala Val Gln Arg Ile Lys Gln Lys Glu Val Tyr Glu Gln Gln Lys Glu
145                 150                 155                 160

Leu Ile Leu Leu Gly Glu Arg Val Val Leu Val Thr Leu Gly Phe Asp
                165                 170                 175

Leu Asn Val His His Pro Tyr Lys Pro Leu Val Glu Ala Ile Lys Lys
            180                 185                 190

Phe Lys Val Ala Gln Asn Ala Leu Ala Gln Val Ala Trp Asn Phe Val
        195                 200                 205

Asn Asp Gly Leu Arg Thr Ser Leu Cys Leu Gln Phe Lys Pro His His
    210                 215                 220

Ile Ala Ala Gly Ala Ile Phe Leu Ala Ala Lys Phe Leu Lys Val Lys
225                 230                 235                 240
```

```
Leu Pro Ser Asp Gly Glu Lys Val Trp Trp Gln Glu Phe Asp Val Thr
                245                 250                 255

Pro Arg Gln Leu Glu Glu Val Ser Asn Gln Met Leu Glu Leu Tyr Glu
            260                 265                 270

Gln Asn Arg Val Ala Pro Pro Pro Ser Gln Gly Asn Asp Thr Glu Gly
        275                 280                 285

Ser Ser Ala Ser Val Val Asn Gln Arg Ala Ser Gly Lys Ala Pro Gly
    290                 295                 300

Ser Ser Glu Glu Pro Pro Thr His Glu Asn His Leu Ala Pro Arg Gln
305                 310                 315                 320

Ser Ser Thr Pro Gly His Gln Gly Tyr Asp His Pro His Pro Glu Lys
                325                 330                 335

Gln Asn Ser Ser Gln Arg Val Pro Gln Asn Asp Ala Arg Asp Gly Thr
            340                 345                 350

Ala Asn Ser Asn Glu Gly Pro Asn Met Ser Ser Thr Met Asp Ala Met
        355                 360                 365

Lys Lys Ile Asp Lys Asp Lys Val Lys Ala Ala Leu Glu Lys Arg Arg
    370                 375                 380

Lys Ser Lys Gly Asp Val Ala Lys Lys Val Asp Ile Met Asp Asp Asp
385                 390                 395                 400

Asp Leu Ile Glu Arg Glu Leu Glu His Gly Val Glu Leu Ala Ala Glu
                405                 410                 415

Asp Glu Lys Ile Lys His Glu Arg Arg Gln Ser Trp Pro His Ser Ala
            420                 425                 430

His Arg Glu Asp His Gln Gly Val Ala Arg Leu Thr Glu Asn Thr Glu
        435                 440                 445

Glu Gly Glu Leu Ser Ile Asp Ser Gln Glu Tyr Arg Ser Pro Glu Leu
    450                 455                 460

Asp Asn Arg Lys Arg Lys Asp Met His Glu His Arg Asn Tyr Asp Arg
465                 470                 475                 480

Gly Glu Arg Asp Leu Lys Arg Leu Arg Ser
                485                 490
```

<210> 296
<211> 136
<212> PRT
<213> Glycine max

<400> 296
Met Gly Lys Phe Met Lys Pro Gly Lys Val Val Leu Val Leu Ala Gly
1 5 10 15

Arg Tyr Ser Gly Arg Lys Ala Val Ile Val Lys Asn Ile Asp Asp Gly
20 25 30

Thr Ser Asp Arg Pro Tyr Ser His Ala Leu Val Ala Gly Ile Asp Arg
35 40 45

Tyr Pro Arg Lys Val Thr Ala Ala Met Gly Lys Lys Lys Ile Ala Lys
50 55 60

Arg Ser Lys Ile Lys Ser Phe Val Lys Val Tyr Asn Tyr Asn His Leu
65 70 75 80

Met Pro Thr Arg Tyr Ser Val Asp Ile Pro Leu Asp Lys Thr Val Val
85 90 95

Asn Lys Asp Val Phe Arg Asp Pro Ala Leu Lys Arg Lys Ala Arg Arg
100 105 110

Glu Ala Lys Val Lys Phe Glu Glu Arg Tyr Lys Thr Gly Lys Asn Lys
115 120 125

Trp Phe Phe Gln Lys Leu Arg Phe
130 135

<210> 297
<211> 90
<212> PRT
<213> Sus scrofa

<400> 297
Met Lys Lys Lys Gly Gly Arg Lys Ile Phe Gly Phe Met Val Lys Glu
1 5 10 15

Glu Lys Glu Glu Asn Trp Gly Ser Val Glu Phe Gln Val Phe Ser Phe
20 25 30

Thr Asn Lys Ile Arg Arg Leu Ala Ser His Leu Glu Leu His Lys Lys
35 40 45

Asp Phe Ser Ser Glu Arg Gly Leu Arg Arg Leu Leu Gly Lys Arg Gln

50 55 60

Arg Leu Leu Ala Tyr Leu Ala Lys Lys Asn Arg Val Arg Tyr Lys Lys
65 70 75 80

Leu Ile Ser Gln Leu Asp Ile Arg Glu Arg
85 90

<210> 298
<211> 100
<212> PRT
<213> Oryza sativa

<400> 298
Met Ala Lys Lys Ser Leu Ile Ala Arg Glu Lys Lys Arg Lys Lys Leu
1 5 10 15

Glu Glu Lys Phe Tyr Leu Ile Arg Arg Tyr Pro Thr Lys Glu Met Ser
20 25 30

Lys Gly Gly Ser Leu Ser Glu Ser Trp Glu Ile Gln Gly Lys Leu Glu
35 40 45

Ala Leu Pro Arg Asn Ser Ala Pro Thr Arg Leu His Arg Arg Cys Phe
50 55 60

Leu Thr Gly Arg Pro Arg Ala Asn Val Arg Asp Phe Gly Leu Ser Gly
65 70 75 80

His Ile Leu Arg Glu Met Val His Ile Cys Leu Leu Pro Gly Ala Thr
85 90 95

Arg Ser Ser Trp
100

<210> 299
<211> 152
<212> PRT
<213> Zea mays

<400> 299
Met Ser Leu Val Ile Pro Glu Lys Phe Gln His Ile Leu Arg Val Leu
1 5 10 15

Asn Thr Asn Ile Asp Gly Arg Arg Lys Ile Ala Phe Ala Ile Thr Ala
20 25 30

Ile Lys Gly Val Gly Arg Arg Tyr Ala His Val Val Leu Arg Lys Ala
35 40 45

Asp Ile Asp Leu Thr Lys Arg Ala Gly Glu Leu Thr Glu Asp Glu Val
50 55 60

Glu Arg Val Ile Thr Ile Met Gln Asn Pro Arg Gln Tyr Lys Ile Pro
65 70 75 80

Asp Trp Phe Leu Asn Arg Gln Lys Asp Val Lys Asp Gly Lys Tyr Ser
85 90 95

Gln Val Leu Ala Asn Gly Leu Asp Asn Lys Leu Arg Glu Asp Leu Glu
100 105 110

Arg Leu Lys Lys Ile Arg Ala His Arg Gly Leu Arg His Phe Trp Gly
115 120 125

Leu Arg Val Arg Gly Gln His Thr Lys Thr Thr Gly Arg Arg Gly Arg
130 135 140

Thr Val Gly Val Ser Lys Lys Lys
145 150

<210> 300
<211> 139
<212> PRT
<213> Solanum lycopersicum

<400> 300
Met Ala Asn Ser Ser Ser Gly Leu Ala Val Asn Asp Glu Cys Lys Val
1 5 10 15

Lys Phe Arg Glu Leu Lys Ser Arg Arg Thr Phe Arg Phe Ile Val Phe
20 25 30

Arg Ile Asp Asp Thr Asp Met Glu Ile Lys Val Asp Arg Leu Gly Glu
35 40 45

Pro Asn Gln Gly Tyr Gly Asp Phe Thr Asp Ser Leu Pro Ala Asn Glu
50 55 60

Cys Arg Tyr Ala Ile Tyr Asp Leu Asp Phe Thr Thr Ile Glu Asn Cys
65 70 75 80

Gln Lys Ser Lys Ile Phe Phe Phe Ser Trp Ser Pro Asp Thr Ala Arg
85 90 95

Thr Arg Ser Lys Met Leu Tyr Ala Ser Ser Lys Asp Arg Phe Arg Arg
100 105 110

Glu Leu Asp Gly Ile Gln Cys Glu Ile Gln Ala Thr Asp Pro Ser Glu

115 120 125

Met Ser Leu Asp Ile Val Arg Ser Arg Thr Asn
130 135

<210> 301
<211> 69
<212> PRT
<213> Oryza sativa

<400> 301
Met Asp Thr Ser Arg Val Gln Pro Ile Lys Leu Ala Arg Val Thr Lys
1 5 10 15

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

Glu Phe Met Asp Asp Thr Ser Arg Ser Ile Ile Arg Asn Val Lys Gly
35 40 45

Pro Val Arg Glu Gly Asp Val Leu Thr Leu Leu Glu Ser Glu Arg Glu
50 55 60

Ala Arg Arg Leu Arg
65

<210> 302
<211> 77
<212> PRT
<213> Zea mays

<400> 302
Met Asp Leu Val Lys Asn His Leu Met Tyr Ala Val Arg Glu Glu Val
1 5 10 15

Glu Ile Leu Lys Glu Gln Ile Arg Glu Leu Val Glu Lys Asn Ser Gln
20 25 30

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

Leu Glu Lys Phe Gln Ser Arg Leu Ser Pro Glu Glu Pro Ala Pro Glu
50 55 60

Thr Pro Glu Ala Pro Glu Ala Pro Gly Gly Ser Ala Val
65 70 75

<210> 303
<211> 114
<212> PRT
<213> Oryza sativa

<400> 303
Met Ala Glu Glu Lys His Gln His His His His Leu Phe His His Lys
1   5   10   15

Asn Lys Glu Asp Glu Gly Gly Pro Val Asp Tyr Glu Lys Glu Val Lys
            20   25   30

His His Ser His Leu Glu Lys Ile Gly Glu Leu Gly Ala Val Ala Ala
        35   40   45

Gly Ala Leu Ala Leu His Glu Lys His Lys Ala Lys Lys Asp Pro Glu
    50   55   60

His Ala His Lys His Lys Ile Glu Glu Glu Ile Met Ala Val Ala Ala
65   70   75   80

Val Gly Ala Gly Gly Phe Ala Phe His Glu His His Gln Lys Lys Asp
                85   90   95

Ala Lys Lys Glu Lys Lys Glu Val Glu Gly Gly His His His His His
            100   105   110

His Tyr

<210> 304
<211> 88
<212> PRT
<213> Oryza sativa

<400> 304
Val Arg Gln Glu Leu Lys Leu Glu Leu Lys Gln Gly Phe Lys Ser Arg
1   5   10   15

Ile Glu Asp Val Arg Glu Glu Ile Leu Arg Lys Arg Arg Ala Gly Lys
            20   25   30

Leu Pro Gly Asp Thr Thr Ser Ile Leu Lys Gln Trp Trp Gln Glu His
        35   40   45

Ser Lys Trp Pro Tyr Pro Thr Glu Asp Asp Lys Ala Lys Leu Val Glu
    50   55   60

Glu Thr Gly Leu Gln Leu Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln
65   70   75   80

Arg Lys Arg Asn Trp His Asn Asn
                85

<210> 305
<211> 139
<212> PRT
<213> Salmo salar

<400> 305
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Val Glu
1   5   10   15

Glu Lys Ala Glu Lys Lys Pro Lys Ala Glu Lys Arg Val Pro Gly Ala
            20   25   30

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

Val Glu Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His
    50   55   60

Pro Asp Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe
65   70   75   80

Ile Asn Asp Ile Phe Glu Lys Leu Ala Gln Glu Ala Ala Arg Leu Ala
                85   90   95

Arg Tyr Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser
            100   105   110

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

Gly Thr Lys Ala Val Thr Lys Phe Thr Ser Ser
    130   135

<210> 306
<211> 90
<212> PRT
<213> Oryza sativa

<400> 306
Met Lys Lys Lys Gly Gly Arg Lys Ile Phe Gly Phe Met Val Lys Glu
1   5   10   15

Glu Lys Glu Glu Asn Arg Gly Ser Val Glu Phe Gln Val Phe Ser Phe
            20   25   30

Thr Asn Lys Ile Arg Arg Leu Ala Ser His Leu Glu Leu His Lys Lys
        35   40   45

Asp Phe Ser Ser Glu Arg Gly Leu Arg Arg Leu Leu Gly Lys Arg Gln
    50   55   60

Arg Leu Leu Ala Tyr Leu Ala Lys Lys Asn Arg Val Arg Tyr Lys Lys
65 70 75 80

Leu Ile Ser Gln Leu Asp Ile Arg Glu Lys
85 90

<210> 307
<211> 90
<212> PRT
<213> Oryza sativa

<400> 307
Met Lys Lys Lys Gly Gly Arg Lys Ile Phe Gly Phe Met Val Lys Glu
1 5 10 15

Glu Lys Glu Glu Asn Trp Gly Ser Val Glu Phe Gln Val Phe Ser Phe
20 25 30

Thr Asn Lys Ile Arg Arg Leu Ala Ser His Leu Glu Leu His Lys Lys
35 40 45

Asp Phe Ser Ser Glu Arg Gly Leu Arg Arg Leu Leu Gly Lys Arg Gln
50 55 60

Arg Leu Leu Ala Tyr Leu Ala Lys Lys Asn Arg Val Arg Tyr Lys Lys
65 70 75 80

Leu Ile Ser Gln Leu Asp Ile Arg Glu Arg
85 90

<210> 308
<211> 133
<212> PRT
<213> Oryza sativa

<400> 308
Met Pro Phe Lys Arg Phe Val Glu Ile Gly Arg Val Ala Leu Ile Asn
1 5 10 15

Tyr Gly Lys Asp Tyr Gly Arg Leu Val Val Ile Val Asp Val Ile Asp
20 25 30

Gln Thr Arg Ala Leu Val Asp Ala Pro Asp Met Glu Arg Ser Pro Ile
35 40 45

Asn Phe Lys Arg Leu Ser Leu Thr Asp Leu Lys Ile Asp Ile Lys Arg
50 55 60

Val Pro Lys Lys Lys Asp Leu Ile Lys Ala Leu Glu Ala Ala Asp Val

65 70 75 80

Lys Asn Lys Trp Ala Lys Ser Ser Trp Gly Arg Lys Leu Ile Val Lys
85 90 95

Lys Thr Arg Ala Ala Leu Asn Asp Phe Asp Arg Phe Lys Ile Met Leu
100 105 110

Ala Lys Ile Lys Arg Ala Ala Gly Val Arg Gln Glu Leu Ala Lys Leu
115 120 125

Lys Lys Thr Ala Ala
130

<210> 309
<211> 129
<212> PRT
<213> Oryza sativa

<400> 309
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
50 55 60

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

Ser Leu Gln Ala Leu Ala Arg Lys Tyr Asn Gln Asp Lys Met Ile Cys
85 90 95

Arg Lys Cys Tyr Ala Arg Leu His Pro Arg Ala Val Asn Cys Arg Lys
100 105 110

Lys Lys Cys Gly His Ser Asn Gln Leu Arg Pro Lys Lys Lys Ile Lys
115 120 125

Asn

<210> 310
<211> 262

<212> PRT
<213> Sus scrofa

<400> 310

```
Met Ser Gln Pro Ala Glu Leu Ser Arg Glu Glu Asn Val Tyr Met Ala
1               5                  10                  15

Lys Leu Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met
            20                  25                  30

Glu Lys Val Ala Lys Thr Val Asp Ser Glu Glu Leu Thr Val Glu Glu
        35                  40                  45

Arg Asn Leu Leu Ser Val Ala Tyr Lys Asn Val Ile Gly Ala Arg Arg
    50                  55                  60

Ala Ser Trp Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg
65                  70                  75                  80

Gly Asn Glu Asp Arg Cys Thr Leu Ile Lys Glu Tyr Arg Gly Lys Ile
                85                  90                  95

Glu Thr Glu Leu Ser Lys Ile Cys Asp Gly Ile Leu Lys Leu Leu Asp
            100                 105                 110

Ser His Leu Val Pro Ser Ser Thr Ala Pro Glu Ser Lys Val Phe Tyr
        115                 120                 125

Leu Lys Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Phe Lys Thr
    130                 135                 140

Gly Ala Glu Arg Lys Asp Ala Ala Glu Asn Thr Met Val Ala Tyr Lys
145                 150                 155                 160

Ala Ala Gln Asp Ile Ala Leu Ala Glu Leu Pro Pro Thr His Pro Ile
                165                 170                 175

Arg Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu
            180                 185                 190

Asn Ser Pro Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu
        195                 200                 205

Ala Ile Ser Glu Leu Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser
    210                 215                 220

Thr Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser
225                 230                 235                 240
```

Asp Ile Ser Glu Asp Ala Ala Glu Glu Ile Lys Glu Ala Pro Lys Gly
245 250 255

Glu Ser Gly Asp Gly Gln
260

<210> 311
<211> 107
<212> PRT
<213> Sus scrofa

<400> 311
Met Thr Glu Lys Lys Asn Arg Arg Glu Lys Lys Asn Pro Arg Glu Ala
1 5 10 15

Lys Ile Thr Phe Glu Gly Leu Val Met Glu Ala Leu Pro Asn Gly Met
20 25 30

Phe Arg Val Arg Leu Glu Asn Asp Thr Ile Ile Leu Gly Tyr Ile Ser
35 40 45

Gly Lys Ile Arg Ser Ser Ser Ile Arg Ile Leu Met Gly Asp Arg Val
50 55 60

Lys Ile Glu Val Ser Arg Tyr Asp Ser Ser Lys Gly Arg Ile Ile Tyr
65 70 75 80

Arg Leu Pro His Lys Asp Ser Lys Arg Thr Glu Asp Ser Lys Asp Thr
85 90 95

Glu Asp Leu Lys Asp Thr Lys Asp Ser Lys Gly
100 105

<210> 312
<211> 21
<212> PRT
<213> Sus scrofa

<400> 312
Leu Asp Glu Phe Arg Val Tyr Ser Asp Asp Ala Asn Lys Tyr Lys Ile
1 5 10 15

Ser Ile Pro Gln Asp
20

<210> 313
<211> 719
<212> PRT
<213> Oryza sativa

<400> 313

```
Met Glu Lys Asn Ile Ala His Cys Pro Val Glu Gly Asn Gly Glu Ile
1               5                  10                  15

Glu Asn Gly Ala Ser Ser Ser Gln Asn Pro Glu Ser Leu Glu His Ser
            20                  25                  30

Val Leu Leu Ser Thr Ser Gln Thr Met Pro Asn Asn Leu Gly Ile Arg
        35                  40                  45

Lys Asn Tyr Lys Arg Ala Ala Asn Arg Gly Lys Lys Gly Ser Gln Gly
    50                  55                  60

Leu Thr Gly Gln Ala Tyr Thr Leu Met Ser Ser Asn Ser Asp Val Arg
65                  70                  75                  80

Val Leu Arg Ser Thr Ser Ser Ser Lys Thr Thr Ser Thr Glu His Val
                85                  90                  95

Gln Ala Pro Val Gln Pro Ala Ala Lys Arg Arg Lys Met Ser Arg Ala
            100                 105                 110

Ser Asn Lys Ser Ser Thr Asp Glu Phe Ser Gln Ile Arg Lys Arg Val
        115                 120                 125

Arg Tyr Ile Leu Asn Arg Met Asn Tyr Glu Gln Ser Leu Ile Glu Ala
    130                 135                 140

Tyr Ala Ser Glu Gly Trp Lys Asn Gln Ser Leu Asp Lys Ile Arg Pro
145                 150                 155                 160

Glu Lys Glu Leu Glu Arg Ala Lys Ser Glu Ile Leu Arg Cys Lys Leu
                165                 170                 175

Arg Ile Arg Glu Val Phe Arg Asn Ile Asp Ser Leu Leu Ser Lys Gly
            180                 185                 190

Lys Ile Asp Glu Thr Leu Phe Asp Ser Glu Gly Glu Ile Ser Cys Glu
        195                 200                 205

Asp Ile Phe Cys Ser Thr Cys Gly Ser Asn Asp Ala Thr Leu Gly Asn
    210                 215                 220

Asp Ile Ile Leu Cys Asp Gly Ala Cys Asp Arg Gly Phe His Gln Asn
225                 230                 235                 240

Cys Leu Asn Pro Pro Leu Arg Thr Glu Asp Ile Pro Met Gly Asp Glu
                245                 250                 255
```

```
Gly Trp Leu Cys Pro Ala Cys Asp Cys Lys Ile Asp Cys Ile Asp Leu
            260                 265                 270

Ile Asn Glu Leu His Gly Ser Asn Ile Ser Ile Glu Asp Ser Trp Glu
        275                 280                 285

Lys Val Phe Pro Asp Ala Ala Ala Met Ala Asn Asp Ser Lys Gln Asp
    290                 295                 300

Asp Ala Phe Asp Leu Pro Ser Asp Asp Ser Asp Asp Asn Asp Phe Asp
305                 310                 315                 320

Pro Asn Met Pro Glu Glu His Val Val Gly Lys Asp Glu Glu Ser Ser
                325                 330                 335

Glu Glu Asp Glu Asp Gly Gly Ser Asp Ser Asp Asp Ser Asp Phe Leu
            340                 345                 350

Thr Cys Ser Asp Asp Ser Glu Pro Leu Ile Asp Lys Lys Val Asp Asp
        355                 360                 365

Leu Arg Leu Pro Ser Glu Asp Ser Glu Asp Asp Asp Tyr Asp Pro Ala
    370                 375                 380

Gly Pro Asp Ser Asp Lys Asp Val Glu Lys Lys Ser Ser Ser Asp Glu
385                 390                 395                 400

Ser Asp Phe Thr Ser Asp Ser Asp Asp Phe Cys Lys Glu Ile Ser Lys
                405                 410                 415

Ser Gly His Asp Glu Val Ser Ser Pro Leu Leu Pro Asp Ala Lys Val
            420                 425                 430

Gly Asp Met Glu Lys Ile Thr Ala Gln Ala Lys Thr Thr Ser Ser Ala
        435                 440                 445

Asp Asp Pro Met Glu Thr Glu Ile Asp Gln Gly Val Val Leu Pro Asp
    450                 455                 460

Ser Arg Arg Arg Gln Ala Glu Arg Leu Asp Tyr Lys Lys Leu Tyr Asp
465                 470                 475                 480

Glu Ala Tyr Gly Glu Ala Ser Ser Asp Ser Ser Asp Asp Glu Glu Trp
                485                 490                 495

Ser Gly Lys Asn Thr Pro Ile Ile Lys Ser Asn Glu Glu Gly Glu Ala
            500                 505                 510
```

```
Asn Ser Pro Ala Gly Lys Gly Ser Arg Val Val His His Asn Asp Glu
        515                 520                 525

Leu Thr Thr Gln Ser Thr Lys Lys Ser Leu His Ser Ile His Gly Ser
    530                 535                 540

Val Asp Glu Lys Pro Gly Asp Leu Thr Ser Asn Gly Ser Asn Ser Thr
545                 550                 555                 560

Ala Arg Lys Gly His Phe Gly Pro Val Ile Asn Gln Lys Leu His Glu
                565                 570                 575

His Phe Lys Thr Gln Pro Tyr Pro Ser Arg Ser Val Lys Glu Ser Leu
            580                 585                 590

Ala Glu Glu Leu Gly Leu Thr Phe Arg Gln Val Asn Lys Trp Phe Glu
        595                 600                 605

Thr Arg Arg His Ser Ala Arg Val Ala Ser Ser Arg Lys Gly Ile Ser
    610                 615                 620

Leu Asp Lys His Ser Pro Gln Asn Thr Asn Ser Gln Val Thr Ala Ser
625                 630                 635                 640

Met Glu Pro Lys Glu Pro Glu Gly Thr Val Val Glu Glu Ser Asn Val
                645                 650                 655

Cys Leu Asn Gly Gly Thr Thr Ile Ser Lys Glu Ala Val Ser Ser Lys
            660                 665                 670

Val Gly Ser Arg Thr Pro Gly Ser Asp Val Gly Gly Ser Lys Val Asp
        675                 680                 685

Ser Ala Glu Asp Gln Asn Pro Gly Pro Asp Leu Ala Glu Lys Ala Arg
    690                 695                 700

Gln Lys Ala Ile Gln Gln Glu Leu Arg Lys Lys Lys Met Gly Arg
705                 710                 715
```

<210> 314
<211> 248
<212> PRT
<213> Oryza sativa

<400> 314

```
Met Ser Ser Ser Ser Leu Thr Thr Thr Ser Ser Met Asp Ser Val Val
1               5                   10                  15
```

```
Asp Gly Gly Leu Asp Thr Arg Leu Ser Leu Ala Val Gly Cys Cys Pro
            20                  25                  30

Pro Arg Arg Arg Pro Val Leu Leu Phe Gly Glu Val Leu Pro Ser Pro
        35                  40                  45

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

Arg Glu Gln Arg Gly Glu Ala Glu Ala Glu Ala Thr Thr Thr Arg Gln
65                  70                  75                  80

Arg Arg Ser Cys Lys Lys Gly Arg Arg Gly Arg Gly Asp Asp Asp Asp
                85                  90                  95

Asp Asp Gly Asp Arg Arg Ser Pro Ser Gly Gly Gly Gly Asp Glu Glu
            100                 105                 110

Gly Ala Ser Arg Lys Lys Leu Arg Leu Thr Gly Glu Gln Ala Thr Leu
        115                 120                 125

Leu Glu Asp Ser Phe Arg Ala His Asn Ile Leu Ser His Ala Glu Lys
    130                 135                 140

Gln Glu Leu Ala Gly Lys Leu Gly Leu Ser Ala Arg Gln Val Glu Val
145                 150                 155                 160

Trp Phe Gln Asn Arg Arg Ala Arg Thr Lys Leu Lys Gln Thr Glu Ala
                165                 170                 175

Asp Cys Asp Leu Leu Arg Arg Trp Cys Asp His Leu Ala Ala Asp Asn
            180                 185                 190

Ala Arg Leu Arg Arg Asp Leu Ala Glu Leu Arg Arg Ser Ser Ser Ser
        195                 200                 205

Pro Pro Val Ser Gly Leu Ala Val Ala Thr Pro Val Val Cys Pro Ser
    210                 215                 220

Cys Ala His Asp Asp Lys Arg Arg Leu Ala Phe Ala Thr Ala Ala Ala
225                 230                 235                 240

Ala Ala Gly Asp Met Ala Ser Asn
                245
```

<210> 315
<211> 94

<212> PRT
<213> Oryza sativa

<400> 315
Met Ala Ser Gly Gln Glu Lys Gly Arg Ser Glu Leu Asp Ser Leu Ala
1   5   10   15

Arg Glu Gly Gln Thr Val Val Pro Gly Gly Thr Gly Gly Lys Ser Tyr
            20   25   30

Glu Ala Gln Glu Lys Leu Ala Glu Gly Arg Ser Arg Gly Gly Gln Thr
        35   40   45

Arg Lys Glu Gln Met Gly Glu Glu Gly Tyr Ser Glu Met Gly Arg Lys
    50   55   60

Gly Gly Leu Ser Thr Asn Asp Glu Ser Gly Gly Glu Arg Ala Ala Arg
65   70   75   80

Glu Gly Ile Asp Ile Asp Glu Ser Lys Phe Lys Thr Lys Ser
                85   90

<210> 316
<211> 270
<212> PRT
<213> Oryza sativa

<400> 316
Met Ala Asp Glu Glu Gln Met Glu Arg Lys Glu Glu Ala Thr Glu Ile
1   5   10   15

Ala Pro Phe Asp Pro Thr Lys Lys Lys Lys Lys Lys Val Val Ile
            20   25   30

Gln Asp Pro Ala Asp Glu Val Asp Lys Leu Ala Glu Lys Thr Glu Gly
        35   40   45

Leu Ser Val Thr Glu Ser Gly Glu Ala Ser Phe Val Gly Leu Lys Lys
    50   55   60

Lys Lys Lys Lys Leu Val Glu Leu Asp Pro Ser Leu Val Glu Ala Gly
65   70   75   80

Asp Gly Glu Asp Thr Leu Asp Asp Gln Val Gly Glu Asp Glu Gln Gly
                85   90   95

Glu Gly Ile Val Leu Gly Gly Ala Thr Gln Tyr Pro Trp Glu Gly Thr
            100   105   110

Asp Arg Asp Tyr Lys Tyr Asp Glu Leu Leu Gly Arg Val Phe Asn Ile

115 120 125

Leu Arg Glu Asn Asn Pro Asp Leu Ala Gly Asp Arg Arg Arg Thr Val
130 135 140

Met Arg Pro Pro Gln Val Leu Arg Glu Gly Thr Lys Lys Thr Val Phe
145 150 155 160

Val Asn Phe Met Asp Leu Cys Lys Thr Met His Arg Gln Pro Glu His
165 170 175

Val Met Met Phe Leu Leu Ala Glu Met Gly Thr Ser Gly Ser Leu Asp
180 185 190

Gly Gln Gln Arg Leu Val Ile Lys Gly Arg Phe Ala Pro Lys Asn Phe
195 200 205

Glu Ala Ile Leu Arg Arg Tyr Ile Asn Glu Tyr Val Ile Cys His Gly
210 215 220

Cys Lys Ser Pro Asp Thr Ile Leu Ser Lys Glu Asn Arg Leu Phe Phe
225 230 235 240

Leu Arg Cys Glu Gln Cys Gly Ser Ser Arg Ser Val Ala Pro Ile Lys
245 250 255

Ala Gly Phe Val Ala Gln Val Gly Arg Arg Lys Ala Gly Thr
260 265 270

<210> 317
<211> 384
<212> PRT
<213> Oryza sativa

<400> 317
Met Ala Arg Gly Glu Lys Gly Arg Gly Glu Gly Pro Ala Lys Ser Ala
1 5 10 15

Leu Arg Lys Val Arg Thr Ala Thr Leu Val Ile Asn Leu Ala Arg Gly
20 25 30

Trp Gln Gln Trp Ala Asn Glu Asn Ser Thr Arg Gln Ala Gln Glu Pro
35 40 45

Thr Gly Trp Met Pro Gly Gly Ala Arg Glu Ser Asp Gln Pro Ser Gly
50 55 60

Pro Val Ile His Pro Thr Thr His Gln Lys Val Gln Ser Ala Pro Lys
65 70 75 80

```
Ser Pro Ser Pro Lys Pro Gly Gly Tyr Gly Ala Gly Gln Ser Ser Glu
                85                  90                  95

Gly Ala Thr Glu Val Ser Pro Ile Lys Arg Lys Glu Val Thr Lys Thr
            100                 105                 110

Ile Val Ser Lys Ala Tyr Glu Arg Gly Gly Asp Val Ser His Leu Ser
        115                 120                 125

His Arg Tyr Glu Lys Asp Gly Asp Glu Pro Glu Pro Glu Gln Pro Glu
    130                 135                 140

Ser Asp Ile Asp Arg Leu Leu Arg Ser His Gly Ser Pro Thr Arg Arg
145                 150                 155                 160

Arg Lys Cys Ala Asn Leu Val Ser Glu Leu Thr Lys Gly Trp Lys Glu
                165                 170                 175

Met Glu Gln Glu Glu Gln Glu Glu Leu Lys Cys Arg Ser Asp Ser Ile
            180                 185                 190

Asp Thr Glu Asp Ser Gly Tyr Gly Gly Glu Thr Glu Glu Arg Pro Glu
        195                 200                 205

Gln Asp Gly Glu Gln Val Ala Ile Ala Arg Ile Lys Arg Pro Leu Pro
    210                 215                 220

Ser Gln Ala Asn Arg Phe Thr Glu Lys Leu Asn Cys Lys Ala Gln Arg
225                 230                 235                 240

Lys Tyr Ser Gln Val Gly His Leu Lys Gly Arg Trp Gln Gln Trp Ala
                245                 250                 255

Asp Glu His Ile Gln Ser Gln Lys Leu Asn Pro Phe Ser Asp Glu Phe
            260                 265                 270

Asp Tyr Glu Leu Ala Met Ser Thr Arg Leu His Lys Gly Asp Glu Gly
        275                 280                 285

Tyr Gly Arg Pro Lys Glu Gly Thr Arg Thr Ala Glu Arg Ala Lys Arg
    290                 295                 300

Ala Glu Glu His Ile Tyr Arg Glu Ile Met Asp Met Cys Phe Ile Ile
305                 310                 315                 320

Arg Thr Met Ala His Pro Arg Arg Asp Gly Lys Ile Gln Val Thr Phe
```

325 330 335

Gly Asp Leu Phe Asp Arg Tyr Val Arg Ile Ser Asp Lys Val Val Gly
340 345 350

Ile Leu Met Arg Ala Arg Lys His Gly Leu Val Asp Phe Glu Gly Glu
355 360 365

Met Leu Trp Gln Gly Arg Asp Asp His Val Val Ile Thr Leu Leu Lys
370 375 380

<210> 318
<211> 196
<212> PRT
<213> Oryza sativa

<400> 318
Met Arg Pro Lys Val Val Phe Val Leu Gly Gly Pro Gly Ala Gly Lys
1 5 10 15

Gly Thr Gln Cys Ala Arg Ile Val Glu Lys Tyr Gly Tyr Thr His Leu
20 25 30

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

Tyr Gly Glu Leu Ile Glu Lys Tyr Ile Lys Asp Gly Lys Ile Val Pro
50 55 60

Val Glu Ile Thr Ile Ser Leu Leu Arg Arg Glu Met Asp Gln Thr Met
65 70 75 80

Ala Ala Asn Ala Gln Lys Asn Lys Phe Leu Ile Asp Gly Phe Pro Arg
85 90 95

Asn Gln Asp Asn Leu Gln Gly Trp Asn Lys Thr Met Asp Gly Lys Ala
100 105 110

Asp Val Ser Phe Val Leu Phe Phe Asp Cys Asn Asn Glu Ile Cys Ile
115 120 125

Glu Arg Cys Leu Glu Arg Gly Lys Ser Ser Gly Arg Ser Asp Asp Asn
130 135 140

Arg Glu Ser Leu Glu Lys Arg Ile Gln Thr Tyr Leu Gln Ser Thr Lys
145 150 155 160

Pro Ile Ile Asp Leu Tyr Glu Glu Met Gly Lys Val Lys Lys Ile Asp
165 170 175

Ala Ser Lys Ser Val Asp Glu Val Phe Asp Glu Val Val Lys Ile Phe
180 185 190

Asp Lys Glu Gly
195

<210> 319
<211> 129
<212> PRT
<213> Oryza sativa

<400> 319
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
50 55 60

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

Ser Leu Gln Ala Leu Ala Arg Lys Tyr Asn Gln Asp Lys Met Ile Cys
85 90 95

Arg Lys Cys Tyr Ala Arg Leu His Pro Arg Ala Val Asn Cys Arg Lys
100 105 110

Lys Lys Cys Gly His Ser Asn Gln Leu Arg Pro Lys Lys Lys Ile Lys
115 120 125

Asn

<210> 320
<211> 257
<212> PRT
<213> Oryza sativa

<400> 320
Met Ser Asp Ser Ser Arg Glu Glu Asn Val Tyr Met Ala Lys Leu Ala
1 5 10 15

Asp Glu Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu Lys Val

20 25 30

Ala Lys Thr Val Glu Val Glu Glu Leu Thr Val Glu Glu Arg Asn Leu
35 40 45

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

Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly Asn Glu
65 70 75 80

Asp His Val Ala Ile Ile Lys Glu Tyr Arg Gly Lys Ile Glu Ala Glu
85 90 95

Leu Ser Lys Ile Cys Asp Gly Ile Leu Asn Leu Leu Glu Ser Asn Leu
100 105 110

Ile Pro Ser Ala Ala Ser Pro Glu Ser Lys Val Phe Tyr Leu Lys Met
115 120 125

Lys Gly Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Ala Glu
130 135 140

Arg Lys Glu Ala Ala Glu Ser Thr Leu Leu Ala Tyr Lys Ser Ala Gln
145 150 155 160

Asp Ile Ala Leu Ala Asp Leu Ala Pro Thr His Pro Ile Arg Leu Gly
165 170 175

Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro
180 185 190

Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ser
195 200 205

Glu Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile
210 215 220

Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Ile Thr
225 230 235 240

Asp Ile Ala Gly Asp Glu Ile Lys Glu Thr Ser Lys Gln Gln Pro Gly
245 250 255

Glu

<210> 321
<211> 312
<212> PRT
<213> Solanum lycopersicum

<400> 321

```
Met Asn Pro Leu Thr Gln Val Lys Arg Thr Gln Val Ile Asn Gln Lys
1               5                  10                  15

Glu Ala Leu Leu Gly Ile Gly Glu Asp Gly Ser Trp His Ala Lys Phe
            20                  25                  30

Lys Asp Ser Ala Tyr Val Phe Val Gly Gly Ile Pro Tyr Asp Leu Thr
        35                  40                  45

Glu Gly Asp Leu Leu Ala Val Phe Ala Gln Tyr Gly Glu Val Val Asp
    50                  55                  60

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

Phe Leu Ala Tyr Glu Asp Gln Arg Ser Thr Ile Leu Ala Val Asp Asn
                85                  90                  95

Leu Asn Gly Ala Lys Val Leu Gly Arg Ile Val Arg Val Asp His Val
            100                 105                 110

Ser Lys Tyr Lys Lys Lys Glu Glu Glu Asp Glu Glu Glu Leu Gln Lys
        115                 120                 125

Lys Arg Glu Ala Arg Gly Val Cys Tyr Ala Phe Gln Lys Gly Glu Cys
    130                 135                 140

Asn Arg Gly Ala Ser Cys Arg Tyr Ser His Asp Glu Gln Arg Asn Ala
145                 150                 155                 160

Asn Thr Gly Trp Gly Ser Lys Glu Glu Ser Lys Ala Arg Trp Glu His
                165                 170                 175

Asp Arg His His Glu Pro Pro Met Ser His Lys Lys Phe Pro Ser Ser
            180                 185                 190

Ala Gly Glu Gln Arg Phe Pro Asp Arg Ala Lys Glu Glu Asn Lys Ser
        195                 200                 205

Thr Gly Arg Glu Gly Gln Ser Ser Arg Ser Glu Ala Tyr Lys Asp Arg
    210                 215                 220

Asp Ser Arg Leu Arg His Ser Asp Arg Gly Ser Lys Asp His Asp Arg
```

225 230 235 240

Tyr Arg His Asp Arg Ser Pro Glu Arg Ser Arg Gly Asp Arg Gln Arg
245 250 255

Asn Asn Asp Arg Tyr Ala Gln Gly Arg Asp Glu Lys Ser Glu Arg Tyr
260 265 270

Arg Ser Glu Val Lys His Asp Glu Gly Asp Gln Lys Arg Ser Arg Arg
275 280 285

Asp Thr Asp Ser Ser Gly His Tyr Glu Arg Arg Gly Asn Glu Asp Ser
290 295 300

Glu Arg Tyr Arg Lys Ser Arg Arg
305 310

<210> 322
<211> 654
<212> PRT
<213> Solanum tuberosum

<400> 322
Met Val Leu Ser Asp Leu Asp Ile Lys Glu Pro Asp Ser Pro Glu Ser
1 5 10 15

Gly Leu Asn Gly Ser Asp Asp Met Val Arg Glu His Glu Thr Glu Ser
20 25 30

Lys Gly Asn Leu Tyr Ser Gln Tyr Glu Glu Lys Val Arg Pro Cys Ile
35 40 45

Asp Leu Ile Asp Ser Leu Arg Ala Leu Gly Val Glu Gln Asp Leu Ala
50 55 60

Leu Pro Ala Ile Ala Val Ile Gly Asp Gln Ser Ser Gly Lys Ser Ser
65 70 75 80

Val Leu Glu Ala Leu Ser Gly Val Ala Leu Pro Arg Gly Ser Gly Ile
85 90 95

Val Thr Arg Cys Pro Leu Val Leu Arg Leu Lys Lys Leu Glu Lys Glu
100 105 110

Gly Glu Trp Lys Gly Lys Val Ser Phe Leu Asp Arg Glu Ile Glu Ile
115 120 125

Ser Asp Ala Ser Gln Val Glu Lys Glu Ile Ser Glu Ala Gln Ile Ala
130 135 140

```
Ile Ala Gly Glu Gly Met Gly Ile Ser His Glu Leu Ile Ser Leu Glu
145                 150                 155                 160

Val Ser Ser Pro His Val Pro Asp Leu Thr Leu Ile Asp Leu Pro Gly
                165                 170                 175

Ile Thr Arg Val Ala Val Gly Asn Gln Pro His Asp Ile Glu Tyr Gln
            180                 185                 190

Ile Lys Ser Leu Ile Arg Lys Tyr Ile Leu Arg Gln Glu Thr Ile Asn
        195                 200                 205

Leu Val Val Val Pro Ala Asn Val Asp Ile Ala Thr Thr Glu Ala Leu
    210                 215                 220

Arg Met Ala Gln Asp Val Asp Pro Gln Gly Asp Arg Thr Ile Gly Ile
225                 230                 235                 240

Leu Thr Lys Pro Asp Leu Val Asp Lys Gly Thr Glu Asp Lys Val Val
                245                 250                 255

Asp Val Val Arg Asn Leu Val Phe His Leu Lys Lys Gly Tyr Met Ile
            260                 265                 270

Val Lys Cys Arg Gly Gln Gln Glu Ile Gln His Arg Leu Ser Leu Asp
        275                 280                 285

Lys Ala Leu Gln Arg Glu Arg Ile Phe Phe Glu Asp His Thr His Phe
    290                 295                 300

Arg Asp Leu Leu Glu Glu Gly Arg Ala Thr Ile Pro Cys Leu Ala Glu
305                 310                 315                 320

Arg Leu Thr Asn Glu Leu Ile Met His Ile Cys Lys Thr Leu Pro Leu
                325                 330                 335

Leu Glu Asn Gln Ile Lys Glu Thr His Gln Arg Ile Thr Glu Glu Leu
            340                 345                 350

Gln Lys Tyr Gly Lys Asp Ile Pro Glu Glu Glu Ser Glu Lys Met Phe
        355                 360                 365

Ser Leu Ile Glu Lys Ile Asp Thr Phe Asn Lys Glu Ile Ile Ser Thr
    370                 375                 380

Ile Glu Gly Glu Glu His Val Gly Gln Tyr Asp Ser Arg Leu Phe Thr
```

385 390 395 400

Lys Val Arg Ala Glu Phe Cys Lys Trp Ser Ala Val Val Glu Lys Asn
405 410 415

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

Asn Arg Tyr Arg Gly Arg Glu Leu Pro Gly Phe Val Asn Tyr Lys Thr
435 440 445

Phe Glu Ile Ile Ile Lys Lys Gln Val Ile Val Leu Glu Glu Pro Ala
450 455 460

Val Asp Met Leu His Thr Val Thr Asp Ile Ile Arg Asn Thr Phe Thr
465 470 475 480

Glu Val Ser Gly Lys His Phe Ser Glu Phe Phe Asn Leu His Arg Thr
485 490 495

Ala Lys Ser Lys Ile Glu Asp Ile Arg Leu Glu Gln Glu Asn Glu Ala
500 505 510

Glu Lys Ser Ile Arg Leu His Phe Gln Met Glu Gln Leu Val Tyr Cys
515 520 525

Gln Asp Gln Val Tyr Arg Arg Ala Leu Gln Gln Val Arg Glu Lys Glu
530 535 540

Ala Glu Glu Glu Lys Lys Lys Lys Ser Asn His Tyr Tyr Gln Ser Glu
545 550 555 560

Asp Ser Glu Pro Ser Thr Ala Glu Ile Phe Gln His Leu Met Ala Tyr
565 570 575

His Gln Glu Val Ser Thr Arg Ile Ser Ser His Ile Pro Leu Ile Ile
580 585 590

Gln Phe Phe Val Leu Arg Thr Tyr Gly Glu Gln Leu Lys Lys Ser Met
595 600 605

Leu Gln Leu Leu Gln Asp Lys Asp Gln Tyr Asp Trp Leu Leu Lys Glu
610 615 620

Arg Thr Asp Thr Arg Asp Lys Arg Lys Phe Leu Lys Glu Arg Leu Glu
625 630 635 640

Arg Leu Ser Arg Ala Arg Gln Arg Leu Ala Lys Phe Pro Gly
645 650

<210> 323
<211> 551
<212> PRT
<213> Sus scrofa

<400> 323
Met Glu Glu Ala Glu Leu Val Lys Glu Arg Leu Gln Ala Ile Thr Asp
1 5 10 15

Lys Arg Lys Ile Gln Glu Glu Ile Ser Gln Lys Arg Leu Lys Ile Glu
20 25 30

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

Lys Trp Leu Leu Asp Gly Ile Gly Ser Arg Lys Glu Gln Glu Glu Met
50 55 60

Lys Lys Gln Asn Gln Gln Asp Gln His Gln Ile Gln Val Leu Glu Gln
65 70 75 80

Ser Ile Leu Arg Leu Glu Lys Glu Ile Gln Asp Leu Glu Lys Ala Glu
85 90 95

Leu Gln Ile Ser Thr Asn Glu Glu Ala Ile Leu Lys Lys Leu Lys Ser
100 105 110

Val Glu Arg Thr Thr Glu Asp Ile Ile Arg Ser Val Lys Val Glu Lys
115 120 125

Glu Glu Thr Ser Gly Ala Ser Ile Glu Asp Ile Tyr Ala Asn Ile Pro
130 135 140

Asp Leu Pro Lys Ser Tyr Val Pro Ser Arg Leu Arg Lys Glu Arg Asn
145 150 155 160

Glu Gly Ile Glu Asp Asp Glu Gln Asn Arg Lys Ala Leu Tyr Ala Met
165 170 175

Glu Ile Lys Val Glu Lys Asp Leu Lys Thr Gly Glu Ser Thr Val Leu
180 185 190

Ser Ser Ile Pro Leu Pro Ser Asp Asp Phe Lys Gly Thr Gly Ile Lys
195 200 205

Val Tyr Asp Asp Gly Gln Lys Ser Val Tyr Ala Val Ser Ser Asn His

```
    210                 215                 220

Ser Ala Ala Tyr Asn Gly Thr Asp Gly Leu Ala Pro Val Glu Val Glu
225                 230                 235                 240

Asp Leu Leu Arg Gln Ala Ser Glu Arg Asn Ser Lys Ser Pro Thr Glu
                245                 250                 255

Tyr His Asp Pro Val Tyr Ala Asn Pro Phe Cys Arg Pro Thr Thr Pro
            260                 265                 270

Gln Arg Glu Lys Ala Thr Pro Gly Pro Asn Phe Gln Glu Arg Ile Lys
        275                 280                 285

Met Lys Ala Arg Gly Leu Gly Lys Asp Met Asn Gly Ser Ile His Thr
    290                 295                 300

Met Asn Asn Gly Leu Ser Glu Glu Arg Gly Ser Ser Val Asn His Ile
305                 310                 315                 320

Ser Pro Ile Arg Pro Ile Pro His Pro Arg Ser Met Thr Gln Gln Ala
                325                 330                 335

Glu Glu Arg Pro His Ser Pro Gln Lys Arg Gln Met Thr Pro Trp Glu
            340                 345                 350

Glu Ser Asp Val Thr Gln Asp Lys Cys Ala Pro Ser Ala Lys Ser Gln
        355                 360                 365

Leu Ser Pro Gly Glu Ala Pro Val Gly Lys Ser Glu Arg Gln Gly Ser
    370                 375                 380

Ser Pro Thr Cys Gln Glu Asp Glu Glu Asp Val Arg Tyr Asn Ile Val
385                 390                 395                 400

His Ser Leu Pro Ser Asp Val Glu Asp Thr Glu Pro Val Thr Met Ile
                405                 410                 415

Phe Met Gly Tyr Gln Arg Ala Asp Asp Ser Glu Glu Glu Lys Lys Leu
            420                 425                 430

Leu Thr Gly Tyr Asp Gly Ile Ile Arg Ala Glu Leu Val Val Ile Asp
        435                 440                 445

Asp Glu Glu Glu Glu Gly Glu Gly Glu Ala Glu Lys Pro Ser Tyr His
    450                 455                 460
```

Pro Ile Ala Pro His Ser Gln Val Phe Gln Pro Ala Lys Pro Thr Pro
465 470 475 480

Leu Pro Arg Lys Arg Ala Glu Val Asn Pro His Glu Asn Thr Asn His
485 490 495

Lys Ser Pro His Lys Asn Ser Ile Ser Leu Lys Glu Gln Glu Glu Ser
500 505 510

Leu Gly Ser Pro Ile His Gln Ser Pro Leu Asp Ile Gln Ile Ala Gly
515 520 525

Asp Gly Thr Glu Asp Pro Ser Leu Thr Ala Leu Arg Met Arg Met Ala
530 535 540

Lys Leu Gly Lys Lys Val Ile
545 550

<210> 324
<211> 110
<212> PRT
<213> Zea mays

<400> 324
Met Ala Lys Gly Thr Arg Lys Pro Arg Gln Pro Arg Arg Val Ala Val
1 5 10 15

Arg Phe Ala Ser Arg Met Lys Gly Arg Lys Lys Thr Leu Trp Gln Arg
20 25 30

Arg Tyr Arg Gly Ser Val Lys Ala Pro Asn Met Thr Met Arg Val Arg
35 40 45

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

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

Ser Cys Ala Arg Glu Lys Leu Asn Gln Ser Arg Lys Arg Tyr Gln Asn
85 90 95

Met Arg Gln Ser Gln Arg Arg Gly Gln Asn Gln Lys Arg Arg
100 105 110

<210> 325
<211> 145
<212> PRT
<213> Oryza sativa

<400> 325
Met Pro Lys Ile Lys Thr Ser Gly Val Lys Tyr Pro Asp Gly Trp Glu
1 5 10 15

Leu Ile Glu Pro Thr Leu Ser Glu Leu His Ser Lys Met Arg Glu Ala
20 25 30

Glu Asn Asp Pro His Asp Gly Arg Arg Lys Cys Glu Ala Leu Trp Pro
35 40 45

Ile Phe Lys Ile Asn His Gln Arg Ser Arg Tyr Leu Tyr Asp Leu Tyr
50 55 60

Tyr Asn Arg Lys Glu Ile Ser Gln Glu Leu Tyr Glu Phe Cys Leu Asp
65 70 75 80

Gln Gly His Ala Asp Arg Asn Leu Ile Ala Lys Trp Lys Lys Gln Gly
85 90 95

Tyr Glu Arg Leu Cys Cys Leu Arg Cys Ile Gln Thr Arg Asp His Asn
100 105 110

Phe Ala Thr Thr Cys Val Cys Arg Val Pro Lys His Leu Arg Glu Glu
115 120 125

Gln Val Ile Glu Cys Val His Cys Gly Cys Lys Gly Cys Ala Ser Gly
130 135 140

Asp
145

<210> 326
<211> 155
<212> PRT
<213> Solanum lycopersicum

<400> 326
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
50 55 60

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

Lys Lys Lys Thr Tyr Thr Lys Pro Lys Lys Ile Lys His Lys His Lys
                85                  90                  95

Lys Val Lys Leu Ala Val Leu Gln Phe Tyr Lys Val Asp Asp Ala Thr
            100                 105                 110

Gly Lys Val Thr Arg Leu Arg Lys Glu Cys Pro Asn Thr Glu Cys Gly
        115                 120                 125

Ala Gly Val Phe Met Ala Asn His Phe Asp Arg His Tyr Cys Gly Lys
    130                 135                 140

Cys Gly Leu Thr Tyr Val Tyr Asn Gln Lys Ala
145                 150                 155
```

<210> 327
<211> 129
<212> PRT
<213> Oryza sativa

<400> 327

```
Met Ser Tyr Ile Ser Gly Ala Arg Ser Leu Pro Asp Glu Gln Val Arg
1               5                   10                  15

Ile Ala Ser Thr Lys Met Asp Gly Ile Gly Pro Lys Lys Ala Ile Gln
            20                  25                  30

Leu Arg Tyr Arg Leu Gly Ile Ser Gly Asn Ile Lys Ile His Glu Leu
        35                  40                  45

Thr Lys Tyr Gln Ile Asp Gln Ile Glu Gln Met Ile Ala Gln Asp His
    50                  55                  60

Val Val His Trp Glu Leu Lys Arg Gly Glu Arg Ala Asp Ile Glu Arg
65                  70                  75                  80

Leu Ile Ser Ile Ser Arg Tyr Arg Gly Ile Arg His Gln Asp Gly Ser
                85                  90                  95

Pro Leu Arg Gly Gln Arg Thr His Thr Asn Ala Arg Thr Ala Arg Lys
            100                 105                 110

Gln Ile Arg Lys Gly Asn Glu Arg Arg Leu Pro Lys Glu Gln Ala Thr
        115                 120                 125

Asp
```

<210> 328
<211> 262
<212> PRT
<213> Ovis aries

<400> 328
Met Ala Val Gly Lys Asn Lys Arg Ile Ser Lys Gly Lys Lys Gly Ser
1 5 10 15

Lys Lys Lys Thr Val Asp Pro Phe Ala Lys Lys Asp Trp Tyr Asp Ile
20 25 30

Lys Ala Pro Ser Val Phe Asn Val Arg Asn Ile Gly Lys Thr Leu Val
35 40 45

Ser Arg Thr Gln Gly Thr Lys Ile Ala Ser Glu Gly Leu Lys His Arg
50 55 60

Val Phe Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Asp Gln Ala
65 70 75 80

Tyr Arg Lys Ile Arg Leu Arg Ala Glu Asp Val Gln Gly Lys Asn Val
85 90 95

Leu Thr Asn Phe Trp Gly Met Ser Phe Thr Thr Asp Lys Leu Arg Ser
100 105 110

Leu Val Lys Lys Trp Gln Thr Leu Ile Glu Ala His Val Asp Val Lys
115 120 125

Thr Thr Asp Gly Tyr Met Leu Arg Leu Phe Cys Ile Gly Phe Thr Lys
130 135 140

Arg Arg Pro Asn Gln Val Lys Arg Thr Cys Tyr Ala Gln Ala Ser Gln
145 150 155 160

Ile Arg Gln Ile Arg Arg Lys Met Val Glu Ile Met Ala Asn Gln Ala
165 170 175

Ser Ser Cys Asp Leu Lys Glu Leu Val Ser Lys Phe Ile Pro Glu Val
180 185 190

Ile Gly Lys Glu Ile Glu Lys Ala Thr Ser Ser Ile Phe Pro Leu Gln
195 200 205

Asn Val Phe Val Arg Lys Val Lys Ile Leu Lys Ala Pro Lys Phe Asp
210 215 220

Leu Gly Lys Leu Met Glu Val His Gly Asp Tyr Ala Lys Glu Asp Ile
225 230 235 240

Gly Thr Lys Leu Asp Arg Pro Ala Glu Asp Glu Ala Met Ala Gly Gln
245 250 255

Glu Val Ala Ala Ala Glu
260

<210> 329
<211> 233
<212> PRT
<213> Oryza sativa

<400> 329
Met Gly Glu Pro Gln Gln Val Ser Ala Leu Pro Pro Pro Pro Met Gln
1 5 10 15

Tyr Ile Lys Glu Tyr Thr Asp Glu Asn Ile Gln Glu Gly Leu Ala Pro
20 25 30

Lys Pro Pro Pro Pro Ile Lys Asp Ser Tyr Met Met Phe Gly Asn Gln
35 40 45

Phe Gln Cys Asp Asp Leu Ile Ile Arg Pro Leu Glu Ser Gln Gly Ile
50 55 60

Glu Arg Leu His Pro Met Gln Phe Asp His Lys Lys Glu Leu Arg Lys
65 70 75 80

Leu Asn Met Ser Ile Leu Ile Asn Phe Leu Asp Leu Leu Asp Ile Leu
85 90 95

Ile Arg Ser Pro Gly Ser Ile Lys Arg Glu Glu Lys Leu Glu Asp Leu
100 105 110

Lys Leu Leu Phe Val His Val His His Leu Ile Asn Glu Tyr Arg Pro
115 120 125

His Gln Ala Arg Glu Thr Leu Arg Val Met Met Glu Val Gln Lys Arg
130 135 140

Gln Arg Leu Glu Thr Ala Glu Arg Phe Gln Lys His Leu Glu Arg Val
145 150 155 160

Ile Glu Met Ile Gln Asn Cys Leu Ala Ser Leu Pro Asp Asp Leu Pro
165 170 175

```
His Ser Glu Ala Gly Met Arg Val Lys Ala Glu Pro Met Asp Ala Asp
            180                 185                 190

Asp Ser Asn Asn Cys Thr Gly Gln Ser Asp Gln Gln Arg Glu Asn Ser
        195                 200                 205

Gly His Arg Arg Asp Gln Ile Ile Glu Lys Asp Ala Ala Leu Cys Val
    210                 215                 220

Leu Ile Asp Glu Met Asn Glu Arg Pro
225                 230
```

<210> 330
<211> 192
<212> PRT
<213> Sus scrofa

<400> 330

```
Met Ala Thr Pro Tyr Val Glu Asp Glu Ser Gly Lys Tyr Ile Ala Ala
1               5                   10                  15

Thr Gln Arg Pro Asp Gly Thr Trp Arg Lys Pro Arg Lys Val Lys Asp
            20                  25                  30

Gly Tyr Thr Pro Gln Glu Glu Val Pro Val Tyr Glu Asn Lys Phe Val
        35                  40                  45

Lys Phe Phe Lys Gly Lys Pro Asp Leu Pro Pro Gly Met Ser Pro Gly
    50                  55                  60

Asp Glu Ala Gln Ala Arg Gln Gln Gln Gln Gly Ile Pro Gly Ile Ala
65                  70                  75                  80

Glu Ser Glu Thr Ala Gly Leu Ser Lys Thr Ala Lys Arg Asn Met Lys
                85                  90                  95

Arg Lys Glu Lys Arg Lys Leu Gln Gly Pro Asp Ser Asn Val Glu Ala
            100                 105                 110

Leu Ile Asn Ala Val Glu Met Pro Thr Ser Asn Pro Ala Glu Ala Thr
        115                 120                 125

Asn Asp Pro Ser Gly Ala Ala Ala Glu Lys Ala Lys Lys Ile Lys Asn
    130                 135                 140

Leu Lys Lys Lys Leu Arg Gln Val Glu Glu Leu Gln Gln Lys Leu Asp
145                 150                 155                 160
```

Ser Gly Glu Ile Lys Gln Ala Thr Lys Glu Gln Leu Asp Lys Leu Gly
165 170 175

Arg Ala Lys Ala Ile Gln Asp Gly Leu Leu Gln Leu Glu Glu Asp Ser
180 185 190

<210> 331
<211> 128
<212> PRT
<213> Glycine max

<400> 331
Met Thr Arg Ile Lys Arg Gly Tyr Ile Ala Arg Arg Arg Arg Thr Lys
1 5 10 15

Ile Arg Leu Phe Ala Ser Ser Phe Arg Gly Ala His Ser Arg Leu Thr
20 25 30

Arg Thr Ile Thr Gln Gln Lys Ile Arg Ala Leu Val Ser Ala His Arg
35 40 45

Asp Arg Asp Arg Lys Lys Arg Asp Phe Arg Arg Leu Trp Ile Thr Arg
50 55 60

Ile Asn Ala Val Ile Arg Glu Arg Gly Val Ser Tyr Ser Tyr Ser Arg
65 70 75 80

Leu Ile His Asp Leu Tyr Lys Arg Gln Leu Leu Leu Asn Arg Lys Ile
85 90 95

Leu Ala Gln Ile Ala Ile Ser Asn Arg Asn Cys Leu Tyr Met Ile Ser
100 105 110

Asn Glu Ile Ile Lys Glu Val Asp Trp Lys Glu Ser Thr Arg Ile Ile
115 120 125

<210> 332
<211> 366
<212> PRT
<213> Oryza sativa

<400> 332
Met Pro Pro Lys Lys Ala Ala Pro Ser Lys Ala Asp Leu Ala Lys Lys
1 5 10 15

Gln Lys Val Val Glu Asp Lys Thr Phe Gly Leu Lys Asn Lys Asn Lys
20 25 30

Ser Lys Asn Val Gln Lys Tyr Val Gln Ser Leu His Gln Ala Val Gln
35 40 45

```
Pro Lys Pro Asp Pro Thr Lys Thr Ala Ala Lys Lys Lys Lys Glu Glu
    50                  55                  60

Glu Lys Ala Arg Glu Lys Glu Leu Asn Asp Leu Phe Lys Val Ala Val
65                  70                  75                  80

Ser Gln Pro Lys Val Pro Val Gly Val Asp Pro Lys Ser Ile Val Cys
                85                  90                  95

Glu Phe Phe Lys Val Gly Gln Cys Gln Lys Gly Phe Lys Cys Lys Phe
            100                 105                 110

Ser His Asp Leu Asn Val Gln Arg Lys Gly Glu Lys Ile Asp Ile Tyr
        115                 120                 125

Thr Asp Lys Arg Asp Ala Glu Thr Met Glu Asp Trp Asp Gln Glu Thr
    130                 135                 140

Leu Glu Lys Val Val Ala Ser Lys Gly Ala Glu Tyr Gln Gln Asn Lys
145                 150                 155                 160

Pro Thr Asp Ile Val Cys Lys Tyr Phe Leu Asp Ala Val Glu Lys Lys
                165                 170                 175

Gln Tyr Gly Trp Phe Trp Val Cys Pro Asn Gly Gly Lys Asp Cys His
            180                 185                 190

Tyr Arg His Ala Leu Pro Pro Gly Tyr Val Leu Lys Ser Gln Met Lys
        195                 200                 205

Ala Leu Leu Glu Glu Glu Ser Glu Lys Ile Ala Ile Glu Asp Glu Ile
    210                 215                 220

Glu Asp Gln Arg Lys Lys Val Lys Thr Thr Thr Pro Met Thr Thr Asp
225                 230                 235                 240

Leu Phe Met Glu Trp Lys Arg Lys Lys Ala Glu Glu Arg Glu Ala Gly
                245                 250                 255

Leu Ala Ala Leu Arg Ala Glu Arg Ala Lys Asn Asp Arg Met Ser Gly
            260                 265                 270

Arg Glu Leu Phe Met Ala Asp Ser Ser Val Phe Val Asp Asp Ala Glu
        275                 280                 285

Ala Tyr Asp Val Tyr Glu Arg Gln Glu Glu Ser Glu Ala Asn Glu Glu
    290                 295                 300
```

Pro Ser Asn Lys Asn Gln Asp Glu Gly Pro Ser Ser Ser Thr Ser Asn
305 310 315 320

Gly Lys Glu Val Glu Glu Ser Asp Asp Glu Asp Ile Asn Ile Asp Asp
325 330 335

Asp Leu Asp Ile Asp Glu Leu Asn Glu Leu Glu Ala Ser Leu Ser Arg
340 345 350

Thr Ser Ile Gln Ile Arg Glu Pro Gly Glu Gly Thr Ser Ser
355 360 365

<210> 333
<211> 88
<212> PRT
<213> Oryza sativa

<400> 333
Glu Asp Asn Asp Leu Lys Asn Arg Leu Leu Asn Lys Tyr Ser Gly Tyr
1 5 10 15

Leu Ser Ser Leu Trp Arg Glu Leu Ser Arg Lys Lys Lys Lys Gly Lys
20 25 30

Leu Pro Arg Asp Ala Arg Gln Lys Leu Leu His Trp Trp Gln Leu His
35 40 45

Tyr Arg Trp Pro Tyr Pro Ser Glu Leu Glu Lys Ala Ala Leu Ala Glu
50 55 60

Ser Thr Gly Leu Glu Ala Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln
65 70 75 80

Arg Lys Arg His Trp Lys Gln Ala
85

<210> 334
<211> 85
<212> PRT
<213> Solanum lycopersicum

<400> 334
Glu Leu Lys Glu Met Leu Leu Lys Lys Tyr Ser Gly Cys Leu Ser Arg
1 5 10 15

Leu Arg Ser Glu Phe Leu Lys Lys Arg Lys Lys Gly Lys Leu Pro Lys
20 25 30

Asp Ala Arg Thr Val Leu Leu Glu Trp Trp Asn Thr His Tyr Arg Trp

35 40 45

Pro Tyr Pro Thr Glu Glu Asp Lys Val Arg Leu Ala Ala Met Thr Gly
50 55 60

Leu Asp Pro Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg
65 70 75 80

His Trp Lys Pro Ser
85

<210> 335
<211> 87
<212> PRT
<213> Oryza sativa

<400> 335
Met Val Lys Asn Ser Val Ile Ser Val Ile Phe Gln Lys Glu Lys Lys
1 5 10 15

Gly Ser Val Glu Phe Gln Val Phe Asn Phe Thr Asn Lys Ile Arg Arg
20 25 30

Leu Thr Ser His Leu Glu Leu His Lys Lys Asp Tyr Leu Ser Gln Arg
35 40 45

Gly Leu Lys Lys Ile Leu Gly Lys Arg Gln Arg Leu Leu Ala Tyr Leu
50 55 60

Ala Lys Lys Asn Arg Val Arg Tyr Lys Glu Leu Ile Asn Gln Leu Asp
65 70 75 80

Ile Arg Glu Thr Lys Thr Arg
85

<210> 336
<211> 266
<212> PRT
<213> Pisum sativum

<400> 336
Met Ala Val Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys Gly
1 5 10 15

Ala Lys Lys Lys Ile Val Asp Pro Phe Ser Lys Lys Asp Trp Tyr Asp
20 25 30

Val Lys Ala Pro Ala Met Phe Asn Ile Arg Asn Ile Gly Lys Thr Leu
35 40 45

```
Val Ser Arg Thr Gln Gly Thr Arg Ile Ala Ser Asp Gly Leu Lys Gly
    50                  55                  60

Arg Val Phe Glu Val Ser Leu Ala Asp Leu Gln Asn Asp Glu Val Ala
65                  70                  75                  80

Phe Arg Lys Phe Lys Leu Ile Ser Glu Asp Val Gln Gly Lys Asn Cys
                85                  90                  95

Leu Thr Asn Phe His Gly Met Asp Leu Thr Arg Asp Lys Met Cys Ser
            100                 105                 110

Met Val Lys Lys Trp Gln Thr Met Ile Glu Ala His Val Asp Val Lys
        115                 120                 125

Thr Thr Asp Gly Tyr Leu Leu Arg Leu Phe Cys Val Gly Phe Thr Lys
    130                 135                 140

Lys Arg Thr Asn Gln Ile Arg Lys Thr Ser Tyr Ala Gln His Gln Gln
145                 150                 155                 160

Val Arg Gln Ile Arg Lys Lys Met Met Glu Ile Met Thr Arg Glu Val
                165                 170                 175

Gln Thr Asn Asp Leu Lys Glu Val Val Asn Lys Leu Ile Pro Asp Ser
            180                 185                 190

Val Gly Lys Asp Ile Glu Lys Ala Cys Gln Ser Ile Tyr Pro Leu His
        195                 200                 205

Asp Val Tyr Val Arg Lys Val Lys Met Leu Lys Lys Pro Lys Phe Glu
    210                 215                 220

Leu Gly Lys Leu Met Glu Leu His Gly Glu Gly Gly Gly Ser Ser Ala
225                 230                 235                 240

Ala Lys Pro Ser Gly Asp Asp Thr Gly Ala Lys Val Asp Arg Ala Asp
                245                 250                 255

Gly Tyr Glu Pro Pro Ile Gln Glu Thr Val
            260                 265


<210> 337
<211> 153
<212> PRT
<213> Zea mays

<400> 337
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
```

1 5 10 15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
50 55 60

Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Thr Met Ile Lys
65 70 75 80

Val Lys Thr Leu Thr Gly Lys Glu Ile Glu Ile Asp Ile Glu Pro Thr
85 90 95

Asp Thr Ile Asp Arg Ile Lys Glu Arg Val Glu Glu Lys Glu Gly Ile
100 105 110

Pro Pro Val Gln Gln Arg Leu Ile Tyr Ala Gly Lys Gln Leu Ala Asp
115 120 125

Asp Lys Thr Ala Lys Asp Tyr Asn Ile Glu Gly Gly Ser Val Leu His
130 135 140

Leu Val Leu Ala Leu Arg Gly Gly Gln
145 150

<210> 338
<211> 138
<212> PRT
<213> Zea mays

<400> 338
Met Glu Lys Phe Leu Lys Pro Asn Lys Ala Val Ile Leu Leu Gln Gly
1 5 10 15

Lys Tyr Ala Gly Arg Lys Ala Val Ile Val Arg Ala Phe Asp Glu Gly
20 25 30

Thr Arg Asp Arg Pro Tyr Gly His Cys Leu Val Ala Gly Ile Ser Arg
35 40 45

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

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

```
Met Pro Thr Arg Tyr Thr Leu Asp Glu Asp Leu Lys Asp Val Val Lys
                85                  90                  95

Asp Val Val Asn Ala Asp Val Leu Gln Ala Arg Asp Lys Lys Val Thr
            100                 105                 110

Ala Arg Arg Thr Lys Ala Arg Leu Ala Glu Arg Phe Lys Thr Gly Lys
        115                 120                 125

Asn Arg Trp Phe Phe Thr Lys Leu Arg Phe
    130                 135
```

<210> 339
<211> 49
<212> PRT
<213> Meleagris gallopavo

<400> 339

```
Gln Thr Leu Glu Leu Glu Lys Glu Phe His Phe Asn Arg Tyr Leu Thr
1               5                   10                  15

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

Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys Asp
        35                  40                  45

Asn
```

<210> 340
<211> 138
<212> PRT
<213> Oryza sativa

<400> 340

```
Met Lys Met Ser Ala Glu Gln Ile Ser Glu Val Leu Lys Glu Gly Glu
1               5                   10                  15

Leu Glu Lys Arg Ser Asp Asn Leu Leu Gln Phe Trp Lys Arg Lys Thr
            20                  25                  30

Cys Val Leu Thr Thr Asp Ser Leu Asn Ile Tyr Ala Asp Thr Gln Lys
        35                  40                  45

Arg Thr Lys Ser Lys Glu Leu Lys Leu Gln Ser Ile Lys Lys Val Asp
    50                  55                  60

Cys Val Glu Arg Thr Gly Lys Phe Val Tyr Phe Thr Ile Val Thr Thr
```

65 70 75 80

Asp Asn Lys Glu Ile Asp Phe Arg Cys Ser Gly Asp Asp Asn Cys Trp
85 90 95

Asn Ala Val Ile Thr Met Ala Leu Ile Asp Phe Gln Asn Arg Lys Ala
100 105 110

Ile Gln Asp Phe Lys Thr Arg Gln Asp Asp Glu Ser Gly Ser Pro Gly
115 120 125

Gln His Glu Ser Arg Met Ala Arg Ala Pro
130 135

<210> 341
<211> 175
<212> PRT
<213> Oryza sativa

<400> 341
Met Ala Asp Val Leu Asp Leu His Glu Ala Gly Gly Glu Asp Phe Ala
1 5 10 15

Met Asp Glu Asp Gly Asp Asp Ser Ile His Lys Leu Lys Glu Lys Ala
20 25 30

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

Arg Val Arg Glu Asp Tyr Asp Thr Val Glu Gln Asp Gly Asp Glu Pro
50 55 60

Gly Pro Gln Arg Ser Val Glu Gly Trp Ile Leu Phe Val Thr Gly Val
65 70 75 80

His Glu Glu Ala Thr Glu Glu Asp Ile His Asp Lys Phe Ala Glu Phe
85 90 95

Gly Glu Ile Lys Asn Leu His Leu Asn Leu Asp Arg Arg Thr Gly Tyr
100 105 110

Leu Lys Gly Tyr Ala Leu Val Glu Tyr Glu Thr Tyr Lys Glu Ala Gln
115 120 125

Ala Ala Met Glu Gly Leu Asn Gly Gln Asp Met Met Gly Gln Pro Ile
130 135 140

Ser Val Asp Trp Gly Phe Val Arg Gly Pro Pro Lys Ser Lys Arg Arg
145 150 155 160

```
Gly Gly Gly Arg Arg Arg Ser Arg Ser Pro Asp Arg Arg Arg Arg
                165                 170                 175


<210> 342
<211> 139
<212> PRT
<213> Oryza sativa

<400> 342
Met Ala Asn Ala Ala Ser Gly Met Ala Val Asp Asp Glu Cys Lys Leu
1               5                   10                  15


Lys Phe Leu Glu Leu Lys Ala Lys Arg Thr Tyr Arg Phe Ile Ile Tyr
            20                  25                  30


Lys Ile Asp Glu Lys Lys Lys Met Val Val Val Glu Lys Val Gly Glu
        35                  40                  45


Pro Val Leu Asn Tyr Asp Asp Phe Ala Ala Ser Leu Pro Ala Asn Glu
    50                  55                  60


Cys Arg Tyr Ala Ile Phe Asp Tyr Asp Phe Val Thr Glu Glu Asn Cys
65                  70                  75                  80


Gln Lys Ser Lys Ile Phe Phe Ile Ala Trp Ser Pro Asp Thr Ser Arg
                85                  90                  95


Val Arg Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Arg Phe Lys Arg
            100                 105                 110


Glu Leu Asp Gly Ile Gln Val Glu Leu Gln Ala Thr Asp Pro Thr Glu
        115                 120                 125


Val Gly Leu Asp Val Ile Arg Gly Arg Ala Asn
    130                 135


<210> 343
<211> 93
<212> PRT
<213> Oryza sativa

<400> 343
Met Ala Ser Gly Gln Gln Glu Arg Ser Gln Leu Asp Arg Lys Ala Arg
1               5                   10                  15


Glu Gly Glu Thr Val Val Pro Gly Gly Thr Gly Gly Lys Ser Leu Glu
            20                  25                  30


Ala Gln Glu Asn Leu Ala Glu Gly Arg Ser Arg Gly Gly Gln Thr Arg
```

35 40 45

Arg Glu Gln Met Gly Glu Glu Gly Tyr Ser Gln Met Gly Arg Lys Gly
50 55 60

Gly Leu Ser Thr Asn Asp Glu Ser Gly Gly Asp Arg Ala Ala Arg Glu
65 70 75 80

Gly Ile Asp Ile Asp Glu Ser Lys Phe Lys Thr Lys Ser
85 90

<210> 344
<211> 609
<212> PRT
<213> Oryza sativa

<400> 344
Met Ala Ser Ala Gly Asp Arg Arg Gly Gly Gly Gly Pro Pro Gly Ser
1 5 10 15

Gly Asp Asp Ser Gly Gly Gly Trp Glu Thr Val Glu Lys Arg Val Lys
20 25 30

Lys Pro Ala Gln Gln Val Gly Lys Gly Gln Trp Gly Gln Trp Asn Ser
35 40 45

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

Phe His His Ser Gly Asn Thr Leu Val Arg His Ser Asp Arg Arg Pro
65 70 75 80

Ala Arg Gly Thr Pro Arg Pro Pro Pro Gln Asn Arg Ser Ile Glu Ala
85 90 95

Glu Leu Gln Ala Pro His Gly Val Val Thr Ala Pro Leu Ala Asn Gly
100 105 110

Trp Gln Trp Gly Ala Arg Ser Cys Pro Pro Gly Thr Glu Ser Lys Glu
115 120 125

Gly Gly Leu Pro Leu Ser Gly Cys Asp Pro Glu Thr Asp Asn Ala Glu
130 135 140

Gly Tyr Asp Thr Ser Asp Asp Asp Asn Asp Asp Asp Met Ser Asp Asp
145 150 155 160

Leu Ser Asp Asp Tyr Asp Ser Asp Ala Ser Glu Lys Ser Phe Glu Thr
165 170 175

```
Arg Lys Asn His Lys Leu Phe Lys Gly Phe Phe Glu Val Leu Glu Ala
            180                 185                 190

Leu Ser Val Glu Gln Leu Asn Glu Pro Thr Arg Gln Trp His Cys Pro
        195                 200                 205

Ala Cys Lys Asn Gly Pro Gly Ala Ile Asp Trp Tyr Lys Gly Leu Gln
    210                 215                 220

Pro Leu Met Thr His Ala Lys Thr Lys Gly Ser Ile Lys Val Lys Arg
225                 230                 235                 240

His Arg Glu Leu Ala Ser Leu Leu Glu Glu Glu Leu Ser Arg Arg Gly
                245                 250                 255

Thr Ser Val Val Pro Ser Gly Glu Gln Phe Arg Lys Trp Lys Gly Leu
            260                 265                 270

Arg Glu Ser Thr Asp Arg Glu Ile Val Trp Pro Pro Met Val Val Val
        275                 280                 285

Met Asn Thr Val Leu Glu Gln Asp Glu Asp Asp Lys Trp Lys Gly Met
    290                 295                 300

Gly Asn Gln Glu Leu Ile Asp Tyr Phe Ser Glu Tyr Ala Ala Ser Lys
305                 310                 315                 320

Ala Arg His Ala Tyr Gly Pro Asn Gly His Arg Gly Met Ser Val Leu
                325                 330                 335

Ile Phe Asp Ser Ser Ala Val Gly Tyr Met Glu Ala Glu Arg Leu His
            340                 345                 350

Asp His Phe Val Arg Gln Arg Thr Asp Arg Asn Thr Trp Asn Ser Ala
        355                 360                 365

His Lys Val Thr Phe Leu Pro Gly Gly Lys Arg Gln Leu Tyr Gly Phe
    370                 375                 380

Leu Ala Thr Lys Asp Asp Met Glu Thr Phe Asn Arg His Cys His Gly
385                 390                 395                 400

Lys Ser Arg Leu Lys Tyr Glu Met Arg Ser Tyr Asn Glu Met Val Val
                405                 410                 415

Thr Gln Met Lys Gln Met Ser Glu Asp Asn Gln Gln Leu Asn Tyr Leu
```

420 425 430

Lys Asn Lys Met Val Lys Lys Glu Gln His Ser Lys Leu Val Glu Asp
435 440 445

Thr Leu Ser Val Val Thr Gln Lys Leu Arg Glu Thr Met Glu Glu Asn
450 455 460

Thr Ile Val Arg Asn Lys Ala Lys Glu Lys His Leu Glu Tyr Glu Lys
465 470 475 480

Glu Met Lys Tyr Gln Glu Glu Phe Phe His Asp Gln Ile Glu Lys Ile
485 490 495

His Lys Ala Thr Glu Glu Lys Glu Ile Lys Phe Glu Lys Leu Leu Gln
500 505 510

Glu Glu Arg Ala Lys Ala Arg Gln Ser Asp Val Asp Ser Gly Ser Thr
515 520 525

Glu Asp Arg Arg Gln Arg Lys Glu Lys Ile Gln Asn Phe Ile Asp Cys
530 535 540

Gln Val Lys Asp Val Glu Glu Phe Glu Ala Glu Arg Asp Lys Leu Ile
545 550 555 560

Lys Leu His Glu Glu Lys Lys Val Lys Leu Lys Lys Glu Tyr Leu Ala
565 570 575

Lys Glu Phe Glu Leu Glu Lys Glu Leu Asp Thr Ala Leu Thr Ser Leu
580 585 590

Met Asp Lys His Lys Pro Asp Ile Phe Lys Ser Ser Thr Ser Pro Ser
595 600 605

Thr

<210> 345
<211> 384
<212> PRT
<213> Oryza sativa

<400> 345
Met Gly Ser Leu Cys Ser Arg Asn Lys His Tyr Ser Gln Ala Asp Asp
1 5 10 15

Glu Glu Asn Thr Gln Thr Ala Glu Ile Glu Arg Arg Ile Glu Gln Glu
20 25 30

```
Thr Lys Ala Glu Lys His Ile Gln Lys Leu Leu Leu Leu Gly Ala Gly
        35                  40                  45

Asp Ser Gly Lys Ser Thr Ile Phe Lys Gln Ile Lys Leu Leu Phe Gln
    50                  55                  60

Thr Gly Phe Asp Glu Glu Glu Leu Lys Asn Tyr Ile Pro Val Ile His
65                  70                  75                  80

Ala Asn Val Tyr Gln Thr Thr Lys Ile Leu His Asp Gly Ser Lys Glu
                85                  90                  95

Leu Ala Gln Asn Glu Leu Glu Ala Ser Lys Tyr Leu Leu Ser Ala Glu
            100                 105                 110

Asn Lys Glu Ile Gly Glu Lys Leu Ser Glu Ile Gly Gly Arg Leu Asp
        115                 120                 125

Tyr Pro His Leu Thr Lys Asp Leu Val Gln Asp Ile Glu Ala Leu Trp
    130                 135                 140

Lys Asp Pro Ala Ile Gln Glu Thr Leu Leu Arg Gly Asn Glu Leu Gln
145                 150                 155                 160

Val Pro Asp Cys Ala His Tyr Phe Met Glu Asn Leu Glu Arg Phe Ser
                165                 170                 175

Asp Val His Tyr Ile Pro Thr Lys Glu Asp Val Leu Phe Ala Arg Ile
            180                 185                 190

Arg Thr Thr Gly Val Val Glu Ile Gln Phe Ser Pro Val Gly Glu Asn
        195                 200                 205

Lys Lys Ser Gly Glu Val Tyr Arg Leu Phe Asp Val Gly Gly Gln Arg
    210                 215                 220

Asn Glu Arg Arg Lys Trp Ile His Leu Phe Glu Gly Val Thr Ala Val
225                 230                 235                 240

Ile Phe Cys Ala Ala Ile Ser Glu Tyr Asp Gln Thr Leu Phe Glu Asp
                245                 250                 255

Glu Arg Lys Asn Arg Met Met Glu Thr Lys Glu Leu Phe Glu Trp Val
            260                 265                 270

Leu Lys Gln Pro Cys Phe Glu Lys Thr Ser Phe Met Leu Phe Leu Asn
```

275 280 285

Lys Phe Asp Ile Phe Glu Gln Lys Val Pro Lys Val Pro Leu Asn Ala
290 295 300

Cys Glu Trp Phe Lys Asp Tyr Gln Ser Val Ser Thr Gly Lys Gln Glu
305 310 315 320

Ile Glu His Ala Tyr Glu Phe Val Lys Lys Lys Phe Glu Glu Ser Tyr
325 330 335

Phe Gln Cys Thr Ala Pro Asp Arg Val Asp Arg Val Phe Lys Ile Tyr
340 345 350

Arg Thr Thr Ala Leu Asp Gln Lys Leu Val Lys Lys Thr Phe Lys Leu
355 360 365

Val Asp Glu Thr Leu Arg Arg Arg Asn Leu Phe Glu Ala Gly Leu Leu
370 375 380

<210> 346
<211> 202
<212> PRT
<213> Solanum lycopersicum

<400> 346
Met Ala Thr Pro Tyr Val Glu Asp Gln Ser Gly Lys Tyr Ile Ala Ala
1 5 10 15

Thr Gln Arg Pro Asp Gly Thr Trp Arg Lys Pro Arg Arg Val Lys Asp
20 25 30

Gly Tyr Thr Pro Gln Glu Glu Val Pro Val Tyr Glu Asn Lys Phe Val
35 40 45

Lys Phe Phe Lys Gly Lys Pro Asp Leu Pro Pro Gly Met Ser Pro Gly
50 55 60

Asn Ala Ala Gln Ala Arg Gln Gln Gln Gly Ile Pro Gly Ile Ala Glu
65 70 75 80

Asn Glu Ile Ala Gly Leu Ser Lys Thr Ala Lys Arg Asn Met Lys Arg
85 90 95

Lys Glu Lys Arg Lys Gln Gln Gly Pro Asp Ser Asn Val Glu Leu Leu
100 105 110

Thr Asn Ala Val Glu Thr Met Thr Phe Ala Glu Asp Gly Asp Asn Val
115 120 125

```
Thr Pro Ala Ser Asn Pro Ala Gly Ala Thr Tyr Asp Pro Ser Ser Ala
    130                 135                 140

Ile Ala Glu Lys Ala Lys Lys Ile Lys Asn Ile Lys Lys Lys Leu Arg
145                 150                 155                 160

Gln Val Glu Glu Leu Gln Gln Lys Leu Asp Ser Gly Glu Ile Lys Gln
                165                 170                 175

Ala Thr Lys Glu Gln Gln Glu Lys Leu Gly Arg Ala Lys Ala Leu Gln
            180                 185                 190

Gly Glu Leu Leu Gln Leu Glu Glu Asp Ser
        195                 200
```

<210> 347
<211> 145
<212> PRT
<213> Oryza sativa

<400> 347

```
Met Pro Lys Ile Lys Thr Ser Arg Val Lys Tyr Pro Gly Gly Trp Glu
1               5                   10                  15

Leu Ile Glu Pro Thr Ile Arg Glu Leu Asp Ala Lys Met Arg Glu Ala
            20                  25                  30

Glu Asn Asp Thr His Asp Gly Lys Arg Lys Cys Glu Ala Leu Trp Pro
        35                  40                  45

Ile Phe Arg Ile Ser His Gln Arg Ser Arg Tyr Ile Tyr Asp Leu Tyr
    50                  55                  60

Tyr Arg Arg Lys Glu Ile Ser Lys Glu Leu Tyr Glu Phe Cys Leu Asp
65                  70                  75                  80

Gln Gly Tyr Ala Asp Arg Asn Leu Ile Ala Lys Trp Lys Lys Pro Gly
                85                  90                  95

Tyr Glu Arg Leu Cys Cys Leu Arg Cys Ile Gln Thr Arg Asp His Asn
            100                 105                 110

Phe Ala Thr Thr Cys Val Cys Arg Val Pro Lys His Leu Arg Glu Glu
        115                 120                 125

Lys Val Ile Glu Cys Val His Cys Gly Cys Arg Gly Cys Ala Ser Gly
    130                 135                 140
```

Asp
145

<210> 348
<211> 261
<212> PRT
<213> Oryza sativa

<400> 348
Met Ala Ser Ala Glu Leu Ser Arg Glu Glu Asn Val Tyr Met Ala Lys
1 5 10 15

Leu Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu
20 25 30

Lys Val Ala Lys Thr Val Asp Ser Glu Glu Leu Thr Val Glu Glu Arg
35 40 45

Asn Leu Leu Ser Val Ala Tyr Lys Asn Val Ile Gly Ala Arg Arg Ala
50 55 60

Ser Trp Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Gly Arg Gly
65 70 75 80

Asn Glu Asp Arg Val Thr Leu Ile Lys Asp Tyr Arg Gly Lys Ile Glu
85 90 95

Thr Glu Leu Thr Lys Ile Cys Asp Gly Ile Leu Lys Leu Leu Glu Ser
100 105 110

His Leu Val Pro Ser Ser Thr Ala Pro Glu Ser Lys Val Phe Tyr Leu
115 120 125

Lys Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Phe Lys Thr Gly
130 135 140

Ala Glu Arg Lys Asp Ala Ala Glu Asn Thr Met Val Ala Tyr Lys Ala
145 150 155 160

Ala Gln Asp Ile Ala Leu Ala Glu Leu Ala Pro Thr His Pro Ile Arg
165 170 175

Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn
180 185 190

Ser Pro Asp Arg Ala Cys Ser Leu Ala Lys Gln Ala Phe Asp Glu Ala
195 200 205

Ile Ser Glu Leu Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr
210 215 220

Leu Ile Met Gln Leu Leu His Asp Asn Leu Thr Leu Trp Thr Ser Asp
225 230 235 240

Ile Ser Glu Asp Pro Ala Glu Glu Ile Arg Glu Ala Pro Lys His Asp
245 250 255

Leu Ser Glu Gly Gln
260

<210> 349
<211> 188
<212> PRT
<213> Sus scrofa

<400> 349
Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Gly Gly Val Gly Lys
1 5 10 15

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

Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
35 40 45

Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
50 55 60

Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
65 70 75 80

Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
85 90 95

Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
100 105 110

Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
115 120 125

Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
130 135 140

Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
145 150 155 160

Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys

165 170 175

Lys Lys Lys Lys Thr Lys Thr Lys Cys Ile Ile Met
180 185

<210> 350
<211> 93
<212> PRT
<213> Sus scrofa

<400> 350
Met Ala Ser Gly Gln Gln Glu Arg Ser Glu Leu Asp Arg Met Ala Arg
1 5 10 15

Glu Gly Glu Thr Val Val Pro Gly Gly Thr Gly Gly Lys Ser Leu Glu
20 25 30

Ala Gln Glu His Leu Ala Asp Gly Arg Ser Arg Gly Gly Glu Thr Arg
35 40 45

Lys Glu Gln Leu Gly Glu Glu Gly Tyr Arg Glu Met Gly Arg Lys Gly
50 55 60

Gly Leu Ser Thr Met Glu Glu Ser Gly Gly Glu Arg Ala Ala Arg Glu
65 70 75 80

Gly Ile Glu Ile Asp Glu Ser Lys Phe Lys Thr Lys Ser
85 90

<210> 351
<211> 152
<212> PRT
<213> Triticum aestivum

<400> 351
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Ala Glu Lys Ala Pro Ala Ala Gly Lys Lys Pro Lys
20 25 30

Ala Glu Lys Arg Leu Pro Ala Gly Lys Gly Glu Lys Gly Gly Ala Gly
35 40 45

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

Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile
65 70 75 80

Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp
85 90 95

Ile Phe Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala Arg Tyr Asn
100 105 110

Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu
115 120 125

Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys
130 135 140

Ala Val Thr Lys Phe Thr Ser Ala
145 150

<210> 352
<211> 135
<212> PRT
<213> Oryza sativa

<400> 352
Met Ala Ala Leu Arg Pro Leu Val Lys Pro Lys Ile Val Lys Lys Arg
1 5 10 15

Thr Lys Lys Phe Ile Arg His Gln Ser Asp Arg Tyr Val Lys Ile Lys
20 25 30

Arg Asn Trp Arg Lys Pro Arg Gly Ile Asp Asn Arg Val Arg Arg Arg
35 40 45

Phe Lys Gly Gln Ile Leu Met Pro Asn Ile Gly Tyr Gly Ser Asn Lys
50 55 60

Lys Thr Lys His Met Leu Pro Ser Gly Phe Arg Lys Phe Leu Val His
65 70 75 80

Asn Val Lys Glu Leu Glu Val Leu Leu Met Cys Asn Lys Ser Tyr Cys
85 90 95

Ala Glu Ile Ala His Asn Val Ser Ser Lys Asn Arg Lys Ala Ile Val
100 105 110

Glu Arg Ala Ala Gln Leu Ala Ile Arg Val Thr Asn Pro Asn Ala Arg
115 120 125

Leu Arg Ser Glu Glu Asn Glu
130 135

<210> 353

<211> 129
<212> PRT
<213> Oryza sativa

<400> 353
Met Ala Gln Asn Lys Thr Ile Ala Val Ala Leu Leu Leu Ala Thr Leu
1 5 10 15

Val Ala Val Met Gly Lys Glu Pro Glu Thr Leu Glu Glu Thr Leu Arg
20 25 30

Ala Gly Cys Lys Glu Glu Cys Ser Glu Gln Lys Lys Lys Ala Pro Ile
35 40 45

Asp Glu Lys Gln Cys Glu Asp Phe Cys Phe Ile Lys Thr Lys Ser Ile
50 55 60

Phe Glu Ala His Lys Gly Val Lys Asp Leu Lys Ala Asp Arg Phe Ile
65 70 75 80

Asp Phe Cys Asn Asn Glu Cys Asn Ala Val Tyr Lys Glu Asp Pro Ala
85 90 95

Thr Ser Lys Lys Cys Ala Glu Ser Cys Glu Ala Asp Ala Lys Glu Ala
100 105 110

Glu Val Phe Leu Asp Lys Val Val Ala Tyr Met Gln Thr Met Lys Gln
115 120 125

Ala

<210> 354
<211> 384
<212> PRT
<213> Solanum tuberosum

<400> 354
Met Gly Ser Leu Cys Ser Arg Asn Lys His Tyr Ser Gln Ala Asp Asp
1 5 10 15

Glu Glu Asn Thr Gln Thr Ala Glu Ile Glu Arg Arg Ile Glu Gln Glu
20 25 30

Thr Lys Ala Asp Lys His Ile Gln Lys Leu Leu Leu Leu Gly Ala Gly
35 40 45

Asp Ser Gly Lys Ser Thr Ile Phe Lys Gln Ile Lys Leu Leu Phe Gln
50 55 60

```
Thr Gly Phe Asp Glu Ala Glu Leu Lys Asn Tyr Ile Pro Val Ile His
65                  70                  75                  80

Ala Asn Val Tyr Gln Thr Ile Lys Ile Leu His Asp Gly Ser Lys Glu
                85                  90                  95

Leu Ala Gln Asn Glu Leu Glu Ala Ser Lys Tyr Leu Leu Ser Ala Glu
            100                 105                 110

Asn Lys Glu Ile Gly Glu Lys Leu Ser Glu Ile Gly Gly Arg Leu Asp
        115                 120                 125

Tyr Pro Arg Leu Thr Lys Asp Leu Val Gln Asp Ile Glu Ala Leu Trp
    130                 135                 140

Lys Asp Pro Ala Ile Gln Glu Thr Leu Leu Arg Gly Asn Glu Leu Gln
145                 150                 155                 160

Val Pro Asp Cys Ala His Tyr Phe Met Glu Asn Leu Glu Arg Phe Ser
                165                 170                 175

Asp Ile His Tyr Ile Pro Thr Lys Glu Asp Val Leu Phe Ala Arg Ile
            180                 185                 190

Arg Thr Thr Gly Val Val Glu Ile Gln Phe Ser Pro Val Gly Glu Asn
        195                 200                 205

Lys Lys Ser Gly Glu Val Tyr Arg Leu Phe Asp Val Gly Gly Gln Arg
    210                 215                 220

Asn Glu Arg Arg Lys Trp Ile His Leu Phe Glu Gly Val Thr Ala Val
225                 230                 235                 240

Ile Phe Cys Ala Ala Ile Ser Glu Tyr Asp Gln Thr Leu Phe Glu Asp
                245                 250                 255

Glu Arg Lys Asn Arg Met Met Glu Thr Lys Glu Leu Phe Glu Trp Val
            260                 265                 270

Leu Lys Gln Pro Cys Phe Glu Lys Thr Ser Phe Met Leu Phe Leu Asn
        275                 280                 285

Lys Phe Asp Ile Phe Glu Gln Lys Val Leu Lys Val Pro Leu Asn Thr
    290                 295                 300

Cys Glu Trp Phe Lys Asp Tyr Gln Ser Val Ser Thr Gly Lys Gln Glu
305                 310                 315                 320
```

```
Ile Glu His Ala Tyr Glu Phe Val Lys Lys Lys Phe Glu Glu Ser Tyr
                325                 330                 335

Phe Gln Cys Thr Ala Pro Asp Arg Val Asp Arg Val Phe Lys Ile Tyr
            340                 345                 350

Arg Thr Thr Ala Leu Asp Gln Lys Leu Val Lys Lys Thr Phe Lys Leu
        355                 360                 365

Val Asp Glu Thr Leu Arg Arg Arg Asn Leu Phe Glu Ala Gly Leu Leu
    370                 375                 380

<210> 355
<211> 304
<212> PRT
<213> Sus scrofa

<400> 355
Met Ser Leu Gln Gly Gly Phe Val Lys Thr Gln Lys Thr His Ala Tyr
1               5                   10                  15

Phe Lys Arg Phe Gln Val Lys Phe Lys Arg Arg Arg Gln Gly Lys Thr
            20                  25                  30

Asp Tyr Arg Ala Arg Ile Arg Leu Thr Asn Gln Asp Lys Asn Lys Tyr
        35                  40                  45

Asn Thr Pro Lys Tyr Arg Phe Val Thr Asn Lys Asp Ile Thr Ala Gln
    50                  55                  60

Ile Val Tyr Ala Thr Ile Ala Gly Asp Ile Val Met Ala Ala Ala Tyr
65                  70                  75                  80

Ser His Glu Leu Pro Arg Tyr Gly Leu Glu Val Gly Leu Thr Asn Tyr
                85                  90                  95

Ala Ala Ala Tyr Cys Thr Gly Leu Leu Leu Ala Arg Arg Val Leu Thr
            100                 105                 110

Leu Arg Gly Leu Asp Gln Glu Tyr Glu Gly Asn Val Glu Ala Thr Gly
        115                 120                 125

Glu Asp Tyr Tyr Val Glu Pro Ala Asp Glu Arg Arg Pro Phe Arg Ala
    130                 135                 140

Leu Leu Asp Val Gly Leu Ile Arg Thr Thr Thr Gly Asn Arg Val Phe
145                 150                 155                 160
```

Gly Ala Leu Lys Gly Ala Leu Asp Gly Gly Leu Asp Ile Pro His Ser
165 170 175

Asp Lys Arg Phe Ala Gly Phe Lys Lys Asp Glu Lys Gln Leu Asp Ser
180 185 190

Asp Ile His Arg Lys Tyr Ile Tyr Gly Gly His Val Ala Asp Tyr Met
195 200 205

Arg Ser Met Ala Glu Glu Glu Pro Glu Lys Phe Gln Ala His Phe Ser
210 215 220

Glu Tyr Leu Lys Lys Gly Ile Asp Ala Asp Gly Met Glu Ser Leu Tyr
225 230 235 240

Lys Lys Val His Ala Ala Ile Arg Ala Asp Pro Thr Met Ala Lys Ser
245 250 255

Thr Lys Lys Glu Pro Ala Thr His Lys Arg Tyr Asn Leu Lys Lys Leu
260 265 270

Thr Tyr Glu Gln Arg Lys Ala Ser Leu Val Glu Arg Leu Asn Ala Leu
275 280 285

Asn Ser Ser Ala Gly Ala Asp Asp Asp Asp Glu Glu Glu Asp Asp Glu
290 295 300

<210> 356
<211> 93
<212> PRT
<213> Sus scrofa

<400> 356
Met Asp Lys Ser Met Leu Gly Asp Leu Asp Gly Leu Pro Glu Glu Asp
1 5 10 15

Lys Met Arg Met Ala Ala Met Val Asp Gln Leu Gln Ile Arg Asp Ser
20 25 30

Leu Arg Met Tyr Asn Ser Leu Val Glu Arg Cys Phe Thr Asp Cys Val
35 40 45

Asp Thr Phe Arg Arg Lys Thr Leu Asp Lys Gln Glu Glu Ser Cys Val
50 55 60

Arg Arg Cys Ala Glu Lys Phe Leu Lys His Ser Met Arg Val Gly Met
65 70 75 80

Arg Phe Ala Glu Leu Asn Gln Gly Val Ala Thr Pro Asp

85 90

<210> 357
<211> 119
<212> PRT
<213> Sus scrofa

<400> 357
Met Ala Arg Thr Ser Phe Lys Leu Glu His Pro Leu Glu Arg Arg Gln
1 5 10 15

Ala Glu Ser Ala Arg Ile Arg Glu Lys Tyr Ser Asp Arg Ile Pro Val
20 25 30

Ile Val Glu Lys Ala Asp Lys Thr Asp Val Pro Glu Ile Asp Lys Lys
35 40 45

Lys Tyr Leu Val Pro Ala Asp Leu Thr Val Gly Gln Phe Val Tyr Val
50 55 60

Val Arg Lys Arg Ile Lys Leu Ser Pro Glu Lys Ala Ile Phe Val Phe
65 70 75 80

Val Lys Asn Thr Leu Pro Pro Thr Ala Ser Leu Met Ser Ala Ile Tyr
85 90 95

Glu Glu Asn Lys Asp Glu Asp Gly Phe Leu Tyr Met Thr Tyr Ser Gly
100 105 110

Glu Asn Thr Phe Gly Ser Ala
115

<210> 358
<211> 92
<212> PRT
<213> Oryza sativa

<400> 358
Met Ala Asn Pro Leu Arg Ser Glu Val Arg Gln Leu Tyr Lys Asn Leu
1 5 10 15

Leu Phe Leu Gly Arg Glu Tyr Pro Lys Gly Ala Asp Tyr Phe Gly Glu
20 25 30

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

Glu Ile Lys Lys Leu Val Asp Arg Gly Glu Phe Val Ile Lys Glu Leu
50 55 60

```
Glu Ala Leu Tyr Tyr Leu Arg Lys Tyr Arg Ala Met Lys Lys Arg Tyr
65                  70                  75                  80


Tyr Glu Glu Glu Leu Ser Thr Met Leu Asn Ile Gly
                85                  90
```

<210> 359
<211> 303
<212> PRT
<213> Oryza sativa

<400> 359

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Met Arg Ile Ala Val Ile Ala Phe Cys Leu Trp Gly Phe Ala Ser Ala
1               5                   10                  15


Leu Pro Val Lys Gln Thr Asn Ser Gly Ser Ser Glu Glu Lys Leu Leu
            20                  25                  30


Ser Asn Lys Tyr Thr Asp Ala Val Ala Thr Leu Leu Lys Pro Asp Pro
        35                  40                  45


Ser Gln Lys Gln Thr Phe Leu Ala Pro Gln Asn Thr Ile Ser Ser Glu
    50                  55                  60


Glu Thr Asp Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys Ser Asn Glu
65                  70                  75                  80


Ser Pro Glu Gln Thr Asp Asp Val Asp Asp Asp Asp Asp Glu Asp His
                85                  90                  95


Val Asp Ser Arg Asp Thr Asp Ser Glu Glu Ala Asp His Ala Asp Asp
            100                 105                 110


Ala Asp Arg Ser Asp Glu Ser His His Ser Asp Glu Ser Asp Glu Leu
        115                 120                 125


Val Thr Asp Phe Pro Thr Asp Thr Pro Ala Thr Asp Val Thr Pro Ala
    130                 135                 140


Val Pro Thr Gly Asp Pro Asn Asp Gly Arg Gly Asp Ser Val Val Tyr
145                 150                 155                 160


Gly Leu Arg Ser Lys Ser Lys Lys Phe Arg Arg Ser Glu Ala Gln Gln
                165                 170                 175


Leu Asp Ala Thr Glu Glu Asp Leu Thr Ser His Val Glu Ser Glu Glu
            180                 185                 190


Thr Asp Gly Thr Pro Lys Ala Ile Leu Val Ala Gln Arg Leu His Val
```

195 200 205

Ala Ser Asp Leu Asp Ser Gln Glu Lys Asp Ser Gln Glu Thr Ser Gln
210 215 220

Pro Asp Asp Arg Ser Val Glu Thr Arg Ser Gln Glu Gln Ser Lys Glu
225 230 235 240

Tyr Thr Ile Lys Thr Tyr Asp Gly Ser Asn Glu His Ser Asn Val Ile
245 250 255

Glu Ser Gln Glu Asn Pro Lys Val Ser Gln Glu Phe His Ser His Glu
260 265 270

Asp Lys Leu Val Pro Asp Ser Lys Ser Glu Glu Asp Lys His Leu Lys
275 280 285

Leu Arg Val Ser His Glu Leu Glu Ser Ala Ser Ser Glu Ile Asn
290 295 300

<210> 360
<211> 140
<212> PRT
<213> Oryza sativa

<400> 360
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Ala Glu
1 5 10 15

Glu Lys Lys Ala Glu Lys Thr Pro Lys Ala Gly Lys Lys Leu Pro Lys
20 25 30

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

Ser Ile Glu Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val
50 55 60

His Pro Asp Ile Gly Ile Ser Ser Lys Ser Met Gly Ile Met Asn Ser
65 70 75 80

Phe Ile Asn Asp Ile Phe Glu Lys Leu Ala Gln Glu Ser Ser Arg Leu
85 90 95

Ala Arg Ile Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr
100 105 110

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

Glu Gly Thr Lys Ala Val Thr Lys Phe Thr Ser Ser
130 135 140

<210> 361
<211> 77
<212> PRT
<213> Sus scrofa

<400> 361
Met Lys Glu Gln Lys Trp Ile His Glu Gly Leu Ile Thr Glu Ser Leu
1 5 10 15

Pro Asn Gly Met Phe Trp Val Arg Leu Asp Asn Glu Asp Pro Ile Leu
20 25 30

Gly Tyr Val Ser Gly Arg Ile Arg Arg Ser Ser Ile Arg Ile Leu Pro
35 40 45

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

Arg Ile Ile Tyr Arg Leu Arg Asn Lys Asp Ser Asn Asp
65 70 75

<210> 362
<211> 382
<212> PRT
<213> Oryza sativa

<400> 362
Met Gly Ile Lys Gly Leu Thr Lys Leu Leu Ala Asp Asn Ala Pro Lys
1 5 10 15

Ser Met Lys Glu Asn Lys Phe Glu Ser Tyr Phe Gly Arg Lys Ile Ala
20 25 30

Ile Asp Ala Ser Met Ser Ile Tyr Gln Phe Leu Ile Val Val Gly Arg
35 40 45

Ser Gly Thr Glu Met Leu Thr Asn Glu Ala Gly Glu Val Thr Ser His
50 55 60

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

Lys Pro Val Tyr Val Phe Asp Gly Lys Pro Pro Asp Leu Lys Lys Gln
85 90 95

Glu Leu Ala Lys Arg Tyr Ser Lys Arg Ala Glu Ala Thr Glu Asp Leu

```
            100                 105                 110

Ser Glu Ala Leu Glu Thr Ala Asn Lys Glu Asp Ile Glu Lys Phe Ser
        115                 120                 125

Lys Arg Thr Val Lys Val Thr Lys Gln His Asn Asp Asp Cys Lys Arg
    130                 135                 140

Leu Leu Arg Leu Met Gly Val Pro Val Val Glu Ala Pro Ser Glu Ala
145                 150                 155                 160

Glu Ala Gln Cys Ala Ala Leu Cys Lys Ala Gly Lys Val Tyr Gly Val
                165                 170                 175

Val Ser Glu Asp Met Asp Ser Leu Thr Phe Gly Ala Pro Lys Phe Leu
            180                 185                 190

Arg His Leu Met Asp Pro Ser Ser Lys Lys Ile Pro Val Met Glu Phe
        195                 200                 205

Glu Val Ala Lys Ile Leu Glu Glu Leu Asn Met Thr Met Asp Gln Phe
    210                 215                 220

Ile Asp Leu Cys Ile Leu Ser Gly Cys Asp Tyr Cys Asp Ser Ile Arg
225                 230                 235                 240

Gly Ile Gly Gly Leu Thr Ala Leu Lys Leu Ile Arg Gln His Gly Ser
                245                 250                 255

Ile Glu Asn Ile Pro Glu Asn Leu Asn Lys Glu Arg Tyr Gln Ile Pro
            260                 265                 270

Asp Asn Trp Pro Tyr Gln Glu Ala Arg Arg Leu Phe Lys Glu Pro Leu
        275                 280                 285

Val Ile Thr Asp Glu Lys Glu Leu Asp Ile Lys Trp Ser Ser Pro Asp
    290                 295                 300

Glu Glu Gly Leu Ile Thr Phe Leu Val Asn Glu Asn Gly Phe Asn Arg
305                 310                 315                 320

Asp Arg Val Thr Lys Ala Ile Glu Lys Ile Lys Val Ala Lys Asn Lys
                325                 330                 335

Ser Ser Gln Gly Arg Leu Glu Ser Phe Phe Lys Pro Thr Ala Asn Pro
            340                 345                 350
```

Ser Val Pro Ile Lys Arg Lys Glu Thr Pro Val Asn Asn Ala Lys Glu
355 360 365

Thr Asn Lys Lys Thr Lys Ala Gly Gly Gly Lys Lys Lys Lys
370 375 380

<210> 363
<211> 212
<212> PRT
<213> Oryza sativa

<220>
<221> MOD_RES
<222> (120)..(121)
<223> Any amino acid

<400> 363
Pro Asp Leu Ser Ala Glu Thr Pro Val Phe Pro Gly Asn Cys Asp Glu
1 5 10 15

Gln Pro Leu Thr Glu Asn Pro Arg Lys Tyr Val Met Gly His Phe Arg
20 25 30

Trp Asp Arg Phe Gly Arg Arg Asn Gly Ser Ser Ser Phe Gly Ala Gly
35 40 45

Gly Ala Ala Gln Lys Arg Glu Glu Glu Val Ala Val Gly Glu Gly Pro
50 55 60

Gly Pro Arg Gly Asp Gly Ala Glu Thr Gly Pro Arg Glu Asp Lys Arg
65 70 75 80

Ser Tyr Ser Met Glu His Phe Arg Trp Gly Lys Pro Val Gly Lys Lys
85 90 95

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

Gln Ala Phe Pro Leu Glu Phe Xaa Xaa Glu Leu Thr Gly Glu Arg Leu
115 120 125

Glu Gln Ala Arg Gly Pro Glu Ala Gln Ala Glu Ser Ala Ala Ala Arg
130 135 140

Ala Glu Leu Glu Tyr Gly Leu Val Ala Glu Ala Glu Ala Ala Glu Lys
145 150 155 160

Lys Asp Ser Gly Pro Tyr Lys Met Glu His Phe Arg Trp Gly Ser Pro
165 170 175

Pro Lys Asp Lys Arg Tyr Gly Gly Phe Met Thr Ser Glu Lys Ser Gln
180 185 190

Thr Pro Leu Val Thr Leu Phe Lys Asn Ala Ile Ile Lys Asn Ala His
195 200 205

Lys Lys Gly Gln
210

<210> 364
<211> 255
<212> PRT
<213> Oryza sativa

<400> 364
Met Asp Asp Arg Glu Asp Leu Val Tyr Gln Ala Lys Leu Ala Glu Gln
1 5 10 15

Ala Glu Arg Tyr Asp Glu Met Val Glu Ser Met Lys Lys Val Ala Gly
20 25 30

Met Asp Val Glu Leu Thr Val Glu Glu Arg Asn Leu Leu Ser Val Ala
35 40 45

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

Ser Ile Glu Gln Lys Glu Glu Asn Lys Gly Gly Glu Asp Lys Leu Lys
65 70 75 80

Met Ile Arg Glu Tyr Arg Gln Met Val Glu Thr Glu Leu Lys Leu Ile
85 90 95

Cys Cys Asp Ile Leu Asp Val Leu Asp Lys His Leu Ile Pro Ala Ala
100 105 110

Asn Thr Gly Glu Ser Lys Val Phe Tyr Tyr Lys Met Lys Gly Asp Tyr
115 120 125

His Arg Tyr Leu Ala Glu Phe Ala Thr Gly Asn Asp Arg Lys Glu Ala
130 135 140

Ala Glu Asn Ser Leu Val Ala Tyr Lys Ala Ala Ser Asp Ile Ala Met
145 150 155 160

Thr Glu Leu Pro Pro Thr His Pro Ile Arg Leu Gly Leu Ala Leu Asn
165 170 175

Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Asp Arg Ala Cys
180 185 190

Arg Leu Ala Lys Ala Ala Phe Asp Asp Ala Ile Ala Glu Leu Asp Thr
195 200 205

Leu Ser Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln Leu Leu
210 215 220

Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Met Gln Gly Asp Gly Glu
225 230 235 240

Glu Gln Asn Lys Glu Ala Leu Gln Asp Val Glu Asp Glu Asn Gln
245 250 255

<210> 365
<211> 135
<212> PRT
<213> Ovis aries

<400> 365
Met Gly Arg Val Arg Thr Lys Thr Val Lys Lys Ala Ala Arg Val Ile
1 5 10 15

Ile Glu Lys Tyr Tyr Thr Arg Leu Gly Asn Asp Phe His Thr Asn Lys
20 25 30

Arg Val Cys Glu Glu Ile Ala Ile Ile Pro Ser Lys Lys Leu Arg Asn
35 40 45

Lys Ile Ala Gly Tyr Val Thr His Leu Met Lys Arg Ile Gln Arg Gly
50 55 60

Pro Val Arg Gly Ile Ser Ile Lys Leu Gln Glu Glu Glu Arg Glu Arg
65 70 75 80

Arg Asp Asn Tyr Val Pro Glu Val Ser Ala Leu Asp Gln Glu Ile Ile
85 90 95

Glu Val Asp Pro Asp Thr Lys Glu Met Leu Lys Leu Leu Asp Phe Gly
100 105 110

Ser Leu Ser Asn Leu Gln Val Thr Gln Pro Thr Val Gly Met Asn Phe
115 120 125

Lys Thr Pro Arg Gly Ala Val
130 135

<210> 366

<211> 129
<212> PRT
<213> Oryza sativa

<400> 366
Met Ala Gln Asn Lys Thr Ile Ala Val Ala Leu Leu Leu Ala Thr Leu
1 5 10 15

Val Ala Val Met Gly Lys Glu Pro Glu Thr Leu Glu Glu Ala Val Arg
20 25 30

Ala Gly Cys Lys Glu Glu Cys Ser Glu Gln Lys Lys Lys Ala Pro Ile
35 40 45

Asp Glu Lys Gln Cys Glu Asp Phe Cys Phe Ile Lys Thr Lys Ser Ile
50 55 60

Phe Glu Ala His Lys Gly Val Lys Asp Leu Lys Ala Asp Arg Phe Ile
65 70 75 80

Asp Phe Cys Asn Asn Glu Cys Asn Ala Val Tyr Lys Glu Asp Pro Ala
85 90 95

Thr Ser Lys Lys Cys Ala Glu Ser Cys Glu Ala Asp Ala Lys Glu Ala
100 105 110

Glu Val Phe Leu Asp Lys Val Val Ala Tyr Ile Gln Thr Thr Lys Gln
115 120 125

Ala

<210> 367
<211> 139
<212> PRT
<213> Sus scrofa

<400> 367
Met Ala Asn Ser Ala Ser Gly Met Ala Val Gly Asp Glu Cys Lys Leu
1 5 10 15

Lys Phe Gln Glu Leu Lys Ser Lys Arg Ser Phe Arg Phe Ile Thr Phe
20 25 30

Lys Ile Asp Glu Arg Thr Gln Gln Val Val Val Asp Arg Leu Gly Gln
35 40 45

Pro Gly Asp Thr Tyr Asp Asp Phe Thr Ala Ser Met Pro Ala Ser Glu
50 55 60

Cys Arg Tyr Ala Val Phe Asp Phe Asp Phe Val Thr Asp Glu Asn Cys
65 70 75 80

Gln Lys Ser Lys Ile Phe Phe Ile Ser Trp Ser Pro Asp Thr Ser Lys
85 90 95

Val Arg Ser Lys Met Leu Tyr Ala Ser Ser Lys Asp Arg Phe Lys Arg
100 105 110

Glu Leu Asp Gly Ile Gln Val Glu Leu Gln Ala Thr Asp Pro Ser Glu
115 120 125

Met Ser Met Asp Ile Val Lys Ala Arg Ala Leu
130 135

<210> 368
<211> 90
<212> PRT
<213> Solanum lycopersicum

<400> 368
Met Val Lys Asn Ser Ile Ile Pro Val Ile Ser Gln Glu Lys Lys Glu
1 5 10 15

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

Ile Arg Arg Leu Thr Ser His Phe Glu Leu His Arg Lys Asp Tyr Leu
35 40 45

Ser Gln Arg Gly Leu Arg Lys Ile Leu Gly Lys Arg Gln Arg Leu Leu
50 55 60

Ser Tyr Leu Ser Lys Lys Asp Arg Ile Arg Tyr Lys Lys Leu Ile Asn
65 70 75 80

Gln Phe Asp Ile Arg Glu Ser Gln Ile Arg
85 90

<210> 369
<211> 121
<212> PRT
<213> Zea mays

<400> 369
Met Ser Gln Lys Gln Glu Glu Glu Asn Pro Ala Glu Glu Thr Gly Glu
1 5 10 15

Glu Lys Gln Asp Thr Gln Glu Lys Glu Gly Ile Leu Pro Glu Lys Ala
20 25 30

```
Glu Glu Ala Lys Leu Lys Ala Lys Tyr Pro Ser Leu Gly Gln Lys Pro
        35                  40                  45

Gly Gly Ser Asp Phe Leu Met Lys Arg Leu Gln Lys Gly Gln Lys Tyr
    50                  55                  60

Phe Asp Ser Gly Asp Tyr Asn Met Ala Lys Ala Lys Met Lys Asn Lys
65                  70                  75                  80

Gln Leu Pro Ser Ala Gly Pro Asp Lys Asn Leu Val Thr Gly Asp His
                85                  90                  95

Ile Pro Thr Pro Gln Asp Leu Pro Gln Arg Lys Ser Ser Leu Val Thr
            100                 105                 110

Ser Lys Leu Ala Gly Gly Gln Val Glu
        115                 120
```

<210> 370
<211> 129
<212> PRT
<213> Solanum lycopersicum

<400> 370

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Met Ala Gln Asn Lys Thr Ile Ala Val Ala Leu Leu Leu Ala Thr Leu
1               5                   10                  15

Val Ala Val Met Gly Lys Glu Pro Glu Thr Leu Glu Glu Ala Val Arg
            20                  25                  30

Ala Gly Cys Lys Glu Glu Cys Ser Glu Gln Lys Lys Lys Ala Pro Ile
        35                  40                  45

Asp Glu Lys Gln Cys Glu Asp Phe Cys Phe Ile Lys Thr Lys Ser Ile
    50                  55                  60

Phe Glu Ala His Lys Gly Val Lys Asp Leu Lys Ala Asp Arg Phe Ile
65                  70                  75                  80

Asp Phe Cys Asn Asn Glu Cys Asn Ala Val Tyr Lys Glu Asp Pro Ala
                85                  90                  95

Thr Ser Lys Lys Cys Ala Glu Ser Cys Glu Ala Asp Ala Lys Glu Ala
            100                 105                 110

Glu Val Phe Leu Asp Lys Val Val Ala Tyr Ile Gln Thr Thr Lys Gln
        115                 120                 125
```

Ala

<210> 371
<211> 256
<212> PRT
<213> Sus scrofa

<400> 371
Met Ser Arg Glu Glu Asn Val Tyr Met Ala Lys Leu Ala Glu Gln Ala
1   5   10   15

Glu Arg Tyr Glu Glu Met Val Glu Tyr Met Glu Lys Val Ala Lys Thr
            20   25   30

Val Asp Val Glu Glu Leu Thr Val Glu Glu Arg Asn Leu Leu Ser Val
        35   40   45

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

Ser Ser Ile Glu Gln Lys Glu Glu Gly Arg Gly Asn Glu Glu His Val
65   70   75   80

Thr Leu Ile Lys Glu Tyr Arg Gly Lys Ile Glu Ala Glu Leu Ser Lys
                85   90   95

Ile Cys Asp Gly Ile Leu Lys Leu Leu Asp Ser His Leu Val Pro Ser
            100   105   110

Ser Thr Ala Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly Asp
        115   120   125

Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Ala Glu Arg Lys Glu
    130   135   140

Ala Ala Glu Ser Thr Met Val Ala Tyr Lys Ala Ala Gln Asp Ile Ala
145   150   155   160

Leu Ala Asp Leu Ala Pro Thr His Pro Ile Arg Leu Gly Leu Ala Leu
                165   170   175

Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Asp Lys Ala
            180   185   190

Cys Asn Leu Ala Lys Gln Ala Phe Asp Glu Ala Ile Ser Glu Leu Asp
        195   200   205

Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met Gln Leu

210 215 220

Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Leu Thr Glu Asp Gly
225 230 235 240

Gly Asp Glu Val Lys Glu Ala Ser Lys Gly Asp Ala Cys Glu Gly Gln
245 250 255

<210> 372
<211> 194
<212> PRT
<213> Glycine max

<400> 372
Met Glu Glu Lys Leu Lys Lys Ser Lys Ile Ile Phe Val Val Gly Gly
1 5 10 15

Pro Gly Ser Gly Lys Gly Thr Gln Cys Glu Lys Ile Val Gln Lys Tyr
20 25 30

Gly Tyr Thr His Leu Ser Thr Gly Asp Leu Leu Arg Ala Glu Val Ser
35 40 45

Ser Gly Ser Ala Arg Gly Lys Met Leu Ser Glu Ile Met Glu Lys Gly
50 55 60

Gln Leu Val Pro Leu Glu Thr Val Leu Asp Met Leu Arg Asp Ala Met
65 70 75 80

Val Ala Lys Val Asp Thr Ser Lys Gly Phe Leu Ile Asp Gly Tyr Pro
85 90 95

Arg Glu Val Lys Gln Gly Glu Glu Phe Glu Arg Lys Ile Gly Gln Pro
100 105 110

Thr Leu Leu Leu Tyr Val Asp Ala Gly Pro Glu Thr Met Thr Lys Arg
115 120 125

Leu Leu Lys Arg Gly Glu Thr Ser Gly Arg Val Asp Asp Asn Glu Glu
130 135 140

Thr Ile Lys Lys Arg Leu Glu Thr Tyr Tyr Lys Ala Thr Glu Pro Val
145 150 155 160

Ile Ala Phe Tyr Glu Lys Arg Gly Ile Val Arg Lys Val Asn Ala Glu
165 170 175

Gly Ser Val Asp Asp Val Phe Ser Gln Val Cys Thr His Leu Asp Thr
180 185 190

Leu Lys

<210> 373
<211> 259
<212> PRT
<213> Oryza sativa

<400> 373
Met Asp Arg Arg Ala Glu Phe Lys Arg Trp Lys Ala Gln Cys Leu Ser
1 5 10 15

Lys Ala Asp Phe Ser Arg Lys Gly Cys Val Asp Glu Asp Val Val Glu
20 25 30

Ile Val Gln Leu Leu Asn Gly Arg Glu Gln Phe Phe Thr Thr Ser Ser
35 40 45

Cys Ala Gly Arg Ile Ile Leu Leu Glu Gln Gly Met Asp Ser Leu Glu
50 55 60

Val Gln Lys Gln Asn Cys Cys Trp Leu Leu Val Ser His Lys Pro Cys
65 70 75 80

Val Lys Asp Asp Val Ile Val Ala Leu Lys Lys Ala Asn Gly Asp Ala
85 90 95

Ile Leu Lys Phe Glu Pro Leu Val Leu His Val Gln Cys Arg Gln Leu
100 105 110

Gln Asp Ala Gln Ile Leu His Ser Val Ala Ile Asp Ser Gly Phe Arg
115 120 125

Asn Ser Gly Ile Thr Val Gly Lys Arg Gly Lys Thr Met Leu Ala Val
130 135 140

Arg Ser Thr His Gly Leu Glu Val Pro Leu Ser His Lys Gly Lys Leu
145 150 155 160

Met Val Thr Glu Glu Tyr Ile Asp Phe Leu Leu Lys Ile Ala Asn His
165 170 175

Lys Met Glu Glu Asn Lys Lys Arg Ile Glu Arg Phe Tyr Asn Cys Leu
180 185 190

Gln Leu Ala Leu Glu Lys Glu Thr Thr Thr Thr Asn Ser His Pro Lys
195 200 205

Glu Lys Ile Lys Glu Lys Asn Asn Ser Tyr Lys Lys Lys Ser Asn Pro
210 215 220

Gly Lys Ala His Asp Lys Cys Val Thr Glu Glu Asn Asp Lys Val Leu
225 230 235 240

Glu Asn Asp Asp Asp Asp Asp Pro Gly Ile Ser Val Thr Ile Phe Pro
245 250 255

Glu Asp Tyr

<210> 374
<211> 90
<212> PRT
<213> Oryza sativa

<400> 374
Met Lys Lys Asn Ser Phe Ile Ser Val Ile Ser Asp Glu Lys Lys Glu
1 5 10 15

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

Ile Arg Arg Leu Thr Leu His Leu Glu Leu His Lys Lys Asp Tyr Ser
35 40 45

Ser Gln Arg Gly Leu Arg Lys Thr Leu Gly Lys Arg Gln Arg Leu Leu
50 55 60

Ala Tyr Leu Leu Lys Ile Asn Gly Val Arg Tyr Lys Glu Leu Ile Ser
65 70 75 80

Lys Leu Asn Ile Arg Glu Leu Lys Thr Arg
85 90

<210> 375
<211> 76
<212> PRT
<213> Sus scrofa

<400> 375
Asn Lys Glu Leu Asp Pro Val Gln Lys Leu Phe Val Asp Lys Ile Arg
1 5 10 15

Glu Tyr Arg Thr Lys Arg Gln Thr Ser Gly Gly Pro Val Asp Ala Gly
20 25 30

Pro Glu Tyr Gln Gln Asp Leu Asp Arg Glu Leu Phe Lys Leu Lys Gln
35 40 45

Met Tyr Gly Lys Ala Asp Met Asn Thr Phe Pro Asn Phe Thr Phe Glu
50 55 60

Asp Pro Lys Phe Glu Ala Val Glu Lys Pro Gln Ser
65 70 75

<210> 376
<211> 260
<212> PRT
<213> Zea mays

<400> 376
Met Ser Pro Ala Glu Ala Ser Arg Glu Glu Asn Val Tyr Met Ala Lys
1 5 10 15

Leu Ala Glu Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu
20 25 30

Lys Val Ala Lys Thr Thr Asp Val Gly Glu Leu Thr Val Glu Glu Arg
35 40 45

Asn Leu Leu Ser Val Ala Tyr Lys Asn Val Ile Gly Ala Arg Arg Ala
50 55 60

Ser Trp Arg Ile Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly
65 70 75 80

Asn Glu Ala Tyr Val Ala Ser Ile Lys Glu Tyr Arg Ser Arg Ile Glu
85 90 95

Thr Glu Leu Ser Lys Ile Cys Asp Gly Ile Leu Lys Leu Leu Asp Ser
100 105 110

His Leu Val Pro Ser Ala Thr Ala Ala Glu Ser Lys Val Phe Tyr Leu
115 120 125

Lys Met Lys Gly Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Ser Gly
130 135 140

Ala Glu Arg Lys Glu Ala Ala Glu Asn Thr Leu Val Ala Tyr Lys Ser
145 150 155 160

Ala Gln Asp Ile Ala Leu Ala Asp Leu Pro Thr Thr His Pro Ile Arg
165 170 175

Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn
180 185 190

Ser Pro Asp Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Asp Ala
195 200 205

Ile Ala Glu Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr
210 215 220

Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp
225 230 235 240

Asn Ala Glu Asp Gly Gly Asp Glu Ile Lys Glu Ala Ala Lys Pro Glu
245 250 255

Gly Glu Gly His
260

<210> 377
<211> 104
<212> PRT
<213> Solanum lycopersicum

<220>
<221> MOD_RES
<222> (32)..(32)
<223> Any amino acid

<220>
<221> MOD_RES
<222> (67)..(67)
<223> Any amino acid

<400> 377
Met Gly Val Asp Ile Arg His Asn Lys Asp Arg Lys Val Arg Arg Lys
1 5 10 15

Glu Pro Lys Ser Gln Asp Ile Tyr Leu Arg Leu Leu Val Lys Leu Xaa
20 25 30

Arg Phe Leu Ala Arg Arg Thr Asn Ser Thr Phe Asn Gln Val Val Leu
35 40 45

Lys Arg Leu Phe Met Ser Arg Thr Asn Arg Pro Pro Leu Ser Leu Ser
50 55 60

Arg Met Xaa Arg Lys Met Lys Leu Pro Gly Arg Glu Gly Lys Thr Ala
65 70 75 80

Val Val Val Gly Thr Ile Thr Asp Asp Val Arg Phe Gln Glu Val Pro
85 90 95

Lys Leu Lys Val Cys Ala Leu Arg

100

<210> 378
<211> 88
<212> PRT
<213> Solanum tuberosum

<400> 378
Val Arg Gln Glu Leu Lys His Glu Leu Lys Gln Gly Tyr Arg Asp Lys
1 5 10 15

Leu Val Asp Ile Arg Glu Glu Ile Leu Arg Lys Arg Arg Ala Gly Lys
20 25 30

Leu Pro Gly Asp Thr Ala Ser Thr Leu Lys Ala Trp Trp Gln Ala His
35 40 45

Ser Lys Trp Pro Tyr Pro Thr Glu Glu Asp Lys Ala Arg Leu Val Gln
50 55 60

Glu Thr Gly Leu Gln Leu Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln
65 70 75 80

Arg Lys Arg Asn Trp His Asn Asn
85

<210> 379
<211> 229
<212> PRT
<213> Oryza sativa

<400> 379
Met Ala Ala Ile Leu Ala Arg Lys Ser Leu Ser Ala Leu Arg Ser Arg
1 5 10 15

Gln Leu Val Leu Ala Gly His Thr Ile Glu Gly Thr Asn Gly Tyr Asn
20 25 30

Arg Thr Leu Leu Gly Thr Arg Ser Phe Ala Thr Lys His Ser Phe Ser
35 40 45

Thr Asp Lys Asp Asp Glu Glu Arg Glu Gln Leu Ala Lys Glu Leu Ser
50 55 60

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

Thr Glu Met Val Arg Gly Leu Met Leu Thr Leu Lys Tyr Phe Phe Glu
85 90 95

Lys Lys Val Thr Ile Asn Tyr Pro Phe Glu Lys Gly Pro Leu Ser Pro
100 105 110

Arg Phe Arg Gly Glu His Ala Leu Arg Arg Tyr Ala Thr Gly Glu Glu
115 120 125

Arg Cys Ile Ala Cys Lys Leu Cys Glu Ala Ile Cys Pro Ala Gln Ala
130 135 140

Ile Thr Ile Glu Ala Glu Glu Arg Glu Asp Gly Ser Arg Arg Thr Thr
145 150 155 160

Arg Tyr Asp Ile Asp Met Thr Lys Cys Ile Tyr Cys Gly Phe Cys Gln
165 170 175

Glu Ala Cys Pro Val Asp Ala Ile Val Glu Gly Pro Asn Phe Glu Phe
180 185 190

Ala Thr Glu Thr His Glu Glu Leu Leu Tyr Asp Lys Glu Lys Leu Leu
195 200 205

Glu Asn Gly Asp Arg Trp Glu Thr Glu Ile Ala Glu Asn Leu Arg Ser
210 215 220

Glu Ser Leu Tyr Arg
225

<210> 380
<211> 88
<212> PRT
<213> Spinacia oleracea

<400> 380
Met Val Lys Leu Arg Leu Lys Arg Cys Gly Arg Lys Gln Arg Ala Val
1 5 10 15

Tyr Arg Ile Val Ala Ile Asp Val Arg Ser Arg Arg Glu Gly Arg Asp
20 25 30

Leu Gln Lys Val Gly Phe Tyr Asp Pro Ile Lys Ser Gln Thr Tyr Leu
35 40 45

Asn Val Pro Ala Ile Leu Asp Phe Leu Glu Lys Gly Ala Gln Pro Thr
50 55 60

Glu Thr Val Tyr Asp Ile Leu Lys Arg Ala Glu Val Phe Lys Glu Phe
65 70 75 80

Arg Leu Asn Gln Thr Lys Phe Asn

85

<210> 381
<211> 103
<212> PRT
<213> Pisum sativum

<400> 381
Met Ala Lys Lys Ser Leu Ile Gln Arg Glu Arg Lys Arg Gln Lys Leu
1 5 10 15

Glu Gln Lys Tyr His Leu Ile Arg Arg Ser Ser Lys Lys Lys Ile Arg
20 25 30

Ser Lys Val Tyr Pro Leu Ser Leu Ser Glu Lys Thr Lys Met Arg Glu
35 40 45

Lys Leu Gln Ser Leu Pro Arg Asn Ser Ala Pro Thr Arg Leu His Arg
50 55 60

Arg Cys Phe Leu Thr Gly Arg Pro Arg Ala Asn Tyr Arg Asp Phe Gly
65 70 75 80

Leu Ser Gly His Ile Leu Arg Glu Met Val Tyr Ala Cys Leu Leu Pro
85 90 95

Gly Ala Thr Arg Ser Ser Trp
100

<210> 382
<211> 53
<212> PRT
<213> Solanum tuberosum

<400> 382
Leu Ala Ala Ala Asp Leu Ala Gln Ile Pro Asp Val Asp Ile Asp Ser
1 5 10 15

Asp Gly Val Phe Lys Lys Trp Ala Glu Tyr His Ala Asp Ile Tyr Asp
20 25 30

Lys Gly Leu Asp Cys Glu Cys Leu Gly Gly Gly Arg Ser Val Thr Trp
35 40 45

Ala Asp Asp Gly Tyr
50

<210> 383
<211> 192
<212> PRT
<213> Sus scrofa

<400> 383
Met Tyr Thr Ala Arg Arg Lys Ile Gln Lys Asp Lys Gly Leu Glu Pro
1 5 10 15

Thr Glu Phe Glu Asp Thr Val Ala Gln Ala Phe Phe Asp Leu Glu Asn
20 25 30

Gly Asn Gln Glu Leu Lys Ser Asp Leu Lys Asp Leu Tyr Ile Asn Gly
35 40 45

Ala Val Gln Met Asp Leu Pro Gly Asn Arg Lys Ala Val Ile Ile Tyr
50 55 60

Val Pro Tyr Arg Leu Arg Lys Ala Tyr Lys Lys Ile His Val Arg Leu
65 70 75 80

Val Arg Glu Leu Glu Lys Lys Phe Ser Gly Lys Asp Val Val Leu Val
85 90 95

Ala Thr Arg Arg Ile Val Arg Pro Pro Lys Lys Gly Ser Ala Val Val
100 105 110

Arg Pro Arg Thr Arg Thr Leu Thr Ala Val His Asp Gly Ile Leu Glu
115 120 125

Asp Val Val Tyr Pro Ala Glu Ile Val Gly Lys Arg Val Arg Tyr His
130 135 140

Leu Asp Gly Arg Lys Ile Met Lys Ile Phe Leu Asp Pro Lys Glu Arg
145 150 155 160

Asn Asn Thr Glu Tyr Lys Leu Asp Thr Phe Ser Ser Val Tyr Arg Arg
165 170 175

Leu Cys Gly Lys Asp Val Val Phe Asp Tyr Pro Met Thr Glu Thr Ala
180 185 190

<210> 384
<211> 85
<212> PRT
<213> Oryza sativa

<400> 384
Glu Leu Lys His Gln Leu Leu Arg Lys Tyr Gly Gly Tyr Leu Gly Gly
1 5 10 15

Leu Arg Gln Glu Phe Ser Lys Arg Lys Lys Lys Gly Lys Leu Pro Lys
20 25 30

Glu Ala Arg Gln Lys Leu Leu His Trp Trp Glu Leu His Tyr Lys Trp
35 40 45

Pro Tyr Pro Ser Glu Thr Glu Lys Met Ala Leu Ala Glu Thr Thr Gly
50 55 60

Leu Asp Pro Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg
65 70 75 80

His Trp Lys Pro Ala
85

<210> 385
<211> 85
<212> PRT
<213> Oryza sativa

<400> 385
Met Leu Lys Leu Arg Leu Lys Arg Cys Gly Arg Lys Gln Arg Ala Val
1 5 10 15

Tyr Arg Ile Val Ala Ile Asp Val Arg Ser Arg Arg Glu Gly Arg Asp
20 25 30

Leu Arg Lys Val Gly Phe Tyr Asp Pro Ile Lys Asn Gln Thr Cys Leu
35 40 45

Asn Val Pro Ala Ile Leu Tyr Phe Leu Glu Lys Gly Ala Gln Pro Thr
50 55 60

Arg Thr Val Ser Asp Ile Leu Arg Lys Ala Glu Phe Phe Lys Glu Lys
65 70 75 80

Glu Arg Thr Leu Ser
85

<210> 386
<211> 283
<212> PRT
<213> Pisum sativum

<400> 386
Met Glu Pro Leu Pro Glu Pro Thr Ser Arg Pro Arg Leu Arg Pro Arg
1 5 10 15

Pro Arg Cys Leu Leu Leu Leu Pro Leu Leu Leu Leu Leu Leu Leu Leu
20 25 30

Leu Pro Ala Pro Glu Leu Gly Pro Arg Glu Ala Arg Ala Glu Glu Thr
35 40 45

```
Asp Trp Val Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Tyr Val Ala
    50                  55                  60

Val Glu Leu Lys Ser Ala Phe Glu Glu Thr Gly Lys Thr Lys Glu Val
65                  70                  75                  80

Ile Asp Thr Gly Tyr Gly Ile Leu Asp Arg Lys Ala Ser Gly Val Lys
                85                  90                  95

Tyr Thr Lys Ser Asp Leu Arg Leu Ile Glu Val Thr Glu Thr Ile Cys
            100                 105                 110

Lys Arg Leu Leu Asp Tyr Ser Leu His Lys Glu Arg Thr Gly Ser Asn
        115                 120                 125

Arg Phe Ala Lys Gly Met Ser Glu Thr Phe Glu Thr Leu His Asn Leu
    130                 135                 140

Val His Lys Gly Val Lys Val Val Met Asp Ile Pro Tyr Glu Leu Trp
145                 150                 155                 160

Asn Glu Thr Ser Ala Glu Val Ala Asp Leu Lys Lys Gln Cys Asp Val
                165                 170                 175

Leu Val Glu Glu Phe Glu Glu Val Ile Glu Asp Trp Tyr Arg Asn His
            180                 185                 190

Gln Glu Glu Asp Leu Thr Gln Phe Leu Cys Ala Asn His Val Leu Lys
        195                 200                 205

Gly Lys Asp Thr Ser Cys Leu Ala Glu Gln Trp Ser Gly Lys Lys Gly
    210                 215                 220

Asp Thr Ala Ala Leu Gly Gly Lys Lys Ser Lys Lys Lys Ser Ser Arg
225                 230                 235                 240

Ala Lys Ala Ser Gly Gly Gly Ser Lys Gln Arg Lys Glu Leu Gly Gly
                245                 250                 255

Ile Glu Gly Asp Pro Ser Pro Glu Glu Asp Glu Gly Ile Gln Lys Ala
            260                 265                 270

Ser Pro Leu Thr His Ser Pro Pro Asp Glu Leu
        275                 280
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<210> 387

<211> 258
<212> PRT
<213> Spinacia oleracea

<400> 387

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Met Asn Asn Leu Asn Asp Pro Pro Asn Trp Asn Ile Arg Pro Asn Ser
1               5                  10                  15

Arg Ala Asp Gly Gly Asp Gly Ser Arg Trp Asn Tyr Ala Leu Leu Val
            20                  25                  30

Pro Met Leu Gly Leu Ala Ala Phe Arg Trp Ile Trp Ser Arg Glu Ser
        35                  40                  45

Gln Lys Glu Ile Glu Lys Glu Lys Glu Ala Cys Arg Gln Arg Thr Ala
    50                  55                  60

Ala Phe Gln Arg Asp Leu Glu Ala Arg Tyr His Ala Thr Ile Ser Glu
65                  70                  75                  80

Ser Arg Arg Ala Val Ala Arg Leu Ser Leu Glu Leu Glu Lys Glu Gln
                85                  90                  95

Asn Arg Thr Thr Ser Tyr Arg Glu Ala Leu Ile Ser Gln Gly Arg Lys
            100                 105                 110

Met Val Glu Glu Lys Lys Leu Leu Glu Gln Glu Arg Ala Gln Val Leu
        115                 120                 125

Gln Glu Lys Arg Gln Pro Leu Arg Ser Ala Tyr Leu Ser Cys Leu Asp
    130                 135                 140

Lys Glu Ala Asp Trp Gln Arg Arg Ala Arg Leu Leu Leu Arg Glu Phe
145                 150                 155                 160

Glu Glu Ala Leu Ala Glu Arg Gln Ser Ile Tyr Cys Ser Leu Val Leu
                165                 170                 175

Pro Arg Gly Arg Arg Leu Asp Ile Glu Lys Gly Leu Leu Val Arg Ala
            180                 185                 190

Ser Thr Asp Pro Leu Ala Val Asp Leu Glu Met Ala Ala Gly Leu Ser
        195                 200                 205

Asp Ile Phe Lys His Asp Thr His Cys Gly Gly Val Trp Asn Thr Ser
    210                 215                 220

Lys Arg Gln Asn Gly Arg Leu Met Trp Leu Tyr Leu Gln Tyr Trp Glu
225                 230                 235                 240
```

Leu Val Val Glu Leu Lys Lys Phe Lys Arg Val Glu Lys Ala Ile Leu
245 250 255

Glu Lys

<210> 388
<211> 148
<212> PRT
<213> Triticum aestivum

<400> 388
Asn His Met Glu Ser His Lys Leu Thr Ser Lys Ala Glu Lys Ala Ile
1 5 10 15

Glu Cys Asp Glu Cys Gly Lys His Phe Ser His Ala Gly Ala Leu Phe
20 25 30

Thr His Lys Met Val His Lys Glu Lys Gly Ala Asn Lys Met His Lys
35 40 45

Cys Lys Phe Cys Glu Tyr Glu Thr Ala Glu Gln Gly Leu Leu Asn Arg
50 55 60

His Leu Leu Ala Val His Ser Lys Asn Phe Pro His Ile Cys Val Glu
65 70 75 80

Cys Gly Lys Gly Phe Arg His Pro Ser Glu Leu Lys Lys His Met Arg
85 90 95

Ile His Thr Gly Glu Lys Pro Tyr Gln Cys Gln Tyr Cys Glu Tyr Arg
100 105 110

Ser Ala Asp Ser Ser Asn Leu Lys Thr His Val Lys Thr Lys His Ser
115 120 125

Lys Glu Met Pro Phe Lys Cys Asp Ile Cys Leu Leu Thr Phe Ser Asp
130 135 140

Thr Lys Glu Val
145

<210> 389
<211> 448
<212> PRT
<213> Sus scrofa

<400> 389
Met Gly Gln Gly Thr Pro Gly Gly Met Gly Lys Gln Gly Gly Ala Pro

```
1               5                  10                  15

Gly Asp Arg Lys Pro Gly Gly Asp Gly Asp Lys Lys Asp Arg Lys Phe
            20                  25                  30

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

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

Lys Cys Arg Leu Arg Leu Leu Lys Leu Glu Arg Val Lys Asp Tyr Leu
65                  70                  75                  80

Leu Met Glu Glu Glu Phe Val Ala Ala Gln Glu Arg Leu Arg Pro Thr
                85                  90                  95

Glu Asp Lys Thr Glu Glu Asp Arg Ser Lys Val Asp Asp Leu Arg Gly
            100                 105                 110

Thr Pro Met Ser Val Gly Ser Leu Glu Glu Ile Ile Asp Glu Ser His
        115                 120                 125

Ala Ile Val Ser Ser Ser Val Gly Pro Glu Tyr Tyr Val Gly Ile Leu
    130                 135                 140

Ser Phe Val Asp Lys Asp Gln Leu Glu Pro Gly Cys Ser Ile Leu Met
145                 150                 155                 160

His Asn Lys Val Leu Ser Val Val Gly Ile Leu Gln Asp Glu Val Asp
                165                 170                 175

Pro Met Val Ser Val Met Lys Val Glu Lys Ala Pro Leu Glu Ser Tyr
            180                 185                 190

Ala Asp Ile Gly Gly Leu Asp Ala Gln Ile Gln Glu Ile Lys Glu Ala
        195                 200                 205

Val Glu Leu Pro Leu Thr His Pro Glu Leu Tyr Glu Asp Ile Gly Ile
    210                 215                 220

Arg Pro Pro Lys Gly Val Ile Leu Tyr Gly Glu Pro Gly Thr Gly Lys
225                 230                 235                 240

Thr Leu Leu Ala Lys Ala Val Ala Asn Ser Thr Ser Ala Thr Phe Leu
                245                 250                 255
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Arg Val Val Gly Ser Glu Leu Ile Gln Lys Tyr Leu Gly Asp Gly Pro
            260                 265                 270

Lys Leu Val Arg Glu Leu Phe Arg Val Ala Asp Glu Leu Ser Pro Ser
        275                 280                 285

Ile Val Phe Ile Asp Glu Ile Asp Ala Val Gly Thr Lys Arg Tyr Asp
    290                 295                 300

Ala His Ser Gly Gly Glu Arg Glu Ile Gln Arg Thr Met Leu Glu Leu
305                 310                 315                 320

Leu Asn Gln Leu Asp Gly Phe Asp Ser Arg Gly Asp Val Lys Val Ile
                325                 330                 335

Leu Ala Thr Asn Arg Ile Glu Ser Leu Asp Pro Ala Leu Leu Arg Pro
            340                 345                 350

Gly Arg Ile Asp Arg Lys Ile Glu Phe Pro Leu Pro Asp Ile Lys Thr
        355                 360                 365

Arg Arg Arg Ile Phe Gln Ile His Thr Ser Lys Met Thr Leu Ala Asp
    370                 375                 380

Asp Val Asn Leu Glu Glu Phe Val Met Thr Lys Asp Glu Phe Ser Gly
385                 390                 395                 400

Ala Asp Ile Lys Ala Ile Cys Thr Glu Ala Gly Leu Leu Ala Leu Arg
                405                 410                 415

Glu Arg Arg Met Lys Val Thr His Ala Asp Phe Lys Lys Ala Lys Glu
            420                 425                 430

Lys Val Met Phe Lys Lys Lys Glu Gly Val Pro Glu Gly Leu Tyr Met
        435                 440                 445


<210> 390
<211> 166
<212> PRT
<213> Zea mays

<400> 390
Met Ala Ser Gly Val Ala Val Ser Asp Gly Val Ile Lys Val Phe Asn
1               5                   10                  15

Asp Met Lys Val Arg Lys Ser Ser Thr Pro Glu Glu Val Lys Lys Arg
            20                  25                  30

Lys Lys Ala Val Leu Phe Cys Leu Ser Glu Asp Lys Lys Asn Ile Ile
```

35 40 45

Leu Glu Glu Gly Lys Glu Ile Leu Val Gly Asp Val Gly Gln Thr Val
50 55 60

Asp Asp Pro Tyr Ala Thr Phe Val Lys Met Leu Pro Asp Lys Asp Cys
65 70 75 80

Arg Tyr Ala Leu Tyr Asp Ala Thr Tyr Glu Thr Lys Glu Ser Lys Lys
85 90 95

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

Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Ala Ile Lys Lys Lys Leu
115 120 125

Thr Gly Ile Lys His Glu Leu Gln Ala Asn Cys Tyr Glu Glu Val Lys
130 135 140

Asp Arg Cys Thr Leu Ala Glu Lys Leu Gly Gly Ser Ala Val Ile Ser
145 150 155 160

Leu Glu Gly Lys Pro Leu
165

<210> 391
<211> 90
<212> PRT
<213> Glycine max

<400> 391
Met Lys Lys Lys Gly Gly Arg Lys Ile Phe Gly Phe Met Val Lys Glu
1 5 10 15

Glu Lys Glu Glu Asn Arg Gly Ser Val Glu Phe Gln Val Phe Ser Phe
20 25 30

Thr Asn Lys Ile Arg Arg Leu Ala Ser His Leu Glu Leu His Lys Lys
35 40 45

Asp Phe Ser Ser Glu Arg Gly Leu Arg Arg Leu Leu Gly Lys Arg Arg
50 55 60

Arg Leu Leu Ala Tyr Leu Ala Lys Lys Asn Arg Val Arg Tyr Lys Lys
65 70 75 80

Leu Ile Gly Gln Leu Asn Ile Arg Glu Gln
85 90

<210> 392
<211> 136
<212> PRT
<213> Zea mays

<400> 392
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Glu Lys Lys Pro Val
1 5 10 15

Glu Thr Glu Lys Lys Pro Lys Ala Glu Lys Arg Val Pro Gly Lys Asp
20 25 30

Gly Gly Ala Asp Lys Lys Lys Lys Lys Ala Lys Lys Ser Val Glu Thr
35 40 45

Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile
50 55 60

Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp
65 70 75 80

Ile Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg Tyr Asn
85 90 95

Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ala Val Arg Leu
100 105 110

Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys
115 120 125

Ala Val Thr Lys Phe Thr Ser Ser
130 135

<210> 393
<211> 215
<212> PRT
<213> Oryza sativa

<400> 393
Met Asp Asp His Leu Lys Leu Gly Asp Ser Gly Val Val Lys Asn Val
1 5 10 15

Ala Arg Leu Gly Arg Arg Gly Gln Arg Ala Arg Gln Ala Ala Glu Gln
20 25 30

Thr Ser Leu Glu Glu Pro Arg His Val Arg Lys Ser Ser Ser Ser Thr
35 40 45

Ser Met Gly Glu Gly Pro Pro Pro Lys Pro Ala Arg Arg Gln Gly Gly

50 55 60

Trp Ala Glu Glu Thr Ser Gly Ser Ala Lys Ser Gly Arg Arg Pro Ala
65 70 75 80

Met Val Gln Asp Val Glu Asp Arg Arg Leu Arg Pro Gln Thr Pro Gln
85 90 95

Gly Ser Asp Gly Glu Gly Asp Ile Pro Val Ile Pro Asp Leu Asp Glu
100 105 110

Val Gln Glu Glu Asp Leu Asn Met Gln Val Ala Ala Pro Pro Ser Ile
115 120 125

Gln Val Asn Arg Val Met Thr Tyr Arg Asp Leu Asp Asn Asp Leu Met
130 135 140

Lys Tyr Ser Ala Phe Arg Thr Leu Asp Gly Glu Ile Asp Leu Lys Leu
145 150 155 160

Leu Thr Lys Val Leu Ala Pro Glu Gln Glu Val Arg Glu Glu Asp Val
165 170 175

Gly Trp Asp Trp Asp His Leu Phe Thr Glu Val Ser Ser Glu Leu Leu
180 185 190

Thr Glu Trp Asp Gln Gly Glu Lys Glu Glu Gln Val Cys Val Met Arg
195 200 205

Thr Ser Leu Pro Lys Met Gly
210 215

<210> 394
<211> 69
<212> PRT
<213> Salmo salar

<400> 394
Met Pro Lys Gln Ile His Glu Ile Lys Asp Phe Leu Leu Thr Ala Arg
1 5 10 15

Arg Lys Asp Ala Arg Thr Val Lys Ile Lys Lys Asn Lys Asp Met Val
20 25 30

Lys Phe Lys Val Arg Cys Ser Lys Tyr Leu Tyr Thr Leu Cys Val Ser
35 40 45

Asp Phe Glu Lys Ala Asp Lys Leu Lys Gln Ser Leu Pro Pro Gly Leu
50 55 60

Ser Val Gln Asp Leu
65

<210> 395
<211> 85
<212> PRT
<213> Ovis aries

<400> 395
Glu Leu Lys Asn Glu Leu Lys Gln Gly Tyr Lys Glu Lys Leu Val Asp
1 5 10 15

Ile Arg Glu Glu Ile Met Arg Lys Arg Arg Ala Gly Lys Leu Pro Gly
20 25 30

Asp Thr Ala Ser Val Leu Lys Ala Trp Trp Gln Ala His Ser Lys Trp
35 40 45

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

Leu Gln Leu Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg
65 70 75 80

Asn Trp His Ser Asn
85

<210> 396
<211> 198
<212> PRT
<213> Oryza sativa

<400> 396
Met Glu Asn Gln Phe Gln Asp Gly Lys Glu Glu Val Ile Glu Ala Trp
1 5 10 15

Tyr Met Asp Asp Ser Glu Glu Asp Gln Arg Leu Pro His His Arg Glu
20 25 30

Pro Lys Glu Phe Ile Pro Leu Ser Lys Leu Ser Glu Leu Gly Ile Leu
35 40 45

Ser Trp Arg Leu Asn Ala Asp Asp Trp Glu Asn Asp Glu Asn Leu Lys
50 55 60

Lys Ile Arg Glu Ala Arg Gly Tyr Ser Tyr Met Asp Ile Cys Asp Val
65 70 75 80

Cys Pro Glu Lys Leu Pro Asn Tyr Glu Ala Lys Leu Lys Asn Phe Phe

85 90 95

Glu Glu His Leu His Thr Asp Glu Glu Ile Arg Tyr Cys Leu Glu Gly
100 105 110

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

Ala Val Lys Lys Gly Gly Met Ile Val Leu Pro Ala Gly Met Tyr His
130 135 140

Arg Phe Thr Leu Asp Ser Asp Asn Tyr Ile Lys Ala Met Arg Leu Phe
145 150 155 160

Val Gly Glu Pro Val Trp Thr Pro Tyr Asn Arg Pro His Asp His Leu
165 170 175

Pro Ala Arg Lys Glu Tyr Val Glu Lys Ile Ile Asn Arg Gly Gly Thr
180 185 190

Gln Ala Val Glu Ala Arg
195

<210> 397
<211> 147
<212> PRT
<213> Triticum aestivum

<400> 397
Met Ala Ala Gln Arg Leu Gly Lys Arg Val Leu Ser Lys Leu Gln Ser
1 5 10 15

Pro Ser Arg Ala Arg Gly Pro Gly Gly Ser Pro Gly Gly Leu Gln Lys
20 25 30

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

Arg Leu Asp Val Glu Lys Trp Ile Asp Gly Arg Leu Glu Glu Leu Tyr
50 55 60

Arg Gly Arg Glu Ala Asp Met Pro Asp Glu Val Asn Ile Asp Glu Leu
65 70 75 80

Leu Glu Leu Glu Ser Glu Glu Glu Arg Ser Arg Lys Ile Gln Gly Leu
85 90 95

Leu Lys Ser Cys Thr Asn Pro Thr Glu Asn Phe Val Gln Glu Leu Leu
100 105 110

Val Lys Leu Arg Gly Leu His Lys Gln Pro Gly Leu Arg Gln Pro Ser
115 120 125

Pro Ser Gly Asp Gly Ser Leu Ser Pro Arg Gln Asp Arg Ala Arg Thr
130 135 140

Ala Pro Pro
145

<210> 398
<211> 125
<212> PRT
<213> Sus scrofa

<400> 398
Met Pro Thr Lys Asn Gln Leu Ile Arg His Gly Arg Glu Glu Lys Gln
1 5 10 15

Arg Thr Asp Arg Thr Arg Ala Ser Asp Gln Cys Pro Gln Lys Gln Gly
20 25 30

Val Cys Leu Arg Val Ser Thr Arg Thr Pro Lys Lys Pro Asn Ser Ala
35 40 45

Leu Arg Lys Ile Ala Lys Val Arg Leu Ser Asn Arg His Asp Ile Phe
50 55 60

Ala His Ile Pro Gly Glu Gly His Asn Ser Gln Glu His Ser Ile Val
65 70 75 80

Leu Val Arg Gly Gly Arg Val Lys Asp Ser Pro Gly Val Lys Ser His
85 90 95

Arg Ile Arg Gly Val Lys Asp Leu Leu Gly Ile Pro Asp Arg Arg Lys
100 105 110

Gly Arg Ser Lys Tyr Gly Ala Glu Arg Pro Lys Ser Lys
115 120 125

<210> 399
<211> 156
<212> PRT
<213> Pisum sativum

<400> 399
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp

20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
50 55 60

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

Lys Lys Lys Thr Tyr Thr Lys Pro Lys Lys Ile Lys His Lys Lys Lys
85 90 95

Lys Val Lys Leu Ala Val Leu Gln Phe Tyr Lys Val Asp Asp Thr Gly
100 105 110

Lys Val Gln Arg Leu Arg Lys Glu Cys Pro Asn Ala Glu Cys Gly Ala
115 120 125

Gly Thr Phe Met Ala Asn His Phe Asp Arg His Tyr Cys Gly Lys Cys
130 135 140

Gly Leu Thr Tyr Val Tyr Asn Lys Ala Gly Gly Asp
145 150 155

<210> 400
<211> 106
<212> PRT
<213> Solanum lycopersicum

<400> 400
Met Val Asn Val Pro Lys Thr Arg Arg Thr Phe Cys Lys Lys Cys Gly
1 5 10 15

Lys His Gln Pro His Lys Val Thr Gln Tyr Lys Lys Gly Lys Asp Ser
20 25 30

Leu Tyr Ala Gln Gly Lys Arg Arg Tyr Asp Arg Lys Gln Ser Gly Tyr
35 40 45

Gly Gly Gln Thr Lys Pro Ile Phe Arg Lys Lys Ala Lys Thr Thr Lys
50 55 60

Lys Ile Val Leu Arg Leu Glu Cys Val Glu Pro Asn Cys Arg Ser Lys
65 70 75 80

Arg Met Leu Ala Ile Lys Arg Cys Lys His Phe Glu Leu Gly Gly Asp
85 90 95

Lys Lys Arg Lys Gly Gln Val Ile Gln Phe
100 105

<210> 401
<211> 71
<212> PRT
<213> Solanum tuberosum

<400> 401
Met Val Pro Pro Val Gln Val Ser Pro Leu Ile Lys Leu Gly Arg Tyr
1 5 10 15

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

Leu Lys Pro Arg Ala Glu Glu Glu Arg Arg Ile Ala Ala Glu Glu Lys
35 40 45

Lys Lys Gln Asp Glu Leu Lys Arg Ile Glu Arg Glu Leu Ala Glu Ala
50 55 60

Gln Glu Asp Ser Ile Leu Lys
65 70

<210> 402
<211> 78
<212> PRT
<213> Oryza sativa

<400> 402
Gly Arg Gly Arg Gly Gln Thr Tyr Thr Arg Tyr Gln Thr Leu Glu Leu
1 5 10 15

Glu Lys Glu Phe His Phe Asn Arg Tyr Leu Thr Arg Arg Arg Arg Ile
20 25 30

Glu Met Ala His Ala Leu Cys Leu Ser Glu Arg Gln Ile Lys Ile Trp
35 40 45

Phe Gln Asn Arg Arg Met Lys Trp Lys Lys Asp Asn Lys Leu Lys Ser
50 55 60

Met Ser Met Ala Ala Ala Gly Gly Val Gly Tyr His Arg Pro
65 70 75

<210> 403
<211> 62
<212> PRT
<213> Oryza sativa

<400> 403
Leu Lys Leu Gln Lys Arg Leu Ala Ala Ser Tyr Leu Lys Cys Gly Lys
1 5 10 15

Gly Lys Val Trp Leu Asp Pro Asn Glu Val Ser Glu Ile Ser Met Ala
20 25 30

Asn Ser Arg Gln Asn Ile Arg Lys Leu Val Lys Asp Gly Phe Ile Ile
35 40 45

Lys Lys Pro His Lys Ile His Ser Arg Ser Arg Cys Lys Lys
50 55 60

<210> 404
<211> 88
<212> PRT
<213> Oryza sativa

<400> 404
Asp Asp Lys Glu Leu Lys Lys Gln Leu Leu Arg Lys Tyr Ser Gly Cys
1 5 10 15

Leu Gly Asn Leu Arg Lys Glu Leu Cys Lys Lys Arg Lys Lys Asp Lys
20 25 30

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

Tyr Arg Trp Pro Tyr Pro Ser Glu Met Glu Lys Ile Ala Leu Ala Glu
50 55 60

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

Arg Lys Arg His Trp Lys Pro Ser
85

<210> 405
<211> 87
<212> PRT
<213> Oryza sativa

<400> 405
Met Glu Glu Arg Arg Lys Glu Lys Gly Lys Glu Gly Arg Arg Gly Lys
1 5 10 15

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

Met Glu Lys Arg Lys Leu His Leu Pro Pro Gly Thr Ala Leu Phe Val
35 40 45

Phe Val Asn Asn Thr Leu Pro Gln Thr Ala Gln Leu Met Gly Ser Val
50 55 60

Tyr Glu Ser Tyr Lys Asp Glu Gly Asp Gly Phe Leu Tyr Leu Cys Tyr
65 70 75 80

Ser Ser Glu Lys Thr Phe Gly
85

<210> 406
<211> 215
<212> PRT
<213> Zea mays

<400> 406
Met Gly Arg Gly Lys Ile Glu Ile Lys Arg Ile Glu Asn Ser Thr Asn
1 5 10 15

Arg Gln Val Thr Phe Ser Lys Arg Arg Ala Gly Ile Leu Lys Lys Ala
20 25 30

Arg Glu Ile Gly Val Leu Cys Asp Ala Glu Val Gly Val Val Ile Phe
35 40 45

Ser Ser Ala Gly Lys Leu Ser Asp Tyr Cys Thr Pro Lys Thr Thr Ser
50 55 60

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

Gly Lys Ile Leu Trp Asp Glu Lys His Lys Ser Leu Ser Ala Glu Ile
85 90 95

Asp Arg Val Lys Lys Glu Asn Asp Asn Met Gln Ile Glu Leu Arg His
100 105 110

Met Lys Gly Glu Asp Leu Asn Ser Leu Gln Pro Lys Glu Leu Ile Ala
115 120 125

Ile Glu Glu Ala Leu Asn Asn Gly Gln Ala Asn Leu Arg Asp Lys Met
130 135 140

Met Asp His Trp Arg Met His Lys Arg Asn Glu Lys Met Leu Glu Asp
145 150 155 160

Glu His Lys Met Leu Ala Phe Arg Val His Gln Gln Glu Val Glu Leu
165 170 175

Ser Gly Gly Ile Arg Glu Leu Glu Leu Gly Tyr His His Asp Asp Arg
180 185 190

Asp Phe Ala Ala Ser Met Pro Phe Thr Phe Arg Val Gln Pro Ser His
195 200 205

Pro Asn Leu Gln Gln Glu Lys
210 215

<210> 407
<211> 66
<212> PRT
<213> Zea mays

<400> 407
Met Ala Lys Gly Lys Asp Val Arg Ile Arg Val Ile Leu Gln Cys Val
1 5 10 15

Ser Cys Val Arg Lys Gly Ala Asn Glu Glu Ser Ala Gly Ile Ser Arg
20 25 30

Tyr Ser Thr Gln Lys Asn Arg His Asn Thr Pro Gly Gln Leu Glu Leu
35 40 45

Arg Lys Phe Cys Arg Tyr Cys Arg Lys His Thr Ile His Ala Glu Ile
50 55 60

Lys Lys
65

<210> 408
<211> 269
<212> PRT
<213> Triticum aestivum

<400> 408
Met Arg Ser Pro Ala Ala Leu Leu Pro Val Val Ala Asp Gly Gly Gly
1 5 10 15

Gly Val Gly Val Glu Glu Glu Met Asp Val Asp Glu Asp Met Ala Met
20 25 30

Cys Gly Gly Arg Gly Gly Gly Gly Gly Glu Lys Lys Arg Arg Leu Ser
35 40 45

Val Glu Gln Val Arg Ala Leu Glu Arg Ser Phe Glu Thr Glu Asn Lys
50 55 60

Leu Glu Pro Glu Arg Lys Ala Arg Leu Ala Arg Asp Leu Gly Leu Gln
65 70 75 80

```
Pro Arg Gln Val Ala Val Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys
                85                  90                  95

Thr Lys Gln Leu Glu Arg Asp Tyr Ala Ala Leu Arg Gln Ser Tyr Asp
            100                 105                 110

Ala Leu Arg Ala Asp His Asp Ala Leu Arg Arg Asp Lys Asp Ala Leu
        115                 120                 125

Leu Ala Glu Ile Lys Glu Leu Lys Gly Lys Leu Gly Asp Glu Asp Ala
    130                 135                 140

Ala Ala Ser Phe Ser Ser Val Lys Glu Glu Glu Asp Pro Ala Ala Ser
145                 150                 155                 160

Asp Ala Asp Pro Pro Ala Thr Gly Ala Pro Gln Gly Ser Ser Glu Ser
                165                 170                 175

Asp Ser Ser Ala Val Leu Asn Asp Ala Glu Ile Leu Pro His Lys Pro
            180                 185                 190

Ala Pro Ala Ala Ala Ala Asp Ala Ala Ala Ser Glu Glu Thr Glu Ala
        195                 200                 205

Val Val Thr Gly Ala Ala Leu Leu His His Ala Glu Val Phe Phe His
    210                 215                 220

Gly Gln Leu Leu Lys Val Asp Asp Asp Glu Ala Ala Phe Leu Gly Asp
225                 230                 235                 240

Asp Gly Ala Ala Cys Gly Gly Phe Phe Ala Asp Glu His Leu Pro Ser
                245                 250                 255

Leu Pro Trp Trp Ala Glu Pro Thr Glu Gln Trp Thr Thr
            260                 265


<210> 409
<211> 288
<212> PRT
<213> Oryza sativa

<400> 409
Met Lys Asp Arg Thr Gln Glu Leu Arg Ser Ala Lys Asp Ser Asp Asp
1               5                   10                  15

Glu Glu Glu Val Val His Val Asp Arg Asp His Phe Met Asp Glu Phe
            20                  25                  30
```

```
Phe Glu Gln Val Glu Glu Ile Arg Gly Cys Ile Glu Lys Leu Ser Glu
        35                  40                  45

Asp Val Glu Gln Val Lys Lys Gln His Ser Ala Ile Leu Ala Ala Pro
    50                  55                  60

Asn Pro Asp Glu Lys Thr Lys Gln Glu Leu Glu Asp Leu Thr Thr Asp
65                  70                  75                  80

Ile Lys Lys Thr Ala Asn Lys Val Arg Ser Lys Leu Lys Ala Ile Glu
                85                  90                  95

Gln Ser Ile Glu Gln Glu Glu Gly Leu Asn Arg Ser Ser Ala Asp Leu
            100                 105                 110

Arg Ile Arg Lys Thr Gln His Ser Thr Leu Ser Arg Lys Phe Val Glu
        115                 120                 125

Val Met Thr Glu Tyr Asn Ala Thr Gln Ser Lys Tyr Arg Asp Arg Cys
    130                 135                 140

Lys Asp Arg Ile Gln Arg Gln Leu Glu Ile Thr Gly Arg Thr Thr Thr
145                 150                 155                 160

Asn Glu Glu Leu Glu Asp Met Leu Glu Ser Gly Lys Leu Ala Ile Phe
                165                 170                 175

Thr Asp Asp Ile Lys Met Asp Ser Gln Met Thr Lys Gln Ala Leu Asn
            180                 185                 190

Glu Ile Glu Thr Arg His Asn Glu Ile Ile Lys Leu Glu Thr Ser Ile
        195                 200                 205

Arg Glu Leu His Asp Met Phe Val Asp Met Ala Met Leu Val Glu Ser
    210                 215                 220

Gln Gly Glu Met Ile Asp Arg Ile Glu Tyr Asn Val Glu His Ser Val
225                 230                 235                 240

Asp Tyr Val Glu Arg Ala Val Ser Asp Thr Lys Lys Ala Val Lys Tyr
                245                 250                 255

Gln Ser Lys Ala Arg Arg Lys Lys Ile Met Ile Ile Ile Cys Cys Val
            260                 265                 270

Val Leu Gly Val Val Leu Ala Ser Ser Ile Gly Gly Thr Leu Gly Leu
        275                 280                 285
```

<210> 410
<211> 166
<212> PRT
<213> Oryza sativa

<400> 410
Met Ala Ser Gly Val Ala Val Ser Asp Gly Val Ile Lys Val Phe Asn
1 5 10 15

Asp Met Lys Val Arg Lys Ser Ser Thr Pro Glu Glu Val Lys Lys Arg
20 25 30

Lys Lys Ala Val Leu Phe Cys Leu Ser Glu Asp Lys Lys Asn Ile Ile
35 40 45

Leu Glu Glu Gly Lys Glu Ile Leu Val Gly Asp Val Gly Gln Thr Val
50 55 60

Asp Asp Pro Tyr Ala Thr Phe Val Lys Met Leu Pro Asp Lys Asp Cys
65 70 75 80

Arg Tyr Ala Leu Tyr Asp Ala Thr Tyr Glu Thr Lys Glu Ser Lys Lys
85 90 95

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

Ser Lys Met Ile Tyr Ala Ser Ser Lys Asp Ala Ile Lys Lys Lys Leu
115 120 125

Thr Gly Ile Lys His Glu Leu Gln Ala Asn Cys Tyr Glu Glu Val Lys
130 135 140

Asp Arg Cys Thr Leu Ala Glu Lys Leu Gly Gly Ser Ala Val Ile Ser
145 150 155 160

Leu Glu Gly Lys Pro Leu
165

<210> 411
<211> 85
<212> PRT
<213> Sus scrofa

<400> 411
Met Leu Lys Leu Arg Leu Lys Arg Cys Gly Arg Lys Gln Arg Ala Val
1 5 10 15

Tyr Arg Ile Val Ala Ile Asp Val Arg Ser Arg Arg Glu Gly Arg Asp

20 25 30

Leu Arg Lys Val Gly Phe Tyr Asp Pro Ile Lys Asn Gln Thr Cys Leu
35 40 45

Asn Val Pro Ala Ile Leu Tyr Phe Leu Glu Lys Gly Ala Gln Pro Thr
50 55 60

Arg Thr Val Ser Asp Ile Leu Arg Lys Ala Glu Phe Phe Lys Glu Lys
65 70 75 80

Glu Arg Thr Leu Ser
85

<210> 412
<211> 60
<212> PRT
<213> Triticum aestivum

<400> 412
Glu Lys Val Cys Ala Asp Leu Val Lys Gly Ala Lys Asp Lys His Leu
1 5 10 15

Arg Val Lys Gly Pro Val Arg Ile Pro Thr Lys Val Leu His Ile Thr
20 25 30

Thr Arg Lys Ser Pro Cys Gly Glu Gly Thr Asn Thr Trp Asp Arg Phe
35 40 45

Glu Phe Arg Ile His Lys Arg Val Ile Asp Leu Ile
50 55 60

<210> 413
<211> 203
<212> PRT
<213> Oryza sativa

<400> 413
Met Asp Tyr Phe Pro Met Ile Ile Ala Leu Leu Phe Val Ala Phe Gln
1 5 10 15

Gly Ala Pro Glu Thr Ala Val Leu Gly Ala Glu Leu Ser Pro Glu Ala
20 25 30

Glu Ser Gln Gly Glu Thr Pro Ser Pro His Ala Ser Trp Arg Pro Arg
35 40 45

Arg Ser Lys Arg Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val
50 55 60

```
Tyr Phe Cys His Leu Asp Ile Ile Trp Val Asn Thr Pro Glu His Ile
65                  70                  75                  80

Val Pro Tyr Gly Leu Gly Ser Pro Ser Arg Ser Arg Arg Ser Leu Lys
                85                  90                  95

Asp Leu Phe Pro Ala Lys Ala Ala Asp Arg Arg Asp Arg Cys Gln Cys
            100                 105                 110

Ala Ser Gln Lys Asp Lys Lys Cys Trp Ser Phe Cys Gln Ala Gly Lys
        115                 120                 125

Glu Ile Gly Arg Asp Gln Asp Thr Met Glu Lys Arg Trp Asp Asn Gln
    130                 135                 140

Lys Lys Gly Thr Asp Cys Ser Lys Leu Gly Glu Lys Cys Ile His Arg
145                 150                 155                 160

Gln Leu Val Met Gly Arg Lys Ile Arg Arg Leu Glu Ala Ile Ser Asn
                165                 170                 175

Ser Ile Lys Thr Ser Phe His Ile Ala Lys Leu Lys Ala Glu Leu Tyr
            180                 185                 190

Arg Asp Lys Lys Val Thr His Asn Arg Thr His
        195                 200
```

<210> 414
<211> 156
<212> PRT
<213> Oryza sativa

<400> 414

```
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1               5                   10                  15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
            20                  25                  30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
    50                  55                  60

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

Lys Lys Lys Thr Tyr Thr Lys Pro Lys Lys Ile Lys His Lys Lys Lys
```

85 90 95

Lys Val Lys Leu Ala Val Leu Gln Phe Tyr Lys Val Asp Asp Thr Gly
100 105 110

Lys Val Gln Arg Leu Arg Lys Glu Cys Pro Asn Ala Glu Cys Gly Ala
115 120 125

Gly Thr Phe Met Ala Asn His Phe Asp Arg His Tyr Cys Gly Lys Cys
130 135 140

Gly Leu Thr Tyr Val Tyr Asn Lys Ala Gly Gly Asp
145 150 155

<210> 415
<211> 160
<212> PRT
<213> Oryza sativa

<400> 415
Phe Asn Glu Glu Gly Ser Leu Tyr Ile Leu Lys Gly Asp Arg Thr Ile
1 5 10 15

Glu Phe Asp Gly Glu Phe Ala Ala Asp Val Leu Val Glu Phe Leu Leu
20 25 30

Asp Leu Ile Glu Asp Pro Val Glu Ile Ile Asn Ser Lys Leu Glu Val
35 40 45

Gln Ala Phe Glu Arg Ile Glu Asp His Ile Lys Leu Ile Gly Phe Phe
50 55 60

Lys Ser Glu Asp Ser Glu Tyr Tyr Lys Ala Phe Glu Glu Ala Ala Glu
65 70 75 80

His Phe Gln Pro Tyr Ile Lys Phe Phe Ala Thr Phe Asp Lys Gly Val
85 90 95

Ala Lys Lys Leu Ser Leu Lys Met Asn Glu Val Asp Phe Tyr Glu Pro
100 105 110

Phe Met Glu Glu Pro Ile Val Ile Pro Asp Lys Pro Tyr Thr Glu Glu
115 120 125

Glu Ile Val Glu Phe Val Lys Glu His Gln Arg Pro Thr Leu Arg Arg
130 135 140

Leu Arg Pro Glu Asp Met Phe Glu Thr Trp Glu Asp Asn Leu Asn Gly
145 150 155 160

<210> 416
<211> 44
<212> PRT
<213> Oryza sativa

<400> 416
Met Ser Asp Lys Pro Asp Met Ala Glu Ile Glu Lys Phe Asp Lys Ser
1 5 10 15

Lys Leu Lys Lys Thr Glu Thr Gln Glu Lys Asn Pro Leu Pro Ser Lys
20 25 30

Glu Thr Ile Glu Gln Glu Lys Gln Ala Gly Glu Ser
35 40

<210> 417
<211> 119
<212> PRT
<213> Salmo salar

<400> 417
Met Ala Lys Ser Ser Phe Lys Leu Asp His Thr Leu Glu Arg Arg Gln
1 5 10 15

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

Ile Val Glu Lys Ala Glu Arg Ser Asp Ile Pro Asp Ile Asp Lys Lys
35 40 45

Lys Tyr Leu Val Pro Ala Asp Leu Thr Val Gly Gln Phe Val Tyr Val
50 55 60

Val Arg Lys Arg Ile Lys Leu Ser Pro Glu Lys Ala Ile Phe Ile Phe
65 70 75 80

Val Lys Asn Thr Leu Pro Pro Thr Ala Ala Leu Met Ser Ala Ile Tyr
85 90 95

Glu Glu Asn Lys Asp Glu Asp Gly Phe Leu Tyr Met Thr Tyr Ser Gly
100 105 110

Glu Asn Thr Phe Gly Leu Leu
115

<210> 418
<211> 96
<212> PRT
<213> Glycine max

<400> 418
Leu Ala Gly Ser Lys His Lys Glu Glu Lys Ala Asp Leu Asp Pro Ser
1   5   10   15

Asn Pro Val Ala Asn Trp Ile His Ala Arg Ser Thr Arg Lys Lys Arg
            20   25   30

Cys Pro Tyr Thr Lys Tyr Gln Thr Leu Glu Leu Glu Lys Glu Phe Leu
        35   40   45

Phe Asn Met Tyr Leu Thr Arg Asp Arg Arg Tyr Glu Val Ala Arg Val
    50   55   60

Leu Asn Leu Thr Glu Arg Gln Val Lys Ile Trp Phe Gln Asn Arg Arg
65   70   75   80

Met Lys Met Lys Lys Met Asn Lys Glu Lys Thr Asp Lys Glu Gln Ser
                85   90   95

<210> 419
<211> 129
<212> PRT
<213> Glycine max

<400> 419
Met Ala Gln Asn Lys Thr Ile Ala Val Ala Leu Leu Leu Ala Thr Leu
1   5   10   15

Val Ala Val Met Gly Lys Glu Pro Glu Thr Leu Glu Glu Ala Leu Arg
            20   25   30

Ala Gly Cys Lys Glu Glu Cys Ser Glu Gln Lys Lys Lys Ala Pro Ile
        35   40   45

Asp Glu Lys Gln Arg Glu Asp Phe Cys Phe Ile Lys Thr Lys Ser Ile
    50   55   60

Phe Glu Ala His Lys Gly Val Lys Asp Leu Lys Ala Asp Arg Phe Ile
65   70   75   80

Asp Phe Cys Asn Asn Glu Cys Asn Ala Val Tyr Lys Glu Asp Pro Ala
                85   90   95

Thr Ser Lys Lys Cys Ala Glu Ser Cys Glu Ala Asp Ala Lys Glu Ala
            100   105   110

Glu Val Phe Leu Asp Lys Val Val Ala Tyr Met Gln Thr Thr Lys Gln
        115   120   125

Ala

<210> 420
<211> 128
<212> PRT
<213> Salmo salar

<400> 420
Met Thr Arg Ile Lys Arg Gly Tyr Ile Ala Arg Arg Arg Arg Thr Lys
1 5 10 15

Ile Arg Leu Phe Ala Ser Ser Phe Arg Gly Ala His Ser Arg Leu Thr
20 25 30

Arg Thr Ile Thr Gln Gln Lys Ile Arg Ala Leu Val Ser Ala His Arg
35 40 45

Asp Arg Asp Arg Lys Lys Arg Asp Phe Arg Arg Leu Trp Ile Thr Arg
50 55 60

Ile Asn Ala Val Ile Arg Glu Arg Gly Val Ser Tyr Ser Tyr Ser Arg
65 70 75 80

Leu Ile His Asp Leu Tyr Lys Arg Gln Leu Leu Leu Asn Arg Lys Ile
85 90 95

Leu Ala Gln Ile Ala Ile Ser Asn Arg Asn Cys Leu Tyr Met Ile Ser
100 105 110

Asn Glu Ile Ile Lys Glu Val Asp Trp Lys Glu Ser Thr Arg Ile Ile
115 120 125

<210> 421
<211> 194
<212> PRT
<213> Sus scrofa

<400> 421
Met Ala Ala Glu Asp Val Ala Ala Thr Gly Ala Asp Pro Ser Glu Leu
1 5 10 15

Glu Gly Gly Gly Leu Leu His Glu Ile Phe Thr Ser Pro Leu Asn Leu
20 25 30

Leu Leu Leu Gly Leu Cys Ile Phe Leu Leu Tyr Lys Ile Val Arg Gly
35 40 45

Asp Gln Pro Ala Ala Ser Asp Ser Asp Asp Asp Glu Pro Pro Pro Leu
50 55 60

```
Pro Arg Leu Lys Arg Arg Asp Phe Thr Pro Ala Glu Leu Arg Arg Phe
65                  70                  75                  80

Asp Gly Val Gln Asp Pro Arg Ile Leu Met Ala Ile Asn Gly Lys Val
                85                  90                  95

Phe Asp Val Thr Lys Gly Arg Lys Phe Tyr Gly Pro Glu Gly Pro Tyr
            100                 105                 110

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

Leu Asp Lys Glu Ala Leu Lys Asp Glu Tyr Asp Asp Leu Ser Asp Leu
    130                 135                 140

Thr Pro Ala Gln Gln Glu Thr Leu Asn Asp Trp Asp Ser Gln Phe Thr
145                 150                 155                 160

Phe Lys Tyr His His Val Gly Lys Leu Leu Lys Glu Gly Glu Glu Pro
                165                 170                 175

Thr Val Tyr Ser Asp Glu Glu Glu Pro Lys Asp Glu Ser Ala Arg Lys
            180                 185                 190

Asn Asp
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<210> 422
<211> 355
<212> PRT
<213> Sus scrofa

<400> 422

```
Met Ala Ser Arg Gln Gly Pro Leu Cys Gly Leu Ala Pro Cys Cys Leu
1               5                   10                  15

Trp Leu Leu Gly Val Ile Leu Leu Met Asn Ala Ser Ala Arg Pro Ala
            20                  25                  30

Asn His Ser Ser Ala Arg Glu Arg Ala Gly Asn Arg Glu Glu Asn Glu
        35                  40                  45

Ile Leu Pro Pro Asp His Leu Asn Gly Val Lys Leu Glu Met Asp Gly
    50                  55                  60

His Leu Asn Lys Asp Phe His Gln Glu Val Phe Leu Gly Lys Asp Met
65                  70                  75                  80
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```
Asp Asp Phe Glu Glu Asp Ala Glu Pro Arg Lys Ser Arg Arg Lys Leu
                85                  90                  95

Met Val Ile Phe Ser Lys Val Asp Leu Asn Thr Asp Arg Arg Ile Ser
            100                 105                 110

Ala Lys Glu Met Gln Lys Trp Ile Met Gln Lys Thr Ala Glu His Phe
        115                 120                 125

Gln Glu Ala Val Ala Glu Ser Arg Ala His Phe Arg Ala Val Asp Pro
    130                 135                 140

Asp Gly Asp Gly His Val Ser Trp Asp Glu Tyr Lys Val Lys Phe Leu
145                 150                 155                 160

Ala Thr Lys Gly His Asn Glu Arg Glu Val Ala Glu Lys Ile Lys Asn
                165                 170                 175

Lys Trp Asp Leu Asn Ile Asp Glu Glu Thr Gln Glu Val Leu Glu Asn
            180                 185                 190

Leu Lys Asp Arg Trp Tyr Gln Ala Asp Asn Pro Pro Pro Asp Leu Leu
        195                 200                 205

Leu Thr Glu Ser Glu Phe Leu Ser Phe Leu His Pro Glu His Ser Arg
    210                 215                 220

Gly Met Leu Gln Phe Met Val Lys Glu Ile Ile Arg Asp Leu Asp Gln
225                 230                 235                 240

Asp Gly Asp Lys Lys Leu Ser Leu Ser Glu Phe Ile Ser Leu Pro Val
                245                 250                 255

Gly Thr Val Glu Asn Gln Gln Gly Gln Asp Val Asp Asp Gly Trp Val
            260                 265                 270

Arg Asp Arg Lys Arg Glu Phe Glu Glu Leu Ile Asp Ala Asn His Asp
        275                 280                 285

Gly Ile Val Thr Met Ala Glu Leu Glu Asp Tyr Met Asp Pro Met Asn
    290                 295                 300

Glu Phe Ser Ala Leu Asn Glu Ala Lys Gln Met Ile Ala Ile Ala Asp
305                 310                 315                 320

Glu Asn Gln Asn His Tyr Leu Glu Pro Glu Glu Val Leu Lys Tyr Ser
                325                 330                 335
```

Glu Phe Phe Thr Gly Ser Lys Leu Val Asp Tyr Ala Arg Ser Val His
340 345 350

Glu Glu Phe
355

<210> 423
<211> 284
<212> PRT
<213> Oryza sativa

<400> 423
Met Ala Gly Glu Lys Ala Glu Lys Pro Gly Thr Lys Glu Lys Lys Pro
1 5 10 15

Glu Ala Lys Lys Ala Asp Ala Gly Gly Lys Val Lys Lys Ala Lys Lys
20 25 30

Val Lys Lys Gly Lys Pro His Cys Ser Arg Asn Pro Val Leu Val Arg
35 40 45

Gly Ile Gly Arg Tyr Ser Arg Ser Ala Met Tyr Ser Arg Lys Ala Leu
50 55 60

Tyr Lys Arg Lys Tyr Ser Ala Ala Lys Ser Lys Val Glu Lys Lys Lys
65 70 75 80

Lys Val Arg Val Leu Ala Thr Val Thr Lys Pro Val Gly Gly Asp Lys
85 90 95

Asn Gly Gly Thr Arg Val Val Lys Leu Arg Lys Met Pro Arg Tyr Tyr
100 105 110

Pro Thr Glu Asp Val Pro Arg Lys Leu Leu Ser His Gly Lys Lys Pro
115 120 125

Phe Ser Lys His Val Arg Lys Leu Arg Ala Ser Ile Thr Pro Gly Thr
130 135 140

Ile Leu Ile Ile Leu Thr Gly Arg His Arg Gly Lys Arg Val Ile Phe
145 150 155 160

Leu Lys Gln Leu Ser Ser Gly Leu Leu Leu Val Thr Gly Pro Leu Ser
165 170 175

Leu Asn Arg Val Pro Leu Arg Arg Thr His Gln Lys Phe Val Ile Ala
180 185 190

Thr Ser Thr Lys Ile Asp Ile Ser Gly Val Lys Ile Pro Glu His Leu
195 200 205

Thr Asp Ala Tyr Phe Lys Lys Lys Lys Leu Arg Lys Pro Arg His Gln
210 215 220

Glu Gly Glu Ile Phe Asp Thr Glu Lys Glu Lys Tyr Glu Ile Ser Glu
225 230 235 240

Gln Arg Lys Val Asp Gln Lys Ala Val Asp Ser Gln Ile Leu Arg Arg
245 250 255

Ile Lys Ala Val Pro Gln Leu Gln Gly Tyr Leu Arg Ser Val Phe Ala
260 265 270

Leu Thr Asn Gly Ile Tyr Pro His Lys Leu Val Phe
275 280

<210> 424
<211> 259
<212> PRT
<213> Oryza sativa

<400> 424
Met Ala Asp Ser Arg Glu Glu Asn Val Tyr Met Ala Lys Leu Ala Glu
1 5 10 15

Gln Ala Glu Arg Tyr Glu Glu Met Val Glu Phe Met Glu Lys Val Ala
20 25 30

Lys Val Asp Val Glu Glu Leu Thr Val Glu Glu Arg Asn Leu Leu Ser
35 40 45

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

Ile Ser Ser Ile Glu Gln Lys Glu Glu Ser Arg Gly Asn Glu Asp His
65 70 75 80

Val Ser Ser Ile Lys Glu Tyr Arg Val Lys Ile Glu Ala Glu Leu Ser
85 90 95

Lys Ile Cys Asp Gly Ile Leu Ser Leu Leu Glu Ser His Leu Val Pro
100 105 110

Ser Ala Ser Thr Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly
115 120 125

Asp Tyr His Arg Tyr Leu Ala Glu Phe Lys Thr Gly Ala Arg Glu Arg

130 135 140

Lys Glu Ala Ala Glu Asn Thr Leu Leu Ala Tyr Lys Ser Ala Gln Asp
145 150 155 160

Ile Ala Leu Ala Glu Leu Thr Pro Thr His Pro Ile Arg Leu Gly Leu
165 170 175

Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Asp
180 185 190

Arg Ala Cys Asn Leu Ala Lys Gln Ala Phe Asp Asp Ala Ile Ala Glu
195 200 205

Leu Asp Thr Leu Gly Glu Glu Ser Tyr Lys Asp Ser Thr Leu Ile Met
210 215 220

Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ser Asp Thr Thr Asp
225 230 235 240

Asp Ala Glu Asp Glu Ile Arg Glu Gly Ser Lys Gln Glu Ser Gly Asp
245 250 255

Gly Gln Gln

<210> 425
<211> 85
<212> PRT
<213> Sus scrofa

<400> 425
Glu Leu Lys Asn Glu Leu Lys Gln Gly Tyr Lys Glu Lys Leu Val Asp
1 5 10 15

Ile Arg Glu Glu Ile Met Arg Lys Arg Arg Ala Gly Lys Leu Pro Gly
20 25 30

Asp Thr Ala Ser Val Leu Lys Ala Trp Trp Gln Ala His Ser Lys Trp
35 40 45

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

Leu Gln Leu Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg
65 70 75 80

Asn Trp His Ser Asn
85

<210> 426
<211> 95
<212> PRT
<213> Oryza sativa

<400> 426
Met Ser Lys Asp Ser Lys Met Arg Ala Thr Ile Asn Gln Lys Leu Thr
1   5   10   15

Glu Met Gly Glu Arg Glu Arg Leu Lys Glu Leu Leu Arg Ala Lys Leu
            20   25   30

Thr Glu Cys Gly Trp Arg Asp Gln Leu Lys Ala His Cys Lys Asp Val
        35   40   45

Ile Lys Glu Lys Gly Leu Glu His Val Thr Val Glu Asp Leu Val Val
    50   55   60

Glu Ile Thr Pro Lys Gly Arg Val Leu Val Pro Asp Ser Val Lys Lys
65   70   75   80

Glu Leu Leu Gln Arg Ile Arg Ala Phe Leu Ala Gln His Ala Thr
                85   90   95

<210> 427
<211> 271
<212> PRT
<213> Oryza sativa

<400> 427
Met Ala Asp Asp Asn Gln Asn Glu Val Lys Asp Glu Val Val Ala Asp
1   5   10   15

Ile Ala Pro Phe Asp Pro Thr Lys Lys Lys Lys Lys Glu Val Val
            20   25   30

Ile Gln Asp Thr Thr Asp Asp Ser Val Gly Lys Leu Ala Glu Lys Ala
        35   40   45

Glu Ala Cys Thr Ala Ser Glu Gly Gln Glu Ser Thr Phe Ala Gly Leu
    50   55   60

Lys Lys Lys Lys Lys Lys Pro Ile Glu Thr Ser Ile Leu Asn Glu Glu
65   70   75   80

Ser Gly Asp Ala Val Glu Asp Leu Asn Glu Arg Thr Gly Glu Asp Glu
                85   90   95

Glu Gly Glu Gly Ile Val Leu Glu Thr Pro Ser Tyr Pro Trp Glu Gly

100 105 110

Ser Asp Arg Asp Tyr Thr Tyr Glu Glu Leu Leu Asp Arg Val Phe Thr
115 120 125

Ile Leu Arg Glu Asn Asn Pro Asp Leu Ala Gly Asp Arg Arg Arg Thr
130 135 140

Val Met Arg Pro Pro Gln Val Leu Arg Glu Gly Thr Lys Lys Ala Val
145 150 155 160

Phe Val Asn Phe Met Asp Leu Cys Lys Thr Met His Arg Gln Pro Asp
165 170 175

His Val Met Ala Phe Leu Leu Ala Glu Leu Gly Thr Ser Gly Ser Leu
180 185 190

Asp Gly Gln Gln Arg Leu Val Val Lys Gly Arg Phe Ala Pro Lys Asn
195 200 205

Phe Glu Gly Ile Leu Arg Arg Tyr Val Asn Glu Tyr Val Ile Cys Leu
210 215 220

Gly Cys Gln Ser Pro Asp Thr Ile Leu Ser Lys Glu Asn Arg Leu Phe
225 230 235 240

Phe Leu Arg Cys Glu Lys Cys Gly Ser Gly Arg Ser Val Ala Pro Asn
245 250 255

Lys Ala Gly Phe Met Ala Arg Val Gly Arg Arg Asn Ala Gly Thr
260 265 270

<210> 428
<211> 15
<212> PRT
<213> Zea mays

<400> 428
Glu Gly Lys Ala Ile Gly Leu Ala Lys Pro Arg Met Asp Ser Thr
1 5 10 15

<210> 429
<211> 143
<212> PRT
<213> Oryza sativa

<400> 429
Met Ser Glu Gly Phe Asp Gly Thr Glu Asn Gly Gly Gly Gly Gly Gly
1 5 10 15

Gly Gly Val Gly Lys Glu Gln Asp Arg Phe Leu Pro Ile Ala Asn Ile
20 25 30

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

Asp Ser Lys Glu Ser Val Gln Glu Cys Val Ser Glu Phe Ile Ser Phe
50 55 60

Ile Thr Ser Glu Ala Ser Asp Lys Cys Leu Lys Glu Lys Arg Lys Thr
65 70 75 80

Ile Asn Gly Asp Asp Leu Ile Trp Ser Met Gly Thr Leu Gly Phe Glu
85 90 95

Asp Tyr Val Glu Pro Leu Lys Leu Tyr Leu Arg Leu Tyr Arg Glu Thr
100 105 110

Glu Gly Asp Thr Lys Gly Ser Arg Ala Ser Glu Leu Pro Val Lys Lys
115 120 125

Asp Val Val Leu Asn Gly Asp Pro Gly Ser Ser Phe Glu Gly Met
130 135 140

<210> 430
<211> 184
<212> PRT
<213> Sus scrofa

<400> 430
Met Ala His Leu Val Trp Met Leu Gly Glu Asn Gly Glu Glu Lys Ser
1 5 10 15

Phe Glu Asn Pro Asn Glu Leu Leu Pro Leu Ser Arg Leu Glu Glu Ile
20 25 30

Gly Val Leu Tyr Trp His Leu Asp Pro Lys Lys Ser Glu Ser Glu Glu
35 40 45

Glu Leu Thr Lys Ile Arg Arg Glu Arg Gly Tyr Ser Tyr Phe Asp Leu
50 55 60

Thr Glu Ile Cys Pro Asp Lys Leu Glu Asn Tyr Glu Glu Lys Leu Lys
65 70 75 80

Ser Phe Tyr Cys Glu His Ile His Ala Asp Glu Glu Ile Arg Tyr Cys
85 90 95

Leu Glu Gly Ser Gly Tyr Phe Asp Val Arg Asp Lys Asp Asp Lys Trp

100 105 110

Ile Arg Ile Trp Ile Lys Glu Gly Asp Met Ile Ile Leu Pro Ala Gly
115 120 125

Ile Tyr His Arg Phe Ile Val Asp Ser Asn Asn Tyr Ile Lys Leu Met
130 135 140

Arg Leu Phe Ile Gly Glu Pro Val Trp Thr Ala Tyr Asn Arg Pro Gln
145 150 155 160

Glu Asp His Pro Val Arg Gln Glu Tyr Val Lys Asn Val Lys Gly Asp
165 170 175

Thr Gly Phe Ala Leu Ala Ala His
180

<210> 431
<211> 32
<212> PRT
<213> Oryza sativa

<220>
<221> MOD_RES
<222> (3)..(4)
<223> Any amino acid

<400> 431
Thr Lys Xaa Xaa Glu Ala Pro Ala Pro Lys Gly Leu Lys Gly Asn Glu
1 5 10 15

Met Leu Lys Gly Ile Phe Leu Glu Val Lys Lys Lys Phe Glu Thr Ala
20 25 30

<210> 432
<211> 62
<212> PRT
<213> Pisum sativum

<400> 432
Pro Gly Leu Ala Ala Ala Ile Pro Ala Pro Pro Glu Ser Gln Glu Lys
1 5 10 15

Lys Pro Leu Lys Pro Cys Cys Ala Cys Pro Glu Thr Lys Lys Ala Arg
20 25 30

Asp Ala Cys Ile Ile Glu Lys Gly Glu Glu His Cys Gly His Leu Ile
35 40 45

Glu Ala His Lys Glu Cys Met Arg Ala Leu Gly Phe Lys Ile
50 55 60

<210> 433
<211> 150
<212> PRT
<213> Oryza sativa

<400> 433
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1   5   10   15

Glu Glu Pro Ala Ala Glu Lys Ala Pro Ala Gly Lys Lys Pro Lys Ala
            20   25   30

Glu Lys Arg Val Pro Ala Gly Lys Ser Ala Gly Lys Glu Gly Gly Glu
        35   40   45

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

Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly Ile
65   70   75   80

Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn Asp Ile Phe
                85   90   95

Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala Arg Tyr Asn Lys Lys
            100   105   110

Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu Val Leu
        115   120   125

Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala Val
    130   135   140

Thr Lys Phe Thr Ser Ser
145   150

<210> 434
<211> 151
<212> PRT
<213> Oryza sativa

<400> 434
Met Glu Ile Leu Gly Phe Thr Val Met Gly Gly Gly Gly Ser Pro Ala
1   5   10   15

Trp Ile Glu Val Pro Glu Lys Ser Lys Ser Ala Phe Trp Glu Leu Lys
            20   25   30

Arg Arg Lys Val His Arg Tyr Val Ile Phe Lys Ile Asp Asp Arg Arg

35 40 45

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

Asp Phe Thr Ala Ser Leu Pro Ala Asp Asp Cys Arg Tyr Ala Val Tyr
65 70 75 80

Asp Leu Asp Phe Val Ser Asp Asp Asn Cys Arg Lys Ser Lys Ile Phe
85 90 95

Phe Ile Ser Trp Ser Pro Ser Val Ser Arg Ile Arg Ala Lys Thr Ile
100 105 110

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

Phe Glu Ile Gln Ala Thr Asp Pro Asp Asp Met Asp Leu Glu Val Leu
130 135 140

Arg Gly Arg Ala Asn Arg Thr
145 150

<210> 435
<211> 125
<212> PRT
<213> Oryza sativa

<400> 435
Met Ala Pro Ala Lys Lys Gly Gly Glu Lys Lys Lys Gly Arg Ser Ala
1 5 10 15

Ile Asn Glu Val Val Thr Arg Glu Tyr Thr Ile Asn Ile His Lys Arg
20 25 30

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

Ile Arg Lys Phe Ala Met Lys Glu Met Gly Thr Pro Asp Val Arg Ile
50 55 60

Asp Thr Arg Leu Asn Lys Ala Val Trp Ala Lys Gly Ile Arg Asn Val
65 70 75 80

Pro Tyr Arg Ile Arg Val Arg Leu Ser Arg Lys Arg Asn Glu Asp Glu
85 90 95

Asp Ser Pro Asn Lys Leu Tyr Thr Leu Val Thr Tyr Val Pro Val Thr
100 105 110

Thr Phe Lys Asn Leu Gln Thr Val Asn Val Asp Glu Asn
        115   120   125

<210> 436
<211> 47
<212> PRT
<213> Pisum sativum

<400> 436
Lys Thr Cys Glu Asn Leu Ser Gly Thr Phe Lys Gly Pro Cys Ile Pro
1   5   10   15

Asp Gly Asn Cys Asn Lys His Cys Arg Asn Asn Glu His Leu Leu Ser
            20   25   30

Gly Arg Cys Arg Asp Asp Phe Arg Cys Trp Cys Thr Asn Arg Cys
        35   40   45

<210> 437
<211> 95
<212> PRT
<213> Oryza sativa

<400> 437
Met Ala Asp Glu Lys Pro Lys Glu Gly Val Lys Thr Glu Asn Asn Asp
1   5   10   15

His Ile Asn Leu Lys Val Ala Gly Gln Asp Gly Ser Val Val Gln Phe
            20   25   30

Lys Ile Lys Arg His Thr Pro Leu Ser Lys Leu Met Lys Ala Tyr Cys
        35   40   45

Glu Arg Gln Gly Leu Ser Met Arg Gln Ile Arg Phe Arg Phe Asp Gly
    50   55   60

Gln Pro Ile Asn Glu Thr Asp Thr Pro Ala Gln Leu Glu Met Glu Asp
65   70   75   80

Glu Asp Thr Ile Asp Val Phe Gln Gln Gln Thr Gly Gly Val Tyr
                85   90   95

<210> 438
<211> 575
<212> PRT
<213> Ovis aries

<400> 438
Met Ser Glu Leu Leu Phe Glu Thr Tyr Gly Val Pro Ser Ile Gly Asn
1   5   10   15

```
Asp Thr Tyr Leu Phe Val Pro Leu Leu Ser Ile Val His Gly Ser Phe
            20                  25                  30

Glu Val Arg Ile Val Asp Ala Lys Asp Val Ser Ser Tyr Phe Leu Lys
        35                  40                  45

Gly Glu Pro Val Leu Gly Ala Cys Cys Arg Thr Asn Val Gly Gly Phe
    50                  55                  60

His Ile Thr Asp Phe Leu Arg Gln Leu Leu Ser Leu Lys Tyr Pro Tyr
65                  70                  75                  80

His Ser Ala Ser Ile Thr Trp Glu Lys Ala Glu Glu Leu Lys Lys Glu
                85                  90                  95

His Cys Tyr Val Ala Leu Asp Tyr Met Ser Glu Leu Gln Ile Phe Lys
            100                 105                 110

Asn Asn Lys Glu Glu Ala Glu Glu Lys Thr Arg Tyr Trp Gln Leu Pro
        115                 120                 125

Trp Val Pro Pro Pro Val Glu Glu Pro Pro Ser Glu Glu Glu Leu Ala
    130                 135                 140

Arg Lys Ala Ala Leu Lys Glu Lys Ala Gly Gln Arg Leu Arg Asp Met
145                 150                 155                 160

Ala Ala Ala Lys Arg Ser Gln Lys Ile Ala Glu Leu Glu Lys Gln Leu
                165                 170                 175

Ser Tyr Leu Glu Glu Leu Met Glu Gln Leu Asp Gly Ala Glu Glu Glu
            180                 185                 190

Glu Ala Thr Ala Ile Leu Gly Arg Ser Gly Tyr Leu Ser Gln Gln Glu
        195                 200                 205

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

Gly Glu Ser Asn Gly Asn Glu Glu Lys Ala Asp Ala Ser Gly Val Asp
225                 230                 235                 240

Lys Tyr Pro Leu Val Ser Val Pro Asp Glu Thr Leu Thr Pro Glu Gln
                245                 250                 255

Leu Lys Glu Lys Lys Lys Gln Ile Leu Leu Lys Thr Thr Thr Glu Gly
            260                 265                 270
```

```
Arg Met Arg Ala Lys Gln Arg Arg Ala Glu Glu Glu Ala Leu Arg Glu
        275                 280                 285

Lys Gln Glu Glu Glu Arg Arg Leu Glu Asn Pro Glu Leu Tyr Leu Glu
    290                 295                 300

Glu Leu Arg Ala Arg Tyr Ser Glu Leu Ser Asp Arg Val Asp Gln Arg
305                 310                 315                 320

Lys Arg Gln Lys Leu Asn Gly Gly Lys Thr Asn Gly Asn His Asn Ser
                325                 330                 335

Ser Gly Gly Val Gly Arg Gly Glu Arg Leu Asn Ala Ala Gln Lys Glu
            340                 345                 350

Arg Met Arg Leu Leu Thr Ser Ala Ala Phe Asp Arg Gly Lys Gly Glu
        355                 360                 365

Asp Thr Phe Gly Thr Arg Asp Glu Asp Trp Leu Val Tyr Lys Lys Met
    370                 375                 380

Ser Lys Asp Asn Asp Asp Asp Asp Asp Gly Asn Asp Asp Asp Glu Ser
385                 390                 395                 400

Glu Leu Ala Arg Ile Ala Ser Lys Ile Gln Asp Met Asp Pro Thr Phe
                405                 410                 415

Val Asn Lys Ala Glu Ala Val Gln Gln Thr Pro Glu Pro Pro Lys Val
            420                 425                 430

Arg Thr Leu Thr Ala Glu Asp Tyr Arg Ile Ser Ile Gly Ile Glu Arg
        435                 440                 445

Phe Arg Cys Pro Glu Ile Leu Phe Gln Pro Gly Met Ile Gly Ile Asp
    450                 455                 460

Gln Ala Gly Ile Asp Glu Met Val Ser Ile Ser Leu Arg Arg Leu Met
465                 470                 475                 480

Glu Asp Glu Ala Val Lys Glu Arg Leu Cys Gln Ser Ile Leu Val Thr
                485                 490                 495

Gly Gly Cys Ser Leu Ile Pro Gly Met Ile Pro Arg Leu Glu Ser Gly
            500                 505                 510

Ile Arg Gln Phe Arg Pro Tyr Leu Ser Pro Leu Lys Leu Val Arg Ala
```

515 520 525

Ala Asp Pro Leu Ile Asp Ala Trp Arg Gly Ala Ala Ala Phe Ala Ala
530 535 540

Ser Ser Lys Phe Gly Arg His Thr Phe Ser Leu Ala Asp Tyr Arg Glu
545 550 555 560

His Gly Glu Asn Leu Phe His Arg Tyr Asn Ile Val Tyr Ser Leu
565 570 575

<210> 439
<211> 311
<212> PRT
<213> Sus scrofa

<400> 439
Met Lys Arg Pro Thr Ser Ser Ser Arg Lys Ser Lys Lys Gln Gly Glu
1 5 10 15

Asp Leu Ala Phe Ser Glu Glu Gly Ser Leu Pro Ala Val Thr Met Glu
20 25 30

Gln Lys Asp Glu Ala Glu Met Glu Glu Val Asp Glu Glu Glu Glu Glu
35 40 45

Glu Val Asp Glu Asp Met Ala Gly Gly His Ala Ala Gln Ser Pro Ser
50 55 60

Pro Ser Cys Gly Leu Gly Glu Lys Lys Arg Arg Leu Ala Leu Glu Gln
65 70 75 80

Val Arg Ala Leu Glu Arg Ser Phe Asp Thr Asp Asn Lys Leu Asp Pro
85 90 95

Asp Arg Lys Ala Arg Ile Ala Arg Asp Leu Gly Leu Gln Pro Arg Gln
100 105 110

Val Ala Val Trp Phe Gln Asn Arg Arg Ala Arg Trp Lys Thr Lys Gln
115 120 125

Leu Glu Arg Asp Phe Ala Ala Leu Arg Ala Arg His Asp Ala Leu Arg
130 135 140

Ala Asp Cys Asp Ala Leu Arg Arg Asp Lys Asp Ala Leu Ala Ala Glu
145 150 155 160

Ile Arg Glu Leu Arg Glu Lys Leu Pro Thr Lys Pro Ala Asp Thr Ala
165 170 175

```
Ala Ser Val Lys Val Glu Ala Gly Asn Asp Ala Ala Ala Gly Ala Ala
            180                 185                 190

Ala Ala Thr Val Cys Lys Asp Gly Ser Ser Asp Asp Ser Asp Ser Ser
        195                 200                 205

Val Val Phe Asn Asp Glu Ala Ser Pro Tyr Ser Gly Ala Ala Phe Ile
    210                 215                 220

Gly Phe Gly Pro Ser Phe Leu Val Asp Asp Ala Ser Ala Ala Thr Val
225                 230                 235                 240

Gly Cys Ser Ser Ser Leu Pro Ala Leu Glu Ser Lys Trp His Gly Pro
                245                 250                 255

Tyr Ser Asp Asp Ser Cys Lys Gly Gly Val Tyr Gly Phe Thr Glu Glu
            260                 265                 270

Trp Leu Ala Ala Cys Ser Gly Glu Met Ala Gly Asn Asp Ala Ala Gly
        275                 280                 285

Phe Phe Ser Asp Glu His Ala Ser Asn Leu Asn Phe Gly Trp Cys Ala
    290                 295                 300

Ser Gly Asn Glu Gly Trp Glu
305                 310


<210> 440
<211> 142
<212> PRT
<213> Oryza sativa

<400> 440
Met Ser Ala Pro Ser Leu Pro Pro Ala Trp Gln Leu Tyr Leu Lys Asp
1               5                   10                  15

His Arg Ile Ser Thr Phe Lys Asn Trp Pro Phe Leu Glu Gly Cys Ala
            20                  25                  30

Cys Thr Pro Glu Arg Met Ala Ala Ala Gly Phe Ile His Cys Pro Thr
        35                  40                  45

Glu Asn Glu Pro Asp Leu Ala Gln Cys Phe Phe Cys Phe Lys Glu Leu
    50                  55                  60

Glu Gly Trp Glu Pro Asp Asp Asp Pro Ile Glu Glu His Lys Lys His
65                  70                  75                  80
```

Ser Ser Gly Cys Ala Phe Leu Ser Val Lys Lys Gln Phe Glu Glu Leu
85 90 95

Thr Leu Ser Glu Phe Leu Lys Leu Asp Lys Glu Arg Ala Lys Asn Lys
100 105 110

Ile Ala Lys Glu Thr Asn Asn Lys Gln Lys Glu Phe Glu Glu Thr Ala
115 120 125

Lys Lys Val Arg Cys Ala Ile Glu Gln Leu Ala Ala Ser Glu
130 135 140

<210> 441
<211> 107
<212> PRT
<213> Oryza sativa

<400> 441
Met Thr Glu Lys Lys Asn Ser Arg Glu Lys Lys Asn Pro Arg Glu Ala
1 5 10 15

Lys Val Thr Phe Glu Gly Leu Val Thr Glu Ala Leu Pro Asn Gly Met
20 25 30

Phe Arg Val Arg Leu Glu Asn Asp Thr Ile Ile Leu Gly Tyr Ile Ser
35 40 45

Gly Lys Ile Arg Ser Ser Ser Ile Arg Ile Leu Met Gly Asp Arg Val
50 55 60

Lys Ile Glu Ile Ser Arg Tyr Asp Ser Ser Lys Gly Arg Ile Ile Tyr
65 70 75 80

Arg Leu Pro His Lys Asp Ser Lys Arg Thr Glu Asp Ser Lys Asp Thr
85 90 95

Glu Asp Leu Lys Asp Thr Lys Asp Ser Lys Asp
100 105

<210> 442
<211> 339
<212> PRT
<213> Oryza sativa

<220>
<221> MOD_RES
<222> (290)..(290)
<223> Any amino acid

<400> 442

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

His Ser Thr Pro Ala Ser Ala Tyr Gly Ser Val Lys Ala Tyr Thr Asn
            20                  25                  30

Phe Asp Ala Glu Arg Asp Ala Leu Asn Ile Glu Thr Ala Ile Lys Thr
        35                  40                  45

Lys Gly Val Asp Glu Val Thr Ile Val Asn Ile Leu Thr Asn Arg Ser
    50                  55                  60

Asn Glu Gln Arg Gln Asp Ile Ala Phe Ala Tyr Gln Arg Arg Thr Lys
65                  70                  75                  80

Lys Glu Leu Ala Ser Ala Leu Lys Ser Ala Leu Ser Gly His Leu Glu
                85                  90                  95

Thr Val Ile Leu Gly Leu Leu Lys Thr Pro Ala Gln Tyr Asp Ala Ser
            100                 105                 110

Glu Leu Lys Ala Ser Met Lys Gly Leu Gly Thr Asp Glu Asp Ser Leu
        115                 120                 125

Ile Glu Ile Ile Cys Ser Arg Thr Asn Gln Glu Leu Gln Glu Ile Asn
    130                 135                 140

Arg Val Tyr Lys Glu Met Tyr Lys Thr Asp Leu Glu Lys Asp Ile Ile
145                 150                 155                 160

Ser Asp Thr Ser Gly Asp Phe Arg Lys Leu Met Val Ala Leu Ala Lys
                165                 170                 175

Gly Arg Arg Ala Glu Asp Gly Ser Val Ile Asp Tyr Glu Leu Ile Asp
            180                 185                 190

Gln Asp Ala Arg Asp Leu Tyr Asp Ala Gly Val Lys Arg Lys Gly Thr
        195                 200                 205

Asp Val Pro Lys Trp Ile Ser Ile Met Thr Glu Arg Ser Val Cys His
    210                 215                 220

Leu Gln Lys Val Phe Glu Arg Tyr Lys Ser Tyr Ser Pro Tyr Asp Met
225                 230                 235                 240

Leu Glu Ser Ile Lys Lys Glu Val Lys Gly Asp Leu Glu Asn Ala Phe
                245                 250                 255
```

```
Leu Asn Leu Val Gln Cys Ile Gln Asn Lys Pro Leu Tyr Phe Ala Asp
            260                 265                 270

Arg Leu Tyr Asp Ser Met Lys Gly Lys Gly Thr Arg Asp Lys Val Leu
        275                 280                 285

Ile Xaa Ile Met Val Ser Arg Ser Glu Val Asp Met Leu Lys Ile Arg
    290                 295                 300

Ser Glu Phe Lys Arg Lys Tyr Gly Lys Ser Leu Tyr Asn Tyr Ile Gln
305                 310                 315                 320

Gln Asp Thr Lys Gly Asp Tyr Gln Lys Ala Leu Leu Tyr Leu Cys Gly
                325                 330                 335

Gly Asp Asp
```

<210> 443
<211> 200
<212> PRT
<213> Oryza sativa

<400> 443

```
Met Glu Ala Leu Ser Gly Arg Val Gly Val Lys Cys Gly Arg Trp Asn
1               5                   10                  15

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

Leu Arg Thr Pro Ser Thr Glu Gln Ile Gln Arg Ile Ser Thr His Leu
        35                  40                  45

Ser Ala Phe Gly Lys Val Glu Ser Lys Asn Val Phe Tyr Trp Phe Gln
    50                  55                  60

Asn His Lys Ala Arg Glu Arg His His His Lys Lys Arg Arg Arg Gly
65                  70                  75                  80

Ala Ser Ser Pro Asp Ser Gly Ser Asn Asp Asp Asp Gly Arg Ala Ala
                85                  90                  95

Ala His Glu Gly Asp Ala Asp Leu Val Leu Gln Pro Pro Glu Ser Lys
            100                 105                 110

Arg Glu Ala Arg Ser Tyr Gly His His His Arg Leu Met Thr Cys Tyr
        115                 120                 125
```

Val Arg Asp Val Val Glu Thr Glu Ala Met Trp Glu Arg Pro Thr Arg
130 135 140

Glu Val Glu Thr Leu Glu Leu Phe Pro Leu Lys Ser Tyr Asp Leu Glu
145 150 155 160

Val Asp Lys Val Arg Tyr Val Arg Gly Gly Gly Gly Glu Gln Cys Arg
165 170 175

Glu Ile Ser Phe Phe Asp Val Ala Ala Gly Arg Asp Pro Pro Leu Glu
180 185 190

Leu Arg Leu Cys Ser Phe Gly Leu
195 200

<210> 444
<211> 85
<212> PRT
<213> Oryza sativa

<400> 444
Glu Leu Lys Tyr Gln Leu Leu Lys Lys Tyr Ser Gly Tyr Leu Ser Ser
1 5 10 15

Leu Arg Gln Glu Phe Ser Lys Lys Lys Lys Lys Gly Lys Leu Pro Lys
20 25 30

Glu Ala Arg Gln Lys Leu Leu His Trp Trp Glu Leu His Tyr Lys Trp
35 40 45

Pro Tyr Pro Ser Glu Thr Glu Lys Ile Ala Leu Ala Glu Ala Thr Gly
50 55 60

Leu Asp Gln Lys Gln Ile Asn Asn Trp Phe Ile Asn Gln Arg Lys Arg
65 70 75 80

His Trp Lys Pro Ser
85

<210> 445
<211> 223
<212> PRT
<213> Oryza sativa

<400> 445
Met Ala Ile Tyr Lys Val Ala Leu Leu Leu Leu Phe Gly Met Ile Leu
1 5 10 15

Leu Ala Ser Asp Phe Glu His Ala Lys Ala Cys Thr Lys Glu Cys Asp
20 25 30

```
Thr Arg Ile Asp Phe Gly Ile Cys Pro Leu Leu Glu Thr Lys Arg Val
        35                  40                  45

Glu Gly Leu Cys Thr Asn Cys Cys Ala Gly Lys Lys Gly Cys Lys Tyr
    50                  55                  60

Phe Ser Lys Asp Gly Thr Tyr Ile Cys Asp Gly Glu Ser Glu Trp Val
65                  70                  75                  80

Ser Glu Lys Asn Asn Asn Leu Lys Lys Ala Cys Thr Lys Glu Cys Asp
                85                  90                  95

Thr Arg Ile Asp Phe Gly Ile Cys Pro Leu Leu Glu Thr Lys Arg Val
            100                 105                 110

Glu Gly Leu Cys Thr Asn Cys Cys Ala Gly Lys Lys Gly Cys Lys Tyr
        115                 120                 125

Phe Ser Lys Asp Gly Thr Tyr Ile Cys Asp Gly Glu Ser Glu Trp Val
    130                 135                 140

Ser Glu Lys Asp Asn Asn Leu Glu Lys Asp Cys Thr Lys Glu Cys Asp
145                 150                 155                 160

Thr Arg Ile Asp Phe Gly Ile Cys Pro Leu Leu Glu Thr Lys Arg Val
                165                 170                 175

Lys Gly Leu Cys Thr Asn Cys Cys Ala Gly Lys Lys Gly Cys Lys Tyr
            180                 185                 190

Phe Ser Ala Asp Gly Thr Tyr Ile Cys Asp Gly Glu Ser Glu Trp Val
        195                 200                 205

Ser Glu Gly Glu Asn Asp Leu Gln Lys Ser Asn Val Ala Ile Ser
    210                 215                 220


<210> 446
<211> 168
<212> PRT
<213> Ovis aries

<400> 446
Met Gln Thr Pro Gln Phe Leu Gln Gln Arg Arg Lys Phe Ala Ala Ala
1               5                   10                  15

Phe Leu Ala Phe Ile Phe Leu Leu Ala Val Val Asp Thr Ala Glu Ala
            20                  25                  30
```

```
Gly Lys Lys Glu Lys Pro Glu Lys Lys Val Lys Lys Ser Asp Cys Gly
        35                  40                  45

Glu Trp Gln Trp Ser Val Cys Val Pro Thr Ser Gly Asp Cys Gly Leu
    50                  55                  60

Gly Thr Arg Glu Gly Thr Arg Thr Gly Ala Glu Cys Lys Gln Thr Met
65                  70                  75                  80

Lys Thr Gln Arg Cys Lys Ile Pro Cys Asn Trp Lys Lys Gln Phe Gly
                85                  90                  95

Ala Glu Cys Lys Tyr Gln Phe Gln Ala Trp Gly Glu Cys Asp Leu Asn
            100                 105                 110

Thr Ala Leu Lys Thr Arg Thr Gly Ser Leu Lys Arg Ala Leu His Asn
        115                 120                 125

Ala Asp Cys Gln Lys Thr Val Thr Ile Ser Lys Pro Cys Gly Lys Val
    130                 135                 140

Thr Lys Pro Lys Pro Gln Ala Glu Ser Lys Lys Lys Lys Lys Glu Gly
145                 150                 155                 160

Lys Lys Gln Glu Lys Met Leu Asp
                165
```

<210> 447
<211> 142
<212> PRT
<213> Oryza sativa

<400> 447

```
Met Ala Pro Lys Ala Gly Lys Lys Pro Ala Glu Lys Lys Pro Val Glu
1               5                   10                  15

Glu Lys Lys Ala Glu Glu Val Pro Ala Glu Lys Lys Pro Lys Ala Gly
            20                  25                  30

Lys Lys Leu Pro Lys Asp Ala Gly Ala Asp Lys Lys Lys Lys Lys Ser
        35                  40                  45

Lys Lys Ser Val Glu Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys
    50                  55                  60

Gln Val His Pro Asp Ile Gly Ile Ser Ser Lys Ser Met Gly Ile Met
65                  70                  75                  80

Asn Ser Phe Ile Asn Asp Ile Phe Glu Lys Leu Ala Gln Glu Ser Ser
```

85 90 95

Arg Leu Ala Arg Ile Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile
100 105 110

Gln Thr Ala Val Arg Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala
115 120 125

Val Ser Glu Gly Thr Lys Ala Val Thr Lys Phe Thr Ser Asn
130 135 140

<210> 448
<211> 380
<212> PRT
<213> Sus scrofa

<400> 448
Met Gly Ile Lys Gly Leu Thr Lys Leu Leu Ala Asp Asn Ala Pro Lys
1 5 10 15

Ala Met Lys Glu Gln Lys Phe Glu Ser Tyr Phe Gly Arg Arg Ile Ala
20 25 30

Val Asp Ala Ser Met Ser Ile Tyr Gln Phe Leu Ile Val Val Gly Arg
35 40 45

Thr Gly Met Glu Thr Leu Thr Asn Glu Ala Gly Glu Val Thr Ser His
50 55 60

Leu Gln Gly Met Phe Asn Arg Thr Ile Arg Leu Leu Glu Ala Gly Ile
65 70 75 80

Lys Pro Val Tyr Val Phe Asp Gly Lys Pro Pro Asp Leu Lys Lys Gln
85 90 95

Glu Leu Ala Lys Arg Tyr Ser Lys Arg Glu Asp Ala Thr Lys Glu Leu
100 105 110

Thr Glu Ala Val Glu Glu Gly Asp Lys Asp Ala Ile Glu Lys Phe Ser
115 120 125

Lys Arg Thr Val Lys Val Thr Lys Gln His Asn Glu Glu Cys Lys Arg
130 135 140

Leu Leu Arg Leu Met Gly Val Pro Val Val Glu Ala Pro Cys Glu Ala
145 150 155 160

Glu Ala Glu Cys Ala Ala Leu Cys Ile Asn Asp Met Val Tyr Ala Val
165 170 175

```
Ala Ser Glu Asp Met Asp Ser Leu Thr Phe Gly Ala Pro Arg Phe Leu
            180                 185                 190

Arg His Leu Met Asp Pro Ser Ser Lys Lys Ile Pro Val Met Glu Phe
        195                 200                 205

Glu Val Ala Lys Val Leu Glu Glu Leu Glu Leu Thr Met Asp Gln Phe
    210                 215                 220

Ile Asp Leu Cys Ile Leu Ser Gly Cys Asp Tyr Cys Asp Ser Ile Lys
225                 230                 235                 240

Gly Ile Gly Gly Gln Thr Ala Leu Lys Leu Ile Arg Gln His Gly Ser
                245                 250                 255

Ile Glu Ser Ile Leu Glu Asn Ile Asn Lys Asp Arg Tyr Gln Ile Pro
            260                 265                 270

Glu Asp Trp Pro Tyr Gln Glu Ala Arg Arg Leu Phe Lys Glu Pro Asn
        275                 280                 285

Val Thr Leu Asp Ile Pro Glu Leu Lys Trp Asn Ala Pro Asp Glu Glu
    290                 295                 300

Gly Leu Val Gln Phe Leu Val Lys Glu Asn Gly Phe Asn Gln Asp Arg
305                 310                 315                 320

Val Thr Lys Ala Ile Glu Lys Ile Lys Phe Ala Lys Asn Lys Ser Ser
                325                 330                 335

Gln Gly Arg Leu Glu Ser Phe Phe Lys Pro Val Val Ser Thr Ser Val
            340                 345                 350

Pro Leu Lys Arg Lys Asp Thr Ser Glu Lys Pro Thr Lys Ala Val Ala
        355                 360                 365

Asn Lys Lys Thr Lys Gly Ala Gly Gly Lys Lys Lys
    370                 375                 380
```

<210> 449
<211> 346
<212> PRT
<213> Sus scrofa

<400> 449

```
Met Ala Met Val Ser Glu Phe Leu Lys Gln Ala Trp Phe Ile Asp Asn
1               5                   10                  15
```

```
Glu Glu Gln Glu Tyr Ile Lys Thr Val Lys Gly Ser Lys Gly Gly Pro
            20                  25                  30

Gly Ser Ala Val Ser Pro Tyr Pro Thr Phe Asn Pro Ser Ser Asp Val
        35                  40                  45

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

Ile Ile Glu Ile His Thr Lys Arg Thr Asn Ala Gln Arg Gln Gln Ile
65                  70                  75                  80

Lys Ala Ala Tyr Leu Gln Glu Lys Gly Lys Pro Leu Asp Glu Ala Leu
                85                  90                  95

Lys Lys Ala Leu Thr Gly His Leu Glu Glu Val Ala Leu Ala Leu Leu
            100                 105                 110

Lys Thr Pro Ala Gln Phe Asp Ala Asp Glu Leu Arg Ala Ala Met Lys
        115                 120                 125

Gly Leu Gly Thr Asp Glu Asp Thr Leu Asn Glu Ile Leu Ala Ser Arg
    130                 135                 140

Thr Asn Arg Glu Ile Arg Glu Ile Asn Arg Val Tyr Lys Glu Glu Leu
145                 150                 155                 160

Lys Arg Asp Leu Ala Lys Asp Ile Thr Ser Asp Thr Ser Gly Asp Tyr
                165                 170                 175

Gln Lys Ala Leu Leu Ser Leu Ala Lys Gly Asp Arg Ser Glu Asp Leu
            180                 185                 190

Ala Ile Asn Asp Asp Leu Ala Asp Thr Asp Ala Arg Ala Leu Tyr Glu
        195                 200                 205

Ala Gly Glu Arg Arg Lys Gly Thr Asp Leu Asn Val Phe Ile Thr Ile
    210                 215                 220

Leu Thr Thr Arg Ser Tyr Leu His Leu Arg Arg Val Phe Gln Lys Tyr
225                 230                 235                 240

Ser Lys Tyr Ser Lys His Asp Met Asn Lys Val Leu Asp Leu Glu Leu
                245                 250                 255

Lys Gly Asp Ile Glu Asn Cys Leu Thr Val Val Val Lys Cys Ala Thr
            260                 265                 270
```

```
Ser Lys Pro Met Phe Phe Ala Glu Lys Leu His Gln Ala Met Lys Gly
        275                 280                 285

Asn Gly Thr Arg His Lys Thr Leu Ile Arg Ile Met Val Ser Arg Ser
    290                 295                 300

Glu Ile Asp Met Asn Asp Ile Lys Ala Cys Tyr Gln Lys Leu Tyr Gly
305                 310                 315                 320

Ile Ser Leu Cys Gln Ala Ile Leu Asp Glu Thr Lys Gly Asp Tyr Glu
                325                 330                 335

Lys Ile Leu Val Ala Leu Cys Gly Gly Asp
            340                 345


<210> 450
<211> 220
<212> PRT
<213> Oryza sativa

<400> 450
Met Gly Ile Ser Arg Asp Ser Met His Lys Arg Arg Ala Thr Gly Gly
1               5                   10                  15

Lys Gln Lys Ala Trp Arg Lys Lys Arg Lys Tyr Glu Leu Gly Arg Gln
            20                  25                  30

Pro Ala Asn Thr Lys Leu Ser Ser Asn Lys Thr Val Arg Arg Val Arg
        35                  40                  45

Val Arg Gly Gly Asn Val Lys Trp Arg Ala Leu Arg Leu Asp Thr Gly
    50                  55                  60

Asn Tyr Ser Trp Gly Ser Glu Ala Val Thr Arg Lys Thr Arg Ile Leu
65                  70                  75                  80

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

Leu Val Lys Ser Ala Ile Val Gln Val Asp Ala Ala Pro Phe Lys Gln
            100                 105                 110

Trp Tyr Leu Thr His Tyr Gly Val Asp Ile Gly Arg Lys Lys Lys Ala
        115                 120                 125

Pro Ala Ala Lys Lys Asp Ala Glu Gly Gln Asp Ala Glu Ala Thr Thr
    130                 135                 140
```

```
Glu Glu Ala Lys Lys Ser Asn His Val Val Arg Lys Leu Glu Lys Arg
145                 150                 155                 160

Gln Gln Gly Arg Thr Leu Asp Ala His Ile Glu Glu Gln Phe Gly Ser
                165                 170                 175

Gly Arg Leu Leu Ala Cys Ile Ser Ser Arg Pro Gly Gln Cys Gly Arg
            180                 185                 190

Ala Asp Gly Tyr Ile Leu Glu Gly Lys Glu Leu Glu Phe Tyr Met Lys
        195                 200                 205

Lys Leu Gln Arg Lys Lys Gly Lys Gly Ala Ser Ala
    210                 215                 220
```

<210> 451
<211> 367
<212> PRT
<213> Oryza sativa

<400> 451

```
Met Ala Thr Ala Ala Ala Ser Asp Leu Glu Ser Lys Ala Lys Ala Ala
1               5                   10                  15

Phe Val Asp Asp Asp Phe Glu Leu Ala Ala Glu Leu Tyr Thr Gln Ala
            20                  25                  30

Ile Glu Ala Ser Pro Ala Thr Ala Glu Leu Tyr Ala Asp Arg Ala Gln
        35                  40                  45

Ala His Ile Lys Leu Gly Asn Tyr Thr Glu Ala Val Ala Asp Ala Asn
    50                  55                  60

Lys Ala Ile Glu Leu Asp Pro Ser Met His Lys Ala Tyr Leu Arg Lys
65                  70                  75                  80

Gly Ala Ala Cys Ile Arg Leu Glu Glu Tyr Gln Thr Ala Lys Ala Ala
                85                  90                  95

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

Leu Met Lys Glu Cys Asp Glu Arg Ile Ala Glu Glu Leu Ser Glu Val
        115                 120                 125

Pro Val Lys Lys Ala Glu Asp Gly Ala Ala Ala Pro Ser Val Ala Ser
    130                 135                 140
```

```
Phe Val Glu Glu Lys Asp Asp Ala Ala Asn Met Asp Asn Thr Pro Pro
145                 150                 155                 160

Met Val Glu Val Lys Pro Lys Tyr Arg His Asp Phe Tyr Asn Ser Ala
                165                 170                 175

Thr Glu Val Val Leu Thr Ile Phe Ala Lys Gly Val Pro Ala Glu Asn
            180                 185                 190

Val Val Val Asp Phe Gly Glu Gln Met Leu Ser Val Ser Ile Glu Val
        195                 200                 205

Pro Gly Glu Glu Pro Tyr His Phe Gln Pro Arg Leu Phe Ser Lys Ile
    210                 215                 220

Ile Pro Glu Lys Ser Arg Tyr Gln Val Leu Ser Thr Lys Val Glu Ile
225                 230                 235                 240

Arg Leu Ala Lys Ala Glu Gln Ile Thr Trp Thr Ser Leu Asp Tyr Asp
                245                 250                 255

Lys Lys Pro Lys Ala Val Pro Gln Lys Ile Ile Pro Pro Ala Glu Ser
            260                 265                 270

Ala Gln Arg Pro Ser Tyr Pro Ser Ser Lys Ser Lys Lys Asp Trp Asp
        275                 280                 285

Lys Leu Glu Ala Glu Val Lys Lys Glu Glu Lys Glu Glu Lys Leu Glu
    290                 295                 300

Gly Asp Ala Ala Leu Asn Lys Phe Phe Arg Asp Ile Tyr Ser Asp Ala
305                 310                 315                 320

Asp Glu Asp Met Arg Arg Ala Met Met Lys Ser Phe Val Glu Ser Asn
                325                 330                 335

Gly Thr Val Leu Ser Thr Asn Trp Lys Asp Val Gly Ser Lys Lys Val
            340                 345                 350

Glu Gly Ser Pro Pro Asp Gly Met Glu Leu Lys Lys Trp Glu Tyr
        355                 360                 365
```

<210> 452
<211> 87
<212> PRT
<213> Sus scrofa

<400> 452

```
Met Val Lys Asn Ser Val Ile Ser Val Ile Ser Gln Glu Glu Lys Lys
```

1 5 10 15

Gly Ser Val Glu Phe Gln Val Phe Asn Phe Thr Asn Lys Ile Arg Arg
20 25 30

Leu Thr Ser His Leu Glu Leu His Lys Lys Asp Tyr Leu Ser Gln Arg
35 40 45

Gly Leu Lys Lys Ile Leu Gly Lys Arg Gln Arg Leu Leu Ala Tyr Leu
50 55 60

Ala Lys Lys Asn Arg Val Arg Tyr Lys Glu Leu Ile Asn Arg Leu Asp
65 70 75 80

Ile Arg Glu Thr Lys Thr Arg
85

<210> 453
<211> 137
<212> PRT
<213> Oryza sativa

<400> 453
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Glu Lys Lys Pro Thr Glu
1 5 10 15

Glu Lys Ala Glu Lys Lys Pro Arg Ala Glu Lys Arg Val Pro Gly Lys
20 25 30

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

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
50 55 60

Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn
65 70 75 80

Asp Ile Phe Glu Lys Leu Ala Ala Glu Ala Ala Lys Leu Ala Arg Tyr
85 90 95

Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg
100 105 110

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
115 120 125

Lys Ala Val Thr Lys Phe Thr Ser Ser
130 135

<210> 454
<211> 135
<212> PRT
<213> Oryza sativa

<400> 454
Met Ala Pro Lys Ala Ala Glu Lys Lys Pro Val Glu Lys Thr Pro Ala
1 5 10 15

Val Lys Lys Pro Lys Ala Glu Lys Lys Val Pro Thr Ser Lys Glu Gly
20 25 30

Gly Glu Lys Lys Gly Lys Lys Lys Ser Lys Lys Ser Met Glu Thr Tyr
35 40 45

Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp Ile Gly
50 55 60

Ile Ser Ser Lys Ala Met Ser Ile Thr Asn Ser Phe Ile Asn Asp Ile
65 70 75 80

Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg Tyr Asn Lys
85 90 95

Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg Leu Val
100 105 110

Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr Lys Ala
115 120 125

Val Thr Lys Phe Thr Ser Ala
130 135

<210> 455
<211> 125
<212> PRT
<213> Glycine max

<400> 455
Met Pro Thr Lys Asn Gln Leu Ile Arg His Gly Arg Glu Glu Lys Arg
1 5 10 15

Arg Thr Asp Arg Thr Arg Ala Leu Asp Gln Cys Pro Gln Lys Gln Gly
20 25 30

Val Cys Leu Arg Val Ser Thr Arg Thr Pro Lys Lys Pro Asn Ser Ala
35 40 45

Leu Arg Lys Ile Ala Lys Val Arg Leu Ser Asn Arg His Asp Ile Phe

50 55 60

Ala Tyr Ile Pro Gly Glu Gly His Asn Leu Gln Glu His Ser Ile Val
65 70 75 80

Leu Val Arg Gly Gly Arg Val Lys Asp Leu Pro Gly Val Lys Phe His
85 90 95

Cys Ile Arg Gly Val Lys Asp Leu Leu Gly Ile Pro Asp Arg Arg Lys
100 105 110

Gly Arg Ser Lys Tyr Gly Ala Glu Arg Pro Lys Ser Lys
115 120 125

<210> 456
<211> 128
<212> PRT
<213> Zea mays

<400> 456
Met Ala Pro Val Lys Lys Leu Val Ala Lys Gly Gly Lys Lys Lys Lys
1 5 10 15

Gln Val Leu Lys Phe Thr Leu Asp Cys Thr His Pro Val Glu Asp Gly
20 25 30

Ile Met Asp Ala Ala Asn Phe Glu Gln Phe Leu Gln Glu Arg Ile Lys
35 40 45

Val Asn Gly Lys Ala Gly Asn Leu Gly Gly Gly Val Val Thr Ile Glu
50 55 60

Arg Ser Lys Ser Lys Ile Thr Val Thr Ser Glu Val Pro Phe Ser Lys
65 70 75 80

Arg Tyr Leu Lys Tyr Leu Thr Lys Lys Tyr Leu Lys Lys Asn Asn Leu
85 90 95

Arg Asp Trp Leu Arg Val Val Ala Asn Ser Lys Glu Ser Tyr Glu Leu
100 105 110

Arg Tyr Phe Gln Ile Asn Gln Asp Glu Glu Glu Glu Glu Asp Glu Asp
115 120 125

<210> 457
<211> 294
<212> PRT
<213> Oryza sativa

<400> 457

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

Lys Lys Ile Thr Ile Ala Arg Asp Ser Ala Phe Phe Val Asp Lys Glu
            20                  25                  30

Ile Leu Ser Lys Ser Ser Glu Leu Lys Asn Ser Leu Ile Asn Pro Cys
        35                  40                  45

His Asn Val Val Arg Glu Phe Val Arg Glu Ser Arg Asp Cys Asp Ser
    50                  55                  60

Asp Asp Tyr Lys Arg Glu Tyr Arg Leu Asn Asp Tyr Arg Leu Glu Leu
65                  70                  75                  80

Thr Gln Pro Pro Ser Asn Ile Ser Arg Gly Val Ile Val Val Lys Thr
                85                  90                  95

Val Arg Arg Trp Glu Leu Ile Asn Gln Lys Tyr Asn Ala Asp Leu Trp
            100                 105                 110

Ile Pro Pro Ala Lys Lys Gly Val Val Ile Thr Pro Asp Ile Ile Asp
        115                 120                 125

Lys Leu Tyr Leu Phe Trp Asp Asn Phe Leu Gly Ser Tyr Glu Lys Glu
    130                 135                 140

Gly Ile Asn Arg Lys Gln Asn Thr Asp Pro Val Ser Lys Gly Lys Val
145                 150                 155                 160

Phe Asp Leu Leu Ala Ser Arg Ser Ser Asn Asn Thr Asn Gln Thr Pro
                165                 170                 175

Glu Glu Leu Arg Glu Ile Gln Thr Gln Ile Glu His Leu Thr Ile His
            180                 185                 190

Phe Asp Glu Gly Ser Val His Glu Ser Ala Gly Gln Leu Lys Gly Lys
        195                 200                 205

Phe Phe Asn Lys Asp Arg Gln Ser Ala Arg Asp Tyr Leu Leu Asp Lys
    210                 215                 220

Leu Lys Asp Asp Lys Asp Lys Asp Ile Val Arg Gly Met Gly Thr Tyr
225                 230                 235                 240

Thr Leu Glu Cys Val Ala Ile His Val Leu Ser Lys Leu Phe Asn Val
                245                 250                 255
```

Phe Ser Leu Glu Lys Thr Ser Val Leu Ala Ala Ala Leu Ile Ser Glu
260 265 270

Leu Asp Ile Thr Ala Lys Thr Glu Tyr Asn Asn Ala Leu Leu Ala Lys
275 280 285

Met Gln Arg Glu Lys Glu
290

<210> 458
<211> 145
<212> PRT
<213> Oryza sativa

<400> 458
Met Ala Phe Val Arg Ser Arg Ala Asn Ala Ser Ser Gly Ile Gly Val
1 5 10 15

Ala Ala Glu Cys Lys Gln Thr Phe Leu Glu Leu Gln Arg Lys Lys Ser
20 25 30

His Arg Tyr Val Ile Phe Lys Ile Asp Asp Lys Cys Lys Glu Val Val
35 40 45

Val Glu Lys Thr Gly Ser Ser Thr Glu Ser Phe Asp Asp Phe Met Asp
50 55 60

Ser Leu Pro Glu Ser Asp Cys Arg Tyr Ala Ile Tyr Asp Phe Asp Phe
65 70 75 80

Val Thr Glu Glu Asn Cys Gln Lys Ser Lys Ile Phe Phe Val Ala Trp
85 90 95

Ser Pro Ser Val Ser Arg Ile Arg Ala Lys Met Leu Tyr Ala Thr Ser
100 105 110

Lys Glu Arg Phe Arg Arg Glu Leu Asp Gly Val His Tyr Glu Ile Gln
115 120 125

Ala Thr Asp Pro Ser Glu Leu Asp Ile Glu Leu Leu Arg Glu Arg Ala
130 135 140

His
145

<210> 459
<211> 153
<212> PRT
<213> Solanum lycopersicum

<400> 459
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1 5 10 15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Ala Leu Ala Gly Lys Lys
20 25 30

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

Gly Glu Gly Lys Lys Ala Gly Arg Lys Lys Ala Lys Lys Ser Val Glu
50 55 60

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
65 70 75 80

Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn
85 90 95

Asp Ile Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg Tyr
100 105 110

Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg
115 120 125

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
130 135 140

Lys Ala Val Thr Lys Phe Thr Ser Ala
145 150

<210> 460
<211> 153
<212> PRT
<213> Sus scrofa

<400> 460
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1 5 10 15

Val Glu Ser Ser Asp Thr Ile Asp Asn Val Lys Ala Lys Ile Gln Asp
20 25 30

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

Gln Leu Glu Asp Gly Arg Thr Leu Ala Asp Tyr Asn Ile Gln Lys Glu
50 55 60

```
Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Thr Met Ile Lys
65                  70                  75                  80

Val Lys Thr Leu Thr Gly Lys Glu Ile Glu Ile Asp Ile Glu Pro Thr
                85                  90                  95

Asp Thr Ile Asp Arg Ile Lys Glu Arg Val Glu Glu Lys Glu Gly Ile
            100                 105                 110

Pro Pro Val Gln Gln Arg Leu Ile Tyr Ala Gly Lys Gln Leu Ala Asp
        115                 120                 125

Asp Lys Thr Ala Lys Asp Tyr Asn Ile Glu Gly Gly Ser Val Leu His
    130                 135                 140

Leu Val Leu Ala Leu Arg Gly Gly Tyr
145                 150


<210> 461
<211> 153
<212> PRT
<213> Sus scrofa

<400> 461
Met Ala Pro Lys Ala Glu Lys Lys Pro Ala Ala Lys Lys Pro Ala Glu
1               5                   10                  15

Glu Glu Pro Ala Ala Glu Lys Ala Glu Lys Ala Pro Ala Gly Lys Lys
            20                  25                  30

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

Gly Glu Gly Lys Lys Ala Gly Arg Lys Lys Ala Lys Lys Ser Val Glu
    50                  55                  60

Thr Tyr Lys Ile Tyr Ile Phe Lys Val Leu Lys Gln Val His Pro Asp
65                  70                  75                  80

Ile Gly Ile Ser Ser Lys Ala Met Ser Ile Met Asn Ser Phe Ile Asn
                85                  90                  95

Asp Ile Phe Glu Lys Leu Ala Gly Glu Ser Ala Lys Leu Ala Arg Tyr
            100                 105                 110

Asn Lys Lys Pro Thr Ile Thr Ser Arg Glu Ile Gln Thr Ser Val Arg
        115                 120                 125
```

Leu Val Leu Pro Gly Glu Leu Ala Lys His Ala Val Ser Glu Gly Thr
130 135 140

Lys Ala Val Thr Lys Phe Thr Ser Ala
145 150

<210> 462
<211> 327
<212> PRT
<213> Glycine max

<400> 462
Met Glu Glu Glu Phe Lys Asp Lys Gly Leu Pro Pro Thr Leu Leu His
1 5 10 15

Leu Ile Pro Asp Gly Arg Glu Trp Lys Val Lys Glu Ala Asp Gly Glu
20 25 30

Gly Ser Arg Asn Thr Asn Leu Asp Ala Asp Glu Asp Lys Glu Leu Glu
35 40 45

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

Ser Arg Glu Lys Ile Gln Gln Gln Gln Arg Glu Ser Ser Ser Glu Pro
65 70 75 80

Ser Ile Gly Cys Phe Pro Thr His Ser Lys Pro Thr Thr Ser Ile Gly
85 90 95

Thr Thr Gly Ala Lys Arg Gly Phe Phe Ala Ile Val Gly Ala Thr Leu
100 105 110

Glu Gly Tyr Asn Gln Ser His Arg Asp Thr Glu Glu Cys Gly Lys Glu
115 120 125

Leu Thr Leu Gly Asp Glu Asn Met Ala Gly Glu Arg Lys Lys Gly Cys
130 135 140

Cys Pro Ser Pro Pro Cys Ser Ala Ala Ala His Ser Ser Asn Pro Gln
145 150 155 160

Gly Arg Gly Ala Ile Pro Pro Val Val Gly Trp Pro Pro Ile Arg Ser
165 170 175

Phe Arg Arg Asn Leu Thr Asn Gly Ser Ser Phe Lys Gln Ser Pro Glu
180 185 190

Arg Gln Asn Asp Glu Ala Asp Asp Lys Ala Lys Pro Ile Cys Lys Lys

195 200 205

Arg Pro Leu Val Lys Ile Asn Met Asp Gly Ile Pro Ile Gly Arg Lys
210 215 220

Val Asp Leu Gln Ile Tyr Asp Ser Tyr Gln Lys Leu Ser Ser Ala Val
225 230 235 240

Glu Glu Leu Phe Arg Gly Phe Leu Glu Ala Gln Lys Asp Leu Ser Cys
245 250 255

Ala Glu Ser Gly Glu Gln Gly Ala Glu Asp Lys Ile Phe Ser Gly Leu
260 265 270

Leu Asp Gly Thr Gly Val Tyr Thr Leu Val Tyr Glu Asp Asn Asp Gly
275 280 285

Asp Arg Met Leu Ala Gly Asp Ile Pro Trp Lys Val Phe Val Ser Thr
290 295 300

Val Lys Arg Leu Arg Val Met Arg Arg Ser Glu Leu Pro His Asp Met
305 310 315 320

Ile Gly Ala Asp Pro Val Lys
325

<210> 463
<211> 315
<212> PRT
<213> Pisum sativum

<400> 463
Met Glu Ile Arg Pro Leu Leu Met Cys Phe Ala Leu Cys Val Val Tyr
1 5 10 15

Ala Thr Ser Lys Pro Thr Glu Lys Lys Glu Arg Ile His His Asp Ala
20 25 30

Pro Leu Ser Ser Arg Glu His Asp Asp Ala Gln Gly Phe Asp Tyr Asp
35 40 45

His Asp Ala Phe Leu Gly Gln Lys Glu Ala Lys Ser Phe Asp Asp Leu
50 55 60

Ser Pro Glu Glu Ser Lys Arg Arg Leu Gly Val Ile Val Glu Lys Ile
65 70 75 80

Asp Gly Asp Ser Asp Gly Phe Val Thr Glu Val Glu Leu Arg Ala Trp
85 90 95

```
Ile Lys Lys Ala Gln Lys Lys Tyr Ile Tyr Glu Asn Val Asp Arg Gln
            100                 105                 110

Trp Lys Asp Phe Asp Val Asn Asn Asp Gly Met Ile Ser Trp Glu Glu
        115                 120                 125

Tyr Arg Asn Val Thr Tyr Gly Thr Tyr Leu Asp Asp Pro Glu Pro Asp
    130                 135                 140

Asp Gly Tyr Asn Tyr Gln His Met Met Ala Arg Asp Glu Arg Arg Phe
145                 150                 155                 160

Lys Met Ala Asp Gln Asn Arg Asp Gln Ile Ala Asn Lys Glu Glu Phe
                165                 170                 175

Thr Ala Phe Leu His Pro Glu Glu Tyr Asp His Met Lys Asp Ile Val
            180                 185                 190

Val Leu Glu Thr Met Glu Asp Ile Asp Lys Asn Gly Asp Gly Phe Ile
        195                 200                 205

Asp Leu Asn Glu Tyr Ile Gly Asp Met Tyr Asn His Glu Asp Glu Met
    210                 215                 220

Glu Glu Pro Asp Trp Val Ala Thr Glu Arg Glu Gln Phe Ser Glu Phe
225                 230                 235                 240

Arg Asp Lys Asn Lys Asp Gly Lys Met Asp Arg Glu Glu Thr Met Asp
                245                 250                 255

Trp Ile Leu Pro Ser Asp Tyr Asp His Ala Glu Ala Glu Ala Lys His
            260                 265                 270

Leu Val Tyr Glu Ser Asp Ser Asn Lys Asp Gly Lys Leu Ser Lys Glu
        275                 280                 285

Glu Ile Leu Asn Lys Tyr Asp Leu Phe Val Gly Ser Gln Ala Thr Asp
    290                 295                 300

Phe Gly Glu Ala Leu Val Arg His Asp Glu Phe
305                 310                 315

<210> 464
<211> 178
<212> PRT
<213> Bos taurus
```

<400> 464
Met Lys Cys Leu Leu Leu Ala Leu Ala Leu Thr Cys Gly Ala Gln Ala
1 5 10 15

Leu Ile Val Thr Gln Thr Met Lys Gly Leu Asp Ile Gln Lys Val Ala
20 25 30

Gly Thr Trp Tyr Ser Leu Ala Met Ala Ala Ser Asp Ile Ser Leu Leu
35 40 45

Asp Ala Gln Ser Ala Pro Leu Arg Val Tyr Val Glu Glu Leu Lys Pro
50 55 60

Thr Pro Glu Gly Asp Leu Glu Ile Leu Leu Gln Lys Trp Glu Asn Gly
65 70 75 80

Glu Cys Ala Gln Lys Lys Ile Ile Ala Glu Lys Thr Lys Ile Pro Ala
85 90 95

Val Phe Lys Ile Asp Ala Leu Asn Glu Asn Lys Val Leu Val Leu Asp
100 105 110

Thr Asp Tyr Lys Lys Tyr Leu Leu Phe Cys Met Glu Asn Ser Ala Glu
115 120 125

Pro Glu Gln Ser Leu Ala Cys Gln Cys Leu Val Arg Thr Pro Glu Val
130 135 140

Asp Asp Glu Ala Leu Glu Lys Phe Asp Lys Ala Leu Lys Ala Leu Pro
145 150 155 160

Met His Ile Arg Leu Ser Phe Asn Pro Thr Gln Leu Glu Glu Gln Cys
165 170 175

His Ile

<210> 465
<211> 214
<212> PRT
<213> Bos taurus

<400> 465
Met Lys Leu Leu Ile Leu Thr Cys Leu Val Ala Val Ala Leu Ala Arg
1 5 10 15

Pro Lys His Pro Ile Lys His Gln Gly Leu Pro Gln Glu Val Leu Asn
20 25 30

```
Glu Asn Leu Leu Arg Phe Phe Val Ala Pro Phe Pro Glu Val Phe Gly
        35                  40                  45

Lys Glu Lys Val Asn Glu Leu Ser Lys Asp Ile Gly Ser Glu Ser Thr
    50                  55                  60

Glu Asp Gln Ala Met Glu Asp Ile Lys Gln Met Glu Ala Glu Ser Ile
65                  70                  75                  80

Ser Ser Ser Glu Glu Ile Val Pro Asn Ser Val Glu Gln Lys His Ile
                85                  90                  95

Gln Lys Glu Asp Val Pro Ser Glu Arg Tyr Leu Gly Tyr Leu Glu Gln
            100                 105                 110

Leu Leu Arg Leu Lys Lys Tyr Lys Val Pro Gln Leu Glu Ile Val Pro
        115                 120                 125

Asn Ser Ala Glu Glu Arg Leu His Ser Met Lys Glu Gly Ile His Ala
    130                 135                 140

Gln Gln Lys Glu Pro Met Ile Gly Val Asn Gln Glu Leu Ala Tyr Phe
145                 150                 155                 160

Tyr Pro Glu Leu Phe Arg Gln Phe Tyr Gln Leu Asp Ala Tyr Pro Ser
                165                 170                 175

Gly Ala Trp Tyr Tyr Val Pro Leu Gly Thr Gln Tyr Thr Asp Ala Pro
            180                 185                 190

Ser Phe Ser Asp Ile Pro Asn Pro Ile Gly Ser Glu Asn Ser Glu Lys
        195                 200                 205

Thr Thr Met Pro Leu Trp
    210
```

<210> 466
<211> 150
<212> PRT
<213> Homarus americanus

<400> 466

```
Met Asp Ser Leu Asp Glu Glu Gln Ile Gly Ala Leu Gln Lys Ala Phe
1               5                   10                  15

Asp Ser Phe Asp Thr Asp Ser Lys Gly Phe Ile Thr Pro Glu Thr Val
            20                  25                  30

Gly Val Ile Leu Arg Met Met Gly Val Lys Ile Ser Glu Lys Asn Leu
```

35 40 45

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

Phe Glu Glu Phe Val Glu Leu Ala Ala Lys Phe Leu Ile Glu Glu Asp
65 70 75 80

Glu Glu Ala Leu Lys Thr Glu Leu Arg Glu Ala Phe Arg Val Tyr Asp
85 90 95

Lys Glu Gly Asn Gly Tyr Ile Thr Thr Asp Val Leu Lys Glu Ile Leu
100 105 110

Arg Glu Leu Asp Asn Arg Leu Thr Glu Glu Asp Leu Asp Ser Ile Ile
115 120 125

Glu Glu Val Asp Glu Asp Gly Ser Gly Thr Leu Asp Phe Asn Glu Phe
130 135 140

Met Glu Met Met Asn Gly
145 150

<210> 467
<211> 262
<212> PRT
<213> Gallus gallus

<400> 467
Met Glu Met Lys Lys Arg Leu Thr Leu Glu Leu Arg Asn Lys Lys Pro
1 5 10 15

Gly Glu Val Lys Glu Leu Val Leu Asp Asn Cys Arg Ser Asp Asp Gly
20 25 30

Lys Ile Val Gly Leu Ser Ser Asp Phe Glu Asn Leu Glu Phe Leu Ser
35 40 45

Met Ile Asn Val Asn Leu Leu Ser Ile Ser Asn Leu Pro Lys Leu Asn
50 55 60

Lys Leu Arg Lys Leu Glu Leu Ser Asp Asn Arg Ile Ser Gly Gly Leu
65 70 75 80

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

Gly Asn Lys Ile Lys Asp Ile Asn Thr Leu Glu Pro Leu Lys Lys Leu
100 105 110

```
Pro Asn Leu His Ser Leu Asp Leu Phe Asn Cys Glu Val Thr Met Leu
        115                 120                 125

Ile Asn Tyr Arg Glu Ser Val Phe Thr Leu Leu Pro Gln Leu Thr Tyr
    130                 135                 140

Leu Asp Gly Phe Asp Ala Asp Glu Gln Glu Ala Pro Asp Ser Asp Pro
145                 150                 155                 160

Glu Ala Asp Gly Asp Gly Leu Glu Asp Glu Tyr Glu Asn Gly Glu Gly
                165                 170                 175

Glu Glu Glu Glu Asp Asp Asp Glu Glu Asp Asp Leu Asp Glu Glu Val
            180                 185                 190

Ile Asp Glu Glu Asp Asp Glu Asp Asp Asp Leu Glu Gly Glu Glu Glu
        195                 200                 205

Glu Asp Gly Val Asp Asp Glu Glu Glu Asp Glu Glu Glu Asp Gly Glu
    210                 215                 220

Asp Glu Glu Asp Asp Glu Ala Asp Asp Asp Leu Pro Arg Gly Glu Lys
225                 230                 235                 240

Arg Lys Arg Asn Leu Glu Asp Glu Gly Glu Glu Asp Pro Glu Asp Glu
                245                 250                 255

Glu Asp Asp Glu Asp Asp
            260
```

<210> 468
<211> 152
<212> PRT
<213> Mizuhopecten yessoensis

```
<400> 468
Thr Glu Glu Phe Arg Ala Ser Glu Lys Gln Ile Leu Asp Ala Lys Gln
1               5                   10                  15

Ala Phe Cys Asn Val Asp Lys Lys Lys Glu Gly Thr Val Ser Cys Lys
            20                  25                  30

Asp Leu Gly Ala Ile Phe Lys Ser Leu Gly Leu Leu Val Lys Asp Asp
        35                  40                  45

Lys Ile Lys Asp Trp Ser Asp Glu Met Asp Glu Glu Ala Thr Gly Arg
    50                  55                  60
```

```
Leu Asn Cys Asp Ala Trp Ile Gln Leu Phe Glu Arg Lys Leu Lys Glu
65                  70                  75                  80

Asp Leu Asp Glu Arg Glu Leu Lys Glu Ala Phe Arg Val Leu Asp Lys
                85                  90                  95

Glu Lys Lys Gly Val Ile Lys Val Asp Val Leu Arg Trp Ile Leu Ser
            100                 105                 110

Ser Leu Gly Asp Glu Leu Thr Glu Glu Glu Ile Glu Asn Met Ile Ala
        115                 120                 125

Glu Thr Asp Thr Asp Gly Ser Gly Thr Val Asp Tyr Glu Glu Phe Lys
    130                 135                 140

Cys Leu Met Met Ser Ser Asp Ala
145                 150
```

<210> 469
<211> 160
<212> PRT
<213> Oryctolagus cuniculus

<400> 469

```
Met Thr Asp Gln Gln Ala Glu Ala Arg Ser Tyr Leu Ser Glu Glu Met
1               5                   10                  15

Ile Ala Glu Phe Lys Ala Ala Phe Asp Met Phe Asp Ala Asp Gly Gly
            20                  25                  30

Gly Asp Ile Ser Val Lys Glu Leu Gly Thr Val Met Arg Met Leu Gly
        35                  40                  45

Gln Thr Pro Thr Lys Glu Glu Leu Asp Ala Ile Ile Glu Glu Val Asp
    50                  55                  60

Glu Asp Gly Ser Gly Thr Ile Asp Phe Glu Glu Phe Leu Val Met Met
65                  70                  75                  80

Val Arg Gln Met Lys Glu Asp Ala Lys Gly Lys Ser Glu Glu Glu Leu
                85                  90                  95

Ala Glu Cys Phe Arg Ile Phe Asp Arg Asn Ala Asp Gly Tyr Ile Asp
            100                 105                 110

Ala Glu Glu Leu Ala Glu Ile Phe Arg Ala Ser Gly Glu His Val Thr
        115                 120                 125
```

Asp Glu Glu Ile Glu Ser Leu Met Lys Asp Gly Asp Lys Asn Asn Asp
130 135 140

Gly Arg Ile Asp Phe Asp Glu Phe Leu Lys Met Met Glu Gly Val Gln
145 150 155 160

<210> 470
<211> 161
<212> PRT
<213> Sus scrofa

<400> 470
Met Asp Asp Ile Tyr Lys Ala Ala Val Glu Gln Leu Thr Glu Glu Gln
1 5 10 15

Lys Asn Glu Phe Lys Ala Ala Phe Asp Ile Phe Val Leu Gly Ala Glu
20 25 30

Asp Gly Cys Ile Ser Thr Lys Glu Leu Gly Lys Val Met Arg Met Leu
35 40 45

Gly Gln Asn Pro Thr Pro Glu Glu Leu Gln Glu Met Ile Asp Glu Val
50 55 60

Asp Glu Asp Gly Ser Gly Thr Val Asp Phe Asp Glu Phe Leu Val Met
65 70 75 80

Met Val Arg Cys Met Lys Asp Asp Ser Lys Gly Lys Ser Glu Glu Glu
85 90 95

Leu Ser Asp Leu Phe Arg Met Phe Asp Lys Asn Ala Asp Gly Tyr Ile
100 105 110

Asp Leu Glu Glu Leu Lys Ile Met Leu Gln Ala Thr Gly Glu Thr Ile
115 120 125

Thr Glu Asp Asp Ile Glu Glu Leu Met Lys Asp Gly Asp Lys Asn Asn
130 135 140

Asp Gly Arg Ile Asp Tyr Asp Glu Phe Leu Glu Phe Met Lys Gly Val
145 150 155 160

Glu

<210> 471
<211> 161
<212> PRT
<213> Bos taurus

<400> 471
Met Asp Asp Ile Tyr Lys Ala Ala Val Glu Gln Leu Thr Glu Glu Gln
1 5 10 15

Lys Asn Glu Phe Lys Ala Ala Phe Asp Ile Phe Val Leu Gly Ala Glu
20 25 30

Asp Gly Cys Ile Ser Thr Lys Glu Leu Gly Lys Val Met Arg Met Leu
35 40 45

Gly Gln Asn Pro Thr Pro Glu Glu Leu Gln Glu Met Ile Asp Glu Val
50 55 60

Asp Glu Asp Gly Ser Gly Thr Val Asp Phe Asp Glu Phe Leu Val Met
65 70 75 80

Met Val Arg Cys Met Lys Asp Asp Ser Lys Gly Lys Ser Glu Glu Glu
85 90 95

Leu Ser Asp Leu Phe Arg Met Phe Asp Lys Asn Ala Asp Gly Tyr Ile
100 105 110

Asp Leu Glu Glu Leu Lys Ile Met Leu Gln Ala Thr Gly Glu Thr Ile
115 120 125

Thr Glu Asp Asp Ile Glu Glu Leu Met Lys Asp Gly Asp Lys Asn Asn
130 135 140

Asp Gly Arg Ile Asp Tyr Asp Glu Phe Leu Glu Phe Met Lys Gly Val
145 150 155 160

Glu

<210> 472
<211> 150
<212> PRT
<213> Crangon crangon

<400> 472
Met Asp Ser Leu Glu Pro Asp Gln Ile Asp Ala Leu Lys Lys Ala Phe
1 5 10 15

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

Ala Thr Ile Leu Arg Met Met Gly Val Lys Ile Ser Asp Lys Asn Leu
35 40 45

```
Ala Glu Val Ile Ala Glu Thr Asp Glu Asp Gly Ser Gly Gln Leu Glu
    50                  55                  60

Phe Glu Glu Phe Val Asp Leu Ser Ser Lys Phe Leu Ile Glu Glu Asp
65                  70                  75                  80

Glu Glu Ala Leu Lys Ala Glu Leu Arg Glu Ala Phe Arg Ile Tyr Asp
                85                  90                  95

Lys Glu Gly Gln Gly Phe Ile Thr Thr Asp Val Leu Lys Glu Ile Leu
            100                 105                 110

Thr Glu Ile Asp Asn Lys Leu Thr Pro Glu Asp Leu Asp Gly Ile Ile
        115                 120                 125

Glu Glu Val Asp Glu Asp Gly Ser Gly Thr Leu Asp Phe Asp Glu Phe
    130                 135                 140

Met Glu Met Met Ser Gly
145                 150
```

<210> 473
<211> 151
<212> PRT
<213> Bos taurus

<400> 473

```
Met Cys Asp Phe Thr Glu Asp Gln Thr Ala Glu Phe Lys Glu Ala Phe
1               5                   10                  15

Gln Leu Phe Asp Arg Thr Gly Asp Gly Lys Ile Leu Tyr Ser Gln Cys
            20                  25                  30

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

Leu Lys Val Leu Gly Asn Pro Lys Ser Asp Glu Met Asn Val Lys Val
    50                  55                  60

Leu Asp Phe Glu His Phe Leu Pro Met Leu Gln Thr Val Ala Lys Asn
65                  70                  75                  80

Lys Asp Gln Gly Thr Tyr Glu Asp Tyr Val Glu Gly Leu Arg Val Phe
                85                  90                  95

Asp Lys Glu Gly Asn Gly Thr Val Met Gly Ala Glu Ile Arg His Val
            100                 105                 110

Leu Val Thr Leu Gly Glu Lys Met Thr Glu Glu Glu Val Glu Met Leu
```

115 120 125

Val Ala Gly His Glu Asp Ser Asn Gly Cys Ile Asn Tyr Glu Ala Phe
130 135 140

Val Arg His Ile Leu Ser Gly
145 150

<210> 474
<211> 151
<212> PRT
<213> Gallus gallus

<400> 474
Met Cys Asp Phe Ser Glu Glu Gln Thr Ala Glu Phe Lys Glu Ala Phe
1 5 10 15

Gln Leu Phe Asp Arg Thr Gly Asp Gly Lys Ile Leu Tyr Ser Gln Cys
20 25 30

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

Met Lys Val Leu Gly Asn Pro Lys Ser Asp Glu Met Asn Leu Lys Thr
50 55 60

Leu Lys Phe Glu Gln Phe Leu Pro Met Met Gln Thr Ile Ala Lys Asn
65 70 75 80

Lys Asp Gln Gly Cys Phe Glu Asp Tyr Val Glu Gly Leu Arg Val Phe
85 90 95

Asp Lys Glu Gly Asn Gly Thr Val Met Gly Ala Glu Ile Arg His Val
100 105 110

Leu Val Thr Leu Gly Glu Lys Met Thr Glu Glu Glu Val Glu Gln Leu
115 120 125

Val Ala Gly His Glu Asp Ser Asn Gly Cys Ile Asn Tyr Glu Glu Leu
130 135 140

Val Arg Met Val Leu Ser Gly
145 150

<210> 475
<211> 150
<212> PRT
<213> Gallus gallus

<400> 475

```
Met Ser Phe Ser Pro Asp Glu Ile Asn Asp Phe Lys Glu Ala Phe Leu
1               5                  10                  15

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

Asp Ile Val Arg Ala Leu Gly Gln Asn Pro Thr Asn Ala Glu Ile Asn
        35                  40                  45

Lys Ile Leu Gly Asn Pro Ser Lys Glu Glu Met Asn Ala Lys Lys Ile
    50                  55                  60

Thr Phe Glu Glu Phe Leu Pro Met Leu Gln Ala Ala Ala Asn Asn Lys
65                  70                  75                  80

Asp Gln Gly Thr Phe Glu Asp Phe Val Glu Gly Leu Arg Val Phe Asp
                85                  90                  95

Lys Glu Gly Asn Gly Thr Val Met Gly Ala Glu Leu Arg His Val Leu
            100                 105                 110

Ala Thr Leu Gly Glu Lys Met Thr Glu Glu Glu Val Glu Glu Leu Met
        115                 120                 125

Lys Gly Gln Glu Asp Ser Asn Gly Cys Ile Asn Tyr Glu Ala Phe Val
    130                 135                 140

Lys His Ile Met Ser Val
145                 150
```

<210> 476
<211> 445
<212> PRT
<213> Zea mays

<400> 476

```
Met Arg Glu Ile Leu His Ile Gln Gly Gly Gln Cys Gly Asn Gln Ile
1               5                  10                  15

Gly Ala Lys Phe Trp Glu Val Ile Cys Asp Glu His Gly Ile Asp His
            20                  25                  30

Thr Gly Lys Tyr Ala Gly Asp Ser Asp Leu Gln Leu Glu Arg Ile Asn
        35                  40                  45

Val Tyr Tyr Asn Glu Ala Ser Gly Gly Arg Phe Val Pro Arg Ala Val
    50                  55                  60

Leu Met Asp Leu Glu Pro Gly Thr Met Asp Ser Val Arg Ser Gly Pro
```

65 70 75 80

Phe Gly Gln Ile Phe Arg Pro Asp Asn Phe Val Phe Gly Gln Ser Gly
85 90 95

Ala Gly Asn Asn Trp Ala Lys Gly His Tyr Thr Glu Gly Ala Glu Leu
100 105 110

Ile Asp Ser Val Leu Asp Val Val Arg Lys Glu Ala Glu Asn Cys Asp
115 120 125

Cys Leu Gln Gly Phe Gln Val Cys His Ser Leu Gly Gly Gly Thr Gly
130 135 140

Ser Gly Met Gly Thr Leu Leu Ile Ser Lys Ile Arg Glu Glu Tyr Pro
145 150 155 160

Asp Arg Met Met Leu Thr Phe Ser Val Phe Pro Ser Pro Lys Val Ser
165 170 175

Asp Thr Val Val Glu Pro Tyr Asn Ala Thr Leu Ser Val His Gln Leu
180 185 190

Val Glu Asn Ala Asp Glu Cys Met Val Leu Asp Asn Glu Ala Leu Tyr
195 200 205

Asp Ile Cys Phe Arg Thr Leu Lys Leu Ala Thr Pro Thr Phe Gly Asp
210 215 220

Leu Asn His Leu Ile Ser Ala Thr Met Ser Gly Val Thr Cys Cys Leu
225 230 235 240

Arg Phe Pro Gly Gln Leu Asn Ser Asp Leu Arg Lys Leu Ala Val Asn
245 250 255

Leu Ile Pro Phe Pro Arg Leu His Phe Phe Met Val Gly Phe Ala Pro
260 265 270

Leu Thr Ser Arg Gly Ser Gln Gln Tyr Arg Ala Leu Thr Val Pro Glu
275 280 285

Leu Thr Gln Gln Met Trp Asp Ser Lys Asn Met Met Cys Ala Ala Asp
290 295 300

Pro Arg His Gly Arg Tyr Leu Thr Ala Ser Ala Met Phe Arg Gly Lys
305 310 315 320

Met Ser Thr Lys Glu Val Asp Glu Gln Met Leu Asn Val Gln Asn Lys
325 330 335

Asn Ser Ser Tyr Phe Val Glu Trp Ile Pro Asn Asn Val Lys Ser Ser
340 345 350

Val Cys Asp Ile Pro Pro Ile Gly Leu Lys Met Ser Ser Thr Phe Val
355 360 365

Gly Asn Ser Thr Ser Ile Gln Glu Met Phe Arg Arg Val Ser Glu Gln
370 375 380

Phe Thr Ala Met Phe Arg Arg Lys Ala Phe Leu His Trp Tyr Thr Gly
385 390 395 400

Glu Gly Met Asp Glu Met Glu Phe Thr Glu Ala Glu Ser Asn Met Asn
405 410 415

Asp Leu Val Ala Glu Tyr Gln Gln Tyr Gln Asp Ala Thr Ala Glu Asp
420 425 430

Glu Glu Tyr Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Thr
435 440 445

<210> 477
<211> 159
<212> PRT
<213> Sus scrofa

<400> 477
Thr Asp Gln Gln Ala Glu Ala Arg Ser Tyr Leu Ser Glu Glu Met Ile
1 5 10 15

Ala Glu Phe Lys Ala Ala Phe Asp Met Phe Asp Ala Asp Gly Gly Gly
20 25 30

Asp Ile Ser Val Lys Glu Leu Gly Thr Val Met Arg Met Leu Gly Gln
35 40 45

Thr Pro Thr Lys Glu Glu Leu Asp Ala Ile Ile Glu Glu Val Asp Glu
50 55 60

Asp Gly Ser Gly Thr Ile Asp Phe Glu Glu Phe Leu Val Met Met Val
65 70 75 80

Arg Gln Met Lys Glu Asp Ala Lys Gly Lys Ser Glu Glu Glu Leu Ala
85 90 95

Glu Cys Phe Arg Ile Phe Asp Arg Asn Met Asp Gly Tyr Ile Asp Ala

100 105 110

Glu Glu Leu Ala Glu Ile Phe Arg Ala Ser Gly Glu His Val Thr Asp
115 120 125

Glu Glu Ile Glu Ser Ile Met Lys Asp Gly Asp Lys Asn Asn Asp Gly
130 135 140

Arg Ile Asp Phe Asp Glu Phe Leu Lys Met Met Glu Gly Val Gln
145 150 155

<210> 478
<211> 162
<212> PRT
<213> Meleagris gallopavo

<400> 478
Pro Ser Met Thr Asp Gln Gln Ala Glu Ala Arg Ala Phe Leu Ser Glu
1 5 10 15

Glu Met Ile Ala Glu Phe Lys Ala Ala Phe Asp Met Phe Asp Ala Asp
20 25 30

Gly Gly Gly Asp Ile Ser Thr Lys Glu Leu Gly Thr Val Met Arg Met
35 40 45

Leu Gly Gln Asn Pro Thr Lys Glu Glu Leu Asp Ala Ile Ile Glu Glu
50 55 60

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

Met Met Val Arg Gln Met Lys Glu Asp Ala Lys Gly Lys Ser Glu Glu
85 90 95

Glu Leu Ala Asn Cys Phe Arg Ile Phe Asp Lys Asn Ala Asp Gly Phe
100 105 110

Ile Asp Ile Glu Glu Leu Gly Glu Ile Leu Arg Ala Thr Gly Glu His
115 120 125

Val Thr Glu Glu Glu Ile Glu Asp Leu Met Lys Asp Ser Asp Lys Asn
130 135 140

Asn Asp Gly Arg Ile Asp Phe Asp Glu Phe Leu Lys Met Met Glu Gly
145 150 155 160

Val Gln

<210> 479
<211> 73
<212> PRT
<213> Lactococcus lactis

<400> 479
Met Ala Val Phe Glu Lys Val Gln Asp Ile Ile Val Asp Glu Leu Gly
1 5 10 15

Lys Glu Lys Glu Glu Val Thr Leu Glu Thr Ser Phe Glu Glu Leu Asp
20 25 30

Ala Asp Ser Leu Asp Leu Phe Gln Ile Ile Asn Asp Ile Glu Asp Glu
35 40 45

Phe Asp Val Glu Val Asp Thr Glu Ala Asp Met Lys Thr Val Ala Asp
50 55 60

Leu Val Lys Tyr Val Glu Asn Asn Lys
65 70

<210> 480
<211> 81
<212> PRT
<213> Thermosynechococcus elongatus

<400> 480
Met Asn Gln Ser Glu Ile Leu Glu Lys Val Lys Ala Ile Val Ala Asp
1 5 10 15

Gln Leu Ser Val Asp Pro Glu Lys Val Val Pro Glu Ala Ser Phe Ala
20 25 30

Glu Asp Leu Asn Ala Asp Ser Leu Asp Ser Val Glu Leu Ile Met Ala
35 40 45

Leu Glu Glu Glu Phe Gly Val Glu Ile Pro Asp Glu Glu Ala Glu Lys
50 55 60

Leu Lys Thr Val Gln Asp Val Leu Asp Phe Ile Asn Asn Lys Val Ala
65 70 75 80

Ala

<210> 481
<211> 80
<212> PRT
<213> Lactobacillus acidophilus

<400> 481
Met Ser Glu Glu Glu Ile Phe Asn Lys Ile Lys Asp Leu Ile Ala Asp
1 5 10 15

Asn Phe Glu Val Asp Lys Asp Ser Ile Thr Glu Asn Thr Asn Phe Met
20 25 30

Asn Asp Leu Asp Ala Asp Ser Ile Asp Leu Val Glu Phe Ile Leu Gln
35 40 45

Leu Glu Asp Glu Phe Gly Ala Glu Ile Pro Asp Asp Glu Ala Glu Lys
50 55 60

Ile Lys Thr Val Gly Asp Ala Val Ser Tyr Ile Lys Ser His Gln Gly
65 70 75 80

<210> 482
<211> 81
<212> PRT
<213> Thermotoga maritima

<400> 482
Met Ala Ser Arg Glu Glu Ile Phe Ser Lys Val Lys Ser Ile Ile Ser
1 5 10 15

Glu Lys Leu Gly Val Asp Glu Ser Gln Val Thr Glu Glu Ala Lys Leu
20 25 30

Ile Asp Asp Leu Gly Ala Asp Ser Leu Asp Leu Val Asp Leu Val Met
35 40 45

Asp Phe Glu Ser Glu Phe Gly Val Lys Val Asp Asp Ala Asp Leu Glu
50 55 60

Lys Ile Ser Thr Val Gly Asp Ile Val Ser Tyr Ile Glu Lys Lys Leu
65 70 75 80

Gly

<210> 483
<211> 80
<212> PRT
<213> Lactobacillus johnsonii

<400> 483
Met Thr Glu Glu Glu Ile Phe Asn Lys Ile Ala Asp Met Ile Ser Glu
1 5 10 15

Arg Phe Ser Ile Asp Arg Asp Lys Ile Thr Lys Asp Leu Asn Phe Gln
20 25 30

Asn Asp Leu Asp Ala Asp Ser Ile Asp Phe Val Glu Leu Val Met Asp
        35   40   45

Leu Glu Asp Thr Phe Gly Ala Glu Ile Pro Asp Asp Asp Ala Glu Lys
    50   55   60

Leu Gln Thr Val Gly Glu Ala Val Glu Tyr Ile Lys Ser His Gln Asn
65   70   75   80

<210> 484
<211> 154
<212> PRT
<213> Oryza sativa

<400> 484
Met Glu Gly Leu Thr Ser Glu Gln Met Val Ala Phe Gln Glu Ala Phe
1   5   10   15

Leu Leu Phe Asp Lys Asn Gly Asp Gly Cys Ile Thr Leu Glu Glu Leu
            20   25   30

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

Asn Asp Met Met Arg Glu Val Asp Thr Asp Gly Asn Gly Ile Ile Asp
    50   55   60

Phe Gln Glu Phe Leu Ser Leu Ile Ala Arg Lys Met Lys Asp Gly Asp
65   70   75   80

Gly Asp Glu Glu Leu Lys Glu Ala Phe Glu Val Leu Asp Lys Asp Gln
                85   90   95

Asn Gly Phe Ile Ser Pro Thr Glu Leu Arg Thr Val Met Thr Asn Leu
            100   105   110

Gly Glu Lys Met Thr Asp Glu Glu Val Glu Gln Met Ile Arg Glu Ala
        115   120   125

Asp Thr Asp Gly Asp Gly Gln Val Asn Tyr Asp Glu Phe Val Ile Met
    130   135   140

Met Lys Asn Ala Glu Arg Lys Ile Ser Gly
145   150

<210> 485
<211> 149
<212> PRT

<213> Zea mays

<400> 485
Met Ala Asp Gln Leu Thr Asp Glu Gln Ile Ala Glu Phe Lys Glu Ala
1   5   10   15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
            20   25   30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
    50   55   60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
                85   90   95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100   105   110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
        115   120   125

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Glu Glu Phe Val Lys
    130   135   140

Val Met Met Ala Lys
145

<210> 486
<211> 147
<212> PRT
<213> Saccharomyces cerevisiae

<400> 486
Met Ser Ser Asn Leu Thr Glu Glu Gln Ile Ala Glu Phe Lys Glu Ala
1   5   10   15

Phe Ala Leu Phe Asp Lys Asp Asn Asn Gly Ser Ile Ser Ser Ser Glu
            20   25   30

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

Val Asn Asp Leu Met Asn Glu Ile Asp Val Asp Gly Asn His Gln Ile
    50   55   60

```
Glu Phe Ser Glu Phe Leu Ala Leu Met Ser Arg Gln Leu Lys Ser Asn
65                  70                  75                  80

Asp Ser Glu Gln Glu Leu Leu Glu Ala Phe Lys Val Phe Asp Lys Asn
                85                  90                  95

Gly Asp Gly Leu Ile Ser Ala Ala Glu Leu Lys His Val Leu Thr Ser
            100                 105                 110

Ile Gly Glu Lys Leu Thr Asp Ala Glu Val Asp Asp Met Leu Arg Glu
        115                 120                 125

Val Ser Asp Gly Ser Gly Glu Ile Asn Ile Gln Gln Phe Ala Ala Leu
    130                 135                 140

Leu Ser Lys
145
```

<210> 487
<211> 149
<212> PRT
<213> Capsicum annuum

<400> 487

```
Met Ala Asp Gln Leu Thr Asp Asp Gln Ile Ser Glu Phe Lys Glu Ala
1               5                   10                  15

Phe Ser Leu Phe Asp Lys Asp Gly Asp Gly Cys Ile Thr Thr Lys Glu
            20                  25                  30

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

Leu Gln Asp Met Ile Asn Glu Val Asp Ala Asp Gly Asn Gly Thr Ile
    50                  55                  60

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

Asp Ser Glu Glu Glu Leu Lys Glu Ala Phe Arg Val Phe Asp Lys Asp
                85                  90                  95

Gln Asn Gly Phe Ile Ser Ala Ala Glu Leu Arg His Val Met Thr Asn
            100                 105                 110

Leu Gly Glu Lys Leu Thr Asp Glu Glu Val Asp Glu Met Ile Arg Glu
        115                 120                 125
```

Ala Asp Val Asp Gly Asp Gly Gln Ile Asn Tyr Asp Glu Phe Val Lys
130 135 140

Val Met Met Ala Lys
145

<210> 488
<211> 417
<212> PRT
<213> Bos taurus

<400> 488
Met Leu Leu Pro Val Pro Leu Leu Leu Gly Leu Leu Gly Leu Ala Ala
1 5 10 15

Ala Asp Pro Thr Val Tyr Phe Lys Glu Gln Phe Leu Asp Gly Asp Gly
20 25 30

Trp Thr Glu Arg Trp Ile Glu Ser Lys His Lys Pro Asp Phe Gly Lys
35 40 45

Phe Val Leu Ser Ser Gly Lys Phe Tyr Gly Asp Gln Glu Lys Asp Lys
50 55 60

Gly Leu Gln Thr Ser Gln Asp Ala Arg Phe Tyr Ala Leu Ser Ala Arg
65 70 75 80

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

Val Lys His Glu Gln Asn Ile Asp Cys Gly Gly Gly Tyr Val Lys Leu
100 105 110

Phe Pro Ala Gly Leu Asp Gln Thr Asp Met His Gly Asp Ser Glu Tyr
115 120 125

Asn Ile Met Phe Gly Pro Asp Ile Cys Gly Pro Gly Thr Lys Lys Val
130 135 140

His Val Ile Phe Asn Tyr Lys Gly Lys Asn Val Leu Ile Asn Lys Asp
145 150 155 160

Ile Arg Cys Lys Asp Asp Glu Phe Thr His Leu Tyr Thr Leu Ile Val
165 170 175

Arg Pro Asn Asn Thr Tyr Glu Val Lys Ile Asp Asn Ser Gln Val Glu
180 185 190

```
Ser Gly Ser Leu Glu Asp Asp Trp Asp Phe Leu Pro Pro Lys Lys Ile
        195                 200                 205

Lys Asp Pro Asp Ala Ala Lys Pro Glu Asp Trp Asp Asp Arg Ala Lys
    210                 215                 220

Ile Asp Asp Pro Thr Asp Ser Lys Pro Glu Asp Trp Asp Lys Pro Glu
225                 230                 235                 240

His Ile Pro Asp Pro Asp Ala Lys Lys Pro Glu Asp Trp Asp Glu Glu
                245                 250                 255

Met Asp Gly Glu Trp Glu Pro Pro Val Ile Gln Asn Pro Glu Tyr Lys
            260                 265                 270

Gly Glu Trp Lys Pro Arg Gln Ile Asp Asn Pro Glu Tyr Lys Gly Ile
        275                 280                 285

Trp Ile His Pro Glu Ile Asp Asn Pro Glu Tyr Ser Pro Asp Ser Asn
    290                 295                 300

Ile Tyr Ala Tyr Glu Asn Phe Ala Val Leu Gly Leu Asp Leu Trp Gln
305                 310                 315                 320

Val Lys Ser Gly Thr Ile Phe Asp Asn Phe Leu Ile Thr Asn Asp Glu
                325                 330                 335

Ala Tyr Ala Glu Glu Phe Gly Asn Glu Thr Trp Gly Val Thr Lys Ala
            340                 345                 350

Ala Glu Lys Gln Met Lys Asp Lys Gln Asp Glu Glu Gln Arg Leu His
        355                 360                 365

Glu Glu Glu Glu Glu Lys Lys Gly Lys Glu Glu Glu Glu Ala Asp Lys
    370                 375                 380

Asp Asp Asp Glu Asp Lys Asp Glu Asp Glu Glu Asp Glu Asp Glu Lys
385                 390                 395                 400

Glu Glu Glu Glu Glu Glu Asp Ala Ala Ala Gly Gln Ala Lys Asp Glu
                405                 410                 415

Leu
```

<210> 489
<211> 420
<212> PRT

<213> Zea mays

<400> 489

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

Leu Ala Ser Val Ala Ala Val Ala Gly Glu Val Phe Phe Gln Glu Lys
            20                  25                  30

Phe Glu Asp Gly Trp Glu Ser Arg Trp Val Lys Ser Glu Trp Lys Lys
        35                  40                  45

Asp Glu Asn Met Ala Gly Glu Trp Asn His Thr Ser Gly Lys Trp Asn
    50                  55                  60

Gly Asp Ala Glu Asp Lys Gly Ile Gln Thr Ser Glu Asp Tyr Arg Phe
65                  70                  75                  80

Tyr Ala Ile Ser Ala Glu Tyr Pro Glu Phe Ser Asn Lys Asp Lys Thr
                85                  90                  95

Leu Val Leu Gln Phe Ser Val Lys His Glu Gln Lys Leu Asp Cys Gly
            100                 105                 110

Gly Gly Tyr Val Lys Leu Leu Gly Gly Asp Val Asp Gln Lys Thr Leu
        115                 120                 125

Gly Gly Asp Thr Ser Tyr Ser Ile Ile Ser Arg Pro Asp Ile Ser Arg
    130                 135                 140

Tyr Ser Thr Lys Lys Val His Thr Ile Leu Thr Lys Asp Gly Lys Asn
145                 150                 155                 160

His Leu Ile Lys Lys Asp Val Pro Cys Gln Thr Asp Gln Leu Thr His
                165                 170                 175

Val Tyr Thr Phe Ile Ile Arg Pro Asp Ala Thr Tyr Ser Ile Leu Ile
            180                 185                 190

Asp Asn Glu Glu Lys His Thr Gly Ser Ile Tyr Glu His Trp Asp Ile
        195                 200                 205

Leu Pro Pro Lys Lys Ile Lys Asp Pro Glu Ala Lys Lys Pro Glu Asp
    210                 215                 220

Trp Asp Asp Lys Glu Tyr Ile Pro Asp Pro Glu Asp Lys Lys Pro Glu
225                 230                 235                 240
```

```
Gly Tyr Asp Asp Ile Pro Lys Glu Ile Pro Asp Pro Asp Ala Lys Lys
                245                 250                 255

Pro Glu Asp Trp Asp Asp Glu Glu Asp Gly Glu Trp Thr Ala Pro Thr
            260                 265                 270

Ile Pro Asn Pro Glu Tyr Lys Gly Pro Trp Lys Gln Lys Lys Ile Lys
        275                 280                 285

Asn Pro Asn Tyr Gln Gly Lys Trp Lys Ala Pro Met Ile Asp Asn Pro
    290                 295                 300

Asp Phe Lys Asp Asp Pro Tyr Ile Tyr Ala Phe Asp Ser Leu Lys Tyr
305                 310                 315                 320

Ile Gly Ile Glu Leu Trp Gln Val Lys Ser Gly Thr Leu Phe Asp Asn
                325                 330                 335

Ile Ile Ile Thr Asp Asp Pro Ala Leu Ala Lys Thr Phe Ala Glu Glu
            340                 345                 350

Thr Trp Gly Lys His Lys Glu Ala Glu Lys Ala Ala Phe Asp Glu Ala
        355                 360                 365

Glu Lys Lys Lys Glu Glu Glu Asp Ala Ala Lys Gly Gly Asp Asp Glu
    370                 375                 380

Asp Asp Asp Leu Glu Asp Glu Glu Asp Asp Glu Lys Ala Asp Glu Asp
385                 390                 395                 400

Lys Ala Asp Ser Asp Ala Glu Asp Gly Lys Asp Ser Asp Asp Glu Lys
                405                 410                 415

His Asp Glu Leu
            420
```

<210> 490
<211> 162
<212> PRT
<213> Ovis orientalis

<400> 490

```
Ile Ile Val Thr Gln Thr Met Lys Gly Leu Asp Ile Gln Lys Val Ala
1               5                   10                  15

Gly Thr Trp His Ser Leu Ala Met Ala Ala Ser Asp Ile Ser Leu Leu
            20                  25                  30

Asp Ala Gln Ser Ala Pro Leu Arg Val Tyr Val Glu Glu Leu Lys Pro
```

35 40 45

Thr Pro Glu Gly Asn Leu Glu Ile Leu Leu Gln Lys Trp Glu Asn Gly
50 55 60

Glu Cys Ala Gln Lys Lys Ile Ile Ala Glu Lys Thr Lys Ile Pro Ala
65 70 75 80

Val Phe Lys Ile Asp Ala Leu Asn Glu Asn Lys Val Leu Val Leu Asp
85 90 95

Thr Asp Tyr Lys Lys Tyr Leu Leu Phe Cys Met Glu Asn Ser Ala Glu
100 105 110

Pro Glu Gln Ser Leu Ala Cys Gln Cys Leu Val Arg Thr Pro Glu Val
115 120 125

Asp Asn Glu Ala Leu Glu Lys Phe Asp Lys Ala Leu Lys Ala Leu Pro
130 135 140

Met His Ile Arg Leu Ala Phe Asn Pro Thr Gln Leu Glu Gly Gln Cys
145 150 155 160

His Val

<210> 491
<211> 386
<212> PRT
<213> Gallus gallus

<400> 491
Met Gly Ser Ile Gly Ala Ala Ser Met Glu Phe Cys Phe Asp Val Phe
1 5 10 15

Lys Glu Leu Lys Val His His Ala Asn Glu Asn Ile Phe Tyr Cys Pro
20 25 30

Ile Ala Ile Met Ser Ala Leu Ala Met Val Tyr Leu Gly Ala Lys Asp
35 40 45

Ser Thr Arg Thr Gln Ile Asn Lys Val Val Arg Phe Asp Lys Leu Pro
50 55 60

Gly Phe Gly Asp Ser Ile Glu Ala Gln Cys Gly Thr Ser Val Asn Val
65 70 75 80

His Ser Ser Leu Arg Asp Ile Leu Asn Gln Ile Thr Lys Pro Asn Asp
85 90 95

```
Val Tyr Ser Phe Ser Leu Ala Ser Arg Leu Tyr Ala Glu Glu Arg Tyr
            100                 105                 110

Pro Ile Leu Pro Glu Tyr Leu Gln Cys Val Lys Glu Leu Tyr Arg Gly
        115                 120                 125

Gly Leu Glu Pro Ile Asn Phe Gln Thr Ala Ala Asp Gln Ala Arg Glu
    130                 135                 140

Leu Ile Asn Ser Trp Val Glu Ser Gln Thr Asn Gly Ile Ile Arg Asn
145                 150                 155                 160

Val Leu Gln Pro Ser Ser Val Asp Ser Gln Thr Ala Met Val Leu Val
                165                 170                 175

Asn Ala Ile Val Phe Lys Gly Leu Trp Glu Lys Ala Phe Lys Asp Glu
            180                 185                 190

Asp Thr Gln Ala Met Pro Phe Arg Val Thr Glu Gln Glu Ser Lys Pro
        195                 200                 205

Val Gln Met Met Tyr Gln Ile Gly Leu Phe Arg Val Ala Ser Met Ala
    210                 215                 220

Ser Glu Lys Met Lys Ile Leu Glu Leu Pro Phe Ala Ser Gly Thr Met
225                 230                 235                 240

Ser Met Leu Val Leu Leu Pro Asp Glu Val Ser Gly Leu Glu Gln Leu
                245                 250                 255

Glu Ser Ile Ile Asn Phe Glu Lys Leu Thr Glu Trp Thr Ser Ser Asn
            260                 265                 270

Val Met Glu Glu Arg Lys Ile Lys Val Tyr Leu Pro Arg Met Lys Met
        275                 280                 285

Glu Glu Lys Tyr Asn Leu Thr Ser Val Leu Met Ala Met Gly Ile Thr
    290                 295                 300

Asp Val Phe Ser Ser Ser Ala Asn Leu Ser Gly Ile Ser Ser Ala Glu
305                 310                 315                 320

Ser Leu Lys Ile Ser Gln Ala Val His Ala Ala His Ala Glu Ile Asn
                325                 330                 335

Glu Ala Gly Arg Glu Val Val Gly Ser Ala Glu Ala Gly Val Asp Ala
```

340 345 350

Ala Ser Val Ser Glu Glu Phe Arg Ala Asp His Pro Phe Leu Phe Cys
355 360 365

Ile Lys His Ile Ala Thr Asn Ala Val Leu Phe Phe Gly Arg Cys Val
370 375 380

Ser Pro
385

<210> 492
<211> 147
<212> PRT
<213> Saccharomyces cerevisiae

<400> 492
Met Ser Ser Asn Leu Thr Glu Glu Gln Ile Ala Glu Phe Lys Glu Ala
1 5 10 15

Phe Ala Leu Phe Asp Lys Asp Asn Asn Gly Ser Ile Ser Ser Ser Glu
20 25 30

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

Val Asn Asp Leu Met Asn Glu Ile Asp Val Asp Gly Asn His Gln Ile
50 55 60

Glu Phe Ser Glu Phe Leu Ala Leu Met Ser Arg Gln Leu Lys Ser Asn
65 70 75 80

Asp Ser Glu Gln Glu Leu Leu Glu Ala Phe Lys Val Phe Asp Lys Asn
85 90 95

Gly Asp Gly Leu Ile Ser Ala Ala Glu Leu Lys His Val Leu Thr Ser
100 105 110

Ile Gly Glu Lys Leu Thr Asp Ala Glu Val Asp Asp Met Leu Arg Glu
115 120 125

Val Ser Asp Gly Ser Gly Glu Ile Asn Ile Gln Gln Phe Ala Ala Leu
130 135 140

Leu Ser Lys
145

<210> 493
<211> 73

<212> PRT
<213> Saccharomyces cerevisiae

<400> 493
Leu Val Leu Gly Ala Leu Leu Asp Thr Ser His Lys Phe Arg Asn Leu
1 5 10 15

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

Val Leu Asp Val Thr Lys His Glu Phe Lys Arg Thr Thr Tyr Ser Glu
35 40 45

Asn Glu Val Tyr Asp Leu Asn Asp Ser Val Gln Thr Ile Lys Phe Leu
50 55 60

Ile Trp Val Ile Asn Asp Ile Leu Val
65 70

<210> 494
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 494
Met Gly Ser Ser His His His His His His Ser Ser Gly Leu Val Pro
1 5 10 15

Arg Gly Ser His
20

<210> 495
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 495
Met Gly Ser His His His His His His His His
1 5 10

<210> 496
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 496
Leu Ala Leu Ala

1

<210> 497
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 497
Leu Leu Leu Asp
1

<210> 498
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 498
Pro Ser Glu Ala
1

<210> 499
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 499
Ile Ala Glu Phe
1

<210> 500
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 500
Ile Gln Gln Phe
1

<210> 501
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 501
Tyr Asp Lys Leu
1

<210> 502
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 502
Ala Glu Phe Lys
1

<210> 503
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 503
Ser Asn Leu Thr Glu
1 5

<210> 504
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 504
Leu Lys His Val
1

<210> 505
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 505
Glu Leu Leu Glu Ala
1 5

<210> 506
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 506
Ser Ser Ser Glu Leu
1 5

<210> 507
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 507
Glu Glu Leu Ala Leu
1 5

<210> 508
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 508
Phe Lys Val Phe
1

<210> 509
<211> 5
<212> PRT

<213> Saccharomyces cerevisiae

<400> 509
Asp Asp Leu Leu Leu
1 5

<210> 510
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 510
Ala Glu Leu Lys His
1 5

<210> 511
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 511
Leu Ala Tyr Asp Lys
1 5

<210> 512
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 512
Leu Lys His Val Leu
1 5

<210> 513
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 513
Thr Lys Thr Arg Leu
1 5

<210> 514
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 514
Phe Lys Glu Ala Phe
1 5

<210> 515
<211> 5
<212> PRT
<213> Saccharomyces cerevisiae

<400> 515

Asp Leu Asp His Gln
1 5

<210> 516
<211> 7
<212> PRT
<213> Saccharomyces cerevisiae

<400> 516
Asn Gly Ser Ile Ser Ser Ser
1 5

<210> 517
<211> 6
<212> PRT
<213> Saccharomyces cerevisiae

<400> 517
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