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Lys Arg Ala Ser Ser Ile Ile Tyr Leu Ala Leu Gly Lys Pro Tyr Asn
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Thr Leu Thr Lys Arg Ala Val Ser Gln Leu Gln Gly Tyr Thr Pro Gly
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Ser His Ile Asp Ala Thr Ser His Ser Pro Arg Val Phe Arg Leu Pro
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Asn Leu Glu Glu Thr Phe Ser Val Phe Pro Asp His Gly Leu Asn Pro
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Asn Tyr Thr Ser Ala Arg Thr Asp Ser Arg Ala Trp Ile Asn Gln Tyr
115 120 125

Thr Lys Val Val Cys Gly Pro Lys Met Val Ala Phe Met Asn Asn Cys
130 135 140

Glu Phe Glu Leu Ser Asn Ser His Cys Tyr Pro Tyr Ala Gly Tyr Lys
145 150 155 160

Gly Leu Lys Ala Thr Met Asp Leu Thr Asn Ile Leu Trp Leu Tyr Asp
165 170 175

Glu Tyr Thr Asp Thr Gly Ser Gly Ala Glu Ala Val Lys Ala Ala Gly
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180

185

190

Ile Val Ala Arg Ala Leu Arg Glu Pro Asp Tyr Asp Asp Gly Thr Trp
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 Val Cys Arg Met Met Lys Ser Phe Lys Gln Asn His Ile Asp Lys Ala
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 Gly Pro Gly Val Ala Arg Arg Phe Ile Asp Asn Phe Cys Asn Tyr Val
 225 230 235 240
 Glu Val Val Gly Arg Glu Ala Glu Leu Arg Glu Lys Asn Glu Val Leu
 245 250 255
 Asp Ile Pro Asn Tyr Val Thr Phe Arg Arg Glu Thr Ser Ala Val Arg
 260 265 270
 Thr Cys Phe Asp Leu Val Glu Tyr Cys Leu Asp Leu Asp Leu Pro Gln
 275 280 285
 Tyr Val His Asp Asp Pro Val Phe Ile Ser Gly Tyr Asn Ala Gly Met
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 Asp Leu Val Phe Trp Ala Asn Asp Leu Val Ser Tyr Asn Met Glu Gln
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 Ser Lys Gly His Ser Gly Ala Asn Val Val Thr Val Ile Met Lys Ser
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 Lys Gly Val Asp Leu Gln Thr Ala Val Asp Phe Leu Gly Gly Tyr Cys
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 Arg Ser Asp Ala Ala Tyr Ser Arg Asp Val Val Arg Leu Met Asp Ala
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35 40 45

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

Asn Lys Asp Ser Asn Thr Leu Phe Gln Glu Cys Ser His Tyr Tyr Arg
65 70 75 80

Asp Ser Ser Leu Asp Gly Trp Val Ser Ile Thr Ala His Glu Ala Ser
85 90 95

Glu Leu Pro Ala Pro His His Tyr Tyr Leu Leu Asn Leu Asn Phe Asn
100 105 110

Ser Pro Asn Glu Thr Asp Ser Ile Pro Glu Leu Ala Asn Thr Val Phe
115 120 125

Glu Lys Asp Asn Thr Lys Tyr Ile Leu Gln Glu Asp Leu Ser Val Ser
130 135 140

Lys Glu Ile Ser Ser Thr Asp Gly Thr Lys Trp Arg Leu Arg Ser Asp
145 150 155 160

Arg Lys Ser Leu Phe Asp Val Lys Thr Leu Ala Tyr Ser Leu Tyr Asp
165 170 175

Val Phe Ser Glu Asn Val Thr Gln Ala Asp Pro Phe Asp Val Leu Ile
180 185 190

Met Val Thr Ala Tyr Leu Met Met Phe Tyr Thr Ile Phe Gly Leu Phe
195 200 205

Asn Asp Met Arg Lys Thr Gly Ser Asn Phe Trp Leu Ser Ala Ser Thr
210 215 220

Val Val Asn Ser Ala Ser Ser Leu Phe Leu Ala Leu Tyr Val Thr Gln
225 230 235 240

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

Pro Phe Ile Val Val Val Val Gly Phe Lys His Lys Ile Lys Ile Ala
260 265 270

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Gln Tyr Ala Leu Glu Lys Phe Glu Arg Val Gly Leu Ser Lys Arg Ile
 275 280 285
 Thr Thr Asp Glu Ile Val Phe Glu Ser Val Ser Glu Glu Gly Gly Arg
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 Leu Ile Gln Asp His Leu Leu Cys Ile Phe Ala Phe Ile Gly Cys Ser
 305 310 315 320
 Met Tyr Ala His Gln Leu Lys Thr Leu Thr Asn Phe Cys Ile Leu Ser
 325 330 335
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 340 345 350
 Ala Ile Leu Ala Leu Arg Leu Glu Met Asn Val Ile His Arg Ser Thr
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 370 375 380
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 385 390 395 400
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 Val Phe Ile Asn Phe Tyr Asn Phe Gly Ala Asn Trp Val Asn Asp Ala
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 Asp Arg Phe Val Ser Lys Leu Val Leu Ser Ala Leu Val Cys Ser Ala
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 580 585 590
 Ser Leu Asp Lys Lys Ile Arg Pro Leu Glu Glu Leu Glu Ala Leu Leu
 595 600 605
 Ser Ser Gly Asn Thr Lys Gln Leu Lys Asn Lys Glu Val Ala Ala Leu
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 Val Ile His Gly Lys Leu Pro Leu Tyr Ala Leu Glu Lys Lys Leu Gly
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 Asp Tyr Asp Arg Val Phe Gly Ala Cys Cys Glu Asn Val Ile Gly Tyr
 675 680 685
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 690 695 700
 Ser Tyr His Ile Pro Met Ala Thr Thr Glu Gly Cys Leu Val Ala Ser
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 850 855 860
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 865 870 875 880
 Asp Val Ser Ala Leu Val Glu Leu Asn Ile Ala Lys Asn Leu Val Gly
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 Ser Ala Met Ala Gly Ser Val Gly Gly Phe Asn Ala His Ala Ala Asn
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 930 935 940
 Leu Arg Ile Ser Val Ser Met Pro Ser Ile Glu Val Gly Thr Ile Gly
 945 950 955 960
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 980 985 990
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 995 1000 1005
 Ala Ala Leu Ala Ala Gly His Leu Val Gln Ser His Met Thr His
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Tyr Ala Leu Glu Lys Lys Leu Gly Asp Thr Thr Arg Ala Val Ala Val
          85          90          95

Arg Arg Lys Ala Leu Ser Ile Leu Ala Glu Ala Pro Val Leu Ala Ser
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Val Val Arg Lys Val Leu Lys Ser Asp Val Ser Ala Leu Val Glu Leu
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Asn Ile Ala Lys Asn Leu Val Gly Ser Ala Met Ala Gly Ser Val Gly
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Gly Phe Asn Ala His Ala Ala Asn Leu Val Thr Ala Val Phe Leu Ala
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Leu Gly Gln Asp Pro Ala Gln Asn Val Glu Ser Ser Asn Cys Ile Thr
370 375 380

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

Glu Phe Leu Gly Arg Val Glu Glu Gln Ile Glu Glu Leu Lys Gly Glu
 50 55 60

Val Arg Lys Met Leu Ala Gly Ala Val Asp Lys Pro Trp Gln Met Leu
 65 70 75 80

His Leu Ile Asp Gln Ile Gln Arg Leu Gly Ile Glu Tyr His Phe Glu
 85 90 95

Arg Glu Leu Asp Glu His Leu Glu Arg Ile His Lys Ser Phe Ser Gln
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100

105

110

Leu Thr His Gly Tyr Phe Lys Gly Asp Asp Leu Arg Met Ile Ser Leu
 115 120 125

Leu Phe Arg Leu Leu Arg Gln Gln Gly Tyr Asn Ile Ser Ser Glu Val
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Phe Asn Lys Phe Lys Asp Ser Glu Gly Asn Phe Gly Glu Ser Leu Ala
 145 150 155 160

Thr Asp Leu Arg Gly Leu Leu Ser Leu Tyr Glu Ala Cys His Leu Arg
 165 170 175

Cys His Gly Asp Ile Ile Leu Asp Glu Ala Leu Pro Phe Ala Ile Ser
 180 185 190

His Leu Glu Ser Ile Asp Glu Ser Lys Ala Gly Ala Asn Leu Ala Lys
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Gln Val Asn His Ala Leu Lys Gln Pro Leu Arg Arg Gly Leu Pro Arg
 210 215 220

Leu Glu Ala Arg Arg Tyr Ile Pro Leu Tyr Glu Glu Glu Pro Ser His
 225 230 235 240

Asp Lys Val Leu Leu Ala Leu Ala Lys Leu Asp Phe Asn Leu Leu Gln
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 260 265 270

Ile Asp Val Pro Arg Lys Phe Pro Phe Ala Arg Asp Arg Ile Ala Glu
 275 280 285

Leu Phe Phe Trp Ala Cys Gly Val Tyr Phe Glu Pro Glu Phe Ser Val
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Ala Arg Val Ile Gln Ala Lys Ala Phe Ala Met Thr Ser Ile Leu Asp
 305 310 315 320

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 325 330 335

Glu Ala Ile Glu Lys Trp Asp Val Asp Ala Met Asp Gly Leu Pro Glu
 340 345 350

Tyr Met Gln Ala Phe Tyr Lys Glu Leu Leu His Phe Tyr Glu Glu Val
 355 360 365

Gly Asn Glu Val Ala Ala Lys Gly Arg Ser Tyr Arg Leu Val Tyr Ala

370

375

Lys Glu Val Met Lys Lys Leu Ala Arg Ala Tyr Tyr Gln Glu Ala Lys
385 390 395 400

Trp Phe His Thr Asn Tyr Thr Pro Thr Leu Glu Glu Tyr Met Pro Leu
405 410 415

Gln Leu Ile Thr Thr Gly Tyr Gly Met Met Ala Thr Thr Ser Leu Val
420 425 430

Gly Met Asp Asp Val Val Pro Lys His Val Phe Glu Trp Ser Ile Gly
435 440 445

Asp Cys Lys Ile Val Lys Ala Ala Gln Thr Ile Cys Arg Leu Met Asp
450 455 460

Asp Ile Ser Ser His Glu Phe Glu Gln Lys Arg Gly His Leu Val Ser
465 470 475 480

Ser Val Glu Leu Leu Met Lys Glu Arg Ser Leu Ser Glu Arg Glu Ala
485 490 495

Gly Glu Glu Leu Gln Lys Gly Val Ile Asp Ala Trp Lys Asp Thr Asn
500 505 510

Glu Glu Phe Leu Arg Pro Thr Ala Val Pro Met Lys Ile Leu Thr Arg
515 520 525

Val Leu Asn Leu Ser Arg Ala Met Asp Val Leu Tyr Ser Asp Gly Asp
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35 40 45

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Lys Arg Ala Ser Ser Ile Ile Tyr Leu Ala Leu Gly Lys Pro Tyr Asn
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 65 70 75 80
 Ser His Ile Asp Ala Thr Ser His Ser Pro Arg Val Phe Arg Leu Pro
 85 90 95
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 100 105 110
 Asn Tyr Thr Ser Ala Arg Thr Asp Ser Arg Ala Trp Ile Asn Gln Tyr
 115 120 125
 Thr Lys Val Val Cys Gly Pro Lys Met Val Ala Phe Met Asn Asn Cys
 130 135 140
 Glu Phe Glu Leu Ser Asn Ser His Cys Tyr Pro Tyr Ala Gly Tyr Lys
 145 150 155 160
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 Glu Tyr Thr Asp Thr Gly Ser Gly Ala Glu Ala Val Lys Ala Ala Gly
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 Ile Val Ala Arg Ala Leu Arg Glu Pro Asp Tyr Asp Asp Gly Thr Trp
 195 200 205
 Val Cys Arg Met Met Lys Ser Phe Lys Gln Asn His Ile Asp Lys Ala
 210 215 220
 Gly Pro Gly Val Ala Arg Arg Phe Ile Asp Asn Phe Cys Asn Tyr Val
 225 230 235 240
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 245 250 255
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 260 265 270
 Thr Cys Phe Asp Leu Val Glu Tyr Cys Leu Asp Leu Asp Leu Pro Gln
 275 280 285
 Tyr Val His Asp Asp Pro Val Phe Ile Ser Gly Tyr Asn Ala Gly Met
 290 295 300
 Asp Leu Val Phe Trp Ala Asn Asp Leu Val Ser Tyr Asn Met Glu Gln
 305 310 315 320

7206664_1

Ser Lys Gly His Ser Gly Ala Asn Val Val Thr Val Ile Met Lys Ser
325 330 335

Lys Gly Val Asp Leu Gln Thr Ala Val Asp Phe Leu Gly Gly Tyr Cys
340 345 350

Glu Ala Leu Thr Ala Gln Leu Leu Glu Ala Lys Arg Ile Leu Gln Ala
355 360 365

Arg Ser Asp Ala Ala Tyr Ser Arg Asp Val Val Arg Leu Met Asp Ala
370 375 380

Phe Gly Asp Trp Val Arg Gly Asn Val Ala Trp Ser Phe Glu Thr Glu
385 390 395 400

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

Glu Leu Lys Glu Pro Phe Val Gly Ala Leu Ala Leu Lys Glu
420 425 430

<210> 45

<211> 315

<212> PRT

<213> Galerina marginata

<400> 45

Met Thr Thr Ser Ile Leu Thr Phe Arg Leu Pro Arg Leu Glu Asp Thr
1 5 10 15

Phe Ser Val Phe Pro His Asn Gly Ile Asn His His Phe Ser Glu Cys
20 25 30

Arg Asp Gln Ser Arg Glu Trp Ile Asp Lys Phe Leu Lys Ile Ala Leu
35 40 45

Gly Pro Lys Met Cys Ile Phe Leu Ser Asn Cys Asn Leu Glu Leu Asn
50 55 60

Ala Ala Tyr Thr His Pro Asn Ser Glu Pro Asp Gly Leu Arg Ala Val
65 70 75 80

Met Asp Tyr Leu Asn Val Ala Trp Thr Tyr Asp Glu Phe Thr Asp Asp
85 90 95

Leu Ala Gly Glu Glu Ala Ala Gln Ala Ala Ala Val Phe Gly Ser Asn
100 105 110

Val Ala Pro Arg Phe Ile Asp His Phe Cys Gln Ala Val Glu Lys Thr
115 120 125

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Gly Ala Glu Ala Asp Leu Arg Glu Lys Asp Gln Ile Leu Asp Leu Asp
 130 135 140

Gly Tyr Ile Ser Leu Arg Arg Gly Thr Val Ala Val Arg Val Val Phe
 145 150 155 160

Asp Leu Val Glu Tyr Cys Leu Gly Leu Asp Leu Pro Gln Tyr Val His
 165 170 175

Glu Asp Pro Ala Phe Ile Ser Ala Tyr Asn Ala Gly Ile Asp Leu Ile
 180 185 190

Ala Trp Thr Asn Asp Leu Phe Ser Tyr Asn Met Glu Gln Ala Lys Gly
 195 200 205

His Ser Gly Ala Asn Ile Ile Thr Val Val Met Glu Cys Lys Gly Ile
 210 215 220

Ser Leu Gln Ser Ala Ile Asp Phe Val Ala Gly Tyr Cys Glu Cys Leu
 225 230 235 240

Thr Gln Gln Phe Val Trp Ala Lys Ala Ala Leu Thr Leu Arg Thr Asp
 245 250 255

Pro Ile Phe Ser Lys Asp Ala Val Arg Cys Leu Glu Ala Tyr Gly Asp
 260 265 270

Trp Ile Lys Gly Asn Asp Glu Trp Ser Phe Ala Thr Glu Arg Tyr Phe
 275 280 285

Gly Lys Glu Asn Ala Leu Ile Lys Lys Thr Arg Ile Val Glu Leu Arg
 290 295 300

Lys Pro Phe Glu Gly Ala Ile Arg Ser Thr Glu
 305 310 315

<210> 46

<211> 336

<212> PRT

<213> Moniliophthora roreri

<400> 46

Met Gly Arg Ala Thr Val Leu Thr Phe Thr Leu Pro Asp Leu Glu Met
 1 5 10 15

Phe Ser Ala Leu Pro Asp Gly Gly Ile Asn Pro His His Glu Met Ala
 20 25 30

Arg Gln Glu Ser Arg Arg Trp Val Ala Gln Tyr Thr Asn Val Thr Phe
 35 40 45

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Gly Pro Lys Met Lys Ala Phe Tyr Glu Lys Cys Glu Phe Glu Leu Ser
 50 55 60
 Ser Ser Tyr Cys Tyr Pro Gln Leu Asp Arg Glu Gly Leu Arg Ala Val
 65 70 75 80
 Met Asp Leu Val Asn Ile Leu Trp Phe Ala Asp Glu Val Thr Asp Ala
 85 90 95
 Glu Thr Gly Ser Gly Ala Ser Arg Thr Ala Glu Thr Val Cys Arg Thr
 100 105 110
 Leu Arg Asp Pro Glu Tyr Asn Asp Gly Thr Pro Leu Cys Leu Thr Gly
 115 120 125
 Thr Phe Cys Ser Phe Arg Ile Asn His Leu Ser Lys Ala Gly Pro Glu
 130 135 140
 Thr Ser Arg Arg Phe Met Glu His Cys His Glu Thr Phe Phe Ala Phe
 145 150 155 160
 Ser Glu Glu Ala Glu Leu Arg Ala Gln Gly Glu Val Leu Ser Ile Ala
 165 170 175
 Gly Tyr Leu Ser Leu Arg Lys Arg Asn Gly Arg Gly Gly Val Arg Pro
 180 185 190
 Cys Phe Asp Leu Ala Glu Cys Phe Leu Asp Met Asp Leu Pro Asp Cys
 195 200 205
 Val His Arg Leu Glu Ile Phe Arg Arg Gly His Asp Ala Ala Val Asp
 210 215 220
 Leu Val Gly Leu Ala Asn Asp Leu Tyr Ser Tyr Asn Val Gln Gln Ala
 225 230 235 240
 Arg Gly Tyr Gly Thr Ser Asn Ile Val Thr Val Val Met Lys Ala Arg
 245 250 255
 Lys Ile Gly Leu Gln Glu Ala Ser Asp Tyr Val Gly Cys Leu Cys Lys
 260 265 270
 Thr Leu Leu Ser Asn Leu Gln Glu Ser Gln Arg Ala Ile Glu Asp Leu
 275 280 285
 Ala Arg Asp Ala Lys Asp Glu Asp Ser Ala Asn Thr Phe Arg Asp Ala
 290 295 300
 Leu Arg Ala Leu Glu Ala Tyr Ser His Trp Val Arg Gly Asn Ala Ile
 305 310 315 320

7206664_1

Asp Val Ala Gly Ser Ala Arg Leu Lys Ala Pro Gly Leu Gly Leu Ala
 325 330 335

<210> 47
 <211> 337
 <212> PRT
 <213> Galerina marginata

<400> 47

Met Ser Thr Pro Pro Gln Thr Tyr Arg Leu Pro Arg Leu Asn Glu Thr
 1 5 10 15

Phe Ser Val Phe Pro Ser Asn Gly Val Asn Pro His Phe Ser Glu Cys
 20 25 30

Arg Ala Gln Ser Arg Glu Trp Ala Ser Pro Tyr Tyr Thr Leu Val Phe
 35 40 45

Pro Pro Asp Val Arg Val Asp Leu Glu Asn Cys Asn Phe Glu Leu Val
 50 55 60

Ser Ala Tyr Ala Leu Pro Tyr Ala Asn Pro Asp Gly Leu Ser Ala Ser
 65 70 75 80

Met Asp Cys Tyr Asn Leu Thr Trp Met Phe Asp Glu Val Thr Asp Arg
 85 90 95

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

Leu Arg Asp Ile Asp Tyr Asp Asn Gly Thr Ala Leu Cys Arg Met Thr
 115 120 125

Arg Asp Tyr Arg Cys Asn His Ile Glu Lys Phe Gly Ser Asn Val Ala
 130 135 140

Arg Arg Phe Ile Ala Asn Phe Cys Gln Tyr Val Glu His Thr Ala Thr
 145 150 155 160

Glu Ala Met Leu Arg Glu Arg Asp Gln Val Leu Asp Ile Asn Gly Tyr
 165 170 175

Ile Ser Leu Arg Arg Gly Ala Val Gly Gly Arg Ile Val Phe Asp Leu
 180 185 190

Val Glu Tyr Ala Leu Gly Leu Asp Leu Pro Gln Tyr Val His Glu Asp
 195 200 205

Pro Val Phe Ile Gly Ala Leu Asn Ala Gly Val Asp Leu Leu Ala Phe
 210 215 220

Thr Asn Asp Leu Phe Ser Tyr Asp Met Glu Gln Ala Lys Gly His Ser
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225 230 235 240
 Ala Ala Asn Ile Ile Thr Val Val Met Lys Ser Lys Gly Thr Asp Leu
 245 250 255
 Gln Ser Ala Val Asp Phe Val Ala Gly Tyr Cys Glu Cys Leu Ile Arg
 260 265 270
 Gln Leu Leu Asp Ala Lys Ala Val Phe Thr Ser His Thr Asp Pro Val
 275 280 285
 Phe Ser Arg Asp Ala Ala Arg Trp Leu Asp Gly Val Gly Asp Trp Val
 290 295 300
 Arg Gly Asn Glu Glu Trp Cys Phe Ala Thr Glu Arg Tyr Phe Gly Lys
 305 310 315 320
 Gln Asn Lys Leu Val Asn Glu Thr Arg Ile Val Glu Leu Thr Lys Arg
 325 330 335

Leu

<210> 48
 <211> 344
 <212> PRT
 <213> Galerina marginata
 <400> 48

Met Thr Thr Pro Gln Thr Phe Arg Leu Pro Arg Leu Ser Asp Thr Phe
 1 5 10 15
 Ser Val Phe Pro Asp Asn Gly Leu Asn Pro His Tyr Ser Glu Cys Arg
 20 25 30
 Leu Gln Ser Lys Glu Trp Ala Ser Lys Tyr Tyr Lys Ala Val Cys Gly
 35 40 45
 Pro Asn Met Thr Ala Tyr Leu Gly Asp Cys Asn Phe Glu Leu Leu Ala
 50 55 60
 Ala Tyr Ala Tyr Pro Tyr Ala Lys Pro Glu Gly Ile Ile Lys Val Met
 65 70 75 80
 Asp Tyr Tyr Asn Ile Thr Trp Ile Phe Asp Glu Phe Thr Asp Thr Leu
 85 90 95
 Pro Gly Lys Glu Ala Ala Glu Ala Ala Ala Ile Val Ser Arg Thr Leu
 100 105 110
 Arg Asn Arg Asp Tyr Asp Asp Gly Ser Trp Leu Cys Gln Ile Met Thr
 115 120 125

7206664_1

Asp Tyr Arg Arg Asn His Ile Asp Lys Leu Gly Pro Asn Val Ala Arg
 130 135 140

Arg Phe Val Glu His Phe Cys Asn Tyr Val Glu Gly Thr Gly Thr Glu
 145 150 155 160

Ala Glu Leu Arg Glu Lys Asn Gln Val Leu Asp Ile Ser Gly Tyr Ile
 165 170 175

Ala Met Arg Arg Glu Ala Val Ala Ala Gln Val Ala Phe Asp Leu Val
 180 185 190

Glu Asp Cys Leu Gly Leu Asp Leu Pro Gln Tyr Val His Glu Asp Pro
 195 200 205

Ala Phe Val Ser Gly Tyr Met Ala Gly Val Asp Leu Ile Ala Leu Asn
 210 215 220

Asn Asp Met Val Ser Tyr Asn Met Glu Gln Ser Lys Gly His Gly Gly
 225 230 235 240

Ala Asn Ile Val Thr Val Val Met Asn Ser Lys Gly Ile Gly Leu Gln
 245 250 255

Ser Ala Met Asp Phe Val His Gly Tyr Cys Glu Cys Ile Thr Gln Gln
 260 265 270

Leu Leu Asn Ala Arg Ile Ser Leu Leu Ser Arg Pro Asp Pro Val Phe
 275 280 285

Ser Arg Asp Ala Thr Arg Cys Leu Glu Ala Phe Gly Asp Trp Ile Arg
 290 295 300

Gly Tyr Asp Glu Trp Asn Phe Ala Ile Glu Arg Tyr Phe Gly Lys Gln
 305 310 315 320

Thr Lys Leu Val Gln Glu Lys Arg Ile Val Glu Leu Met Arg Pro Phe
 325 330 335

Gln Gly Phe Met Ala Leu Lys Asp
 340

<210> 49

<211> 344

<212> PRT

<213> Galerina marginata

<400> 49

Met Thr Thr Ser Leu Thr Phe Arg Leu Pro Arg Leu Asp Asp Thr Phe
 1 5 10 15

7206664_1

Ala Val Phe Pro Asp Lys Gly Val Asn Pro His Phe Ser Glu Cys Arg
 20 25 30
 Arg Gln Ser Arg Glu Trp Val Asp Lys Tyr Thr Glu Ile Ala Phe Gly
 35 40 45
 Pro Lys Met Cys Ala Phe Leu Arg Asn Cys Asn Leu Glu Leu Val Ala
 50 55 60
 Ala Tyr Ala Tyr Pro Asp Ala Lys Pro Asp Gly Leu Arg Ala Ala Met
 65 70 75 80
 Asp Tyr Leu Asn Ile Ala Trp Val Phe Asp Glu Phe Thr Asp Asp Leu
 85 90 95
 Ser Gly Lys Glu Ala Ile Gln Ala Ala Val Ala Thr Arg Thr Leu
 100 105 110
 Arg Asp Arg Asp Phe Asp Asp Gly Ser Trp Val Cys His Ile Leu Thr
 115 120 125
 Asp Tyr Arg Leu Asn His Ile Asp Lys Phe Gly Ser Asn Val Ala Leu
 130 135 140
 Arg Phe Ile Asp His Leu Cys Gln Ser Phe Gly Gln Thr Gly Ala Glu
 145 150 155 160
 Ala Glu Leu Arg Glu Lys Asn Gln Val Leu Asn Leu Asp Ser Tyr Ile
 165 170 175
 Ser Leu Arg Arg Ser Thr Val Ala Val Arg Val Val Phe Asp Leu Val
 180 185 190
 Glu Tyr Cys Leu Gly Leu Asn Leu Pro Gln Tyr Val His Glu Asp Pro
 195 200 205
 Val Phe Ile Ser Ala Tyr Leu Ala Ala Val Asp Val Ile Ala Trp Thr
 210 215 220
 Asn Asp Leu Ala Ser Tyr Asp Met Glu Gln Ala Lys Gly His Ser Gly
 225 230 235 240
 Ala Asn Ile Val Thr Val Val Met Lys Ser Lys Gly Ile Asn Leu Gln
 245 250 255
 Ser Ala Val Asp Phe Ile Ala Gly Tyr Cys Glu Cys Leu Thr Gln Gln
 260 265 270
 Phe Ile Cys Ala Lys Ala Asp Leu Ala Ser Arg Thr Asp Pro Val Phe
 275 280 285

7206664_1

Ser Lys Asp Ser Val Arg Cys Leu Asp Ala Phe Gly Asp Trp Val Arg
290 295 300

Gly Asn Asp Glu Trp Asn Phe Val Thr Glu Arg Tyr Phe Gly Gln Arg
305 310 315 320

Asn Thr Leu Val Lys Glu Thr Arg Val Val Glu Leu Arg Lys Pro Phe
325 330 335

Glu Asp Val Val Leu Ser Thr Glu
340

<210> 50

<211> 345

<212> PRT

<213> *Galerina marginata*

<400> 50

Met Asn Thr Thr Thr Arg Thr Phe Tyr Leu Pro Arg Leu Glu Asp Thr
1 5 10 15

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

Arg Ile Gln Ser Gln Ala Trp Ile Asp Lys Tyr Tyr Lys Ile Val Cys
35 40 45

Gly Pro Lys Met Arg Ala Tyr Met Asp His Cys Lys Phe Glu Leu Ile
50 55 60

Thr Ala Tyr Thr Tyr Pro Tyr Ala Ser Ser Asp Gly Leu Arg Lys Thr
65 70 75 80

Met Asp Leu Ala Asn Ile Leu Trp Leu Tyr Asp Glu Phe Thr Asp Thr
85 90 95

Leu Ser Gly Lys Asp Ala Thr Asn Ala Ala Ala Ile Val Ile Arg Thr
100 105 110

Leu Arg Glu Arg Asp Phe Asp Asp Gly Ser Trp Ile Cys His Met Met
115 120 125

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

Arg Arg Phe Ile Asp His Phe Cys Gln Tyr Val Glu Gly Thr Gly Thr
145 150 155 160

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

7206664_1

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

Ala Glu Tyr Cys Leu Gly Ile Asp Leu Pro Gln Tyr Val His Asp Asp
195 200 205

Pro Ala Phe Ile Ser Gly Tyr Asn Ala Gly Leu Asp Leu Val Phe Leu
210 215 220

Asp Asn Asp Leu Phe Ser Tyr Asp Met Glu Gln Ala Lys Gly His Cys
225 230 235 240

Thr Thr Asn Ile Ile Thr Val Val Met Lys Ser Lys Arg Ile Asp Leu
245 250 255

Gln Ser Ala Phe Asp Phe Thr Ala Gly Tyr Cys Glu Ser Leu Thr Gln
260 265 270

Gln Leu Ile Ala Ala Gln Ile Ser Leu Ala Ser Arg Thr Asp Pro Val
275 280 285

Phe Ser Asn Asn Ala Val Lys Cys Leu Glu Ala Ile Ala Asn Trp Val
290 295 300

Lys Gly Ser Asp Gly Trp Ser Phe Ala Thr Glu Arg Tyr Phe Gly Lys
305 310 315 320

Gln Asn Val Ile Val Lys Glu Thr Arg Ala Val Glu Met Arg Lys Ser
325 330 335

Phe Gln Asp Ile Ala Val Leu Lys Glu
340 345

<210> 51

<211> 345

<212> PRT

<213> Piloderma croceum

<400> 51

Met Pro Ser Gln Ser Leu Thr Ile Arg Leu Pro Lys Phe Glu Glu Thr
1 5 10 15

Phe Ser Val Phe Pro Asp Asn Gly Leu Asn Pro His Tyr Ala Asn Ser
20 25 30

Arg Ala Glu Ser Arg Ala Trp Ile Asn Gln Tyr His His Ala Val Cys
35 40 45

Gly Pro Asn Met Arg Thr Phe Met Asp Lys Cys Asn Phe Glu Leu Ala
50 55 60

Gly Ala Leu Phe Tyr Pro Tyr Ala Asn Glu Ala Gly Leu Arg Ala Thr
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65 70 75 80
 Met Asp Leu Ala Asn₈₅ Leu Leu Trp Leu Tyr₉₀ Asp Glu Leu Thr Asp₉₅ Thr
 Lys Thr Glu Ala₁₀₀ Glu Ala Val Asn Ala₁₀₅ Ala Gln Ile Val Thr₁₁₀ Cys Ala
 Leu Arg Glu₁₁₅ Pro Asp Phe Asp Asn₁₂₀ Gly Thr Trp Ile Cys₁₂₅ Ser Met Ile
 Lys Asp₁₃₀ Phe Asn Gln Arg His₁₃₅ Ile Ser Lys Ala Gly₁₄₀ Pro Asn Thr Ala
 Tyr Arg Phe Ile Tyr Asn₁₅₀ Phe Cys Asn Tyr Val₁₅₅ Glu Ala Val Gly Thr₁₆₀
 Glu Ala Gly Leu Arg₁₆₅ Ala Lys Asn Glu Ile₁₇₀ Leu Asp Ile Thr Thr₁₇₅ Tyr
 Ile Ser Phe Arg₁₈₀ Arg Glu Thr Ser Ala₁₈₅ Leu Arg Leu Thr Phe Asp Leu
 Val Gln Tyr₁₉₅ Cys Leu Gly Ile Asp₂₀₀ Leu Pro Gln Tyr Val₂₀₅ His Asp Asp
 Pro Val₂₁₀ Phe Ala Ser Gly Tyr₂₁₅ Asn Ala Ala Met Asp₂₂₀ Leu Val Cys Trp
 Thr Asn Asp Leu Phe Ser₂₃₀ Tyr Asn Arg Glu Gln₂₃₅ Ala Lys Gly His Ala₂₄₀
 Gly Ala Asn Val Val₂₄₅ Thr Val Ile Met Lys₂₅₀ Ser Lys Gly Val Asp₂₅₅ Ile
 Gln Ser Ala Val₂₆₀ Asp Phe Val Gly Gly₂₆₅ Tyr Cys Glu Ala Leu Thr Ser
 Gln Leu Val₂₇₅ Glu Ala Arg Arg Ile₂₈₀ Leu Leu Phe Arg Ser₂₈₅ His Arg Val
 Tyr Ser₂₉₀ Lys Asp Ala Val Arg₂₉₅ Ile Leu Glu Ala Phe Gly Asp Phe Val
 Arg Gly Asn Asp Gln Trp₃₁₀ Ser Phe Ala Ser Glu₃₁₅ Arg Tyr Phe Gly Gln₃₂₀
 Lys Asn Lys Val Val₃₂₅ Lys Glu Thr Arg Ile₃₃₀ Val Glu Ile Met Thr₃₃₅ Pro
 Phe Ser Asp Leu Ile Ala Ile Asn Glu

340

7206664_1
345

<210> 52
 <211> 345
 <212> PRT
 <213> Piloderma croceum

<400> 52

Met Pro Ser Gln Ser Leu Thr Ile Arg Leu Pro Lys Phe Glu Glu Thr
 1 5 10 15

Phe Ser Val Phe Pro Asp Asn Gly Leu Asn Pro His Tyr Ala Asn Ser
 20 25 30

Arg Ala Glu Ser Arg Ala Trp Ile Asn Gln Tyr His His Ala Val Cys
 35 40 45

Gly Pro Asn Met Arg Thr Phe Met Asp Lys Cys Asn Phe Glu Leu Ala
 50 55 60

Gly Ala Leu Phe Tyr Pro Tyr Ala Asn Glu Ala Gly Leu Arg Ala Thr
 65 70 75 80

Met Asp Leu Val Asn Leu Leu Trp Leu Tyr Asp Glu Leu Thr Asp Thr
 85 90 95

Lys Thr Glu Thr Glu Ala Val Asn Ala Ala His Ile Val Ala Cys Ala
 100 105 110

Leu Arg Glu Pro Asp Phe Asp Asp Gly Thr Trp Ile Cys Ser Met Ile
 115 120 125

Lys Asp Phe Asn Gln Arg His Ile Ser Lys Ala Gly Pro Asn Thr Ala
 130 135 140

Tyr Arg Phe Ile Tyr Asn Phe Cys Asn Tyr Val Glu Ala Val Gly Thr
 145 150 155 160

Glu Ala Gly Leu Arg Ala Lys Asn Glu Ile Leu Asp Ile Thr Thr Tyr
 165 170 175

Ile Ser Phe Arg Arg Glu Thr Ser Ala Leu Arg Leu Thr Phe Asp Leu
 180 185 190

Val Gln Tyr Cys Leu Gly Ile Asp Leu Pro Gln Tyr Val His Asp Asp
 195 200 205

Pro Val Phe Ala Ser Gly Tyr Asn Ala Ala Met Asp Leu Val Cys Trp
 210 215 220

Thr Asn Asp Leu Phe Ser Tyr Asn Arg Glu Gln Ala Lys Gly His Ala
 225 230 235 240

7206664_1

Gly Ala Asn Val Val Thr Val Ile Met Lys Ser Lys Gly Val Asp Ile
245 250 255

Gln Ser Ala Val Asp Phe Val Gly Gly Tyr Cys Glu Ala Leu Thr Ser
260 265 270

Gln Leu Val Glu Ala Arg Arg Ile Leu Leu Ser Arg Ser His Arg Val
275 280 285

Tyr Ser Lys Asp Ala Val Arg Ile Leu Glu Ala Phe Gly Asp Phe Val
290 295 300

Arg Gly Asn Asp Gln Trp Ser Phe Ala Ser Glu Arg Tyr Phe Gly Gln
305 310 315 320

Lys Asn Lys Val Val Lys Glu Ser Arg Ile Val Glu Ile Ile Thr Pro
325 330 335

Phe Ser Asp Leu Ile Ala Ile Asn Glu
340 345

<210> 53
<211> 347
<212> PRT
<213> Sphaerobolus stellatus

<400> 53

Met Pro Leu Leu Ser Cys Ser Gln Thr Phe Arg Leu Pro Pro Leu His
1 5 10 15

Glu Thr Phe Ser Val Phe Pro Asp Asn Gly Leu Asn Pro Asn Tyr Asn
20 25 30

Ala Cys Arg Ala Gln Ser Arg Ala Trp Ile Ser Lys Tyr Asn Val Gln
35 40 45

Val Cys Gly Pro Lys Met Arg Ala Phe Met Asp Asn Cys Asn Phe Glu
50 55 60

Leu Ser Asn Ala Tyr Val Tyr Pro Tyr Ala Gln Pro Ala Gly Leu Arg
65 70 75 80

Ala Thr Met Asp Leu Ala Asn Ile Leu Trp Leu Tyr Asp Glu Tyr Thr
85 90 95

Asp Met Gln Thr Gly Glu Asp Ala Ala Lys Ala Ala Val Thr Val Ser
100 105 110

Lys Thr Leu Leu Asn Pro Glu Tyr Asp Asp Asp Thr Trp Ile Cys His
115 120 125

7206664_1

Met Met Arg Asp Phe Tyr Val Asn His Ile Gln Lys Cys Arg Pro Asn
130 135 140

Val Ala His Arg Phe Ile Glu Asn Phe Cys Arg Tyr Thr Glu Val Val
145 150 155 160

Gly Thr Glu Ala Lys Leu Arg Glu Lys Asn Glu Val Leu Asp Ile Pro
165 170 175

Gly Tyr Val Ala Leu Arg Arg Glu Ile Ser Ala Val Arg Thr Cys Phe
180 185 190

Asp Leu Val Glu Tyr Cys Leu Asp Leu Asp Phe Pro Asp Tyr Val His
195 200 205

Lys Asp Pro Ile Phe Val Ile Gly Tyr Asn Ala Ala Met Asp Leu Val
210 215 220

Phe Trp Ala Asn Asp Leu Phe Ser Tyr Asn Ser Glu Gln Ala Lys Gly
225 230 235 240

His Ala Ala Ala Asn Val Val Thr Val Ile Met Thr Ser Lys Lys Met
245 250 255

Asn Leu Gln Ser Thr Val Asp Phe Ile Ala Gly Phe Cys Glu Ala Leu
260 265 270

Thr Phe Gln Leu Leu Asp Ala Lys Arg Ala Leu Ser Leu His Glu Asp
275 280 285

Pro Thr Phe Ser Arg Asp Ala Val Arg Cys Leu Glu Ala Phe Gly Asp
290 295 300

Trp Val Arg Gly Asn Asp Ala Trp Ser Phe Ala Thr Thr Arg Tyr Phe
305 310 315 320

Gly Pro Glu Asn Lys Ile Val Lys Glu Thr Arg Ile Val Lys Leu Lys
325 330 335

Ala Pro Val Glu Glu Ser Val Ala Leu Lys Glu
340 345

<210> 54
<211> 348
<212> PRT
<213> Dendrothele bispora

<400> 54

Met Ala Ser Lys Ser Pro Ser Pro Arg Thr Phe Tyr Leu Pro Arg Leu
1 5 10 15

7206664_1

Glu Asp Thr Phe Ser Val Phe Pro Asp Asn Gly Leu Asn Pro Asn Phe
 20 25 30
 Ala Ala Val Arg Pro Glu Ser Arg Ala Trp Ile Asn Gln Tyr Thr Lys
 35 40 45
 Leu Val Cys Gly Pro Lys Met Cys Ala Phe Met Asp Asn Cys Asn Phe
 50 55 60
 Glu Leu Ser Asn Ala Tyr Cys Tyr Pro Tyr Ala Glu Lys Pro Gly Leu
 65 70 75 80
 Arg Ala Ser Met Asp Leu Ala Asn Ile Leu Trp Leu Tyr Asp Glu Phe
 85 90 95
 Thr Asp Thr Glu Ser Gly Ala Glu Ala Gln Arg Ala Ala Ile Ile Val
 100 105 110
 His Arg Thr Leu Arg Glu Pro Asp Phe Asp Asp Gly Ser Trp Ile Cys
 115 120 125
 His Met Met Arg Asp Phe Arg Ile His His Val Asn Lys Ala Gly Pro
 130 135 140
 Asn Val Ala Arg Arg Phe Ile Asp Asn Phe Cys Ser Tyr Val Glu Val
 145 150 155 160
 Val Gly Thr Glu Ala Ile Leu Arg Glu Arg Lys Gln Val Leu Asp Ile
 165 170 175
 Pro Gly Tyr Val Lys Phe Arg Arg Glu Thr Ser Ala Val Arg Ala Cys
 180 185 190
 Phe Asp Leu Val Glu Tyr Ser Leu Gly Ile Asp Leu Pro Gln His Val
 195 200 205
 His Asp Asp Pro Val Phe Ile Ser Gly Tyr Asn Ala Ala Met Asp Leu
 210 215 220
 Val Phe Trp Ala Asn Asp Leu Phe Ser Tyr Asn Met Glu Gln Ala Lys
 225 230 235 240
 Gly His Gly Gly Ala Asn Val Val Thr Val Ile Met Lys Ser Lys Gly
 245 250 255
 Met Asp Ile Gln Ser Thr Val Asn Phe Leu Ala Gly Tyr Cys Glu Ala
 260 265 270
 Leu Thr Ala Gln Leu Leu Glu Ser Arg Arg Ile Leu Ala Ser Arg Pro
 275 280 285

7206664_1

Asp Pro Val Phe Asn Lys Asp Ala Val Arg Val Ile Asp Ala Phe Gly
 290 295 300

Asp Trp Val Arg Gly Asn Asp Gln Trp Ser Phe Ala Thr Glu Arg Tyr
 305 310 315 320

Phe Gly Lys Asp Asn Glu Thr Ile Lys Lys Thr Arg Ile Val Glu Ile
 325 330 335

Lys Glu Pro Phe Met Asp Ser Leu Ala Leu Asn Glu
 340 345

<210> 55

<211> 349

<212> PRT

<213> Moniliophthora roreri

<400> 55

Met Ala Arg Ile Ile Val Ile Pro Asp Phe Glu Ser Met Cys Ser Val
 1 5 10 15

Leu Pro Asn Gly Gly Val Asn Pro His His Asp Glu Ala Phe Thr Glu
 20 25 30

Ala Arg Cys Trp Ile Ala Gln Tyr His Asn Ser Asp Phe Gly Pro Asn
 35 40 45

Met Thr Ala Phe Met Glu Ser Cys Lys Phe Glu Leu Ala Gly Ser Tyr
 50 55 60

Thr Tyr Pro His Leu Asp Lys Tyr Gly Leu Arg Ala Thr Met Asp Trp
 65 70 75 80

Leu Asn Ile Leu Trp Phe Phe Asp Glu Val Thr Asp Thr Glu Thr Gly
 85 90 95

Lys Asp Ala Arg Arg Ser Ala Asp Ile Val Cys His Thr Leu Arg Asp
 100 105 110

Ser Glu Tyr Asn Asp Gly Thr Ser Leu Cys Arg Met Ile Thr Asp Phe
 115 120 125

Arg Ile Asp His Leu Ser Arg Ala Gly Pro Glu Thr Thr Arg Arg Phe
 130 135 140

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

Phe Arg Glu Gln Gly Thr Val Leu Ser Val Glu Glu Tyr Leu Val His
 165 170 175

Arg Lys Glu Thr Ser Gly Val Arg Val Cys Tyr Asp Met Ala Glu Phe
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185

190

Cys Ile Gly Ile Asp Leu Pro Gly Ala Ile Tyr Asp Met Glu Asp Phe
 195 200 205

Arg Lys Gly Tyr Glu Ala Ser Leu Asp Phe Val Cys Leu Ser Asn Asp
 210 215 220

Leu Phe Ser Tyr Asn Ala Glu Gln Ser Lys Gly His Ser Gly Phe Asn
 225 230 235 240

Ile Leu Thr Val Leu Ile Lys Ala Lys Ser Ile Glu Leu Gln Glu Ala
 245 250 255

Ala Asp Tyr Val Gly Ser Leu Cys Thr Asn Leu Leu Thr Glu Phe Arg
 260 265 270

Glu Ser Gln Gln Val Ile Glu Glu Cys Ala Arg Thr Ala Lys Asp Glu
 275 280 285

Ala Ser Ala Asn Thr Phe Arg Asp Ala Leu Cys Val Leu Glu Ala Tyr
 290 295 300

Gly His Trp Val Arg Gly Gly Ile Glu Trp Ser Phe Glu Ser Glu Arg
 305 310 315 320

Tyr Phe Gly Lys Glu Asn Lys Met Val Arg Lys Ser Leu Thr Val Val
 325 330 335

Leu Ser Gln Ala Asp Ser Val Ser Arg Pro Leu His Ser
 340 345

<210> 56

<211> 352

<212> PRT

<213> Moniliophthora roreri

<400> 56

Met Val Tyr Thr Ser Ser Pro Ser Phe Thr Leu Pro Asp Leu Glu Gly
 1 5 10 15

Met Phe Ser Ile Leu Pro Asn Trp Gly Arg Asn Pro Tyr His Glu Ala
 20 25 30

Ala Arg Glu Glu Ser Arg Arg Trp Phe Ala Glu Tyr Thr Glu Thr Thr
 35 40 45

Phe Gly Pro Lys Met Thr Ala Phe Phe Glu Asn Cys Glu Phe Glu Leu
 50 55 60

Cys Met Ser Tyr Cys Tyr Pro Gln Leu Asp Tyr Glu Gly Leu Arg Ala
 65 70 75 80

7206664_1

Val Val Asp Trp Ala Asn Ile Leu Trp Tyr Leu Asp Glu Leu Thr Asp
 85 90 95
 Thr Glu Thr Gly Lys Asp Ala Gly Gln Thr Ala Glu Ile Val Cys Arg
 100 105 110
 Thr Leu Arg Asp Pro Cys Tyr Asn Asp Gly Thr Ser Leu Cys Arg Met
 115 120 125
 Ile Thr Asp Phe Arg Val Asn His Leu Ser Arg Ala Gly Pro Glu Thr
 130 135 140
 Thr Arg Arg Phe Ile Glu His Cys Arg Lys Thr Phe Phe Ala Phe Ser
 145 150 155 160
 Asp Glu Ala Glu Leu Arg Ala Arg Arg Val Ile Leu Ser Ile Asn Asp
 165 170 175
 Tyr Leu Thr Leu Arg Arg Glu Asn Gly Ser Val Arg Asn Cys Phe Asp
 180 185 190
 Leu Ala Glu Cys Phe Met Gly Leu Asp Leu Pro Glu Ser Val Tyr Arg
 195 200 205
 Leu Pro Asp Phe Arg Lys Ala Tyr Glu Ala Ala Val Asp Leu Val Cys
 210 215 220
 Leu Thr Asn Asp Val Tyr Ser Tyr Asn Ala Glu Gln Ala Arg Gly Tyr
 225 230 235 240
 Pro Ser Ser Asn Ile Met Thr Val Val Met Lys Glu Lys Gly Leu Gly
 245 250 255
 Leu Gln Glu Ala Ser Asp Tyr Val Gly Ser Leu Cys Arg Lys Leu Phe
 260 265 270
 Asp Ile Phe Gln Ala Ser Gln Arg Glu Ile Gln Lys Leu Ala Tyr Asn
 275 280 285
 Thr Asp Gly Ala Ser Val Asn Val Leu Arg Asp Ala Leu Arg Gly Leu
 290 295 300
 Glu Ala Tyr Gly His Trp Val Arg Gly Asn Ala Glu Trp Ser Phe Glu
 305 310 315 320
 Thr Glu Arg Tyr Phe Gly Arg Asp Lys Lys Lys Ile Gln Ser Ser Leu
 325 330 335
 Val Val Val Leu Trp Pro Ala Asn Ser Val Ser Arg Ser Leu Glu Gln
 340 345 350

<210> 57
 <211> 389
 <212> PRT
 <213> Agrocybe aegerita

<400> 57

Met Val Trp Asp Phe Val Leu Ser Leu Phe His Ser Leu Leu Ala Ala
 1 5 10 15

Phe Gln Thr Leu Thr Ser Trp Leu Thr Gly Ser Phe Leu Phe Asn Asn
 20 25 30

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

Asp Leu Glu Lys Thr Phe Asn Ser Leu Pro Asp Asp Gly Leu Asn Pro
 50 55 60

His His Asp Val Ala Cys Ala Glu Ser Arg Glu Trp Phe Ala Lys Tyr
 65 70 75 80

Asn Lys Lys Val Leu Gly Ala Gln Met Gln Glu Phe Phe Arg Arg Cys
 85 90 95

Lys Phe Glu Leu Ile Thr Ser Tyr Thr Tyr Pro Tyr Val Asp Lys Glu
 100 105 110

Gly Leu Arg Ala Thr Met Asp Trp His Asn Ile Leu Trp Phe Phe Asp
 115 120 125

Glu Val Thr Asp Thr Glu Thr Gly Lys Asp Ala His Lys Ser Ala Ile
 130 135 140

Ile Thr Ile Arg Thr Leu Arg Glu Pro Asp Phe Asp Asp Gly Ser Ser
 145 150 155 160

Leu Cys Arg Met Val Arg Asp Phe Arg Leu Ser His Leu Ser Arg Ala
 165 170 175

Gly Pro Glu Cys Thr Arg Arg Phe Leu Glu His Cys Asp Val Ala Phe
 180 185 190

His Ala Gly Ala Val Glu Ala Glu Leu Arg Glu Lys Gly Glu Val Leu
 195 200 205

Ser Ile Glu Gly Tyr Leu Lys Leu Arg Arg Glu Thr Ser Gly Ala Arg
 210 215 220

Thr Cys Phe Asp Met Ala Glu Tyr Leu Met Asp Ile Asp Leu Pro Gln
 225 230 235 240

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Asp Met Tyr Asp Asp Pro Val Phe Gln Lys Gly Tyr Ile Ala Ala Leu
245 250 255

Asp Leu Ile Phe Leu Ala Asn Asp Leu Tyr Ser Tyr Asn Met Glu Gln
260 265 270

Ala Lys Gly His Asn Gly Ala Asn Val Leu Thr Val Val Met Lys Glu
275 280 285

Thr Lys Leu Asn Leu Gln Ser Ala Ala Asp Tyr Val Gly Val Leu Cys
290 295 300

Glu Lys Leu Ile Lys Gln Phe Gln Glu Ala Lys Ser Thr Leu Glu Asn
305 310 315 320

Arg Leu Ala Lys Glu Lys Asn Pro Ala Lys Ala Ala Ala Leu Lys Asp
325 330 335

Ala Ile Arg Ser Leu Val Gly Tyr Gly His Trp Val Arg Gly Asn Val
340 345 350

Glu Trp Ser Phe Glu Thr Glu Arg Tyr Phe Gly Lys Lys Asn Lys Glu
355 360 365

Ile Lys Lys Ser Arg Val Val Thr Leu Thr Pro Thr Asn Ser Val Asn
370 375 380

Arg Ala Leu Lys Ala
385

<210> 58
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream sequence

<400> 58
aacaggagga attaaccacg acggaagcgt caaagcacac taaatagact

50

<210> 59
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Upstream sequence

<400> 59
actatagggg aattgtgagc ggataacaat tcccctccac taaatagact

50

<210> 60
<211> 15
<212> DNA

<213> Artificial Sequence

<220>

<223> RBS sequence

<220>

<221> misc_feature

<222> (1)..(1)

<223> w is a or t

<220>

<221> misc_feature

<222> (2)..(2)

<223> d is a, g or t

<400> 60

wdgaagaggc ctaaa

15

<210> 61

<211> 15

<212> DNA

<213> Artificial Sequence

<220>

<223> RBS sequence

<220>

<221> misc_feature

<222> (1)..(1)

<223> n is a, c, g, or t

<220>

<221> misc_feature

<222> (2)..(2)

<223> k is g or t

<220>

<221> misc_feature

<222> (5)..(5)

<223> r is a or g

<400> 61

nkaargaggt ataaa

15

<210> 62

<211> 1311

<212> DNA

<213> Artificial Sequence

<220>

<223> Codon optimized VS sequence with N-terminal 6-histidine tag

<400> 62

atgcatcacc atcaccatca cgctagctcc ctgctggaac cgtctctggc tgcaatcgcg 60

ctggtgatcc tgctggcgag cgtgagcctg agccgcaaaa aacgccctgc cgccccggaa 120

ccgcaaggct tgtcagttct gggcaacctg ttcgacattc cgaaacgggc ttccagcatc 180

atttacctgg ctctgggcaa accgtacaac actctgacca agcgcgcggg gtcgcagctg 240

caaggttata ctccgggctc tcacatcgat gcaacgagcc atagcccgcg cgtttttcgc 300

ctgccaacc tggaagaaac cttctccgtc ttcccgacc acggtctgaa cccgaactat 360

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accagcgctc gtactgatag ccgcgcttgg atcaaccagt acaccaaggt tgtttgcggt 420
ccgaaaatgg tcgcatttat gaacaactgt gaatttgaac tgtcgaattc acactgctac 480
ccgtacgccg gttacaaagg tctgaaagct accatggacc ttaccaacat tctgtggttg 540
tatgatgaat ataccgacac tggttccggt gctgaagcgg taaaggcagc cggtatcggt 600
gctcgcgccc tgcgcgaacc agattacgat gatgggacct gggtttgccg tatgatgaag 660
tccttcaaac aaaaccacat cgacaaagct ggtccgggtg tcgcgcgctc ttttattgac 720
aacttctgca actatgtaga agtggtgggt cgcaagctg aactgcgcga gaaaaacgaa 780
gttctggata tccccaaacta cgtaactttc cgtcgtgaaa cctcagcagt ccgcacctgt 840
tttgatctgg ttgaatattg cctggatctg gacctgcctc aatacgttca tgatgacctg 900
gtttttatct ccggctacaa tgctggcatg gacctggtct tttgggcgaa cgacttggtt 960
tcttacaaca tggaacagtc taagggccat tccggcgcta acgttgttac tgtcatcatg 1020
aagagcaaag gtgttgacct gcagaccgcc gtagactttc tgggcgggcta ctgtgaggca 1080
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tctcgcgatg ttgttcgtct gatggatgcg ttcggtgatt gggtagcgcg caatgtggct 1200
tggtcttttg aaaccgaacg ctatttcggt aaagaaaaca aacgcgttaa agaaaccctg 1260
ctggtggagc tgaaggaacc gttcgtaggt gcgctggcct taaaagaata a 1311

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<210> 63
<211> 1059
<212> DNA
<213> Artificial Sequence

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<220>
<223> Truncated VS (del2-85) sequence with N-terminal 6-histidine tag

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<400> 63
atgcatcacc atcaccatca cacgagccat agcccgcgcg tttttcgcct gcccaacctg 60
gaagaaacct tctccgtctt cccggaccac ggtctgaacc cgaactatac cagcgctcgt 120
actgatagcc gcgcttggat caaccagtac accaagggtg tttgcgggtc gaaaatggtc 180
gcatttatga acaactgtga atttgaactg tcgaattcac actgctaccc gtacgccggt 240
tacaaaggct tgaaagctac catggacctt accaacattc tgtggttgta tgatgaatat 300
accgacactg gttccggtgc tgaagcggta aaggcagccg gtatcgttgc tcgcgccctg 360
cgcgaaaccag attacgatga tgggacctgg gtttgccgta tgatgaagtc cttcaaacia 420
aaccacatcg acaaagctgg tccgggtgtc gcgcgtcggt ttattgacaa cttctgcaac 480
tatgtagaag tgggtgggtcg cgaagctgaa ctgcgcgaga aaaacgaagt tctggatata 540
cccaactacg taactttccg tcgtgaaacc tcagcagtcg gcacctgttt tgatctgggt 600
gaatattgcc tggatctgga cctgcctcaa tacgttcatg atgacctgggt ttttatttcc 660
ggctacaatg ctggcatgga cctggtcttt tgggcgaacg acttggtttc ttacaacatg 720
gaacagtcta agggccattc cggcgctaac gttgttactg tcatcatgaa gagcaaaggt 780

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gttgacctgc agaccgccgt agactttctg ggcggctact gtgaggcact cactgcccag	840
ctgctggaag ctaaacgcat tctccaggcg cgtagcgatg cggcctactc tcgcgatggt	900
gttcgtctga tggatgcgtt cggtgattgg gtacgcggca atgtggcttg gtcttttgaa	960
accgaacgct atttcggtaa agaaaacaaa cgcgttaaag aaaccctgct ggtggagctg	1020
aaggaaccgt tcgtaggtgc gctggcctta aaagaataa	1059