

PhoenixTemp56525.tmp.txt  
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<160> 2  
<170> PatentIn version 3.5  
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<212> PRT  
<213> Bacillus sp.

<220>  
<221> mat\_peptide  
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35 40 45

Asn Thr Val Arg Ile Val Leu Ser Asp Gly Gly Gln Trp Thr Lys Asp  
50 55 60

Asp Ile His Thr Val Arg Asn Leu Ile Ser Leu Ala Glu Asp Asn His  
65 70 75 80

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

Ala Ser Leu Asn Arg Ala Val Asp Tyr Trp Ile Glu Met Arg Ser Ala  
100 105 110

Leu Ile Gly Lys Glu Asp Thr Val Ile Ile Asn Ile Ala Asn Glu Trp  
115 120 125

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

Ile Pro Arg Leu Arg Asn Ala Gly Leu Asn His Thr Leu Met Val Asp  
145 150 155 160

Ala Ala Gly Trp Gly Gln Phe Pro Gln Ser Ile His Asp Tyr Gly Arg  
165 170 175

Glu Val Phe Asn Ala Asp Pro Gln Arg Asn Thr Met Phe Ser Ile His  
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180

185

190

Met Tyr Glu Tyr Ala Gly Gly Asn Ala Ser Gln Val Arg Thr Asn Ile  
 195 200 205

Asp Arg Val Leu Asn Gln Asp Leu Ala Leu Val Ile Gly Glu Phe Gly  
 210 215 220

His Arg His Thr Asn Gly Asp Val Asp Glu Ala Thr Ile Met Ser Tyr  
 225 230 235 240

Ser Glu Gln Arg Gly Val Gly Trp Leu Ala Trp Ser Trp Lys Gly Asn  
 245 250 255

Gly Pro Glu Trp Glu Tyr Leu Asp Leu Ser Asn Asp Trp Ala Gly Asn  
 260 265 270

Asn Leu Thr Ala Trp Gly Asn Thr Ile Val Asn Gly Pro Tyr Gly Leu  
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Gly Gly Thr Ser Pro  
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Ser Gln Val His Leu Asp Leu Leu Arg Ala Gly Val Ile Gly Glu Tyr  
 30 35 40

His Gly Leu Asn Asp Phe Asn Leu Arg Trp Ile Ala Ala Ala Asn Trp  
 45 50 55

Thr Tyr Thr Ser Gln Pro Ile Lys Gly Leu Leu Asp Asn Tyr Asp Ser  
 60 65 70 75

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Thr Trp Leu Val Phe Asp Gly Leu Asp Thr Phe Ala Thr Ile Ser Phe  
80 85 90

Cys Gly Gln Gln Ile Ala Ser Thr Asp Asn Gln Phe Arg Gln Tyr Ala  
95 100 105

Phe Asp Val Ser Thr Ala Leu Gly Ser Cys Lys Gly Asp Pro Val Leu  
110 115 120

Ser Ile Asn Phe Gly Ser Ala Pro Asn Ile Val Asp Ala Ile Ala Gln  
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Asp Ser Asn Ser Gln Lys Trp Pro Asp Asp Val Gln Leu Thr Tyr Glu  
140 145 150 155

Tyr Pro Asn Arg Trp Phe Met Arg Lys Glu Gln Ser Asp Phe Gly Trp  
160 165 170

Asp Trp Gly Pro Ala Phe Ala Pro Ala Gly Pro Trp Lys Pro Ala Tyr  
175 180 185

Ile Val Gln Leu Asp Lys Lys Glu Ser Val Tyr Val Leu Asn Thr Asp  
190 195 200

Leu Asp Ile Tyr Arg Lys Gly Gln Ile Asn Tyr Leu Pro Pro Asp Gln  
205 210 215

Ser Gln Pro Trp Val Val Asn Ala Ser Ile Asp Ile Leu Gly Pro Leu  
220 225 230 235

Pro Thr Lys Pro Thr Met Ser Ile Glu Val Arg Asp Thr His Ser Gly  
240 245 250

Thr Ile Leu Thr Ser Arg Thr Leu Asn Asn Val Ser Val Ala Gly Asn  
255 260 265

Ala Ile Thr Gly Val Thr Val Leu Asp Gly Leu Thr Pro Lys Leu Trp  
270 275 280

Trp Pro Gln Gly Leu Gly Asp Gln Asn Leu Tyr Asn Val Ser Ile Thr  
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Val Gln Ser Arg Gly Asn Gln Thr Val Ala Ser Val Asn Lys Arg Thr  
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Gly Phe Arg Thr Ile Phe Leu Asn Gln Arg Asn Ile Thr Glu Ala Gln  
320 325 330

Arg Ala Gln Gly Ile Ala Pro Gly Ala Asn Trp His Phe Glu Val Asn  
335 340 345

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Gly His Glu Phe Tyr Ala Lys Gly Ser Asn Leu Ile Pro Pro Asp Ser  
350 355 360

Phe Trp Thr Arg Val Thr Glu Glu Lys Met Ser Arg Leu Phe Asp Ala  
365 370 375

Val Val Val Gly Asn Gln Asn Met Leu Arg Val Trp Ser Ser Gly Ala  
380 385 390 395

Tyr Leu His Asp Tyr Ile Tyr Asp Leu Ala Asp Glu Lys Gly Ile Leu  
400 405 410

Leu Trp Ser Glu Phe Glu Phe Ser Asp Ala Leu Tyr Pro Ser Asp Asp  
415 420 425

Ala Phe Leu Glu Asn Val Ala Ala Glu Ile Val Tyr Asn Val Arg Arg  
430 435 440

Val Asn His His Pro Ser Leu Ala Leu Trp Ala Gly Gly Asn Glu Ile  
445 450 455

Glu Ser Leu Met Leu Pro Arg Val Lys Asp Ala Ala Pro Ser Ser Tyr  
460 465 470 475

Ser Tyr Tyr Val Gly Glu Tyr Glu Lys Met Tyr Ile Ser Leu Phe Leu  
480 485 490

Pro Leu Val Tyr Glu Asn Thr Arg Ser Ile Ser Tyr Ser Pro Ser Ser  
495 500 505

Thr Thr Glu Gly Tyr Leu Tyr Ile Asp Leu Ser Ala Pro Val Pro Met  
510 515 520

Ala Glu Arg Tyr Asp Asn Thr Thr Ser Gly Ser Tyr Tyr Gly Asp Thr  
525 530 535

Asp His Tyr Asp Tyr Asp Thr Ser Val Ala Phe Asp Tyr Gly Ser Tyr  
540 545 550 555

Pro Val Gly Arg Phe Ala Asn Glu Phe Gly Phe His Ser Met Pro Ser  
560 565 570

Leu Gln Thr Trp Gln Gln Ala Val Asp Thr Glu Asp Leu Tyr Phe Asn  
575 580 585

Ser Ser Val Val Met Leu Arg Asn His His Asp Pro Ala Gly Gly Leu  
590 595 600

Met Thr Asp Asn Tyr Ala Asn Ser Ala Thr Gly Met Gly Glu Met Thr  
605 610 615

Met Gly Val Val Ser Tyr Tyr Pro Ile Pro Ser Lys Ser Asp His Ile  
620 625 630 635

Ser Asn Phe Ser Ala Trp Cys His Ala Thr Gln Leu Phe Gln Ala Asp  
640 645 650

Met Tyr Lys Ser Gln Ile Gln Phe Tyr Arg Arg Gly Ser Gly Met Pro  
655 660 665

Glu Arg Gln Leu Gly Ser Leu Tyr Trp Gln Leu Glu Asp Ile Trp Gln  
670 675 680

Ala Pro Ser Trp Ala Gly Ile Glu Tyr Gly Gly Arg Trp Lys Val Leu  
685 690 695

His His Val Met Arg Asp Ile Tyr Gln Pro Val Ile Val Ser Pro Phe  
700 705 710 715

Trp Asn Tyr Thr Thr Gly Ser Leu Asp Val Tyr Val Thr Ser Asp Leu  
720 725 730

Trp Ser Pro Ala Ala Gly Thr Val Asp Leu Thr Trp Leu Asp Leu Ser  
735 740 745

Gly Arg Pro Ile Ala Gly Asn Ala Gly Thr Pro Lys Ser Val Pro Phe  
750 755 760

Thr Val Gly Gly Leu Asn Ser Thr Arg Ile Tyr Gly Thr Asn Val Ser  
765 770 775

Ser Leu Gly Leu Pro Asp Thr Lys Asp Ala Val Leu Ile Leu Ser Leu  
780 785 790 795

Ser Ala His Gly Arg Leu Pro Asn Ser Asp Arg Thr Thr Asn Leu Thr  
800 805 810

His Glu Asn Tyr Ala Thr Leu Ser Trp Pro Lys Asp Leu Lys Ile Val  
815 820 825

Asp Pro Gly Leu Lys Ile Gly His Ser Ser Lys Lys Thr Thr Val Thr  
830 835 840

Val Glu Ala Thr Ser Gly Val Ser Leu Tyr Thr Trp Leu Asp Tyr Pro  
845 850 855

Glu Gly Val Val Gly Tyr Phe Glu Glu Asn Ala Phe Val Leu Ala Pro  
860 865 870 875

Gly Glu Lys Lys Glu Ile Ser Phe Thr Val Leu Glu Asp Thr Thr Asp  
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Gly Ala Trp Val Arg Asn Ile Thr Val Gln Ser Leu Trp Asp Gln Lys  
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895 PhoenixTemp56525.tmp.txt  
900 905

Val Arg Gly  
910