SEQUENCE LISTING

<110> INTRON BIOTECHNOLOGY, INC.

<120> Freeze-dried Formulations of Antibacterial Protein

<130> 0037-002PCT

<150> US 62/277,588
<151> 2016-01-12

<160> 3

<170> PatentIn version 3.5

<210> 1
<211> 495
<212> PRT
<213> Artificial Sequence

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<223> antibacterial composition

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Lys Gly Thr Val Asp Ser Pro Tyr Arg Ile Lys Lys Ala Thr Ser Tyr
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Asp Pro Ser Phe Gly Val Met Glu Ala Gly Ala Ile Asp Ala Asp Gly
        35                  40                  45


Tyr Tyr His Ala Gln Cys Gln Asp Leu Ile Thr Asp Tyr Val Leu Trp
    50                  55                  60


Leu Thr Asp Asn Lys Val Arg Thr Trp Gly Asn Ala Lys Asp Gln Ile
65                  70                  75                  80


Lys Gln Ser Tyr Gly Thr Gly Phe Lys Ile His Glu Asn Lys Pro Ser
                85                  90                  95
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Thr Val Pro Lys Lys Gly Trp Ile Ala Val Phe Thr Ser Gly Ser Tyr
            100                 105                 110

Gln Gln Trp Gly His Ile Gly Ile Val Tyr Asp Gly Gly Asn Thr Ser
        115                 120                 125

Thr Phe Thr Ile Leu Glu Gln Asn Trp Asn Gly Tyr Ala Asn Lys Lys
    130                 135                 140

Pro Thr Lys Arg Val Asp Asn Tyr Tyr Gly Leu Thr His Phe Ile Glu
145                 150                 155                 160

Ile Pro Val Lys Ala Gly Thr Thr Val Lys Lys Glu Thr Ala Lys Lys
                165                 170                 175

Ser Ala Ser Lys Thr Pro Ala Pro Lys Lys Lys Ala Thr Leu Lys Val
            180                 185                 190

Ser Lys Asn His Ile Asn Tyr Thr Met Asp Lys Arg Gly Lys Lys Pro
        195                 200                 205

Glu Gly Met Val Ile His Asn Asp Ala Gly Arg Ser Ser Gly Gln Gln
    210                 215                 220

Tyr Glu Asn Ser Leu Ala Asn Ala Gly Tyr Ala Arg Tyr Ala Asn Gly
225                 230                 235                 240

Ile Ala His Tyr Tyr Gly Ser Glu Gly Tyr Val Trp Glu Ala Ile Asp
                245                 250                 255

Ala Lys Asn Gln Ile Ala Trp His Thr Gly Asp Gly Thr Gly Ala Asn
            260                 265                 270

Ser Gly Asn Phe Arg Phe Ala Gly Ile Glu Val Cys Gln Ser Met Ser
        275                 280                 285
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Ala Ser Asp Ala Gln Phe Leu Lys Asn Glu Gln Ala Val Phe Gln Phe
    290                 295                 300

Thr Ala Glu Lys Phe Lys Glu Trp Gly Leu Thr Pro Asn Arg Lys Thr
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Val Arg Leu His Met Glu Phe Val Pro Thr Ala Cys Pro His Arg Ser
                325                 330                 335

Met Val Leu His Thr Gly Phe Asn Pro Val Thr Gln Gly Arg Pro Ser
            340                 345                 350

Gln Ala Ile Met Asn Lys Leu Lys Asp Tyr Phe Ile Lys Gln Ile Lys
        355                 360                 365

Asn Tyr Met Asp Lys Gly Thr Ser Ser Ser Thr Val Val Lys Asp Gly
    370                 375                 380

Lys Thr Ser Ser Ala Ser Thr Pro Ala Thr Arg Pro Val Thr Gly Ser
385                 390                 395                 400

Trp Lys Lys Asn Gln Tyr Gly Thr Trp Tyr Lys Pro Glu Asn Ala Thr
                405                 410                 415

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

Leu Asn Ala Pro Val Gly Gly Asn Leu Pro Ala Gly Ala Thr Ile Val
        435                 440                 445

Tyr Asp Glu Val Cys Ile Gln Ala Gly His Ile Trp Ile Gly Tyr Asn
    450                 455                 460

Ala Tyr Asn Gly Asn Arg Val Tyr Cys Pro Val Arg Thr Cys Gln Gly
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Val Pro Pro Asn His Ile Pro Gly Val Ala Trp Gly Val Phe Lys
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<223> antibacterial composition

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Gly Thr Val Asp Ser Pro Tyr Arg Ile Lys Lys Ala Thr Ser Tyr Asp
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Pro Ser Phe Gly Val Met Glu Ala Gly Ala Ile Asp Ala Asp Gly Tyr
35 40 45

Tyr His Ala Gln Cys Gln Asp Leu Ile Thr Asp Tyr Val Leu Trp Leu
50 55 60

Thr Asp Asn Lys Val Arg Thr Trp Gly Asn Ala Lys Asp Gln Ile Lys
65 70 75 80

Gln Ser Tyr Gly Thr Gly Phe Lys Ile His Glu Asn Lys Pro Ser Thr
85 90 95

Val Pro Lys Lys Gly Trp Ile Ala Val Phe Thr Ser Gly Ser Tyr Gln
100 105 110

Gln Trp Gly His Ile Gly Ile Val Tyr Asp Gly Gly Asn Thr Ser Thr
115 120 125

Phe Thr Ile Leu Glu Gln Asn Trp Asn Gly Tyr Ala Asn Lys Lys Pro

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    130                 135                 140

Thr Lys Arg Val Asp Asn Tyr Tyr Gly Leu Thr His Phe Ile Glu Ile
145                 150                 155                 160

Pro Val Lys Ala Gly Thr Thr Val Lys Lys Glu Thr Ala Lys Lys Ser
                165                 170                 175

Ala Ser Lys Thr Pro Ala Pro Lys Lys Lys Ala Thr Leu Lys Val Ser
            180                 185                 190

Lys Asn His Ile Asn Tyr Thr Met Asp Lys Arg Gly Lys Lys Pro Glu
        195                 200                 205

Gly Met Val Ile His Asn Asp Ala Gly Arg Ser Ser Gly Gln Gln Tyr
    210                 215                 220

Glu Asn Ser Leu Ala Asn Ala Gly Tyr Ala Arg Tyr Ala Asn Gly Ile
225                 230                 235                 240

Ala His Tyr Tyr Gly Ser Glu Gly Tyr Val Trp Glu Ala Ile Asp Ala
                245                 250                 255

Lys Asn Gln Ile Ala Trp His Thr Gly Asp Gly Thr Gly Ala Asn Ser
            260                 265                 270

Gly Asn Phe Arg Phe Ala Gly Ile Glu Val Cys Gln Ser Met Ser Ala
        275                 280                 285

Ser Asp Ala Gln Phe Leu Lys Asn Glu Gln Ala Val Phe Gln Phe Thr
    290                 295                 300

Ala Glu Lys Phe Lys Glu Trp Gly Leu Thr Pro Asn Arg Lys Thr Val
305                 310                 315                 320

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

Thr Ser Ser Ala Ser Thr Pro Ala Thr Arg Pro Val Thr Gly Ser Trp
385 390 395 400

Lys Lys Asn Gln Tyr Gly Thr Trp Tyr Lys Pro Glu Asn Ala Thr Phe
405 410 415

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

Asn Ala Pro Val Gly Gly Asn Leu Pro Ala Gly Ala Thr Ile Val Tyr
435 440 445

Asp Glu Val Cys Ile Gln Ala Gly His Ile Trp Ile Gly Tyr Asn Ala
450 455 460

Tyr Asn Gly Asn Arg Val Tyr Cys Pro Val Arg Thr Cys Gln Gly Val
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Pro Pro Asn His Ile Pro Gly Val Ala Trp Gly Val Phe Lys
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<211> 1488
<212> DNA
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<223> antibacterial composition

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gcaggagcaa ttgacgcaga tggttactat catgcacagt gccaagactt aattactgat 180

tatgtattat ggttaacaga taataaagtt agaacttggg gtaatgctaa agaccaaatc 240

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aaaggatgga ttgctgtatt tacatccggt agttatcagc aatggggtca cataggtatt 360

gtatatgatg gaggtaatac ttctacattt actattttag agcaaaactg gaacggttac 420

gctaataaaa aacctacaaa acgtgtagat aattattacg gattaactca ttttattgag 480

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