

BL67883PC- sequence listing.TXT  
SEQUENCE LISTING

<110> SYGNIS Bioscience GmbH & Co. KG  
<120> Compounds and methods for improving anxiety disorders  
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<151> 2011-09-21  
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Asp Phe Asp Gly Lys Val Tyr Tyr Ile Asp His Thr Asn Arg Thr Thr  
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Ser Trp Ile Asp Pro Arg Asp Arg Tyr Thr Lys Pro Leu Thr Phe Ala  
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Asp Cys Ile Ser Asp Glu Leu Pro Leu Gly Trp Glu Glu Ala Tyr Asp  
50 55 60  
cca cag gtt gga gat tac ttc ata gac cac aac acc aaa acc act cag 240  
Pro Gln Val Gly Asp Tyr Phe Ile Asp His Asn Thr Lys Thr Thr Gln  
65 70 75 80  
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Ile Glu Asp Pro Arg Val Gln Trp Arg Arg Glu Gln Glu His Met Leu  
85 90 95  
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Lys Asp Tyr Leu Val Val Ala Gln Glu Ala Leu Ser Ala Gln Lys Glu  
100 105 110  
atc tac cag gtg aag cag cag cgc ctg gag ctt gca cag cag gag tac 384  
Ile Tyr Gln Val Lys Gln Gln Arg Leu Glu Leu Ala Gln Gln Glu Tyr  
115 120 125  
cag caa ctg cat gcc gtc tgg gag cat aag ctg ggc tcc cag gtc agc 432  
Gln Gln Leu His Ala Val Trp Glu His Lys Leu Gly Ser Gln Val Ser  
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cag acc ctg aag aaa atc gat aag aaa atg tct gat gct cag ggc agc Gln Thr Leu Lys Lys Ile Asp Lys Lys Met Ser Asp Ala Gly Ser 195 200 205	624
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Leu Ser Ser Gly Ser Ser Pro Gly Ser Leu Thr Ser Ser Arg Gly Ser	
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Leu Tyr Tyr Asp Pro Phe Glu Gln Leu Asp Ser Glu Leu Gln Ser Lys	
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gcc Ala	cca Pro	tcc Ser	ccc Pro 900	aca Thr	gtg Val	gtg Val	cga Arg	cct Pro 905	aag Lys	gac Asp	cgg Arg	aga Arg	gtg Val 910	ggc Gly	acc Thr	2736
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acc Thr	ttc Phe 930	tcc Ser	cca Pro	gga Gly	ccc Pro	cag Gln 935	agc Ser	cag Gln	tac Tyr	gtg Val	tgc Cys 940	cgg Arg	ctg Leu	aat Asn	cgg Arg	2832
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          755          760          765
Glu Val Cys Arg Ser Gly Glu Arg Ser Thr Arg Trp Tyr Asn Leu Leu
          770          775          780
Ser Tyr Lys Tyr Leu Lys Lys Gln Ser Arg Glu Leu Lys Pro Val Gly
785          790          795          800
Val Met Ala Pro Ala Ser Gly Pro Ala Ser Thr Asp Ala Val Ser Ala
          805          810          815
Leu Leu Glu Gln Thr Ala Val Glu Leu Glu Lys Arg Gln Glu Gly Arg
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Ser Ser Thr Gln Thr Leu Glu Asp Ser Trp Arg Tyr Glu Glu Thr Ser
          835          840          845
Glu Asn Glu Ala Val Ala Glu Glu Glu Glu Glu Val Glu Glu Glu
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Glu Gly Glu Glu Asp Val Phe Thr Glu Lys Ala Ser Pro Asp Met Asp
865          870          875          880
Gly Tyr Pro Ala Leu Lys Val Asp Lys Glu Thr Asn Thr Glu Thr Pro
          885          890          895
Ala Pro Ser Pro Thr Val Val Arg Pro Lys Asp Arg Arg Val Gly Thr
          900          905          910
Pro Ser Gln Gly Pro Phe Leu Arg Gly Ser Thr Ile Ile Arg Ser Lys
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Thr Phe Ser Pro Gly Pro Gln Ser Gln Tyr Val Cys Arg Leu Asn Arg
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945          950          955          960
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Lys Ser Leu Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu
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Leu Asp Leu Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu
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Ile Ser Val Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser
1010          1015          1020
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His Lys Gly Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys
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Glu Arg Arg Ser Val Arg Met Lys Arg  
20 25

<210> 16  
<211> 25  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Construct

<220>  
<223> [CDS]:1..75 from SEQ ID NO 15

<400> 16  
Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn Ser Leu  
1 5 10 15  
Glu Arg Arg Ser Val Arg Met Lys Arg  
20 25

<210> 17  
<211> 81  
<212> DNA  
<213> Artificial Sequence

BL67883PC- sequence listing.TXT

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<220>
<221> source
<222> 1..81
<223> /mol_type="unassigned DNA"
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      /organism="Artificial Sequence"

<220>
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<222> 1..81
<223> /transl_table=1

<400> 17
gat agt gac agc tcc act ctg tcc aaa aag cca cct ttt gtt cga aac      48
Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn
1                               5                               10                               15

tcc ctg gag cga cgc agc gtc cgg atg aag cgg      81
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg
                20                25

<210> 18
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..81 from SEQ ID NO 17

<400> 18
Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn
1                               5                               10                               15
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg
                20                25

<210> 19
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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      /organism="Artificial Sequence"

<220>
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<222> 1..54
<223> /transl_table=1

<400> 19
ttt gtt cga aac tcc ctg gag cga cgc agc gtc cgg atg aag cgg cct      48
Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro
1                               5                               10                               15

tcc tcg      54
Ser Ser

<210> 20
<211> 18
<212> PRT
<213> Artificial Sequence

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BL67883PC- sequence listing.TXT

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<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..54 from SEQ ID NO 19

<400> 20
Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro
1          5          10          15
Ser Ser

<210> 21
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..60
<223> /mol_type="unassigned DNA"
      /note="nucleic acid encoding artificial peptide"
      /organism="Artificial Sequence"

<220>
<221> CDS
<222> 1..60
<223> /transl_table=1

<400> 21
cca cct ttt gtt cga aac tcc ctg gag cga cgc agc gtc cgg atg aag      48
Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys
1          5          10          15

cgg cct tcc tcg      60
Arg Pro Ser Ser
          20

<210> 22
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..60 from SEQ ID NO 21

<400> 22
Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys
1          5          10          15
Arg Pro Ser Ser
          20

<210> 23
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..84
<223> /mol_type="unassigned DNA"
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      /organism="Artificial Sequence"

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BL67883PC- sequence listing.TXT

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<220>
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<222> 1..84
<223> /transl_table=1

<400> 23
gac agc tcc act ctg tcc aaa aag cca cct ttt gtt cga aac tcc ctg      48
Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn Ser Leu
1          5          10          15

gag cga cgc agc gtc cgg atg aag cgg cct tcc tcg      84
Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser
          20          25

<210> 24
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..84 from SEQ ID NO 23

<400> 24
Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn Ser Leu
1          5          10          15
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          20          25

<210> 25
<211> 90
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..90
<223> /mol_type="unassigned DNA"
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      /organism="Artificial Sequence"

<220>
<221> CDS
<222> 1..90
<223> /transl_table=1

<400> 25
gat agt gac agc tcc act ctg tcc aaa aag cca cct ttt gtt cga aac      48
Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn
1          5          10          15

tcc ctg gag cga cgc agc gtc cgg atg aag cgg cct tcc tcg      90
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser
          20          25          30

<210> 26
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..90 from SEQ ID NO 25

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BL67883PC- sequence listing.TXT

<400> 26

Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn  
1 5 10 15  
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser  
20 25 30

<210> 27

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<222> 1..63

<223> /mol\_type="unassigned DNA"  
/note="nucleic acid encoding artificial peptide"  
/organism="Artificial Sequence"

<220>

<221> CDS

<222> 1..63

<223> /transl\_table=1

<400> 27

ttt gtt cga aac tcc ctg gag cga cgc agc gtc cgg atg aag cgg cct 48  
Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro  
1 5 10 15

tcc tcg gtc aag tcg 63  
Ser Ser Val Lys Ser  
20

<210> 28

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

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<223> [CDS]:1..63 from SEQ ID NO 27

<400> 28

Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro  
1 5 10 15  
Ser Ser Val Lys Ser  
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<210> 29

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<222> 1..69

<223> /mol\_type="unassigned DNA"  
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<220>

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<222> 1..69

<223> /transl\_table=1

<400> 29

cca cct ttt gtt cga aac tcc ctg gag cga cgc agc gtc cgg atg aag 48  
Seite 15

BL67883PC- sequence listing.TXT

Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys  
1 5 10 15

cgg cct tcc tcg gtc aag tcg  
Arg Pro Ser Ser Val Lys Ser  
20

69

<210> 30  
<211> 23  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Construct

<220>  
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1 5 10 15  
Arg Pro Ser Ser Val Lys Ser  
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<210> 31  
<211> 93  
<212> DNA  
<213> Artificial Sequence

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/organism="Artificial Sequence"

<220>  
<221> CDS  
<222> 1..93  
<223> /transl\_table=1

<400> 31  
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Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn Ser Leu  
1 5 10 15

gag cga cgc agc gtc cgg atg aag cgg cct tcc tcg gtc aag tcg 93  
Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys Ser  
20 25 30

<210> 32  
<211> 31  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Construct

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1 5 10 15  
Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys Ser  
20 25 30

<210> 33



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<211> 99  
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<213> Artificial Sequence

<220>  
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<222> 1..99  
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/organism="Artificial Sequence"

<220>  
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<223> /transl\_table=1

<400> 33  
gat agt gac agc tcc act ctg tcc aaa aag cca cct ttt gtt cga aac 48  
Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn  
1 5 10 15  
  
tcc ctg gag cga cgc agc gtc cgg atg aag cgg cct tcc tcg gtc aag 96  
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys  
20 25 30  
  
tcg 99  
Ser

<210> 34  
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<212> PRT  
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<220>  
<223> Synthetic Construct

<220>  
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20 25 30  
Ser

<210> 35  
<211> 84  
<212> DNA  
<213> Artificial Sequence

<220>  
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<222> 1..84  
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/note="nucleic acid encoding artificial peptide"  
/organism="Artificial Sequence"

<220>  
<221> CDS  
<222> 1..84  
<223> /transl\_table=1

<400> 35  
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Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro

BL67883PC- sequence listing.TXT

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1              5              10              15
tcc tcg gtc aag tcg ctg cgc tcc gag cgt ctg atc      84
Ser Ser Val Lys Ser Leu Arg Ser Glu Arg Leu Ile
                20                25

<210> 36
<211> 28
<212> PRT
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<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..84 from SEQ ID NO 35

<400> 36
Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro
1              5              10              15
Ser Ser Val Lys Ser Leu Arg Ser Glu Arg Leu Ile
                20                25

<210> 37
<211> 90
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..90
<223> /mol_type="unassigned DNA"
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      /organism="Artificial Sequence"

<220>
<221> CDS
<222> 1..90
<223> /transl_table=1

<400> 37
cca cct ttt gtt cga aac tcc ctg gag cga cgc agc gtc cgg atg aag      48
Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys
1              5              10              15

cgg cct tcc tcg gtc aag tcg ctg cgc tcc gag cgt ctg atc      90
Arg Pro Ser Ser Val Lys Ser Leu Arg Ser Glu Arg Leu Ile
                20                25                30

<210> 38
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<223> [CDS]:1..90 from SEQ ID NO 37

<400> 38
Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys
1              5              10              15
Arg Pro Ser Ser Val Lys Ser Leu Arg Ser Glu Arg Leu Ile
                20                25                30

<210> 39
<211> 114

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<212> DNA
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<221> source
<222> 1..114
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      /organism="Artificial Sequence"

<220>
<221> CDS
<222> 1..114
<223> /transl_table=1

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gac agc tcc act ctg tcc aaa aag cca cct ttt gtt cga aac tcc ctg      48
Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn Ser Leu
1          5          10          15

gag cga cgc agc gtc cgg atg aag cgg cct tcc tcg gtc aag tcg ctg      96
Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys Ser Leu
          20          25          30

cgc tcc gag cgt ctg atc      114
Arg Ser Glu Arg Leu Ile
          35

<210> 40
<211> 38
<212> PRT
<213> Artificial Sequence

<220>
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<220>
<223> [CDS]:1..114 from SEQ ID NO 39

<400> 40
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1          5          10          15
Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys Ser Leu
          20          25          30
Arg Ser Glu Arg Leu Ile
          35

<210> 41
<211> 120
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..120
<223> /mol_type="unassigned DNA"
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      /organism="Artificial Sequence"

<220>
<221> CDS
<222> 1..120
<223> /transl_table=1

<400> 41
gat agt gac agc tcc act ctg tcc aaa aag cca cct ttt gtt cga aac      48
Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn
1          5          10          15

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BL67883PC- sequence listing.TXT

tcc ctg gag cga cgc agc gtc cgg atg aag cgg cct tcc tcg gtc aag 96  
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys  
20 25 30

tcg ctg cgc tcc gag cgt ctg atc 120  
Ser Leu Arg Ser Glu Arg Leu Ile  
35 40

<210> 42  
<211> 40  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Synthetic Construct

<220>  
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<400> 42  
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1 5 10 15  
Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Ser Val Lys  
20 25 30  
Ser Leu Arg Ser Glu Arg Leu Ile  
35 40

<210> 43  
<211> 7  
<212> PRT  
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<220>  
<223> cell penetration moiety

<400> 43  
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1 5

<210> 44  
<211> 8  
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<220>  
<223> cell penetration moiety

<400> 44  
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1 5

<210> 45  
<211> 9  
<212> PRT  
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<220>  
<223> cell penetration moiety

<400> 45  
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1 5

<210> 46  
<211> 10  
<212> PRT  
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BL67883PC- sequence listing.TXT

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<220>
<223> cell penetration moiety

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1          5          10

<210> 47
<211> 18
<212> PRT
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<220>
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<400> 47
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1          5          10          15
Leu Ala

<210> 48
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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1          5          10

<210> 49
<211> 11
<212> PRT
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<220>
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<400> 49
Tyr Ala Arg Ala Ala Ala Arg Gln Ala Arg Ala
1          5          10

<210> 50
<211> 12
<212> PRT
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<220>
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<400> 50
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1          5          10

<210> 51
<211> 66
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<220>
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<223> /mol_type="unassigned DNA"
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<400> 51  
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 tggaaa 66

<210> 52  
 <211> 21  
 <212> DNA  
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<220>  
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 <222> 1..21  
 <223> /mol\_type="unassigned DNA"  
 /note="primer"  
 /organism="Artificial Sequence"

<400> 52  
 gaaggagctg aaggagcatt t 21

<210> 53  
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 <212> DNA  
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<220>  
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 <222> 1..21  
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<400> 53  
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<210> 54  
 <211> 25  
 <212> DNA  
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<220>  
 <221> source  
 <222> 1..25  
 <223> /mol\_type="unassigned DNA"  
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<400> 54  
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<210> 55  
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 <212> DNA  
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<220>  
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 <222> 1..23  
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BL67883PC- sequence listing.TXT

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<400> 55
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<210> 56
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<222> 1..21
<223> /mol_type="unassigned DNA"
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      /organism="Artificial Sequence"

<400> 56
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<210> 57
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..20
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<400> 57
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20

<210> 58
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..20
<223> /mol_type="unassigned DNA"
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<400> 58
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<210> 59
<211> 3279
<212> DNA
<213> Homo sapiens

<220>
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<222> 1..3279
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<400> 59
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caagagcgca tggtgaagga atatttaatt gtagctcagg aggctctcaa tgccaagaaa
120

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## BL67883PC- sequence listing.TXT

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tccagattaa aacgagagct gaccagatg aagcaggaac tgcagtacaa agaaaagggg	360
gtggagaccc tgcaagagat tgatcggaag atgtcaagta ctacaccag ctacaaactg	420
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cgcatctccg catgtctgtc ggattattcg ctagccagcg acagtggggg gtttgaacct	1740
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BL67883PC- sequence listing.TXT

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cgctggcatt ccgtgcaggt gttcaccagc tctgaaccat caaggacgcg ggaggctggg      2220
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gatgcggtga cggtgctcct ggccagaacc acggcacagc tgcaggcggg ggagagggaa      2340
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aaggaggagc aggccgaggc catatccgag cggagttggc aagcggactc ggtggatagc      2460
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Gln Glu Ala Leu Asn Ala Lys Lys Glu Ile Tyr Gln Ile Lys Gln Gln
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Glu Asp Asp Ser Arg Ser Tyr Ala Ser Ser Phe Ser Gly Tyr Ser Thr
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Asn Thr Lys Tyr Asp Pro His Gln Ile Lys Ala Glu Ile Ala Ser Arg
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Arg Lys Met Ser Ser Thr His Thr Ser Tyr Lys Leu Asp Glu Ala Gln
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BL67883PC- sequence listing.TXT

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Pro	Phe	Asp	Ser	Leu	Gly	Arg	Asp	Ala	Pro	Phe	Ser	Glu	Pro	Pro	Gly
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BL67883PC- sequence listing.TXT

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Arg Thr Thr Ala Gln Leu Gln Ala Val Glu Arg Glu Leu Ala Glu Glu  
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785 790 795 800  
Lys Glu Glu Gln Ala Glu Ala Ile Ser Glu Arg Ser Trp Gln Ala Asp  
805 810 815  
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Pro Glu Pro Cys Cys Met Gly Ile Asp Ser Ile Leu Gly His Pro Phe  
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BL67883PC- sequence listing.TXT

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Ala Leu Arg Asp Leu Arg Gln Lys Leu Glu Glu Leu Lys Ala Gln Gly
1090      1095      1100
Glu Thr Asp Leu Pro Pro Gly Val Leu Glu Asp Glu Arg Phe Gln Arg
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