

2014011620
SEQUENCE LISTING

<110> Xigen Inflammation Ltd.

<120> Novel JNK inhibitor molecules for treatment of various diseases

<130> CX01P049W0

<160> 200

<170> PatentIn version 3.5

<210> 1

<211> 11

<212> PRT

<213> Artificial

<220>

<223> Consensus new JNK inhibitors

<220>

<221> Variant

<222> (1)..(1)

<223> X1 may be R, P, Q or D-enantiomeric r

<220>

<221> Variant

<222> (2)..(2)

<223> X2 may be R, P, G or D-enantiomeric r

<220>

<221> Variant

<222> (3)..(3)

<223> X3 may be K, R or D-enantionmeric k or r

<220>

<221> Variant

<222> (5)..(5)

<223> X4 may be P or K

<220>

<221> Variant

<222> (6)..(6)

<223> X5 may be T, or D-enantiomeric a, s, q, k or absent

<220>

<221> Variant

<222> (7)..(7)

<223> X6 may be T, D or A

<220>

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<221> Variant
<222> (9)..(9)
<223> X7 may be N, K or D-enantiomeric n or r

<220>
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<222> (11)..(11)
<223> X8 may be F or D-enantiomeric f or w

<400> 1

Xaa Xaa Xaa Arg Xaa Xaa Xaa Leu Xaa Leu Xaa
1 5 10

<210> 2
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<220>
<223> rPKRPTTLNLF JNK inhibitor

<220>
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<222> (1)..(1)
<223> Arg is D-enantiomeric Arg

<400> 2

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe
1 5 10

<210> 3
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<220>
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<220>
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<223> Lys is D-enantiomeric Lys

<400> 3

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe

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1

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<210> 4

<211> 11

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<223> RPKRPaTLNLF JNK inhibitor

<220>

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<222> (6)..(6)

<223> Ala is D-enantiomeric Ala

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Arg Pro Lys Arg Pro Ala Thr Leu Asn Leu Phe

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<210> 5

<211> 11

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<220>

<223> RPKRPTTLnLF JNK inhibitor

<220>

<221> Variant

<222> (9)..(9)

<223> Asn is D-enantiomeric Asn

<400> 5

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe

1

5

10

<210> 6

<211> 11

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<223> RPKRPTTLrLF JNK inhibitor

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<222> (9)..(9)

<223> Arg is D-enantiomeric Arg

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Arg Pro Lys Arg Pro Thr Thr Leu Arg Leu Phe
1 5 10

<210> 7

<211> 11

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<223> RPKRPTTLNLF JNK inhibitor

<220>

<221> Variant

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<223> Phe is D-enantiomeric Phe

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Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe
1 5 10

<210> 8

<211> 11

<212> PRT

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<223> RPKRPaTLNLF JNK inhibitor

<220>

<221> Variant

<222> (3)..(3)

<223> Lys is D-enantiomeric Lys

<220>

<221> Variant

<222> (6)..(6)

<223> Ala is D-enantiomeric Ala

<220>

<221> Variant

2014011620

<222> (11)..(11)

<223> Phe is D-enantiomeric Phe

<400> 8

Arg Pro Lys Arg Pro Ala Thr Leu Asn Leu Phe

1

5

10

<210> 9

<211> 11

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<220>

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<220>

<221> Variant

<222> (11)..(11)

<223> Phe is D-enantiomeric Phe

<400> 9

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe

1

5

10

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<223> Lys is D-enantiomeric Lys

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<222> (9)..(9)

<223> Arg is D-enantiomeric Arg

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<220>
<221> Variant
<222> (11)..(11)
<223> Phe is D-enantiomeric Phe

<400> 10

Arg Pro Lys Arg Pro Thr Thr Leu Arg Leu Phe
1 5 10

<210> 11
<211> 11
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<223> RRrRPTTLNlf JNK inhibitor

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<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (11)..(11)
<223> Phe is D-enantiomeric Phe

<400> 11

Arg Arg Arg Arg Pro Thr Thr Leu Asn Leu Phe
1 5 10

<210> 12
<211> 11
<212> PRT
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<220>
<223> QRrRPTTLNlf JNK inhibitor

<220>
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<223> Arg is D-enantiomeric Arg

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<221> Variant
<222> (11)..(11)
<223> Phe is D-enantiomeric Phe

<400> 12

Gln Arg Arg Arg Pro Thr Thr Leu Asn Leu Phe
1 5 10

<210> 13
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<212> PRT
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<220>
<223> RPKRPTTLNLw JNK inhibitor

<220>
<221> Variant
<222> (3)..(3)
<223> Lys is D-enantiomeric Lys

<220>
<221> Variant
<222> (11)..(11)
<223> Trp is D-enantiomeric Trp

<400> 13

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Trp
1 5 10

<210> 14
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<220>
<223> RPKRPTDLNLf JNK inhibitor

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<223> Lys is D-enantiomeric Lys

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<221> Variant
<222> (11)..(11)

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<223> Phe is D-enantiomeric Phe

<400> 14

Arg Pro Lys Arg Pro Thr Asp Leu Asn Leu Phe
1 5 10

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<220>

<223> RRrRPTTLrLw JNK inhibitor

<220>

<221> Variant

<222> (3)..(3)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (9)..(9)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (11)..(11)

<223> Trp is D-enantiomeric Trp

<400> 15

Arg Arg Arg Arg Pro Thr Thr Leu Arg Leu Trp
1 5 10

<210> 16

<211> 11

<212> PRT

<213> Artificial

<220>

<223> QRrRPTTLrLw JNK inhibitor

<220>

<221> Variant

<222> (3)..(3)

<223> Arg is D-enantiomeric Arg

2014011620

<220>

<221> Variant

<222> (9)..(9)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (11)..(11)

<223> Trp is D-enantiomeric Trp

<400> 16

Gln Arg Arg Arg Pro Thr Thr Leu Arg Leu Trp
1 5 10

<210> 17

<211> 11

<212> PRT

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<220>

<223> RRrRPTDLrLw JNK inhibitor

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<223> Arg is D-enantiomeric Arg

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<222> (9)..(9)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (11)..(11)

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<400> 17

Arg Arg Arg Arg Pro Thr Asp Leu Arg Leu Trp
1 5 10

<210> 18

<211> 11

<212> PRT

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<223> QRrRPTDLrLw JNK inhibitor

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<223> Arg is D-enantiomeric Arg

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<222> (9)..(9)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (11)..(11)

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<400> 18

Gln Arg Arg Arg Pro Thr Asp Leu Arg Leu Trp
1 5 10

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<211> 11

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<220>

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<222> (3)..(3)

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<220>

<221> Variant

<222> (6)..(6)

<223> Ala is D-enantiomeric Ala

<220>

<221> Variant

<222> (11)..(11)

<223> Phe is D-enantiomeric Phe

<400> 19

Arg Arg Arg Arg Pro Ala Thr Leu Asn Leu Phe
1 5 10

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<210> 20
<211> 11
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<220>
<223> QRrRPaTLNlf JNK inhibitor

<220>
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<222> (3)..(3)
<223> Arg is D-enantiomeric Arg

<220>
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<222> (6)..(6)
<223> Ala is D-enantiomeric Ala

<220>
<221> Variant
<222> (11)..(11)
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<400> 20

Gln Arg Arg Arg Pro Ala Thr Leu Asn Leu Phe
1 5 10

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<222> (2)..(2)
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<220>
<221> Variant
<222> (6)..(6)
<223> Ala is D-enantiomeric Ala

<220>

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<221> Variant
<222> (11)..(11)
<223> Phe is D-enantiomeric Phe

<400> 21

Arg Arg Lys Arg Pro Ala Thr Leu Asn Leu Phe
1 5 10

<210> 22
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<220>
<223> RPKRPsTLNlf JNK inhibitor

<220>
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<222> (3)..(3)
<223> Lys is D-enantiomeric Lys

<220>
<221> Variant
<222> (6)..(6)
<223> Ser is D-enantiomeric Ser

<220>
<221> Variant
<222> (11)..(11)
<223> Phe is D-enantiomeric Phe

<400> 22

Arg Pro Lys Arg Pro Ser Thr Leu Asn Leu Phe
1 5 10

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<220>
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<223> Lys is D-enantiomeric Lys

<220>

<221> Variant

<222> (6)..(6)

<223> Gln is D-enantiomeric Gln

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<221> Variant

<222> (11)..(11)

<223> Phe is D-enantiomeric Phe

<400> 23

Arg	Pro	Lys	Arg	Pro	Gln	Thr	Leu	Asn	Leu	Phe
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<210> 24

<211> 11

<212> PRT

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<223> RPKRPkTLNlf JNK inhibitor

<220>

<221> Variant

<222> (3)..(3)

<223> Lys is D-enantiomeric Lys

<220>

<221> Variant

<222> (6)..(6)

<223> Lys is D-enantiomeric Lys

<220>

<221> Variant

<222> (11)..(11)

<223> Phe is D-enantiomeric Phe

<400> 24

Arg	Pro	Lys	Arg	Pro	Lys	Thr	Leu	Asn	Leu	Phe
1				5					10	

<210> 25

<211> 10

<212> PRT

<213> Artificial

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<220>

<223> rGKRKALKLf JNK inhibitor

<220>

<221> Variant

<222> (1)..(1)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (10)..(10)

<223> Phe is D-enantiomeric Phe

<400> 25

Arg Gly Lys Arg Lys Ala Leu Lys Leu Phe
1 5 10

<210> 26

<211> 10

<212> PRT

<213> Artificial

<220>

<223> rGKRKALrLf JNK inhibitor

<220>

<221> Variant

<222> (1)..(1)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (8)..(8)

<223> Arg is D-enantiomeric Arg

<220>

<221> Variant

<222> (10)..(10)

<223> Phe is D-enantiomeric Phe

<400> 26

Arg Gly Lys Arg Lys Ala Leu Arg Leu Phe
1 5 10

<210> 27

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<211> 10
<212> PRT
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<220>
<223> RRrRKALrLf JNK inhibitor

<220>
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<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (8)..(8)
<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (10)..(10)
<223> Phe is D-enantiomeric Phe

<400> 27

Arg Arg Arg Arg Lys Ala Leu Arg Leu Phe
1 5 10

<210> 28
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of artificial sequence: generic subformula (Ib)
DLLLLxDmLLLLyDn

<220>
<221> VARIANT
<222> (1)..(9)
<223> /replace="any amino acid"

<220>
<221> VARIANT
<222> (1)..(1)
<223> /replace="D-amino acid"

<220>
<221> REPEAT
<222> (1)..(1)

<223> number of repeats is 1 or 2

<220>

<221> REPEAT

<222> (4)..(4)

<223> number of repeats is 0, 1 or 2

<220>

<221> VARIANT

<222> (5)..(5)

<223> /replace="D-amino acid"

<220>

<221> REPEAT

<222> (5)..(5)

<223> number of repeats is 1 or 2

<220>

<221> REPEAT

<222> (8)..(8)

<223> number of repeats is 0, 1 or 2

<220>

<221> VARIANT

<222> (9)..(9)

<223> /replace="D-amino acid"

<220>

<221> REPEAT

<222> (9)..(9)

<223> number of repeats is 1 or 2

<400> 28

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

1 5

<210> 29

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of artificial sequence: generic subformula (Ie)
DLLLL(LLLD)a

<220>

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<222> (1)..(9)

<223> /replace="any amino acid"

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<220>
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<222> (1)..(1)
<223> /replace="D-amino acid"

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="D-amino acid"

<220>
<221> REPEAT
<222> (6)..(9)
<223> number of repeats is 0, 1, 2 or 3

<220>
<221> VARIANT
<222> (9)..(9)
<223> /replace="D-amino acid"

<400> 29

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 30
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of artificial sequence: generic subformula (If)
DLLLLLLD

<220>
<221> VARIANT
<222> (1)..(9)
<223> /replace="any amino acid"

<220>
<221> VARIANT
<222> (1)..(1)
<223> /replace="D-amino acid"

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="D-amino acid"

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<220>
<221> VARIANT
<222> (9)..(9)
<223> /replace="D-amino acid"

<400> 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 31
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Description of sequence: consensus sequence rXXXrXXXr

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<221> misc_feature
<222> (1)..(1)
<223> Arg is D-enantiomeric Arg

<220>
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<222> (2)..(4)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (5)..(5)
<223> Arg is D-enantiomeric Arg

<220>
<221> misc_feature
<222> (6)..(8)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (9)..(9)
<223> Arg is D-enantiomeric Arg

<400> 31

Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg
1 5

<210> 32

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<211> 9
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<213> Artificial

<220>
<223> r3 (generic; right half)

<220>
<221> Variant
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<223> Arg is D-enantiomeric Arg

<220>
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<222> (5)..(5)
<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (6)..(8)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> Variant
<222> (9)..(9)
<223> Arg is D-enantiomeric Arg

<400> 32

Arg Lys Lys Arg Arg Xaa Xaa Xaa Arg
1 5

<210> 33
<211> 9
<212> PRT
<213> Artificial

<220>
<223> r3 (generic; left half)

<220>
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<222> (1)..(1)
<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (2)..(4)
<223> Xaa can be any naturally occurring amino acid

<220>
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 <222> (5)..(5)
 <223> Arg is D-enantiomeric Arg

<220>
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 <222> (9)..(9)
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<400> 33

Arg Xaa Xaa Xaa Arg Gln Arg Arg Arg
 1 5

<210> 34
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 <212> PRT
 <213> Artificial

<220>
 <223> r3 (generic; individual)

<220>
 <221> Variant
 <222> (1)..(1)
 <223> Arg is D-enantiomeric Arg

<220>
 <221> Variant
 <222> (2)..(2)
 <223> Xaa is K or any other naturally occurring amino acid

<220>
 <221> Variant
 <222> (3)..(3)
 <223> Xaa is K or any other naturally occurring amino acid

<220>
 <221> Variant
 <222> (4)..(4)
 <223> Xaa is R or any other naturally occurring amino acid

<220>
 <221> Variant
 <222> (5)..(5)
 <223> Arg is D-enantiomeric Arg

<220>

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<221> Variant
<222> (6)..(6)
<223> Xaa is Q or any other naturally occurring amino acid

<220>
<221> Variant
<222> (7)..(7)
<223> Xaa is R or any other naturally occurring amino acid

<220>
<221> Variant
<222> (8)..(8)
<223> Xaa is R or any other naturally occurring amino acid

<220>
<221> Variant
<222> (9)..(9)
<223> Arg is D-enantiomeric Arg

<400> 34

Arg Xaa Xaa Xaa Arg Xaa Xaa Xaa Arg
1 5

<210> 35
<211> 86
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 1-86)

<400> 35

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

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His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 36
<211> 36
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 37-72)

<400> 36

Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys Lys Arg
1 5 10 15

Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr His Gln Val Ser
20 25 30

Leu Ser Lys Gln
35

<210> 37
<211> 22
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 37-58)

<400> 37

Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys Lys Arg
1 5 10 15

Arg Gln Arg Arg Arg Pro
20

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<210> 38
<211> 24
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 38-58) including
an additional N-terminal GCC

<400> 38

Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys Lys Arg Arg
1 5 10 15

Gln Arg Arg Arg Pro Gly Gly Cys
20

<210> 39
<211> 15
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 47-58) including
an additional C-terminal GCC

<400> 39

Cys Gly Gly Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro
1 5 10 15

<210> 40
<211> 15
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 47-58) including
an additional N-terminal GCC

<400> 40

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Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Gly Gly Cys
1 5 10 15

<210> 41
<211> 56
<212> PRT
<213> Human immunodeficiency virus type 1

<220>
<221> misc_feature
<223> Description of sequence: HIV-1 TAT sequence (aa 1-72) including
a mutated Cys to Ala residue at position 37

<400> 41

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
20 25 30

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
35 40 45

His Gln Val Ser Leu Ser Lys Gln
50 55

<210> 42
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Description of sequence: trafficking sequence L-TAT (s1a)

<400> 42

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 43
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<212> PRT
<213> Artificial Sequence

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<220>

<223> Description of sequence: trafficking sequence L-TAT (s1b)

<400> 43

Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5

<210> 44

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of sequence: trafficking sequence L-TAT (s1c)

<400> 44

Tyr Asp Arg Lys Lys Arg Arg Gln Arg Arg Arg
1 5 10

<210> 45

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of artificial sequence: D-TAT

<220>

<221> VARIANT

<222> (1)..(9)

<223> all amino acids are D-enantiomeric amino acids

<400> 45

Arg Arg Arg Gln Arg Arg Lys Lys Arg
1 5

<210> 46

<211> 9

<212> PRT

<213> Artificial Sequence

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<223> trafficking sequence r3-L-TAT

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<220>
<221> Variant
<222> (1)..(1)
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Arg Trp Lys Arg Arg Gln Arg Arg Arg
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1 5

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Arg Lys Lys Arg Arg Gln Arg Tyr Arg
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Arg Arg Arg Arg Arg Arg Arg Arg Arg
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<223> trafficking sequence L-R6

<400> 155

Arg Arg Arg Arg Arg Arg
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<210> 156

<211> 5

<212> PRT

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<220>

<223> trafficking sequence L-R5

<400> 156

Arg Arg Arg Arg Arg
1 5

<210> 157

<211> 9

<212> PRT

<213> Artificial

<220>

<223> all D transporter construct (all amino acid residues are D-amino acids)

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<222> (1)..(9)

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<223> Arg is D-enantiomeric Arg

<400> 157

Arg Arg Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 158

<211> 9

<212> PRT

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<220>

<223> Description of sequence: D/L transporter construct (D and L amino acid residues alternate, beginning wit D amino acids)

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<223> Arg is D-enantiomeric Arg

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Arg Arg Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 159

<211> 9

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Arg Arg Arg Arg Arg Arg Arg Arg Arg

1 5

<210> 160

<211> 11

<212> PRT

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<223> trafficking sequence PTD-4

<400> 160

Tyr Ala Arg Ala Ala Ala Arg Gln Ala Arg Ala

1 5 10

<210> 161

<211> 11

<212> PRT

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<220>

<223> trafficking sequence PTD-4

<400> 161

Trp Ala Arg Ala Ala Ala Arg Gln Ala Arg Ala

2014011620

1

5

10

<210> 162

<211> 11

<212> PRT

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<223> trafficking sequence PTD-4

<400> 162

Trp Ala Arg Ala Gln Arg Ala Ala Ala Arg Ala

1

5

10

<210> 163

<211> 16

<212> PRT

<213> Artificial Sequence

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<400> 163

Arg Gln Val Lys Val Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys

1

5

10

15

<210> 164

<211> 16

<212> PRT

<213> Artificial Sequence

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<223> trafficking sequence D-P1 (Penetratin)

<400> 164

Lys Lys Trp Lys Met Arg Arg Asn Gln Phe Trp Val Lys Val Gln Arg

1

5

10

15

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2014011620

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Trp Lys Arg Ala Ala Ala Arg Lys Ala Arg Ala Met Ser Leu Asn Leu
1 5 10 15

Phe

<210> 166

<211> 17

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<400> 166

Trp Lys Arg Ala Ala Ala Arg Ala Ala Arg Ala Met Ser Leu Asn Leu
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Phe

<210> 167

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Arg Tyr Arg Gly Asp Leu Gly Arg Arg
1 5

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Tyr Lys Gly Leu
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Arg Arg Thr Lys
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Arg Arg Pro Lys
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<400> 171

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Thr Thr
1 5 10 15

Leu Asn Leu Phe
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<223> Ala is D-enantiomeric Ala

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<221> Variant

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<223> Phe is D-enantiomeric Phe

<400> 172

Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Arg	Pro	Lys	Arg	Pro	Ala	Thr
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Leu Asn Leu Phe
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<223> Arg is D-enantiomeric Arg

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<400> 173

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Thr Thr
1 5 10 15

Leu Arg Leu Phe
20

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Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Thr Thr Leu Asn Leu
1 5 10 15

Phe

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Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Pro	Thr	Thr	Leu	Asn	Leu	Phe
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Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Thr Thr
1 5 10 15

Leu Asn Leu Trp
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Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Thr Asp
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Leu Asn Leu Phe
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Trp

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Trp

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<210> 182

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<400> 182

Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Arg	Pro	Ala	Thr	Leu	Asn	Leu
1			5					10						15	

Phe

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<223> Ala is D-enantiomeric Ala

<220>
<221> Variant
<222> (16)..(16)
<223> Phe is D-enantiomeric Phe

<400> 183

Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Pro	Ala	Thr	Leu	Asn	Leu	Phe
1				5					10					15	

<210> 184
<211> 17
<212> PRT
<213> Artificial

<220>
<223> rKKRrQRrKRPaTLNlf JNK inhibitor

<220>
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<222> (1)..(1)
<223> Arg is D-enantiomeric Arg

<220>
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<222> (5)..(5)
<223> Arg is D-enantiomeric Arg

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<222> (8)..(8)
<223> Arg is D-enantiomeric Arg

<220>
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<222> (12)..(12)
<223> Ala is D-enantiomeric Ala

<220>
<221> Variant
<222> (17)..(17)
<223> Phe is D-enantiomeric Phe

<400> 184

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Arg Lys Lys Arg Arg Gln Arg Arg Lys Arg Pro Ala Thr Leu Asn Leu
1 5 10 15

Phe

<210> 185
<211> 20
<212> PRT
<213> Artificial

<220>
<223> rKKRRQRRrRPkRPSTLNLF JNK inhibitor

<220>
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<223> Arg is D-enantiomeric Arg

<220>
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<223> Arg is D-enantiomeric Arg

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<223> Arg is D-enantiomeric Arg

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<222> (12)..(12)
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<222> (15)..(15)
<223> Ser is D-enantiomeric Ser

<220>
<221> Variant
<222> (20)..(20)
<223> Phe is D-enantiomeric Phe

<400> 185

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Ser Thr
1 5 10 15

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Leu Asn Leu Phe
20

<210> 186
<211> 20
<212> PRT
<213> Artificial

<220>
<223> rKKRRrQRRrRPkRPqTLNLF JNK inhibitor

<220>
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<220>
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<223> Arg is D-enantiomeric Arg

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<223> Arg is D-enantiomeric Arg

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<222> (12)..(12)
<223> Lys is D-enantiomeric Lys

<220>
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<222> (15)..(15)
<223> Gln is D-enantiomeric Gln

<220>
<221> Variant
<222> (20)..(20)
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<400> 186

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Gln Thr
1 5 10 15

Leu Asn Leu Phe

<210> 187
 <211> 20
 <212> PRT
 <213> Artificial

<220>
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<220>
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<220>
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 <223> Lys is D-enantiomeric Lys

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 <222> (20)..(20)
 <223> Phe is D-enantiomeric Phe

<400> 187

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Lys Thr
 1 5 10 15

Leu Asn Leu Phe
 20

2014011620

<210> 188
<211> 18
<212> PRT
<213> Artificial

<220>
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<220>
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<220>
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<222> (9)..(9)
<223> Arg is D-enantiomeric Arg

<220>
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<222> (18)..(18)
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<400> 188

Arg Lys Lys Arg Arg Gln Arg Arg Arg Gly Lys Arg Lys Ala Leu Lys
1 5 10 15

Leu Phe

<210> 189
<211> 18
<212> PRT
<213> Artificial

<220>
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<220>
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<223> Arg is D-enantiomeric Arg

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<220>
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<222> (16)..(16)
<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (18)..(18)
<223> Phe is D-enantiomeric Phe

<400> 189

Arg Lys Lys Arg Arg Gln Arg Arg Arg Gly Lys Arg Lys Ala Leu Arg
1 5 10 15

Leu Phe

<210> 190
<211> 16
<212> PRT
<213> Artificial

<220>
<223> rKKRRQRRrRKALrLf JNK inhibitor

<220>
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<223> Arg is D-enantiomeric Arg

<220>
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<222> (5)..(5)
<223> Arg is D-enantiomeric Arg

<220>
<221> Variant

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<222> (9)..(9)
<223> Arg is D-enantiomeric Arg

<220>
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<222> (14)..(14)
<223> Arg is D-enantiomeric Arg

<220>
<221> Variant
<222> (16)..(16)
<223> Phe is D-enantiomeric Phe

<400> 190

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Lys Ala Leu Arg Leu Phe
1 5 10 15

<210> 191
<211> 8
<212> PRT
<213> Artificial

<220>
<223> RPTTLNLF JNK inhibitor

<400> 191

Arg Pro Thr Thr Leu Asn Leu Phe
1 5

<210> 192
<211> 9
<212> PRT
<213> Artificial

<220>
<223> KRPTTLNLF JNK inhibitor

<400> 192

Lys Arg Pro Thr Thr Leu Asn Leu Phe
1 5

<210> 193
<211> 11
<212> PRT
<213> Artificial

2014011620

<220>

<223> L-IB1(s24)

<400> 193

Arg Pro Lys Arg Pro Thr Thr Leu Asn Leu Phe
1 5 10

<210> 194

<211> 29

<212> PRT

<213> Artificial

<220>

<223> GRKKRRQRRRPPKRPTTLNLFQVPRSQD JNK inhibitor

<400> 194

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Lys Arg Pro Thr
1 5 10 15

Thr Leu Asn Leu Phe Pro Gln Val Pro Arg Ser Gln Asp
20 25

<210> 195

<211> 25

<212> PRT

<213> Artificial

<220>

<223> GRKKRRQRRRPTTLNLFQVPRSQD JNK inhibitor

<400> 195

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Thr Thr Leu Asn Leu
1 5 10 15

Phe Pro Gln Val Pro Arg Ser Gln Asp
20 25

<210> 196

<211> 31

<212> PRT

<213> Artificial

<220>

<223> L-TAT-IB1

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<400> 196

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Arg Pro Lys Arg
1 5 10 15

Pro Thr Thr Leu Asn Leu Phe Pro Gln Val Pro Arg Ser Gln Asp
20 25 30

<210> 197

<211> 31

<212> PRT

<213> Artificial

<220>

<223> D-TAT-IB1

<220>

<221> Variant

<222> (1)..(31)

<223> All amino acids are D-enantiomeric amino acids

<400> 197

Asp Gln Ser Arg Pro Val Gln Pro Phe Leu Asn Leu Thr Thr Pro Arg
1 5 10 15

Lys Pro Arg Pro Pro Arg Arg Arg Gln Arg Arg Lys Lys Arg Gly
20 25 30

<210> 198

<211> 39

<212> PRT

<213> Artificial

<220>

<223> cJun (29-67)

<400> 198

Ser Asn Pro Lys Ile Leu Lys Gln Ser Met Thr Leu Asn Leu Ala Asp
1 5 10 15

Pro Val Gly Ser Leu Lys Pro His Leu Arg Ala Lys Asn Ser Asp Leu
20 25 30

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Leu Thr Ser Pro Asp Val Gly
35

<210> 199
<211> 20
<212> PRT
<213> Artificial

<220>
<223> RKKRRQRRRRPKRPATLNLF antibody negative control

<400> 199

Arg Lys Lys Arg Arg Gln Arg Arg Arg Arg Pro Lys Arg Pro Ala Thr
1 5 10 15

Leu Asn Leu Phe
20

<210> 200
<211> 20
<212> PRT
<213> Artificial

<220>
<223> rKKRrQRRrR PkAAaAANAf JNK inhibitor

<220>
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<220>
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<220>
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<220>
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<222> (12)..(12)
<223> Lys is D-enantiomeric Lys

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<220>

<221> Variant

<222> (15)..(15)

<223> Ala is D-enantiomeric Ala

<220>

<221> Variant

<222> (20)..(20)

<223> Phe is D-enantiomeric Phe

<400> 200

Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Arg	Pro	Lys	Ala	Ala	Ala	Ala
1				5					10					15	

Ala	Asn	Ala	Phe
			20