

682-2 PCT sequence listing ST.txt
SEQUENCE LISTING

<110> Cormus SRL

<120> Inhibitors of viral fusion and uses thereof

<130> 682-2 PCT

<140>

<141> 2010-02-05

<150> 09 001 671.8

<151> 2009-02-06

<150> 09 013 037.8

<151> 2009-10-15

<160> 119

<170> PatentIn version 3.5

<210> 1

<211> 35

<212> PRT

<213> Human parainfluenza virus 3

<400> 1

Leu Lys Glu Ala Ile Arg Asp Thr Asn Lys Ala Val Gln Ser Val Gln
1 5 10 15

Ser Ser Ile Gly Asn Leu Ile Val Ala Ile Lys Ser Val Gln Asp Tyr
20 25 30

Val Asn Lys
35

<210> 2

<211> 34

<212> PRT

<213> Sendai virus (Strain Harris)

<400> 2

Ile Lys Glu Ser Met Thr Lys Thr His Lys Ser Val Glu Leu Leu Gln
1 5 10 15

Asn Ala Val Gly Glu Gln Ile Leu Ala Leu Lys Thr Leu Gln Asp Phe
20 25 30

Val Asn

<210> 3

<211> 34

<212> PRT

<213> Sendai virus (Strain Fusihihi)

<400> 3

Ile Lys Glu Ser Met Thr Lys Thr His Lys Ser Val Glu Leu Leu Gln
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1 5 10 15
Asn Ala Val Gly Glu Gln Ile Leu Ala Leu Lys Thr Leu Gln Asp Phe
 20 25 30

Val Asn

<210> 4
<211> 34
<212> PRT
<213> Human parainfluenza virus 1 (Strain C39)

<400> 4

Ile Lys Asp Ser Ile Ile Lys Thr His Asn Ser Val Glu Leu Ile Gln
1 5 10 15

Arg Gly Ile Gly Glu Gln Ile Ile Ala Leu Lys Thr Leu Gln Asp Phe
 20 25 30

Val Asn

<210> 5
<211> 34
<212> PRT
<213> Measles virus (Strain Yamagta)

<400> 5

Leu Arg Ala Ser Leu Glu Thr Thr Asn Gln Ala Ile Glu Ala Ile Arg
1 5 10 15

Gln Thr Gly Gln Glu Met Ile Leu Ala Val Gln Gly Val Gln Asp Tyr
 20 25 30

Ile Asn

<210> 6
<211> 34
<212> PRT
<213> Measles virus (Strain Alk-C)

<400> 6

Leu Arg Ala Ser Leu Glu Thr Thr Asn Gln Ala Ile Glu Ala Ile Arg
1 5 10 15

Gln Ala Gly Gln Glu Met Ile Leu Ala Val Gln Gly Val Gln Asp Tyr
 20 25 30

Ile Asn

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<210> 7
 <211> 34
 <212> PRT
 <213> Newcastle disease virus (Strain Queensland)
 <400> 7
 Leu Lys Glu Ser Ile Ala Ala Thr Asn Glu Ala Val His Glu Val Thr
 1 5 10 15
 Asn Gly Leu Ser Gln Leu Ala Val Ala Val Gly Lys Met Gln Gln Phe
 20 25 30
 Val Asn

<210> 8
 <211> 34
 <212> PRT
 <213> Newcastle disease virus (Strain D26/76)
 <400> 8
 Leu Lys Glu Ser Ile Ala Ala Thr Asn Glu Ala Val His Glu Val Thr
 1 5 10 15
 Asn Gly Leu Ser Gln Leu Ala Val Ala Val Gly Lys Met Gln Gln Phe
 20 25 30
 Val Asn

<210> 9
 <211> 34
 <212> PRT
 <213> Mumps virus (Strain SBL)
 <400> 9
 Met Lys Asn Ser Ile Gln Ala Thr Asn Arg Ala Val Phe Glu Val Lys
 1 5 10 15
 Glu Gly Thr Gln Gln Leu Ala Ile Ala Val Gln Ala Ile Gln Asp His
 20 25 30
 Ile Asn

<210> 10
 <211> 35
 <212> PRT
 <213> Human parainfluenza virus 2
 <400> 10
 Leu Ala Ser Ser Ile Gln Ser Thr Asn Lys Ala Val Ser Asp Val Ile
 1 5 10 15

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Asp Ala Ser Arg Thr Ile Ala Thr Ala Val Gln Ala Ile Gln Asp His
20 25 30

Ile Asn Gly
35

<210> 11
<211> 46
<212> PRT
<213> Human respiratory syncytial virus

<400> 11

Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Lys Ser Ala Leu Leu
1 5 10 15

Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu
20 25 30

Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile Asp Lys Gln
35 40 45

<210> 12
<211> 46
<212> PRT
<213> Human respiratory syncytial virus (Subgroup B)

<400> 12

Val Leu His Leu Glu Gly Glu Val Asn Lys Ile Lys Asn Ala Leu Leu
1 5 10 15

Ser Thr Asn Lys Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu
20 25 30

Thr Ser Lys Val Leu Asp Leu Lys Asn Tyr Ile Asn Asn Arg
35 40 45

<210> 13
<211> 42
<212> PRT
<213> Hendra virus

<400> 13

Ala Met Lys Asn Ala Asp Asn Ile Asn Lys Leu Lys Ser Ser Ile Glu
1 5 10 15

Ser Thr Asn Glu Ala Val Val Lys Leu Gln Glu Thr Ala Glu Lys Thr
20 25 30

Val Tyr Val Leu Thr Ala Leu Gln Asp Tyr
35 40

<210> 14
<211> 42
<212> PRT

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<213> Ebola-like virus

<400> 14

Leu Ile Cys Gly Leu Arg Gln Leu Ala Asn Glu Thr Thr Gln Ala Leu
1 5 10 15

Gln Leu Phe Leu Arg Ala Thr Thr Glu Leu Arg Thr Phe Ser Ile Leu
20 25 30

Asn Arg Lys Ala Ile Asp Phe Leu Leu Gln
35 40

<210> 15

<211> 42

<212> PRT

<213> Ebola virus (Strain Reston)

<400> 15

Leu Ile Cys Gly Leu Arg Gln Leu Ala Asn Glu Thr Thr Gln Ala Leu
1 5 10 15

Gln Leu Phe Leu Arg Ala Thr Thr Glu Leu Arg Thr Tyr Ser Leu Leu
20 25 30

Asn Arg Lys Ala Ile Asp Phe Leu Leu Gln
35 40

<210> 16

<211> 42

<212> PRT

<213> Ebola virus (Strain Sudan)

<400> 16

Leu Val Cys Gly Leu Arg Gln Leu Ala Asn Glu Thr Thr Gln Ala Leu
1 5 10 15

Gln Leu Phe Leu Arg Ala Thr Thr Glu Leu Arg Thr Tyr Thr Ile Leu
20 25 30

Asn Arg Lys Ala Ile Asp Phe Leu Leu Arg
35 40

<210> 17

<211> 41

<212> PRT

<213> Marburg virus (Strain Lake Victoria)

<400> 17

Leu Val Cys Arg Leu Arg Arg Leu Ala Asn Gln Thr Ala Lys Ser Leu
1 5 10 15

Glu Leu Leu Leu Arg Val Thr Thr Glu Glu Arg Thr Phe Ser Leu Ile
20 25 30

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Asn Arg His Ala Ile Asp Phe Leu Leu
35 40

<210> 18
<211> 35
<212> PRT
<213> Human parainfluenza virus 3

<400> 18

Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu
1 5 10 15

Ser Lys Glu Trp Ile Arg Arg Ser Asn Gln Lys Leu Asp Ser Ile Gly
20 25 30

Asn Trp His
35

<210> 19
<211> 35
<212> PRT
<213> Human parainfluenza virus 1

<400> 19

Val Asp Ile Ser Leu Asn Leu Ala Ser Ala Thr Asn Phe Leu Glu Glu
1 5 10 15

Ser Lys Ile Glu Leu Met Lys Ala Lys Ala Ile Ile Ser Ala Val Gly
20 25 30

Gly Trp His
35

<210> 20
<211> 35
<212> PRT
<213> Sendai virus (Strain Z)

<400> 20

Ile Asp Ile Ser Leu Asn Leu Ala Asp Ala Thr Asn Phe Leu Gln Asp
1 5 10 15

Ser Lys Ala Glu Leu Glu Lys Ala Arg Lys Ile Leu Ser Glu Val Gly
20 25 30

Arg Trp Tyr
35

<210> 21
<211> 35
<212> PRT
<213> Sendai virus (Strain Harris)

<400> 21

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Val Asp Ile Ser Leu Asn Leu Ala Asp Ala Thr Asn Phe Leu Gln Asp
1 5 10 15

Ser Lys Ala Glu Leu Glu Lys Ala Arg Lys Ile Leu Ser Glu Val Gly
20 25 30

Arg Trp Tyr
35

<210> 22
<211> 29
<212> PRT
<213> Mumps virus (Strain SBL)

<400> 22

Ile Ser Thr Glu Leu Ser Lys Val Asn Ala Ser Leu Gln Asn Ala Val
1 5 10 15

Lys Tyr Ile Lys Glu Ser Asn His Gln Leu Gln Ser Val
20 25

<210> 23
<211> 29
<212> PRT
<213> Newcastle disease virus

<400> 23

Ile Ser Thr Glu Leu Gly Asn Val Asn Asn Ser Ile Ser Asn Ala Leu
1 5 10 15

Asp Lys Leu Glu Glu Ser Asn Ser Lys Leu Asp Lys Val
20 25

<210> 24
<211> 29
<212> PRT
<213> Measles virus (Strain Alk-C)

<400> 24

Val Gly Thr Asn Leu Gly Asn Ala Ile Ala Lys Leu Glu Asp Ala Lys
1 5 10 15

Glu Leu Leu Glu Ser Ser Asp Gln Ile Leu Arg Ser Met
20 25

<210> 25
<211> 29
<212> PRT
<213> Measles virus (Strain Yamagata)

<400> 25

Val Gly Thr Ser Leu Gly Ser Ala Ile Ala Lys Leu Glu Asp Ala Lys
1 5 10 15

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Glu Leu Leu Glu Ser Ser Asp Gln Ile Leu Arg Ser Met
20 25

<210> 26
<211> 29
<212> PRT
<213> Newcastle Disease virus

<400> 26

Ile Ser Thr Glu Leu Gly Asn Val Asn Asn Ser Ile Ser Asn Ala Leu
1 5 10 15

Asn Lys Leu Glu Glu Ser Asn Arg Lys Leu Asp Lys Val
20 25

<210> 27
<211> 36
<212> PRT
<213> Human respiratory syncytial virus

<400> 27

Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser Leu
1 5 10 15

Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val Asn Ala Gly
20 25 30

Lys Ser Thr Thr
35

<210> 28
<211> 34
<212> PRT
<213> Human respiratory syncytial virus (Subgroup B)

<400> 28

Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn Gln Ser Leu
1 5 10 15

Ala Phe Ile Arg Arg Ser Asp Glu Leu Leu His Asn Val Asn Thr Gly
20 25 30

Lys Ser

<210> 29
<211> 33
<212> PRT
<213> Hendra virus

<400> 29

Lys Val Asp Ile Ser Ser Gln Ile Ser Ser Met Asn Gln Ser Leu Gln
1 5 10 15

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Gln Ser Lys Asp Tyr Ile Lys Glu Ala Gln Lys Ile Leu Asp Thr Val
20 25 30

Asn

<210> 30
<211> 33
<212> PRT
<213> Nipa virus

<400> 30

Lys Val Asp Ile Ser Ser Gln Ile Ser Ser Met Asn Gln Ser Leu Gln
1 5 10 15

Gln Ser Lys Asp Tyr Ile Lys Glu Ala Gln Arg Leu Leu Asp Thr Val
20 25 30

Asn

<210> 31
<211> 24
<212> PRT
<213> Ebola virus (Strain Zaire)

<400> 31

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Asp Lys Ile Asp Gln
1 5 10 15

Ile Ile His Asp Phe Val Asp Lys
20

<210> 32
<211> 23
<212> PRT
<213> Ebola virus (Strain Sudan)

<400> 32

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Asp Lys Ile Asn Gln
1 5 10 15

Ile Ile His Asp Phe Ile Asp
20

<210> 33
<211> 23
<212> PRT
<213> Ebola virus (Strain Reston)

<400> 33

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Asp Glu Ile Asn Gln
1 5 10 15

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Ile Lys His Asp Phe Ile Asp
20

<210> 34
<211> 26
<212> PRT
<213> Marburg virus (Strain Lake Victoria)

<400> 34

Ile Gly Ile Glu Asp Leu Ser Lys Asn Ile Ser Glu Gln Ile Asp Gln
1 5 10 15

Ile Lys Lys Asp Glu Gln Lys Glu Gly Thr
20 25

<210> 35
<211> 36
<212> PRT
<213> Artificial sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 35

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Lys Ile
20 25 30

Leu Asp Ser Ile
35

<210> 36
<211> 36
<212> PRT
<213> Artificial sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 36

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Arg Leu
20 25 30

Leu Asp Ser Ile
35

<210> 37
<211> 36
<212> PRT
<213> Artificial sequence

682-2 PCT sequence listing ST.txt

<220>

<223> Derivative of HPIV3 HR2 domain

<400> 37

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Glu Ser Asn Lys Ile
20 25 30

Leu Asp Ser Ile
35

<210> 38

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Derivative of HPIV3 HR2 domain

<400> 38

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Glu Ser Asn Arg Leu
20 25 30

Leu Asp Ser Ile
35

<210> 39

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Derivative of HPIV3 HR2 domain

<400> 39

Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys Ser Asp Leu Glu Glu
1 5 10 15

Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys Leu Asp Ser Ile
20 25 30

<210> 40

<211> 36

<212> PRT

<213> Artificial Sequence

<220>

<223> Derivative of HPIV3 HR2 domain

<400> 40

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Val Ala Leu Asp Pro Ile Asp Ile Ser Glu Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 41
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 41

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

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 42
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 42

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ile Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 43
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 43

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

682-2 PCT sequence listing ST.txt

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Ile
20 25 30

Leu Asp Ser Ile
35

<210> 44
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 44

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Glu Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 45
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 45

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Lys Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 46
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 46

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

682-2 PCT sequence listing ST.txt

Ser Glu Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 47
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<220>
<221> MOD_RES
<222> (18)..(18)
<223> homoGlu

<400> 47

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Xaa Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile
35

<210> 48
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of HPIV3 HR2 domain

<400> 48

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Lys Ile
20 25 30

Leu Glu Ser Ile
35

<210> 49
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> HPIV3 HR2 domain with C-terminally attached linker

<400> 49

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Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

Leu Asp Ser Ile Gly Ser Gly Ser Gly Cys
35 40

<210> 50
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of Ebola virus HR2 domain

<400> 50

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Glu Lys Ile Asp Gln
1 5 10 15

Ile Ile His Asp Phe Val Asp Lys
20

<210> 51
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of Ebola virus HR2 domain

<400> 51

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Asp Lys Ile Asp Glu
1 5 10 15

Ile Ile His Asp Phe Val Asp Lys
20

<210> 52
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Derivative of Ebola virus HR2 domain

<400> 52

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Asp Lys Ile Glu Gln
1 5 10 15

Ile Ile Lys Asp Phe Val Asp Lys
20

<210> 53
<211> 30

682-2 PCT sequence listing ST.txt

<212> PRT

<213> Artificial Sequence

<220>

<223> Derivative of Ebola virus HR2 domain

<400> 53

Ile Glu Pro His Asp Trp Thr Lys Asn Ile Thr Asp Lys Ile Asp Gln
1 5 10 15

Ile Ile His Asp Phe Val Asp Lys Gly Ser Gly Ser Gly Cys
20 25 30

<210> 54

<211> 32

<212> PRT

<213> Human respiratory syncytial virus

<400> 54

Ser Asp Glu Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn
1 5 10 15

Gln Ser Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val
20 25 30

<210> 55

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 55

Ser Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 56

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 56

Val Asp Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 57

682-2 PCT sequence listing ST.txt

<211> 32
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence
 <400> 57
 Val Ala Glu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 20 25 30

<210> 58
 <211> 32
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence
 <400> 58
 Val Ala Leu Phe Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 20 25 30

<210> 59
 <211> 32
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence
 <400> 59
 Val Ala Leu Asp Asp Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 20 25 30

<210> 60
 <211> 32
 <212> PRT
 <213> Artificial Sequence
 <220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence
 <400> 60
 Val Ala Leu Asp Pro Ala Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 page 17

<210> 61
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 61

Val Ala Leu Asp Pro Ile Ser Ile Ser Ile Glu Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 20 25 30

<210> 62
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 62

Val Ala Leu Asp Pro Ile Asp Ile Ser Gln Glu Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 20 25 30

<210> 63
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 63

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ala Lys
 1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
 20 25 30

<210> 64
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 64

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Asn Asn Lys Ala Lys
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1 5 10 15
Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210>	65
<211>	32
<212>	PRT
<213>	Artificial Sequence

<220>
<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 65

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Glu Lys Ala Lys
1 5 10 15

Ser Asp Leu **Glu** Glu Ser Lys **Glu** Trp Ile Arg Arg Ser **Asn** Gly Lys
20 25 30

<210>	66
<211>	32
<212>	PRT
<213>	Artificial sequence

<220>
<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 66

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Glu Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210>	67
<211>	32
<212>	PRT
<213>	Artificial sequence

<220>
<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 67

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Asn
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210>	68
<211>	32
<212>	PRT
<213>	Artificial Sequence

<220>
<223> Chimere of HPV3 and RSV HR2 domain sequence

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<400> 68

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Gln Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 69

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 69

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Ser Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 70

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 70

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Ala Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 71

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 71

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Phe Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 72

<211> 32

<212> PRT

682-2 PCT sequence listing ST.txt

<213> Artificial Sequence

<220>

<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 72

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ile Lys Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 73

<211> 32

<212> PRT

<213> Artificial Sequence

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<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 73

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Arg Glu Trp Ile Arg Arg Ser Asn Gly Lys
20 25 30

<210> 74

<211> 32

<212> PRT

<213> Artificial Sequence

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<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 74

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
1 5 10 15

Ser Asp Leu Glu Glu Ser Lys Lys Trp Ile Arg Arg Ser Asn Gly Lys
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<210> 75

<211> 32

<212> PRT

<213> Artificial Sequence

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<223> Chimere of HPV3 and RSV HR2 domain sequence

<400> 75

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

682-2 PCT sequence listing ST.txt

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 1 5 10 15
 Ser Asp Leu Glu Glu Ser Lys Glu Trp Asp Arg Arg Ser Asn Gly Lys
 20 25 30

 <210> 77
 <211> 32
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 <400> 77
 Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
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 <211> 32
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 <212> PRT
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 <400> 79
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682-2 PCT sequence listing ST.txt

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Leu Asn Gly Lys
20 25 30

<210> 80
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<400> 80

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<400> 81

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20 25 30

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<400> 82

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Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gly Val
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<210> 83
<211> 31
<212> PRT
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<400> 83

Gly Thr Tyr Asp His Asp Val Tyr Arg Asp Glu Ala Leu Asn Asn Arg
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682-2 PCT sequence listing ST.txt

Phe Gln Ile Lys Gly Val Glu Leu Lys Ser Gly Tyr Lys Asp Trp
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<210> 84
<211> 28
<212> PRT
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<400> 84

Gly Thr Phe Asn Ala Gly Glu Phe Ser Leu Pro Thr Phe Asp Ser Leu
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<400> 85

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1 5 10 15

Gln Glu Ile Asp Gly Ile Lys Leu Lys Ser Glu Asp
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<210> 86
<211> 28
<212> PRT
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<400> 86

Gly Thr Tyr Asp His Lys Glu Phe Glu Glu Glu Ser Lys Ile Asn Arg
1 5 10 15

Gln Glu Ile Glu Gly Val Lys Leu Asp Ser Ser Gly
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<210> 87
<211> 28
<212> PRT
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<400> 87

Asn Thr Tyr Asp His Ser Thr Tyr Arg Glu Glu Ala Met Gln Asn Arg
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Val Lys Ile Asp Pro Val Lys Leu Ser Ser Gly Tyr
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<211> 28

682-2 PCT sequence listing ST.txt

<212> PRT

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Leu Asn Ile Asn Ser Val Lys Leu Ser Ser Gly Tyr
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<211> 28

<212> PRT

<213> Influenza A virus

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<211> 28

<212> PRT

<213> Influenza A virus

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Phe Gln Ile Gln Gly Val Lys Leu Ile Gln Gly Tyr
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<210> 91

<211> 28

<212> PRT

<213> Influenza A virus

<400> 91

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1 5 10 15

Asn Glu Ile Lys Gly Val Lys Leu Ser Ser Met Gly
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<210> 92

<211> 28

<212> PRT

<213> Influenza A virus

<400> 92

Gly Thr Tyr Asp Tyr Pro Gln Tyr Ser Glu Glu Ala Arg Leu Asn Arg
1 5 10 15

682-2 PCT sequence listing ST.txt

Glu Glu Ile Ser Gly Val Lys Leu Glu Ser Met Gly
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<212> PRT
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<400> 93

Gly Thr Tyr Asp Tyr Pro Lys Tyr Ser Glu Glu Ser Lys Leu Asn Arg
1 5 10 15

Glu Glu Ile Asp Gly Val Lys Leu Glu Ser Met Gly
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<210> 94
<211> 27
<212> PRT
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<400> 94

Gly Thr Tyr Asp His Asp Val Tyr Arg Asp Glu Ala Leu Asn Asn Arg
1 5 10 15

Phe Gln Ile Lys Gly Val Glu Leu Lys Ser Gly
20 25

<210> 95
<211> 21
<212> PRT
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Gly Thr Tyr Asp His Asp Val Tyr Arg Asp Glu Ala Leu Asn Asn Arg
1 5 10 15

Phe Gln Ile Lys Gly
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<210> 96
<211> 36
<212> PRT
<213> RSV

<400> 96

Ser Asp Glu Phe Asp Ala Ser Ile Ser Gln Val Asn Glu Lys Ile Asn
1 5 10 15

Gln Ser Leu Ala Phe Ile Arg Lys Ser Asp Glu Leu Leu His Asn Val
20 25 30

Asn Ala Gly Lys
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682-2 PCT sequence listing ST.txt

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 <212> PRT
 <213> RSV

<400> 97

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Gln Val Asn Glu Lys Ile Asn Gln Ser Leu Ala Phe Ile Arg Lys Ser
 20 25 30

Asp Glu Leu Leu His Asn Val
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 <211> 36
 <212> PRT
 <213> HPIV3

<400> 98

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Glu Leu Asn Lys Ala Lys
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Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Gln Lys
 20 25 30

Leu Asp Ser Ile
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<210> 99
 <211> 36
 <212> PRT
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<400> 99

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 1 5 10 15

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 20 25 30

Leu Asp Ser Ile
 35

<210> 100
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 <212> PRT
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<400> 100

Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ile Lys
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682-2 PCT sequence listing ST.txt

Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Lys Ile
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Leu Asp Ser Ile
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Val Ala Leu Asp Pro Ile Asp Ile Ser Ile Val Leu Asn Lys Ile Lys
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Ser Asp Leu Glu Glu Ser Lys Glu Trp Ile Arg Arg Ser Asn Lys Ile
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Leu Asp Ser Ile Gly Ser Gly Ser Gly Cys
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<210> 102
<211> 36
<212> PRT
<213> SV5

<400> 102

Leu Ser Ile Asp Pro Leu Asp Ile Ser Gln Asn Leu Ala Ala Val Asn
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Lys Ser Leu Ser Asp Ala Leu Gln His Leu Ala Gln Ser Asp Thr Tyr
20 25 30

Leu Ser Ala Ile
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<210> 103
<211> 36
<212> PRT
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<400> 103

Val Tyr Thr Asp Lys Val Asp Ile Ser Ser Gln Ile Ser Ser Met Asn
1 5 10 15

Gln Ser Leu Gln Gln Ser Lys Asp Tyr Ile Lys Glu Ala Gln Lys Ile
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Leu Asp Thr Val
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<210> 104
<211> 36

682-2 PCT sequence listing ST.txt

<212> PRT

<213> NiV

<400> 104

Val Phe Thr Asp Lys Val Asp Ile Ser Ser Gln Ile Ser Ser Met Asn
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Gln Ser Leu Gln Gln Ser Lys Asp Tyr Ile Lys Glu Ala Gln Arg Leu
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Leu Asp Thr Val
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<210> 105

<211> 37

<212> PRT

<213> Influenza A virus

<400> 105

Ala Asp Leu Lys Ser Thr Gln Ala Ala Ile Asp Gln Ile Asn Gly Lys
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Leu Asn Arg Leu Ile Gly Lys Thr Asn Glu Lys Phe His Gln Ile Glu
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Lys Glu Phe Ser Glu
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<223> Xaa can be any amino acid

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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Ile
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Xaa Xaa Xaa Xaa
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682-2 PCT sequence listing ST.txt

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Xaa Xaa Xaa Xaa
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682-2 PCT sequence listing ST.txt

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Xaa Xaa Xaa Xaa
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682-2 PCT sequence listing ST.txt

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Xaa Xaa Leu Xaa Xaa Ser Xaa Xaa Xaa Ile Xaa Xaa Ser Xaa Lys Ile
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682-2 PCT sequence listing ST.txt

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682-2 PCT sequence listing ST.txt

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Leu Xaa Xaa Ile
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682-2 PCT sequence listing ST.txt

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20 25 30

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Xaa Xaa Xaa Xaa
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682-2 PCT sequence listing ST.txt

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Xaa Xaa Xaa Xaa
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682-2 PCT sequence listing ST.txt

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 20 25 30

Leu Xaa Xaa Xaa
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682-2 PCT sequence listing ST.txt

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Val Xaa Xaa Asp Xaa Xaa Asp Ile Ser Xaa Xaa Leu Xaa Xaa Xaa Lys
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Leu Xaa Xaa Ile
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682-2 PCT sequence listing ST.txt

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Leu Xaa Xaa Ile
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 20 25 30

Leu Xaa Xaa Ile Gly Ser Gly Ser Gly Cys
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