

eolf-seql
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<110> Psioxus Therapeutics

<120> Membrane immunomodulators

<130> P000145_W0

<150> GB1507419.8

<151> 2015-04-30

<160> 109

<170> PatentIn version 3.5

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<211> 35

<212> DNA

<213> Artificial Sequence

<220>

<223> By DNA sequence corresponding to and including bp 29345-29379 of the EnAd genome.

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<220>

<223> PDGF TM domain

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<211> 14

eolf-seql

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> SPLICE ACCEPTOR SEQUENCE

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 <213> Artificial Sequence

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<213> Artificial Sequence

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<223> High efficiency self-cleavable P2A peptide sequence

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<223> High efficiency self-cleavable F2A peptide sequence

<400> 8

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Glu Asn Pro Gly Pro
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eolf-seql

<210> 9
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 <223> High efficiency self-cleavable E2A peptide sequence

<400> 9

Gly Ser Gly Gln Cys Thr Asn Tyr Ala Leu Leu Lys Leu Ala Gly Asp
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<210> 10
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<220>
 <223> High efficiency self-cleavable T2A peptide sequence

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 <213> Artificial Sequence

<220>
 <223> Human CD80 amino acid sequence

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 1 5 10 15

eolf-seq1

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20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
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Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
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Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
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Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
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Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
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Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
180 185 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
210 215 220

eolf-seq1

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
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Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
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<223> Human Interferona amino acid sequence

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Gly Ser Arg Arg Thr Leu Met Leu Leu Ala Gln Met Arg Arg Ile Ser
35 40 45

Leu Phe Ser Cys Leu Lys Asp Arg His Asp Phe Gly Phe Pro Gln Glu
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Glu Phe Gly Asn Gln Phe Gln Lys Ala Glu Thr Ile Pro Val Leu His
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Glu Met Ile Gln Gln Ile Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser
85 90 95

Ala Ala Trp Asp Glu Thr Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr
100 105 110

eolf-seql

Gln Gln Leu Asn Asp Leu Glu Ala Cys Val Ile Gln Gly Val Gly Val
115 120 125

Thr Glu Thr Pro Leu Met Lys Glu Asp Ser Ile Leu Ala Val Arg Lys
130 135 140

Tyr Phe Gln Arg Ile Thr Leu Tyr Leu Lys Glu Lys Lys Tyr Ser Pro
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Cys Ala Trp Glu Val Val Arg Ala Glu Ile Met Arg Ser Phe Ser Leu
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Ser Thr Asn Leu Gln Glu Ser Leu Arg Ser Lys Glu
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<210> 13
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<213> Artificial Sequence

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<223> Human soluble Flt3 ligand amino acid sequence

<400> 13

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20 25 30

Gln His Ser Pro Ile Ser Ser Asp Phe Ala Val Lys Ile Arg Glu Leu
35 40 45

Ser Asp Tyr Leu Leu Gln Asp Tyr Pro Val Thr Val Ala Ser Asn Leu
50 55 60

Gln Asp Glu Glu Leu Cys Gly Gly Leu Trp Arg Leu Val Leu Ala Gln
65 70 75 80

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Arg Trp Met Glu Arg Leu Lys Thr Val Ala Gly Ser Lys Met Gln Gly
85 90 95

Leu Leu Glu Arg Val Asn Thr Glu Ile His Phe Val Thr Lys Cys Ala
100 105 110

Phe Gln Pro Pro Pro Ser Cys Leu Arg Phe Val Gln Thr Asn Ile Ser
115 120 125

Arg Leu Leu Gln Glu Thr Ser Glu Gln Leu Val Ala Leu Lys Pro Trp
130 135 140

Ile Thr Arg Gln Asn Phe Ser Arg Cys Leu Glu Leu Gln Cys Gln Pro
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Asp Ser Ser Thr Leu Pro Pro Pro Trp Ser Pro Arg Pro Leu Glu Ala
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Thr Ala Pro

<210> 14

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<212> PRT

<213> Artificial Sequence

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<223> Human Macrophage Inflammatory protein 1a amino acid sequence
(LD78b isoform)

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20 25 30

Ala Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe Ile
35 40 45

Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Ser Val Ile

eolf-seql
50 55 60

Phe Leu Thr Lys Arg Gly Arg Gln Val Cys Ala Asp Pro Ser Glu Glu
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<210> 15
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<223> Membrane anchored form of the anti-human CD3 single chain Fv

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Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe
35 40 45

Thr Arg Tyr Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu
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Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn
65 70 75 80

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser
85 90 95

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp
115 120 125

eolf-seql

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Leu Thr Gln Ser
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Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
165 170 175

Ser Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser
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Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Leu Ala Ser
195 200 205

Gly Val Pro Ala His Phe Arg Gly Ser Gly Ser Gly Thr Ser Tyr Ser
210 215 220

Leu Thr Ile Ser Gly Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
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Gln Gln Trp Ser Ser Asn Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu
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Glu Ile Asn Arg Gly Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
260 265 270

Asn Ala Val Gly Gln Asp Thr Gln Glu Val Ile Val Val Pro His Ser
275 280 285

Leu Pro Phe Lys Val Val Val Ile Ser Ala Ile Leu Ala Leu Val Val
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Pro Arg

eolf-seql

<210> 16
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 <212> DNA
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eolf-seq1

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eolf-seql

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eolf-seq1

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eolf-seq1

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eolf-seql

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eolf-seql

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<223> NG-345 virus genome sequence comprising the EnAd genome with a transgene cassette that encodes Flt3 Ligand, MIP1a and IFNa, inserted in the region BY. The transgene cassette contains a 5' SSA, Flt3 Ligand cDNA , P2A peptide sequence, MIP1a cDNA sequence

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eolf-seql

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eolf-seql

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eolf-seql

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<213> Artificial Sequence

<220>

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10355-5068)

<400> 22

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eolf-seq1

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eolf-seq1

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eolf-seq1

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eolf-seql

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<220>

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eolf-seql

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<220>
 <223> A NON-CODING SEQUENCE SUITABLE FOR INCLUSION INTO BX

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<210> 25
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<220>
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<210> 26
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<220>
 <223> Hinge linker sequences

<400> 26

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<210> 27

eolf-seql

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Pro Ala

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eolf-seql

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<213> Artificial Sequence

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<223> Hinge linker sequence

<400> 31

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<210> 32

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Hinge linker sequence

<400> 32

Asp	Lys	Thr	His	Thr	Cys	Cys	Val	Glu	Cys	Pro	Pro	Cys	Pro	Ala
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<210> 33

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<212> PRT

<213> Artificial Sequence

eolf-seql

<220>

<223> Hinge linker sequence

<400> 33

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Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Ala
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<210> 34

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> Hinge linker sequence

<400> 34

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<210> 35

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 35

Ser	Gly	Gly	Gly	Gly	Ser	Glu
1				5		

<210> 36

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 36

Asp	Lys	Thr	His	Thr	Ser
-----	-----	-----	-----	-----	-----

1 5

<210> 37
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 37

Ser Gly Gly Gly Gly Ser
 1 5

<210> 38
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 38

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10

<210> 39
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 39

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
 1 5 10 15

<210> 40
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

eolf-seql

<400> 40

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

Gly Gly Gly Gly Ser
20

<210> 41

<211> 26

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 41

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 42

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 42

Ala Ala Ala Gly Ser Gly Gly Ala Ser Ala Ser
1 5 10

<210> 43

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

eolf-seql

<220>
 <221> misc_feature
 <222> (7)..(7)
 <223> Xaa can be any naturally occurring amino acid

<400> 43

Ala	Ala	Ala	Gly	Ser	Gly	Xaa	Gly	Gly	Gly	Ser	Gly	Ala	Ser	Ala	Ser
1				5				10					15		

<210> 44
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<220>
 <221> misc_feature
 <222> (7)..(7)
 <223> Xaa can be any naturally occurring amino acid

<220>
 <221> misc_feature
 <222> (12)..(12)
 <223> Xaa can be any naturally occurring amino acid

<400> 44

Ala	Ala	Ala	Gly	Ser	Gly	Xaa	Gly	Gly	Gly	Ser	Xaa	Gly	Gly	Gly	Ser
1				5				10					15		

Gly	Ala	Ser	Ala	Ser
			20	

<210> 45
 <211> 26
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
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 <222> (7)..(7)

eolf-seql

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (12)..(12)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (17)..(17)

<223> Xaa can be any naturally occurring amino acid

<400> 45

Ala	Ala	Ala	Gly	Ser	Gly	Xaa	Gly	Gly	Gly	Ser	Xaa	Gly	Gly	Gly	Ser
1				5				10						15	

Xaa	Gly	Gly	Gly	Ser	Gly	Ala	Ser	Ala	Ser
			20					25	

<210> 46

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<220>

<221> misc_feature

<222> (7)..(7)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (12)..(12)

<223> Xaa can be any naturally occurring amino acid

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<222> (17)..(17)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (22)..(22)

<223> Xaa can be any naturally occurring amino acid

<400> 46

eolf-seql

Ala Ala Ala Gly Ser Gly Xaa Gly Gly Gly Ser Xaa Gly Gly Gly Ser
1 5 10 15

Xaa Gly Gly Gly Ser Xaa Gly Gly Gly Ser Gly Ala Ser Ala Ser
20 25 30

<210> 47
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<220>
<221> misc_feature
<222> (7)..(7)

<400> 47

Ala Ala Ala Gly Ser Gly Xaa Ser Gly Ala Ser Ala Ser
1 5 10

<210> 48
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 48

Pro Gly Gly Asn Arg Gly Thr Thr Thr Thr Arg Arg Pro Ala Thr Thr
1 5 10 15

Thr Gly Ser Ser Pro Gly Pro Thr Gln Ser His Tyr
20 25

<210> 49
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

eolf-seql

<223> FLEXIBLE LINKER SEQUENCE

<400> 49

Ala Thr Thr Thr Gly Ser Ser Pro Gly Pro Thr
1 5 10

<210> 50

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 50

Ala Thr Thr Thr Gly Ser
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<210> 51

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 51

Glu Pro Ser Gly Pro Ile Ser Thr Ile Asn Ser Pro Pro Ser Lys Glu
1 5 10 15

Ser His Lys Ser Pro
20

<210> 52

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 52

Gly Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
1 5 10 15

eolf-seql

<210> 53
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 53

Gly	Gly	Gly	Gly	Ile	Ala	Pro	Ser	Met	Val	Gly	Gly	Gly	Gly	Ser
1				5					10					15

<210> 54
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 54

Gly	Gly	Gly	Gly	Lys	Val	Glu	Gly	Ala	Gly	Gly	Gly	Gly	Gly	Ser
1				5					10					15

<210> 55
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 55

Gly	Gly	Gly	Gly	Ser	Met	Lys	Ser	His	Asp	Gly	Gly	Gly	Gly	Ser
1				5					10					15

<210> 56
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

eolf-seql

<400> 56

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

<210> 57

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 57

Gly	Gly	Gly	Gly	Val	Val	Pro	Ser	Leu	Pro	Gly	Gly	Gly	Gly	Ser
1				5					10					15

<210> 58

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 58

Gly	Gly	Glu	Lys	Ser	Ile	Pro	Gly	Gly	Gly	Gly	Ser
1				5					10		

<210> 59

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> FLEXIBLE LINKER SEQUENCE

<400> 59

Arg	Pro	Leu	Ser	Tyr	Arg	Pro	Pro	Phe	Pro	Phe	Gly	Phe	Pro	Ser	Val
1				5					10					15	

Arg Pro

eolf-seql

<210> 60
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 60

Tyr Pro Arg Ser Ile Tyr Ile Arg Arg Arg His Pro Ser Pro Ser Leu
 1 5 10 15

Thr Thr

<210> 61
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 61

Thr Pro Ser His Leu Ser His Ile Leu Pro Ser Phe Gly Leu Pro Thr
 1 5 10 15

Phe Asn

<210> 62
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 62

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

Pro Ala

eolf-seql

<210> 63
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 63

Ser Pro Ala Ala His Phe Pro Arg Ser Ile Pro Arg Pro Gly Pro Ile
1 5 10 15

Arg Thr

<210> 64
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 64

Ala Pro Gly Pro Ser Ala Pro Ser His Arg Ser Leu Pro Ser Arg Ala
1 5 10 15

Phe Gly

<210> 65
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 65

Pro Arg Asn Ser Ile His Phe Leu His Pro Leu Leu Val Ala Pro Leu
1 5 10 15

eolf-seql

Gly Ala

<210> 66
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 66

Met	Pro	Ser	Leu	Ser	Gly	Val	Leu	Gln	Val	Arg	Tyr	Leu	Ser	Pro	Pro
1				5					10					15	

Asp Leu

<210> 67
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 67

Ser	Pro	Gln	Tyr	Pro	Ser	Pro	Leu	Thr	Leu	Thr	Leu	Pro	Pro	His	Pro
1				5					10					15	

Ser Leu

<210> 68
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 68

Asn	Pro	Ser	Leu	Asn	Pro	Pro	Ser	Tyr	Leu	His	Arg	Ala	Pro	Ser	Arg
1				5					10					15	

eolf-seql

Ile Ser

<210> 69
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 69

Leu	Pro	Trp	Arg	Thr	Ser	Leu	Leu	Pro	Ser	Leu	Pro	Leu	Arg	Arg	Arg
1				5					10					15	

Pro

<210> 70
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 70

Pro	Pro	Leu	Phe	Ala	Lys	Gly	Pro	Val	Gly	Leu	Leu	Ser	Arg	Ser	Phe
1				5					10					15	

Pro Pro

<210> 71
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> FLEXIBLE LINKER SEQUENCE

<400> 71

eolf-seq1

Val	Pro	Pro	Ala	Pro	Val	Val	Ser	Leu	Arg	Ser	Ala	His	Ala	Arg	Pro
1				5					10					15	

Pro Tyr

<210> 72
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 72

Leu	Arg	Pro	Thr	Pro	Pro	Arg	Val	Arg	Ser	Tyr	Thr	Cys	Cys	Pro	Thr
1				5					10					15	

Pro

<210> 73
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

<400> 73

Pro	Asn	Val	Ala	His	Val	Leu	Pro	Leu	Leu	Thr	Val	Pro	Trp	Asp	Asn
1				5					10					15	

Leu Arg

<210> 74
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FLEXIBLE LINKER SEQUENCE

eolf-seql

<400> 74

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

Phe Pro

<210> 75

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Rigid linker sequence

<400> 75

Gly	Ala	Pro	Ala	Pro	Ala	Ala	Pro	Ala	Pro	Ala
1				5				10		

<210> 76

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Rigid linker sequence

<400> 76

Pro Pro Pro Pro
1

<210> 77

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

<400> 77

Asp	Leu	Cys	Leu	Arg	Asp	Trp	Gly	Cys	Leu	Trp
1				5					10	

eolf-seql

<210> 78
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> LINKER SEQUENCE

<400> 78

Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp
1				5					10	

<210> 79
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> LINKER SEQUENCE

<400> 79

Met	Glu	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp	Gly	Asp
1				5					10					15

<210> 80
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> LINKER SEQUENCE

<400> 80

Gln	Arg	Leu	Met	Glu	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp
1				5					10					15	

Glu	Asp	Asp	Glu
			20

<210> 81
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>

eolf-seql

<223> LINKER SEQUENCE

<400> 81

Gln	Gly	Leu	Ile	Gly	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp
1				5					10					15	

Gly	Arg	Ser	Val
			20

<210> 82

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

<400> 82

Gln	Gly	Leu	Ile	Gly	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp
1				5					10					15	

Gly	Arg	Ser	Val	Lys
				20

<210> 83

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

<400> 83

Glu	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp	Glu	Asp	Asp
1				5					10					15

<210> 84

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

eolf-seql

<400> 84

Arg	Leu	Met	Glu	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp	Glu
1				5					10					15	

Asp Asp

<210> 85

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

<400> 85

Met	Glu	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp	Glu	Asp	Asp
1				5					10					15	

<210> 86

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

<400> 86

Met	Glu	Asp	Ile	Cys	Leu	Pro	Arg	Trp	Gly	Cys	Leu	Trp	Glu	Asp	
1				5					10					15	

<210> 87

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> LINKER SEQUENCE

<400> 87

Arg	Leu	Met	Glu	Asp	Ile	Cys	Leu	Ala	Arg	Trp	Gly	Cys	Leu	Trp	Glu
1				5					10					15	

eolf-seql

Asp Asp

<210> 88
 <211> 20
 <212> PRT
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<220>
 <223> LINKER SEQUENCE

<400> 88

Glu	Val	Arg	Ser	Phe	Cys	Thr	Arg	Trp	Pro	Ala	Glu	Lys	Ser	Cys	Lys
1				5					10					15	

Pro	Leu	Arg	Gly
			20

<210> 89
 <211> 20
 <212> PRT
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<220>
 <223> LINKER SEQUENCE

<400> 89

Arg	Ala	Pro	Glu	Ser	Phe	Val	Cys	Tyr	Trp	Glu	Thr	Ile	Cys	Phe	Glu
1				5					10					15	

Arg	Ser	Glu	Gln
			20

<210> 90
 <211> 11
 <212> PRT
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<220>
 <223> LINKER SEQUENCE

<400> 90

Glu	Met	Cys	Tyr	Phe	Pro	Gly	Ile	Cys	Trp	Met
1				5					10	

eolf-seql

<210> 91
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> PDGFR RECEPTOR A

<400> 91

Ala Val Leu Val Leu Leu Val Ile Val Ile Ile Ser Leu Ile Val Leu
 1 5 10 15

Val Val Ile Trp
 20

<210> 92
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> PDGFR RECEPTOR B

<400> 92

Val Val Ile Ser Ala Ile Leu Ala Leu Val Val Leu Thr Ile Ile Ser
 1 5 10 15

Leu Ile Ile Leu Ile
 20

<210> 93
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<220>
 <223> INSULIN-LIKE GROWTH FACTOR 1

<400> 93

Ile Ile Ile Gly Pro Pro Leu Ile Phe Val Phe Leu Phe Ser Val Val
 1 5 10 15

eolf-seql

Ile Gly Ser Ile Tyr Leu Phe Leu
20

<210> 94
<211> 28
<212> PRT
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<220>
<223> IL6-R

<400> 94

Ser Ser Ser Val Pro Leu Pro Thr Phe Leu Val Ala Gly Gly Ser Leu
1 5 10 15

Ala Phe Gly Thr Leu Leu Cys Ile Ala Ile Val Leu
20 25

<210> 95
<211> 27
<212> PRT
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<220>
<223> CD28

<400> 95

Phe Trp Val Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser Leu
1 5 10 15

Leu Val Thr Val Ala Phe Ile Ile Phe Trp Val
20 25

<210> 96
<211> 34522
<212> DNA
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<220>
<223> NG-348 virus genome sequence comprising a transgene cassette that
encoding a membrane-anchored chimeric form an anti-human CD3e
scFv, and CD80 inserted in the region BY

<400> 96
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eolf-seql

aaaaagtgtg gatcgtgtgg tgattggctg tgggggtaac ggctaaaagg ggcgggtgcga	120
ccgtgggaaa atgacgtttt gtgggggtgg agtttttttg caagttgtcg cgggaaatgt	180
gacgcataaa aaggcttttt tctcacggaa ctacttagtt ttcccacggt atttaacagg	240
aaatgaggta gttttgaccg gatgcaagtg aaaattgttg attttcgcgc gaaaactgaa	300
tgaggaagtg tttttctgaa taatgtggta tttatggcag ggtggagtat ttgttcaggg	360
ccaggtagac tttgacccat tacgtggagg tttcgattac cgtgtttttt acctgaattt	420
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aatctctgct gagactggaa atgaaatatt ggagcttgtg gtgcacgccc tgatgggaga	660
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taagtagaag cagacctgtg tggttagctc ataggagctg gctttcatcc atggagggttt	1620

eolf-seql

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gaacatggaa	ggttcgcaag	atgaggacaa	tcttaggtta	ctggccagt	g	cagcctttgg		2040
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eolf-seql

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eolf-seql

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eolf-seql

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eolf-seql

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<210> 97
 <211> 966
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> MEMBRANE TETHERED OKT3-SCFV NUCLEIC ACID SEQUENCE

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ccacgt	966

eolf-seql

<210> 98
 <211> 2196
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Transgene Cassette sequence - NG-348

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eolf-seql

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<210> 99
 <211> 333
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Membrane anchored form of the anti-human CD3 single chain Fv with
 C-terminal V5 tag

<400> 99

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```

```

Val His Ser Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg
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Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe

```

eolf-seql

35

40

45

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Glu Trp Ile Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn
 65 70 75 80

Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser
 85 90 95

Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
 100 105 110

Tyr Tyr Cys Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp
 115 120 125

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Gly Gly Ser Gly
 130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Leu Thr Gln Ser
 145 150 155 160

Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys Val Thr Met Thr Cys
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Ser Ala Ser Ser Ser Val Ser Tyr Met Asn Trp Tyr Gln Gln Lys Ser
 180 185 190

Gly Thr Ser Pro Lys Arg Trp Ile Tyr Asp Thr Ser Lys Leu Ala Ser
 195 200 205

Gly Val Pro Ala His Phe Arg Gly Ser Gly Ser Gly Thr Ser Tyr Ser
 210 215 220

Leu Thr Ile Ser Gly Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
 225 230 235 240

Gln Gln Trp Ser Ser Asn Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu

eolf-seql

245

250

255

Glu Ile Asn Arg Gly Ser Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 260 265 270

Asn Ala Val Gly Gln Asp Thr Gln Glu Val Ile Val Val Pro His Ser
 275 280 285

Leu Pro Phe Lys Val Val Val Ile Ser Ala Ile Leu Ala Leu Val Val
 290 295 300

Leu Thr Ile Ile Ser Leu Ile Ile Leu Ile Met Leu Trp Gln Lys Lys
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Pro Arg Gly Ser Ile Pro Asn Pro Leu Leu Gly Leu Asp
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<210> 100
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> V5 tag (9 amino acid variant)

<400> 100

Ile Pro Asn Pro Leu Leu Gly Leu Asp
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<210> 101
 <211> 34555
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> NG-348A virus genome sequence comprising a transgene cassette
 encoding a membrane-anchored chimeric form of the anti-human CD3e
 scFv with C-terminal V5 tag and CD80 inserted in the region BY

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eolf-seq1

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eolf-seq1

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eolf-seq1

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eolf-seql

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eolf-seq1

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eolf-seq1

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eolf-seq1

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<211> 33595
<212> DNA
<213> Artificial Sequence

<220>
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eolf-seq1

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eolf-seq1

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eolf-seq1

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eolf-seq1

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eolf-seq1

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<211> 33628

<212> DNA

<213> Artificial Sequence

<220>

<223> NG-420 virus genome sequence comprising a transgene cassette

eolf-seql
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scFv with a C-terminal V5 tag inserted in the region BY

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eolf-seql

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eolf-seq1

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eolf-seql

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eolf-seq1

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eolf-seql

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eolf-seq1

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eolf-seq1

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13

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eolf-seql

20

25

30

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