

SEQUENCE LISTING

<110> SICHUAN KELUN-BIOTECH BIOPHARMACEUTICAL CO., LTD.

<120> Anti-Nectin-4 antibody, conjugate including same, and application thereof

<130> P2021TC1734

<150> CN202010972365.6

<151> 2020-09-16

<150> CN202011624826.7

<151> 2020-12-31

<160> 64

<170> PatentIn version 3.5

<210> 1

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> 31#VH

<400> 1

Glu	Val	Gln	Leu	Gln	Gln	Pro	Gly	Ala	Asp	Leu	Val	Arg	Pro	Gly	Ala
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Ser	Val	Lys	Leu	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	Tyr
			20					25					30		

Trp	Met	Asn	Trp	Val	Lys	Leu	Arg	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile
		35					40					45			

Gly	Met	Ile	His	Pro	Ser	Asp	Ser	Glu	Thr	Arg	Leu	Asn	Gln	Lys	Phe
	50					55					60				

Lys	Asp	Lys	Ala	Thr	Leu	Thr	Val	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75				80	

Met	Gln	Leu	Ser	Ser	Pro	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys
				85					90					95	

Ala Arg Trp Asp Phe Arg Ile Tyr Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Ser Val Thr Val Ser Ser
115 120

<210> 2
<211> 113
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<213> Artificial Sequence

<220>
<223> 31#VL

<400> 2

Asp Val Val Ile Thr Gln Ser Pro Ser Ser Leu Ala Met Ser Val Gly
1 5 10 15

Gln Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Leu Leu Asn Thr
20 25 30

Asn Ser Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Val Tyr Phe Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ile Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Thr Ser Val Gln Ala Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln
85 90 95

His Tyr Ser Thr Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile
100 105 110

Lys

<210> 3
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<213> Artificial Sequence

<220>
<223> Chothia 31#/31HZ CDR-H1

<400> 3

Gly Tyr Thr Phe Thr Asp Tyr
1 5

<210> 4
<211> 6
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<213> Artificial Sequence

<220>
<223> Chothia 31# /31HZ CDR-H2

<400> 4

His Pro Ser Asp Ser Glu
1 5

<210> 5
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia/Abm/ Kabat 31# /31HZ CDR-H3

<400> 5

Trp Asp Phe Arg Ile Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 6
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> Chothia/Abm/ Kabat 31# /31HZ CDR-L1

<400> 6

Lys Ser Ser Gln Ser Leu Leu Asn Thr Asn Ser Gln Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 7

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Chothia/Abm/ Kabat 31# /31HZ CDR-L2

<400> 7

Phe Ala Ser Thr Arg Glu Ser
1 5

<210> 8

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Chothia/Abm/ Kabat/IMGT 31#/31HZ/74#/74HZ CDR-L3

<400> 8

Gln Gln His Tyr Ser Thr Pro Leu Thr
1 5

<210> 9

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Abm 31#/31HZ CDR-H1

<400> 9

Gly Tyr Thr Phe Thr Asp Tyr Trp Met Asn
1 5 10

<210> 10
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<220>
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<400> 10

Met Ile His Pro Ser Asp Ser Glu Thr Arg
1 5 10

<210> 11
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Kabat 31# /31HZ CDR-H1

<400> 11

Asp Tyr Trp Met Asn
1 5

<210> 12
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Kabat 31# CDR-H2

<400> 12

Met Ile His Pro Ser Asp Ser Glu Thr Arg Leu Asn Gln Lys Phe Lys
1 5 10 15

Asp

<210> 13
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 31# /31HZ CDR-H1

<400> 13

Gly Tyr Thr Phe Thr Asp Tyr Trp
1 5

<210> 14
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 31#/31HZ CDR-H2

<400> 14

Ile His Pro Ser Asp Ser Glu Thr
1 5

<210> 15
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 31# /31HZ CDR-H3

<400> 15

Ala Arg Trp Asp Phe Arg Ile Tyr Tyr Ala Met Asp Tyr
1 5 10

<210> 16
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<220>
<223> IMGT 31# /31HZ CDR-L1

<400> 16

Gln Ser Leu Leu Asn Thr Asn Ser Gln Lys Asn Tyr
1 5 10

<210> 17

<211> 3

<212> PRT

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<220>

<223> IMGT 31# /31HZ CDR-L2

<400> 17

Phe Ala Ser
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<210> 18

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Chothia 56HZ CDR-H1

<400> 18

Gly Tyr Phe Asn Ser Ile Thr Ser Asp Tyr
1 5 10

<210> 19

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> 56#VH

<400> 19

Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Tyr Ser Ile Thr Ser Asp
20 25 30

Tyr Asp Trp His Trp Ile Arg His Phe Pro Gly Asn Met Leu Glu Trp
35 40 45

Met Gly Tyr Ile Ser Phe Ser Gly Arg Thr Tyr Tyr Asn Pro Ser Leu
50 55 60

Lys Ser Arg Ile Ser Ile Thr His Asp Thr Ser Lys Asn His Phe Phe
65 70 75 80

Leu Arg Leu Asn Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys
85 90 95

Ala Arg Gly Asn Tyr Asp Gly Phe Asp Tyr Trp Gly Gln Gly Thr Thr
100 105 110

Leu Thr Val Ser Ser
115

<210> 20
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> 56#VL

<400> 20

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

Glu Arg Val Ser Phe Ser Cys Arg Ala Ser Gln Asn Ile Gly Thr Ser
20 25 30

Ile His Trp Tyr Gln His Arg Thr Asn Gly Ser Pro Arg Leu Leu Ile
35 40 45

Lys Phe Ala Ser Glu Ser Ile Ser Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Asn Ser Val Glu Ser
65 70 75 80

Glu Asp Ile Ala Asp Tyr Tyr Cys Gln Gln Ser Lys Ser Trp Pro Thr
85 90 95

Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 21
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia 56# CDR-H1

<400> 21

Gly Tyr Ser Ile Thr Ser Asp Tyr
1 5

<210> 22
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia 56#/56HZ CDR-H2

<400> 22

Ser Phe Ser Gly Arg
1 5

<210> 23
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia/Abm/ Kabat 56# /56HZ CDR-H3

<400> 23

Gly Asn Tyr Asp Gly Phe Asp Tyr
1 5

<210> 24

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Chothia/Abm/ Kabat 56# /56HZ CDR-L1

<400> 24

Arg Ala Ser Gln Asn Ile Gly Thr Ser Ile His
1 5 10

<210> 25

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Chothia/Abm/ Kabat 56# /56HZ CDR-L2

<400> 25

Phe Ala Ser Glu Ser Ile Ser
1 5

<210> 26

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Chothia/Abm/ Kabat/IMGT 56#/56HZ CDR-L3

<400> 26

Gln Gln Ser Lys Ser Trp Pro Thr Tyr Thr
1 5 10

<210> 27

<211> 11

<212> PRT
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<220>
<223> Abm 56# CDR-H1

<400> 27

Gly Tyr Ser Ile Thr Ser Asp Tyr Asp Trp His
1 5 10

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

<220>
<223> Abm 56# /56HZ CDR-H2

<400> 28

Tyr Ile Ser Phe Ser Gly Arg Thr Tyr
1 5

<210> 29
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Kabat 56# CDR-H1

<400> 29

Ser Asp Tyr Asp Trp His
1 5

<210> 30
<211> 16
<212> PRT
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<220>
<223> Kabat 56#/56HZ CDR-H2

<400> 30

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

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

<220>
<223> IMGT 56# CDR-H1

<400> 31

Gly Tyr Ser Ile Thr Ser Asp Tyr Asp
1 5

<210> 32
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 56#/56HZ CDR-H2

<400> 32

Ile Ser Phe Ser Gly Arg Thr
1 5

<210> 33
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 56# /56HZ CDR-H3

<400> 33

Ala Arg Gly Asn Tyr Asp Gly Phe Asp Tyr
1 5 10

<210> 34
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 56# /56HZ CDR-L1

<400> 34

Gln Asn Ile Gly Thr Ser
1 5

<210> 35
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 56#/56HZ CDR-L2

<400> 35

Phe Ala Ser
1

<210> 36
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Abm 56HZ CDR-H1

<400> 36

Gly Tyr Phe Asn Ser Ile Thr Ser Asp Tyr Asp Trp His
1 5 10

<210> 37
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> 74#VH

<400> 37

Glu Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ile Asn Tyr
20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Met Ile His Pro Ser Asp Ser Ala Thr Arg Leu Asn Gln Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Gln Leu Ser Ser Pro Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Trp Gly Asn Phe Tyr Thr Val Asn Ala Trp Tyr Tyr Phe Asp
100 105 110

Tyr Trp Gly His Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 38
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> 74#VL

<400> 38

Asp Ile Val Ile Thr Gln Ser Pro Ser Ser Leu Ala Met Ser Val Gly
1 5 10 15

Gln Lys Val Thr Met Ser Cys Lys Ser Ser Gln Thr Leu Leu Asn Ser
20 25 30

Asn Thr Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Phe Tyr Phe Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ile Gly Ser Gly Ser Gly Thr Asn Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln
85 90 95

His Tyr Ser Thr Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile
100 105 110

Lys

<210> 39
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia 74#/74HZ CDR-H1

<400> 39

Gly Tyr Thr Phe Ile Asn Tyr
1 5

<210> 40
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia 74#/74HZ CDR-H2

<400> 40

His Pro Ser Asp Ser Ala
1 5

<210> 41
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia/Abm/ Kabat 74#/74HZ CDR-H3

<400> 41

Trp	Gly	Asn	Phe	Tyr	Thr	Val	Asn	Ala	Trp	Tyr	Tyr	Phe	Asp	Tyr
1				5					10					15

<210> 42
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia/Abm/ Kabat 74#/74HZ CDR-L1

<400> 42

Lys	Ser	Ser	Gln	Thr	Leu	Leu	Asn	Ser	Asn	Thr	Gln	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 43
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Chothia/Abm/ Kabat 74#/74HZ CDR-L2

<400> 43

Phe	Ala	Ser	Thr	Arg	Glu	Ser
1				5		

<210> 44
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> Kabat 56HZ CDR-H1

<400> 44

Ile Thr Ser Asp Tyr Asp Trp His
1 5

<210> 45

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Abm 74#/74HZ CDR-H1

<400> 45

Gly Tyr Thr Phe Ile Asn Tyr Trp Met Asn
1 5 10

<210> 46

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Abm 74#/74HZ CDR-H2

<400> 46

Met Ile His Pro Ser Asp Ser Ala Thr Arg
1 5 10

<210> 47

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Kabat 74# /74HZ CDR-H1

<400> 47

Asn Tyr Trp Met Asn
1 5

<210> 48
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Kabat 74# CDR-H2

<400> 48

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

Asp

<210> 49
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 74#/74HZ CDR-H1

<400> 49

Gly Tyr Thr Phe Ile Asn Tyr Trp
1 5

<210> 50
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 74#/74HZ CDR-H2

<400> 50

Ile His Pro Ser Asp Ser Ala Thr
1 5

<210> 51
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 74#/74HZ CDR-H3

<400> 51

Ala	Arg	Trp	Gly	Asn	Phe	Tyr	Thr	Val	Asn	Ala	Trp	Tyr	Tyr	Phe	Asp
1				5					10					15	

Tyr

<210> 52
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 74#/74HZ CDR-L1

<400> 52

Gln	Thr	Leu	Leu	Asn	Ser	Asn	Thr	Gln	Lys	Asn	Tyr
1				5					10		

<210> 53
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> IMGT 74#/74HZ CDR-L2

<400> 53

Phe Ala Ser
1

<210> 54
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> IMGT 56HZ CDR-H1

<400> 54

Gly Tyr Phe Asn Ser Ile Thr Ser Asp Tyr Asp
1 5 10

<210> 55

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> 31HZ VH

<400> 55

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Trp Met Asn Trp Val Arg Leu Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Met Ile His Pro Ser Asp Ser Glu Thr Arg Leu Asn Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Trp Asp Phe Arg Ile Tyr Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 56
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> 31HZ VL

<400> 56

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Thr
20 25 30

Asn Ser Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Val Tyr Phe Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Phe Cys Gln Gln
85 90 95

His Tyr Ser Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
100 105 110

Lys

<210> 57
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> 56HZ VH

<400> 57

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Phe Asn Ser Ile Thr
20 25 30

Ser Asp Tyr Asp Trp His Trp Ile Arg His His Pro Gly Lys Gly Leu
35 40 45

Glu Trp Met Gly Tyr Ile Ser Phe Ser Gly Arg Thr Tyr Tyr Asn Pro
50 55 60

Ser Leu Lys Ser Arg Val Thr Ile Ser His Asp Thr Ser Lys Asn Gln
65 70 75 80

Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
85 90 95

Tyr Cys Ala Arg Gly Asn Tyr Asp Gly Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 58

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> 56HZ VL

<400> 58

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Asn Ile Gly Thr Ser
20 25 30

Ile His Trp Tyr Gln His Lys Pro Gly Gln Ser Pro Arg Leu Leu Ile
35 40 45

Lys Phe Ala Ser Glu Ser Ile Ser Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Lys Ser Trp Pro Thr
85 90 95

Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 59

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> 74HZ VH

<400> 59

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ile Asn Tyr
20 25 30

Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Met Ile His Pro Ser Asp Ser Ala Thr Arg Leu Asn Gln Ser Phe
50 55 60

Gln Gly Arg Val Thr Leu Thr Val Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Trp Gly Asn Phe Tyr Thr Val Asn Ala Trp Tyr Tyr Phe Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 60
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> 74HZ VL

<400> 60

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Thr Leu Leu Asn Ser
20 25 30

Asn Thr Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Phe Tyr Phe Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Phe Cys Gln Gln
85 90 95

His Tyr Ser Thr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
100 105 110

Lys

<210> 61
<211> 330
<212> PRT
<213> Artificial Sequence

<220>
<223> IgG1 heavy chain constant region

<400> 61

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

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

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
 165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
 225 230 235 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 325 330

<210> 62
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Kappa light chain constant region

<400> 62

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

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 63
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Kabat 31HZ CDR-H2

<400> 63

Met Ile His Pro Ser Asp Ser Glu Thr Arg Leu Asn Gln Lys Phe Gln
1 5 10 15

Gly

<210> 64
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Kabat 74HZ CDR-H2

<400> 64

Met	Ile	His	Pro	Ser	Asp	Ser	Ala	Thr	Arg	Leu	Asn	Gln	Ser	Phe	Gln
1				5					10					15	

Gly