

SEQUENCE LISTING

<110> Juno Therapeutics GmbH
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 Stemberger, Christian
 Poltorak, Mateusz Pawel
 Schmidt, Thomas

<120> Methods for selection and stimulation of
 cells and kits and apparatus for same

<130> 73504-20192.40

<140> Not Yet Assigned

<141> Concurrently Herewith

<150> US 62/753,911

<151> 2018-10-31

<150> US 62/842,511

<151> 2019-05-02

<150> US 62/861,314

<151> 2019-06-13

<160> 131

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 159

<212> PRT

<213> Streptomyces avidinii

<220>

<223> UniProt No. P22629

<400> 1

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Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	Phe	Ile	Val	Thr
		20					25					30			
Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Glu	Ser	Ala	Val	Gly
		35				40					45				
Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	Asp	Ser	Ala	Pro
50					55					60					
Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	Val	Ala	Trp	Lys

65					70					75					80	
Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser	Gly	Gln	Tyr	
				85						90				95		
Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu	Leu	Thr	Ser	
			100					105					110			
Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val	Gly	His	Asp	
		115					120				125					
Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	Ile	Asp	Ala	Ala	Lys	
	130					135				140						
Lys	Ala	Gly	Val	Asn	Asn	Gly	Asn	Pro	Leu	Asp	Ala	Val	Gln	Gln		
145					150				155							

<210> 2
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 <213> Streptomyces avidinii

<220>
 <223> Minimal streptavidin

<400> 2															
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1				5				10					15		
Phe	Ile	Val	Thr	Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Glu
			20					25				30			
Ser	Ala	Val	Gly	Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr
		35					40				45				
Asp	Ser	Ala	Pro	Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr
	50					55				60					
Val	Ala	Trp	Lys	Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp
65				70				75					80		
Ser	Gly	Gln	Tyr	Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp
			85					90				95			
Leu	Leu	Thr	Ser	Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu
		100					105				110				
Val	Gly	His	Asp	Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	
	115					120				125					

<210> 3
 <211> 159
 <212> PRT
 <213> Streptomyces avidinii

<220>
 <223> Mutein Streptavidin Val44-Thr45-Ala46-Arg47

<400> 3
 Asp Pro Ser Lys Asp Ser Lys Ala Gln Val Ser Ala Ala Glu Ala Gly

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Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	Phe	Ile	Val	Thr	
			20					25					30			
Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Val	Thr	Ala	Arg	Gly	
		35					40					45				
Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	Asp	Ser	Ala	Pro	
	50					55					60					
Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	Val	Ala	Trp	Lys	
65					70					75					80	
Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser	Gly	Gln	Tyr	
			85						90					95		
Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu	Leu	Thr	Ser	
			100					105					110			
Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val	Gly	His	Asp	
		115					120					125				
Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	Ile	Asp	Ala	Ala	Lys	
	130					135					140					
Lys	Ala	Gly	Val	Asn	Asn	Gly	Asn	Pro	Leu	Asp	Ala	Val	Gln	Gln		
145					150					155						

<210> 4

<211> 127

<212> PRT

<213> Streptomyces avidinii

<220>

<223> Mutein Streptavidin Val44-Thr45-Ala46-Arg47

<400> 4

Met	Glu	Ala	Gly	Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	
1				5				10					15			
Phe	Ile	Val	Thr	Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Val	
			20					25					30			
Thr	Ala	Arg	Gly	Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	
		35					40					45				
Asp	Ser	Ala	Pro	Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	
	50					55					60					
Val	Ala	Trp	Lys	Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	
65					70					75					80	
Ser	Gly	Gln	Tyr	Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	
			85					90						95		
Leu	Leu	Thr	Ser	Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	
		100					105						110			
Val	Gly	His	Asp	Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser		
		115					120					125				

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<211> 159

<212> PRT

<213> Streptomyces avidinii

<220>

<223> Mutein Streptavidin Ile44-Gly45-Ala-46-Arg47

<400> 5

Asp	Pro	Ser	Lys	Asp	Ser	Lys	Ala	Gln	Val	Ser	Ala	Ala	Glu	Ala	Gly
1				5					10					15	
Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	Phe	Ile	Val	Thr
			20					25					30		
Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Ile	Gly	Ala	Arg	Gly
			35				40					45			
Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	Asp	Ser	Ala	Pro
	50					55				60					
Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	Val	Ala	Trp	Lys
65					70					75				80	
Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser	Gly	Gln	Tyr
			85						90					95	
Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu	Leu	Thr	Ser
			100					105					110		
Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val	Gly	His	Asp
		115					120				125				
Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	Ile	Asp	Ala	Ala	Lys
	130					135				140					
Lys	Ala	Gly	Val	Asn	Asn	Gly	Asn	Pro	Leu	Asp	Ala	Val	Gln	Gln	
145					150					155					

<210> 6

<211> 127

<212> PRT

<213> Streptomyces avidinii

<220>

<223> Mutein Streptavidin Ile44-Gly45-Ala-46-Arg47

<400> 6

Met	Glu	Ala	Gly	Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr
1				5					10					15	
Phe	Ile	Val	Thr	Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Ile
			20					25					30		
Gly	Ala	Arg	Gly	Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr
		35					40					45			
Asp	Ser	Ala	Pro	Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr
	50					55				60					
Val	Ala	Trp	Lys	Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp
65					70					75				80	
Ser	Gly	Gln	Tyr	Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp
				85					90					95	

Leu	Leu	Thr	Ser	Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu
			100					105					110		
Val	Gly	His	Asp	Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser	
		115					120						125		

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

<220>
 <223> Streptavidin binding peptide, Strep-tag (R)

<400> 7
 Trp Arg His Pro Gln Phe Gly Gly
 1 5

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

<220>
 <223> Strep-tag(R) II

<400> 8
 Trp Ser His Pro Gln Phe Glu Lys
 1 5

<210> 9
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Streptavidin Binding peptide

<220>
 <221> VARIANT
 <222> 3
 <223> Xaa is selected from Gln, Asp, and Met

<400> 9
 His Pro Xaa
 1

<210> 10
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Streptavidin-binding peptide

<400> 10
His Pro Gln Phe
1

<210> 11
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Streptavidin-binding peptide

<220>
<221> VARIANT
<222> 1
<223> Xaa is Trp, Lys, or Arg

<220>
<221> VARIANT
<222> 2
<223> Xaa is any amino acid

<220>
<221> VARIANT
<222> 7
<223> Xaa is Gly or Glu

<220>
<221> VARIANT
<222> 8
<223> Xaa is Gly, Lys, or Arg

<400> 11
Xaa Xaa His Pro Gln Phe Xaa Xaa
1 5

<210> 12
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Streptavidin-binding peptide

<220>
<221> VARIANT
<222> 2
<223> Xaa is any amino acid

<220>
<221> VARIANT
<222> 7
<223> Xaa is Gly or Glu

<220>
<221> VARIANT
<222> 8
<223> Xaa Gly, Lys, or Arg

<400> 12
Trp Xaa His Pro Gln Phe Xaa Xaa
1 5

<210> 13
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Sequential modules of streptavidin-binding peptide

<220>
<221> VARIANT
<222> 9
<223> Xaa is any amino acid

<220>
<221> VARIANT
<222> 10
<223> Xaa is any amino acid

<220>
<221> VARIANT
<222> 11
<223> Xaa is any amino acid

<220>
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<223> Xaa is any amino acid

<220>

<221> VARIANT

<222> 13

<223> Xaa is any amino acid

<220>

<221> VARIANT

<222> (14)...(14)

<223> Xaa is any amino acid

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<221> VARIANT

<222> (15)...(15)

<223> Xaa is any amino acid

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<221> VARIANT

<222> (16)...(16)

<223> Xaa is any amino acid

<220>

<221> VARIANT

<222> (17)...(17)

<223> Xaa is any amino acid or null

<220>

<221> VARIANT

<222> (18)...(18)

<223> Xaa is any amino acid if Xaa at position 17 is any amino acid, otherwise Xaa is null

<220>

<221> VARIANT

<222> (19)...(19)

<223> Xaa is any amino acid if Xaa at position 17 is any amino acid, otherwise Xaa is null

<220>

<221> VARIANT

<222> (20)...(20)

<223> Xaa is any amino acid if Xaa at position 17 is any amino acid, otherwise Xaa is null

<400> 13

Trp	Ser	His	Pro	Gln	Phe	Glu	Lys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1				5				10						15	
Xaa	Xaa	Xaa	Xaa	Trp	Ser	His	Pro	Gln	Phe	Glu	Lys				
			20				25								

<210> 14

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Sequential modules of streptavidin-binding peptide

<220>

<221> VARIANT

<222> 17

<223> Xaa is Gly or null

<220>

<221> VARIANT

<222> 18

<223> Xaa is Gly if Xaa at position 17 is Gly, otherwise Xaa is null

<220>

<221> VARIANT

<222> 19

<223> Xaa is Gly if Xaa at position 17 is Gly, otherwise Xaa is null

<220>

<221> VARIANT

<222> 20

<223> Xaa is Ser if Xaa at position 17 is Gly, otherwise Xaa is null

<400> 14

Trp	Ser	His	Pro	Gln	Phe	Glu	Lys	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Ser
1				5				10						15	
Xaa	Xaa	Xaa	Xaa	Trp	Ser	His	Pro	Gln	Phe	Glu	Lys				
			20				25								

<210> 15

<211> 30

<212> PRT
<213> Artificial Sequence

<220>
<223> Twin-Strep-tag

<400> 15
Ser Ala Trp Ser His Pro Gln Phe Glu Lys Gly Gly Gly Ser Gly Gly
1 5 10 15
Gly Ser Gly Gly Gly Ser Trp Ser His Pro Gln Phe Glu Lys
20 25 30

<210> 16
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Twin-Strep-tag

<400> 16
Ser Ala Trp Ser His Pro Gln Phe Glu Lys Gly Gly Gly Ser Gly Gly
1 5 10 15
Gly Ser Gly Gly Ser Ala Trp Ser His Pro Gln Phe Glu Lys
20 25 30

<210> 17
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Twin-Strep-tag

<400> 17
Trp Ser His Pro Gln Phe Glu Lys Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15
Gly Gly Gly Ser Trp Ser His Pro Gln Phe Glu Lys
20 25

<210> 18
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Twin-Strep-tag

<400> 18

Trp Ser His Pro Gln Phe Glu Lys Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15
Trp Ser His Pro Gln Phe Glu Lys
20

<210> 19

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Twin-Strep-tag

<400> 19

Trp Ser His Pro Gln Phe Glu Lys Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15
Gly Gly Ser Ala Trp Ser His Pro Gln Phe Glu Lys
20 25

<210> 20

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> HA-tag

<400> 20

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 21

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> VSV-G-tag

<400> 21

Tyr Thr Asp Ile Glu Met Asn Arg Leu Gly Lys
1 5 10

<210> 22

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

<220>
<223> HSV-tag

<400> 22
Gln Pro Glu Leu Ala Pro Glu Asp Pro Glu Asp
1 5 10

<210> 23
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> T7 epitope

<400> 23
Ala Ser Met Thr Gly Gly Gln Gln Met Gly
1 5 10

<210> 24
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> HSV epitope

<400> 24
Gln Pro Glu Leu Ala Pro Glu Asp Pro Glu Asp
1 5 10

<210> 25
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Myc epitope

<400> 25
Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 26
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> V5-tag

<400> 26
Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr
1 5 10

<210> 27
<211> 126
<212> PRT
<213> Streptomyces avidinii

<220>
<223> Mutein Streptavidin Val44-Thr45-Ala46-Arg47 and
Glu117, Gly120, Tyr121 (mutein m1-9)

<400> 27
Glu Ala Gly Ile Thr Gly Thr Trp Tyr Asn Gln Leu Gly Ser Thr Phe
1 5 10 15
Ile Val Thr Ala Gly Ala Asp Gly Ala Leu Thr Gly Thr Tyr Val Thr
20 25 30
Ala Arg Gly Asn Ala Glu Ser Arg Tyr Val Leu Thr Gly Arg Tyr Asp
35 40 45
Ser Ala Pro Ala Thr Asp Gly Ser Gly Thr Ala Leu Gly Trp Thr Val
50 55 60
Ala Trp Lys Asn Asn Tyr Arg Asn Ala His Ser Ala Thr Thr Trp Ser
65 70 75 80
Gly Gln Tyr Val Gly Gly Ala Glu Ala Arg Ile Asn Thr Gln Trp Leu
85 90 95
Leu Thr Ser Gly Thr Thr Glu Glu Asn Ala Gly Tyr Ser Thr Leu Val
100 105 110
Gly His Asp Thr Phe Thr Lys Val Lys Pro Ser Ala Ala Ser
115 120 125

<210> 28
<211> 139
<212> PRT
<213> Streptomyces avidinii

<220>
<223> Mutein Streptavidin Val44-Thr45-Ala46-Arg47 and
Glu117, Gly120, Tyr121 (mutein m1-9)

<400> 28

Asp Pro Ser Lys Asp Ser Lys Ala Gln Val Ser Ala Ala Glu Ala Gly
1 5 10 15
Ile Thr Gly Thr Trp Tyr Asn Gln Leu Gly Ser Thr Phe Ile Val Thr
20 25 30
Ala Gly Ala Asp Gly Ala Leu Thr Gly Thr Tyr Val Thr Ala Arg Gly
35 40 45
Asn Ala Glu Ser Arg Tyr Val Leu Thr Gly Arg Tyr Asp Ser Ala Pro
50 55 60
Ala Thr Asp Gly Ser Gly Thr Ala Leu Gly Trp Thr Val Ala Trp Lys
65 70 75 80
Asn Asn Tyr Arg Asn Ala His Ser Ala Thr Thr Trp Ser Gly Gln Tyr
85 90 95
Val Gly Gly Ala Glu Ala Arg Ile Asn Thr Gln Trp Leu Leu Thr Ser
100 105 110
Gly Thr Thr Glu Glu Asn Ala Gly Tyr Ser Thr Leu Val Gly His Asp
115 120 125
Thr Phe Thr Lys Val Lys Pro Ser Ala Ala Ser
130 135

<210> 29

<211> 253

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable Heavy chain of Fab fragment m13B8.2

<400> 29

Ala Met Gln Val Gln Leu Lys Gln Ser Gly Pro Gly Leu Val Gln Pro
1 5 10 15
Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Thr
20 25 30
Thr Phe Gly Val His Trp Val Arg Gln Ser Pro Gly Lys Gly Leu Glu
35 40 45
Trp Leu Gly Val Ile Trp Ala Ser Gly Ile Thr Asp Tyr Asn Val Pro
50 55 60
Phe Met Ser Arg Leu Ser Ile Thr Lys Asp Asn Ser Lys Ser Gln Val
65 70 75 80
Phe Phe Lys Leu Asn Ser Leu Gln Pro Asp Asp Thr Ala Ile Tyr Tyr
85 90 95
Cys Ala Lys Asn Asp Pro Gly Thr Gly Phe Ala Tyr Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ala Gly Ser Thr Lys Gly Pro Ser Val Phe
115 120 125
Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
130 135 140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp

145		150		155		160									
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
		165		170		175									
Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser
		180		185		190									
Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro
		195		200		205									
Ser	Asn	Thr	Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser	Cys	Gly	Ser
	210			215		220									
Ala	Trp	Ser	His	Pro	Gln	Phe	Glu	Lys	Gly	Gly	Gly	Ser	Gly	Gly	Gly
225				230		235									240
Ser	Gly	Gly	Ser	Ala	Trp	Ser	His	Pro	Gln	Phe	Glu	Lys			
			245						250						

<210> 30

<211> 218

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable Light chain of Fab Fragment m13B8.2

<400> 30

Ala	Met	Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ala	Ser	Leu	Ser	Ala	Ser
1			5				10						15		
Val	Gly	Glu	Thr	Val	Thr	Phe	Thr	Cys	Arg	Ala	Ser	Glu	Met	Ile	Tyr
		20				25						30			
Ser	Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Gln	Gly	Lys	Ser	Pro	Gln	Leu
	35					40						45			
Leu	Val	His	Asp	Ala	Lys	Thr	Leu	Ala	Glu	Gly	Val	Pro	Ser	Arg	Phe
	50				55				60						
Ser	Gly	Gly	Gly	Ser	Gly	Thr	Gln	Phe	Ser	Leu	Lys	Ile	Asn	Thr	Leu
65				70				75						80	
Gln	Pro	Glu	Asp	Phe	Gly	Thr	Tyr	Tyr	Cys	Gln	Ala	His	Tyr	Gly	Asn
			85					90					95		
Pro	Pro	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Gly	Ile
		100					105					110			
Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys
	115					120					125				
Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg
	130				135					140					
Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	Asn
145				150				155						160	
Ser	Gln	Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser	Lys	Asp	Ser	Thr	Tyr	Ser
			165					170						175	
Leu	Ser	Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala	Asp	Tyr	Glu	Lys	His	Lys
		180					185						190		
Val	Tyr	Ala	Cys	Glu	Val	Thr	His	Gln	Gly	Leu	Ser	Ser	Pro	Val	Thr
	195						200					205			

Lys Ser Phe Asn Arg Gly Glu Cys Gly Ser
210 215

<210> 31
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Variable Heavy chain of anti-CD3 antibody OKT3

<400> 31
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
1 5 10 15
Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr
20 25 30
Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe
50 55 60
Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Thr Leu Thr Val Ser Ser
115

<210> 32
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Variable Light chain of anti-CD3 antibody OKT3

<400> 32
Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15
Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30
Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
35 40 45
Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ala His Phe Arg Gly Ser
50 55 60
Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Gly Met Glu Ala Glu
65 70 75 80

Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Ser	Ser	Asn	Pro	Phe	Thr
				85					90					95	
Phe	Gly	Ser	Gly	Thr	Lys	Leu	Glu	Ile	Asn						
			100					105							

<210> 33
 <211> 116
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable Heavy chain of anti-CD28 antibody CD28.3

Leu	Gln	Gln	Ser	Gly	Ala	Glu	Leu	Val	Lys	Pro	Gly	Ala	Ser	Val	Arg
1				5					10					15	
Leu	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Tyr	Ile	Ile	His
			20					25					30		
Trp	Ile	Lys	Leu	Arg	Ser	Gly	Gln	Gly	Leu	Glu	Trp	Ile	Gly	Trp	Phe
		35				40						45			
Tyr	Pro	Gly	Ser	Asn	Asp	Ile	Gln	Tyr	Asn	Ala	Lys	Phe	Lys	Gly	Lys
	50					55					60				
Ala	Thr	Leu	Thr	Ala	Asp	Lys	Ser	Ser	Ser	Thr	Val	Tyr	Met	Glu	Leu
65					70					75				80	
Thr	Gly	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Phe	Cys	Ala	Arg	Arg
				85					90					95	
Asp	Asp	Phe	Ser	Gly	Tyr	Asp	Ala	Leu	Pro	Tyr	Trp	Gly	Gln	Gly	Thr
			100					105					110		
Met	Val	Thr	Val												
			115												

<210> 34
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable Light chain of anti-CD28 antibody CD28.3

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ala	Ser	Leu	Ser	Val	Ser	Val	Gly
1				5					10					15	
Glu	Thr	Val	Thr	Ile	Thr	Cys	Arg	Thr	Asn	Glu	Asn	Ile	Tyr	Ser	Asn
			20					25					30		
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Gln	Gly	Lys	Ser	Pro	Gln	Leu	Leu	Ile
		35					40					45			
Tyr	Ala	Ala	Thr	His	Leu	Val	Glu	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				

Ser	Gly	Ser	Gly	Thr	Gln	Tyr	Ser	Leu	Lys	Ile	Thr	Ser	Leu	Gln	Ser
65					70					75				80	
Glu	Asp	Phe	Gly	Asn	Tyr	Tyr	Cys	Gln	His	Phe	Trp	Gly	Thr	Pro	Cys
			85					90						95	
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg				
		100					105								

<210> 35
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> MAT tag

<400> 35
 His Asn His Arg His Lys His Gly Gly Gly Cys
 1 5 10

<210> 36
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable Heavy chain of huOKT8

<400> 36
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Thr Val Lys Ile Ser Cys Lys Val Ser Gly Phe Asn Ile Lys Asp Thr
 20 25 30
 Tyr Ile His Trp Val Gln Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Arg Ile Asp Pro Ala Asn Asp Asn Thr Leu Tyr Ala Ser Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Asp 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 Gly Tyr Gly Tyr Tyr Val Phe Asp His Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Ser
 115

<210> 37
 <211> 107

<212> PRT
<213> Artificial Sequence

<220>
<223> Variable Light chain of huOKT8

<400> 37
Asp Val Gln Ile Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Thr Ser Arg Ser Ile Ser Gln Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35 40 45
Tyr Ser Gly Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln His Asn Glu Asn Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

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

<220>
<223> Linker

<400> 38
Pro Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15
Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Pro
20 25 30

<210> 39
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker

<400> 39
Gly Ser Ala Asp Asp Ala Lys Lys Asp Ala Ala Lys Lys Asp Gly Lys
1 5 10 15
Ser

<210> 40
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> GMCSFR alpha chain

<400> 40
Met Leu Leu Leu Val Thr Ser Leu Leu Leu Cys Glu Leu Pro His Pro
1 5 10 15
Ala Phe Leu Leu Ile Pro
20

<210> 41
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> GMCSFR alpha chain

<400> 41
atgcttctcc tgggtgacaag ccttctgctc tgtgagttac cacacccagc attcctcctg 60
atccca 66

<210> 42
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> CD8 alpha signal peptide

<400> 42
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15
His Ala

<210> 43
<211> 357
<212> PRT
<213> Artificial Sequence

<223> truncated epidermal growth factor receptor (tEGFR)

[illegible]

<210> 44

<211> 335

<212> PRT

<213> Artificial Sequence

<220>

<223> truncated epidermal growth factor receptor (tEGFR)

<400> 44

Arg	Lys	Val	Cys	Asn	Gly	Ile	Gly	Ile	Gly	Glu	Phe	Lys	Asp	Ser	Leu
1				5					10					15	
Ser	Ile	Asn	Ala	Thr	Asn	Ile	Lys	His	Phe	Lys	Asn	Cys	Thr	Ser	Ile
			20					25					30		
Ser	Gly	Asp	Leu	His	Ile	Leu	Pro	Val	Ala	Phe	Arg	Gly	Asp	Ser	Phe
		35					40					45			
Thr	His	Thr	Pro	Pro	Leu	Asp	Pro	Gln	Glu	Leu	Asp	Ile	Leu	Lys	Thr
	50					55					60				
Val	Lys	Glu	Ile	Thr	Gly	Phe	Leu	Leu	Ile	Gln	Ala	Trp	Pro	Glu	Asn
65					70					75				80	
Arg	Thr	Asp	Leu	His	Ala	Phe	Glu	Asn	Leu	Glu	Ile	Ile	Arg	Gly	Arg
				85					90					95	
Thr	Lys	Gln	His	Gly	Gln	Phe	Ser	Leu	Ala	Val	Val	Ser	Leu	Asn	Ile
			100					105					110		
Thr	Ser	Leu	Gly	Leu	Arg	Ser	Leu	Lys	Glu	Ile	Ser	Asp	Gly	Asp	Val
		115					120					125			
Ile	Ile	Ser	Gly	Asn	Lys	Asn	Leu	Cys	Tyr	Ala	Asn	Thr	Ile	Asn	Trp
	130					135					140				
Lys	Lys	Leu	Phe	Gly	Thr	Ser	Gly	Gln	Lys	Thr	Lys	Ile	Ile	Ser	Asn
145					150					155				160	
Arg	Gly	Glu	Asn	Ser	Cys	Lys	Ala	Thr	Gly	Gln	Val	Cys	His	Ala	Leu
				165					170					175	
Cys	Ser	Pro	Glu	Gly	Cys	Trp	Gly	Pro	Glu	Pro	Arg	Asp	Cys	Val	Ser
			180					185					190		
Cys	Arg	Asn	Val	Ser	Arg	Gly	Arg	Glu	Cys	Val	Asp	Lys	Cys	Asn	Leu
	195						200					205			
Leu	Glu	Gly	Glu	Pro	Arg	Glu	Phe	Val	Glu	Asn	Ser	Glu	Cys	Ile	Gln
	210					215						220			
Cys	His	Pro	Glu	Cys	Leu	Pro	Gln	Ala	Met	Asn	Ile	Thr	Cys	Thr	Gly
225					230					235					240
Arg	Gly	Pro	Asp	Asn	Cys	Ile	Gln	Cys	Ala	His	Tyr	Ile	Asp	Gly	Pro
				245					250					255	
His	Cys	Val	Lys	Thr	Cys	Pro	Ala	Gly	Val	Met	Gly	Glu	Asn	Asn	Thr
			260					265					270		
Leu	Val	Trp	Lys	Tyr	Ala	Asp	Ala	Gly	His	Val	Cys	His	Leu	Cys	His
		275					280					285			
Pro	Asn	Cys	Thr	Tyr	Gly	Cys	Thr	Gly	Pro	Gly	Leu	Glu	Gly	Cys	Pro
	290					295					300				
Thr	Asn	Gly	Pro	Lys	Ile	Pro	Ser	Ile	Ala	Thr	Gly	Met	Val	Gly	Ala

<210> 48
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> T2A

<400> 48
Glu Gly Arg Gly Ser Leu Leu Thr Cys Gly Asp Val Glu Glu Asn Pro
1 5 10 15
Gly Pro

<210> 49
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> P2A

<400> 49
Gly Ser Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val
1 5 10 15
Glu Glu Asn Pro Gly Pro
20

<210> 50
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> P2A

<400> 50
Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu Asn
1 5 10 15
Pro Gly Pro

<210> 51
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> CDR H1

<400> 51

Asp Tyr Gly Val Ser
1 5

<210> 52

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR H2

<400> 52

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

<210> 53

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR H3

<400> 53

Tyr Ala Met Asp Tyr Trp Gly
1 5

<210> 54

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR H3

<400> 54

His Tyr Tyr Tyr Gly Gly Ser Tyr Ala Met Asp Tyr
1 5 10

<210> 55

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR L1

<400> 55

Arg	Ala	Ser	Gln	Asp	Ile	Ser	Lys	Tyr	Leu	Asn
1				5					10	

<210> 56

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR L2

<400> 56

Ser	Arg	Leu	His	Ser	Gly	Val
1			5			

<210> 57

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR L2

<400> 57

His	Thr	Ser	Arg	Leu	His	Ser
1			5			

<210> 58

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR L3

<400> 58

Gly	Asn	Thr	Leu	Pro	Tyr	Thr	Phe	Gly
1			5					

<210> 59

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

<220>
<223> CDR L3

<400> 59
Gln Gln Gly Asn Thr Leu Pro Tyr Thr
1 5

<210> 60
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 60
Glu Val Lys Leu Gln Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln
1 5 10 15
Ser Leu Ser Val Thr Cys Thr Val Ser Gly Val Ser Leu Pro Asp Tyr
20 25 30
Gly Val Ser Trp Ile Arg Gln Pro Pro Arg Lys Gly Leu Glu Trp Leu
35 40 45
Gly Val Ile Trp Gly Ser Glu Thr Thr Tyr Tyr Asn Ser Ala Leu Lys
50 55 60
Ser Arg Leu Thr Ile Ile Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
65 70 75 80
Lys Met Asn Ser Leu Gln Thr Asp Asp Thr Ala Ile Tyr Tyr Cys Ala
85 90 95
Lys His Tyr Tyr Tyr Gly Gly Ser Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110
Gly Thr Ser Val Thr Val Ser Ser
115 120

<210> 61
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 61
Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp	Arg	Val	Thr	Ile	Ser	Cys	Arg	Ala	Ser	Gln	Asp	Ile	Ser	Lys	Tyr
			20					25					30		
Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Asp	Gly	Thr	Val	Lys	Leu	Leu	Ile
		35					40					45			
Tyr	His	Thr	Ser	Arg	Leu	His	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Tyr	Ser	Leu	Thr	Ile	Ser	Asn	Leu	Glu	Gln
65					70					75				80	
Glu	Asp	Ile	Ala	Thr	Tyr	Phe	Cys	Gln	Gln	Gly	Asn	Thr	Leu	Pro	Tyr
			85					90						95	
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Thr					
			100					105							

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

<220>
 <223> Linker

<400> 62
 Gly Ser Thr Ser Gly Ser Gly Lys Pro Gly Ser Gly Glu Gly Ser Thr
 1 5 10 15
 Lys Gly

<210> 63
 <211> 735
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Sequence encoding scFv

<400> 63
 gacatccaga tgacccagac cacctccagc ctgagcgcca gcctgggcca ccgggtgacc 60
 atcagctgcc gggccagcca ggacatcagc aagtacctga actggtatca gcagaagccc 120
 gacggcaccg tcaagctgct gatctaccac accagccggc tgcacagcgg cgtgcccagc 180
 cggtttagcg gcagcggctc cggcaccgac tacagcctga ccatctccaa cctggaacag 240
 gaagatatcg ccacctactt ttgccagcag ggcaacacac tgccctacac ctttggcggc 300
 ggaacaaagc tggaaatcac cggcagcacc tccggcagcg gcaagcctgg cagcggcgag 360
 ggcagcacca agggcgaggt gaagctgcag gaaagcggcc ctggcctggg ggccccagc 420
 cagagcctga gcgtgacctg caccgtgagc ggctgagcc tgcccacta cggcgtgagc 480
 tggatccggc agccccccag gaagggcctg gaatggctgg gcgtgatctg gggcagcgag 540
 accacctact acaacagcgc cctgaagagc cggctgacca tcatcaagga caacagcaag 600
 agccaggtgt tcctgaagat gaacagcctg cagaccgacg acaccgcat ctactactgc 660
 gccaaagcact actactacgg cggcagctac gccatggact actggggcca gggcaccagc 720

gtgaccgtga gcagc

735

<210> 64

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> scFv

<400> 64

Asp	Ile	Gln	Met	Thr	Gln	Thr	Thr	Ser	Ser	Leu	Ser	Ala	Ser	Leu	Gly
1				5				10						15	
Asp	Arg	Val	Thr	Ile	Ser	Cys	Arg	Ala	Ser	Gln	Asp	Ile	Ser	Lys	Tyr
			20					25					30		
Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Asp	Gly	Thr	Val	Lys	Leu	Leu	Ile
		35					40					45			
Tyr	His	Thr	Ser	Arg	Leu	His	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Tyr	Ser	Leu	Thr	Ile	Ser	Asn	Leu	Glu	Gln
65					70					75				80	
Glu	Asp	Ile	Ala	Thr	Tyr	Phe	Cys	Gln	Gln	Gly	Asn	Thr	Leu	Pro	Tyr
				85					90					95	
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Thr	Gly	Ser	Thr	Ser	Gly
			100					105					110		
Ser	Gly	Lys	Pro	Gly	Ser	Gly	Glu	Gly	Ser	Thr	Lys	Gly	Glu	Val	Lys
		115					120					125			
Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Ala	Pro	Ser	Gln	Ser	Leu	Ser
	130					135					140				
Val	Thr	Cys	Thr	Val	Ser	Gly	Val	Ser	Leu	Pro	Asp	Tyr	Gly	Val	Ser
145					150					155				160	
Trp	Ile	Arg	Gln	Pro	Pro	Arg	Lys	Gly	Leu	Glu	Trp	Leu	Gly	Val	Ile
				165					170					175	
Trp	Gly	Ser	Glu	Thr	Thr	Tyr	Tyr	Asn	Ser	Ala	Leu	Lys	Ser	Arg	Leu
			180					185					190		
Thr	Ile	Ile	Lys	Asp	Asn	Ser	Lys	Ser	Gln	Val	Phe	Leu	Lys	Met	Asn
	195					200						205			
Ser	Leu	Gln	Thr	Asp	Asp	Thr	Ala	Ile	Tyr	Tyr	Cys	Ala	Lys	His	Tyr
	210					215					220				
Tyr	Tyr	Gly	Gly	Ser	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Ser
225					230					235				240	
Val	Thr	Val	Ser	Ser											
				245											

<210> 65

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR H1

<400> 65

Ser Tyr Trp Met Asn
1 5

<210> 66

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR H2

<400> 66

Gln Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys
1 5 10 15
Gly

<210> 67

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR H3

<400> 67

Lys Thr Ile Ser Ser Val Val Asp Phe Tyr Phe Asp Tyr
1 5 10

<210> 68

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> CDR L3

<400> 68

Gln Gln Tyr Asn Arg Tyr Pro Tyr Thr
1 5

<210> 69

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

<220>
<223> CDR H1

<400> 69
Ser Tyr Trp Met Asn
1 5

<210> 70
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> CDR H2

<400> 70
Gln Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys
1 5 10 15
Gly

<210> 71
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> VH

<400> 71
Glu Val Lys Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser
1 5 10 15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr
20 25 30
Trp Met Asn Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe
50 55 60
Lys Gly Gln Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80
Met Gln Leu Ser Gly Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95
Ala Arg Lys Thr Ile Ser Ser Val Val Asp Phe Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 72
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> VL

<400> 72
Asp Ile Glu Leu Thr Gln Ser Pro Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15
Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Gly Thr Asn
20 25 30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Pro Leu Ile
35 40 45
Tyr Ser Ala Thr Tyr Arg Asn Ser Gly Val Pro Asp Arg Phe Thr Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Asn Val Gln Ser
65 70 75 80
Lys Asp Leu Ala Asp Tyr Phe Cys Gln Gln Tyr Asn Arg Tyr Pro Tyr
85 90 95
Thr Ser Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 73
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> CDR L1

<400> 73
Lys Ala Ser Gln Asn Val Gly Thr Asn Val Ala
1 5 10

<210> 74
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> CDR L2

<400> 74
Ser Ala Thr Tyr Arg Asn Ser
1 5

<210> 75
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> CDR L3

<400> 75
Gln Gln Tyr Asn Arg Tyr Pro Tyr Thr
1 5

<210> 76
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> CDR H1

<400> 76
Ser Tyr Trp Met Asn
1 5

<210> 77
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> CDR H2

<400> 77
Gln Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys
1 5 10 15
Gly

<210> 78
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> CDR H3

<400> 78

Lys Thr Ile Ser Ser Val Val Asp Phe Tyr Phe Asp Tyr

1

5

10

<210> 79

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker

<400> 79

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

1

5

10

15

<210> 80

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> scFv

<400> 80

Glu Val Lys Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ser

1

5

10

15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Tyr

20

25

30

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

35

40

45

Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe

50

55

60

Lys Gly Gln Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr

65

70

75

80

Met Gln Leu Ser Gly Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys

85

90

95

Ala Arg Lys Thr Ile Ser Ser Val Val Asp Phe Tyr Phe Asp Tyr Trp

100

105

110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly

115

120

125

Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Glu Leu Thr Gln Ser

130

135

140

Pro Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Ser Val Thr Cys

145		150		155		160									
Lys	Ala	Ser	Gln	Asn	Val	Gly	Thr	Asn	Val	Ala	Trp	Tyr	Gln	Gln	Lys
				165					170					175	
Pro	Gly	Gln	Ser	Pro	Lys	Pro	Leu	Ile	Tyr	Ser	Ala	Thr	Tyr	Arg	Asn
				180				185						190	
Ser	Gly	Val	Pro	Asp	Arg	Phe	Thr	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe
		195					200					205			
Thr	Leu	Thr	Ile	Thr	Asn	Val	Gln	Ser	Lys	Asp	Leu	Ala	Asp	Tyr	Phe
	210					215				220					
Cys	Gln	Gln	Tyr	Asn	Arg	Tyr	Pro	Tyr	Thr	Ser	Gly	Gly	Gly	Thr	Lys
225					230					235					240
Leu	Glu	Ile	Lys	Arg											
				245											

<210> 81
 <211> 12
 <212> PRT
 <213> Homo sapiens

<220>
 <223> spacer (IgG4hinge)

<400> 81
 Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
 1 5 10

<210> 82
 <211> 36
 <212> DNA
 <213> Homo sapiens

<220>
 <223> spacer (IgG4hinge)

<400> 82
 gaatctaagt acggaccgcc ctgccccct tgcct 36

<210> 83
 <211> 119
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Hinge-CH3 spacer

<400> 83
 Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Gly Gln Pro Arg
 1 5 10 15

Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys
			20					25					30		
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp
		35					40					45			
Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys
	50					55					60				
Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser
65					70					75					80
Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser
				85					90					95	
Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser
			100					105					110		
Leu	Ser	Leu	Ser	Leu	Gly	Lys									
			115												

<210> 84

<211> 229

<212> PRT

<213> Homo sapiens

<220>

<223> Hinge-CH2-CH3 spacer

<400> 84

Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe
1				5				10						15	
Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr
			20					25					30		
Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val
		35					40					45			
Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val
	50					55					60				
Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser
65					70					75					80
Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu
				85					90					95	
Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser
			100					105					110		
Ser	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro
		115					120					125			
Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln
	130					135					140				
Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala
145					150					155					160
Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr
				165					170					175	
Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu
			180					185					190		
Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser

	195		200		205										
Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser
	210					215					220				
Leu	Ser	Leu	Gly	Lys											
225															

<210> 85
 <211> 282
 <212> PRT
 <213> Homo sapiens

<220>
 <223> IgD-hinge-Fc

<400> 85

Arg	Trp	Pro	Glu	Ser	Pro	Lys	Ala	Gln	Ala	Ser	Ser	Val	Pro	Thr	Ala
1				5					10					15	
Gln	Pro	Gln	Ala	Glu	Gly	Ser	Leu	Ala	Lys	Ala	Thr	Thr	Ala	Pro	Ala
			20					25					30		
Thr	Thr	Arg	Asn	Thr	Gly	Arg	Gly	Gly	Glu	Glu	Lys	Lys	Lys	Glu	Lys
		35				40						45			
Glu	Lys	Glu	Glu	Gln	Glu	Glu	Arg	Glu	Thr	Lys	Thr	Pro	Glu	Cys	Pro
	50				55						60				
Ser	His	Thr	Gln	Pro	Leu	Gly	Val	Tyr	Leu	Leu	Thr	Pro	Ala	Val	Gln
65					70				75						80
Asp	Leu	Trp	Leu	Arg	Asp	Lys	Ala	Thr	Phe	Thr	Cys	Phe	Val	Val	Gly
				85					90					95	
Ser	Asp	Leu	Lys	Asp	Ala	His	Leu	Thr	Trp	Glu	Val	Ala	Gly	Lys	Val
			100					105					110		
Pro	Thr	Gly	Gly	Val	Glu	Glu	Gly	Leu	Leu	Glu	Arg	His	Ser	Asn	Gly
		115					120					125			
Ser	Gln	Ser	Gln	His	Ser	Arg	Leu	Thr	Leu	Pro	Arg	Ser	Leu	Trp	Asn
	130					135					140				
Ala	Gly	Thr	Ser	Val	Thr	Cys	Thr	Leu	Asn	His	Pro	Ser	Leu	Pro	Pro
145					150					155					160
Gln	Arg	Leu	Met	Ala	Leu	Arg	Glu	Pro	Ala	Ala	Gln	Ala	Pro	Val	Lys
				165					170					175	
Leu	Ser	Leu	Asn	Leu	Leu	Ala	Ser	Ser	Asp	Pro	Pro	Glu	Ala	Ala	Ser
			180					185					190		
Trp	Leu	Leu	Cys	Glu	Val	Ser	Gly	Phe	Ser	Pro	Pro	Asn	Ile	Leu	Leu
		195					200					205			
Met	Trp	Leu	Glu	Asp	Gln	Arg	Glu	Val	Asn	Thr	Ser	Gly	Phe	Ala	Pro
	210					215						220			
Ala	Arg	Pro	Pro	Pro	Gln	Pro	Gly	Ser	Thr	Thr	Phe	Trp	Ala	Trp	Ser
225					230					235					240
Val	Leu	Arg	Val	Pro	Ala	Pro	Pro	Ser	Pro	Gln	Pro	Ala	Thr	Tyr	Thr
				245					250					255	
Cys	Val	Val	Ser	His	Glu	Asp	Ser	Arg	Thr	Leu	Leu	Asn	Ala	Ser	Arg
			260					265					270		

Ser Leu Glu Val Ser Tyr Val Thr Asp His
275 280

<210> 86
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 86
Glu Val Val Val Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
1 5 10

<210> 87
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<220>
<221> VARIANT
<222> 1
<223> Xaa is Gly, Cys, or Arg

<220>
<221> VARIANT
<222> 4
<223> Xaa is Cys or Thr

<400> 87
Xaa Pro Pro Xaa Pro
1 5

<210> 88
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 88
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro

1 5 10 15

<210> 89
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 89
Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro
1 5 10

<210> 90
<211> 61
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 90
Glu Leu Lys Thr Pro Leu Gly Asp Thr His Thr Cys Pro Arg Cys Pro
1 5 10 15
Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu
20 25 30
Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu Pro
35 40 45
Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro
50 55 60

<210> 91
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 91
Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro
1 5 10

<210> 92
<211> 12

<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 92
Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
1 5 10

<210> 93
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 93
Tyr Gly Pro Pro Cys Pro Pro Cys Pro
1 5

<210> 94
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary IgG Hinge

<400> 94
Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro
1 5 10

<210> 95
<211> 27
<212> PRT
<213> Homo sapiens

<220>
<223> CD28 (amino acids 153-179 of Accession No. P10747)

<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> 66
<212> PRT
<213> Homo sapiens

<220>
<223> CD28 (amino acids 114-179 of Accession No. P10747)

<400> 96
Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser Asn
1 5 10 15
Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser Pro Leu
20 25 30
Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val Gly Gly
35 40 45
Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe
50 55 60
Trp Val
65

<210> 97
<211> 41
<212> PRT
<213> Homo sapiens

<220>
<223> CD28 (amino acids 180-220 Accession No. P10747)

<400> 97
Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met Thr
1 5 10 15
Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala Pro
20 25 30
Pro Arg Asp Phe Ala Ala Tyr Arg Ser
35 40

<210> 98
<211> 41
<212> PRT
<213> Homo sapiens

<220>
<223> CD28 (LL to GG)

<400> 98
Arg Ser Lys Arg Ser Arg Gly Gly His Ser Asp Tyr Met Asn Met Thr

1		5		10		15									
Pro	Arg	Arg	Pro	Gly	Pro	Thr	Arg	Lys	His	Tyr	Gln	Pro	Tyr	Ala	Pro
		20						25					30		
Pro	Arg	Asp	Phe	Ala	Ala	Tyr	Arg	Ser							
		35					40								

<210> 99
 <211> 42
 <212> PRT
 <213> Homo sapien

<220>
 <223> 4-1BB (amino acids 214-255 of Q07011.1)

<400> 99
Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
1 5 10 15
Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
20 25 30
Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
35 40

<210> 100
 <211> 112
 <212> PRT
 <213> Homo sapiens

<220>
 <223> CD3 zeta

<400> 100
Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
1 5 10 15
Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30
Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
35 40 45
Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60
Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80
Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95
Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 101

<211> 112
<212> PRT
<213> Homo sapiens

<220>
<223> CD3 zeta

<400> 101
Arg Val Lys Phe Ser Arg Ser Ala Glu Pro Pro Ala Tyr Gln Gln Gly
1 5 10 15
Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30
Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
35 40 45
Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60
Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80
Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95
Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 102
<211> 112
<212> PRT
<213> Homo sapiens

<220>
<223> CD3 zeta

<400> 102
Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Lys Gln Gly
1 5 10 15
Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30
Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
35 40 45
Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60
Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80
Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
85 90 95
Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 103

<211> 126
<212> PRT
<213> Streptomyces avidinii

<220>
<223> Minimal streptavidin

<400> 103

Glu	Ala	Gly	Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	Phe
1			5					10					15		
Ile	Val	Thr	Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Glu	Ser
			20				25						30		
Ala	Val	Gly	Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	Asp
		35					40					45			
Ser	Ala	Pro	Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	Val
	50					55					60				
Ala	Trp	Lys	Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser
65					70				75					80	
Gly	Gln	Tyr	Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu
				85					90					95	
Leu	Thr	Ser	Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val
			100					105					110		
Gly	His	Asp	Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser		
		115					120						125		

<210> 104
<211> 126
<212> PRT
<213> Streptomyces avidinii

<220>
<223> Mutein Streptavidin Val44-Thr45-Ala46-Arg47

<400> 104

Glu	Ala	Gly	Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	Phe
1			5					10					15		
Ile	Val	Thr	Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Val	Thr
			20				25						30		
Ala	Arg	Gly	Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	Asp
		35					40					45			
Ser	Ala	Pro	Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	Val
	50					55					60				
Ala	Trp	Lys	Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser
65					70				75					80	
Gly	Gln	Tyr	Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu
				85					90					95	
Leu	Thr	Ser	Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val
			100					105					110		
Gly	His	Asp	Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser		

115

120

125

<210> 105

<211> 126

<212> PRT

<213> Streptomyces avidinii

<220>

<223> Mutein Streptavidin Ile44-Gly45-Ala-46-Arg47

<400> 105

Glu	Ala	Gly	Ile	Thr	Gly	Thr	Trp	Tyr	Asn	Gln	Leu	Gly	Ser	Thr	Phe
1				5				10						15	
Ile	Val	Thr	Ala	Gly	Ala	Asp	Gly	Ala	Leu	Thr	Gly	Thr	Tyr	Ile	Gly
			20				25						30		
Ala	Arg	Gly	Asn	Ala	Glu	Ser	Arg	Tyr	Val	Leu	Thr	Gly	Arg	Tyr	Asp
		35				40						45			
Ser	Ala	Pro	Ala	Thr	Asp	Gly	Ser	Gly	Thr	Ala	Leu	Gly	Trp	Thr	Val
	50				55						60				
Ala	Trp	Lys	Asn	Asn	Tyr	Arg	Asn	Ala	His	Ser	Ala	Thr	Thr	Trp	Ser
65				70					75					80	
Gly	Gln	Tyr	Val	Gly	Gly	Ala	Glu	Ala	Arg	Ile	Asn	Thr	Gln	Trp	Leu
			85					90						95	
Leu	Thr	Ser	Gly	Thr	Thr	Glu	Ala	Asn	Ala	Trp	Lys	Ser	Thr	Leu	Val
			100					105					110		
Gly	His	Asp	Thr	Phe	Thr	Lys	Val	Lys	Pro	Ser	Ala	Ala	Ser		
		115					120					125			

<210> 106

<211> 326

<212> PRT

<213> Homo sapiens

<220>

<223> Human IgG2 Fc (Uniprot No P01861)

<400> 106

Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg
1				5				10						15	
Ser	Thr	Ser	Glu	Ser	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	Asn	Phe	Gly	Thr	Gln	Thr
65				70					75					80	
Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys

				85				90					95			
Thr	Val	Glu	Arg	Lys	Cys	Cys	Val	Glu	Cys	Pro	Pro	Cys	Pro	Ala	Pro	
			100					105					110			
Pro	Val	Ala	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	
		115					120					125				
Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	
	130					135					140					
Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	
145				150					155						160	
Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	
			165					170						175		
Ser	Thr	Phe	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Val	His	Gln	Asp	Trp	
		180						185					190			
Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	
	195						200					205				
Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Thr	Lys	Gly	Gln	Pro	Arg	Glu	
	210					215					220					
Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	
225				230					235						240	
Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	
			245					250						255		
Ser	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	
	260						265						270			
Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	
	275						280					285				
Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	
	290					295					300					
Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	
305				310				315							320	
Ser	Leu	Ser	Pro	Gly	Lys											
				325												

<210> 107

<211> 327

<212> PRT

<213> Homo sapiens

<220>

<223> Human IgG4 Fc (Uniprot P01861)

<400> 107

Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	
1				5				10					15			
Ser	Thr	Ser	Glu	Ser	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	Lys	Thr
65					70					75					80
Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys
				85					90					95	
Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Ser	Cys	Pro	Ala	Pro
			100					105					110		
Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys
	115						120					125			
Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val
	130					135					140				
Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp
145					150					155					160
Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe
				165					170					175	
Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp
			180					185					190		
Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu
	195						200					205			
Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg
	210					215					220				
Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys
225					230					235					240
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp
			245						250					255	
Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys
		260						265					270		
Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser
		275					280					285			
Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser
	290					295					300				
Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser
305					310				315						320
Leu	Ser	Leu	Ser	Leu	Gly	Lys									
				325											

<210> 108

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> FKBP

<400> 108

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

		35				40					45				
Met	Leu	Gly	Lys	Gln	Glu	Val	Ile	Arg	Gly	Trp	Glu	Glu	Gly	Val	Ala
	50					55					60				
Gln	Met	Ser	Val	Gly	Gln	Arg	Ala	Lys	Leu	Thr	Ile	Ser	Pro	Asp	Tyr
65				70						75					80
Ala	Tyr	Gly	Ala	Thr	Gly	His	Pro	Gly	Ile	Ile	Pro	Pro	His	Ala	Thr
			85						90					95	
Leu	Val	Phe	Asp	Val	Glu	Leu	Leu	Lys	Leu	Glu					
			100					105							

<210> 109
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> FKBP12v36

Gly	Val	Gln	Val	Glu	Thr	Ile	Ser	Pro	Gly	Asp	Gly	Arg	Thr	Phe	Pro
1				5					10					15	
Lys	Arg	Gly	Gln	Thr	Cys	Val	Val	His	Tyr	Thr	Gly	Met	Leu	Glu	Asp
		20					25					30			
Gly	Lys	Lys	Val	Asp	Ser	Ser	Arg	Asp	Arg	Asn	Lys	Pro	Phe	Lys	Phe
		35				40					45				
Met	Leu	Gly	Lys	Gln	Glu	Val	Ile	Arg	Gly	Trp	Glu	Glu	Gly	Val	Ala
	50					55					60				
Gln	Met	Ser	Val	Gly	Gln	Arg	Ala	Lys	Leu	Thr	Ile	Ser	Pro	Asp	Tyr
65				70						75					80
Ala	Tyr	Gly	Ala	Thr	Gly	His	Pro	Gly	Ile	Ile	Pro	Pro	His	Ala	Thr
			85						90					95	
Leu	Val	Phe	Asp	Val	Glu	Leu	Leu	Lys	Leu	Glu					
			100					105							

<210> 110
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified acylation motif

Met	Gly	Ser	Asn	Lys	Ser	Lys	Pro	Lys	Asp	Ala	Ser	Gln	Arg	Arg	Arg
1				5					10					15	

<210> 111

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

<220>
<223> dual acylation motif

<220>
<221> VARIANT
<222> 4
<223> Xaa is any amino acid

<400> 111
Met Gly Cys Xaa Cys
1 5

<210> 112
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> acylation region

<220>
<221> VARIANT
<222> 4
<223> Xaa is any amino acid

<400> 112
Cys Ala Ala Xaa
1

<210> 113
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Variable heavy (VH) Anti-BCMA

<400> 113
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Met Lys Lys Pro Gly Ala
1 5 10 15
Ser Leu Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ile Asp Tyr
20 25 30
Tyr Val Tyr Trp Met Arg Gln Ala Pro Gly Gln Gly Leu Glu Ser Met
35 40 45

Gly	Trp	Ile	Asn	Pro	Asn	Ser	Gly	Gly	Thr	Asn	Tyr	Ala	Gln	Lys	Phe
50					55					60					
Gln	Gly	Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Ile	Ser	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Arg	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Met	Tyr	Tyr	Cys
			85						90					95	
Ala	Arg	Ser	Gln	Arg	Asp	Gly	Tyr	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr
			100					105					110		
Leu	Val	Thr	Val	Ser	Ser										
			115												

<210> 114
 <211> 105
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable light (VL) Anti-BCMA

Gln	Ser	Ala	Leu	Thr	Gln	Pro	Ala	Ser	Val	Ser	Ala	Ser	Pro	Gly	Gln
1				5					10					15	
Ser	Ile	Ala	Ile	Ser	Cys	Thr	Gly	Thr	Ser	Ser	Asp	Val	Gly	Trp	Tyr
			20					25					30		
Gln	Gln	His	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Met	Ile	Tyr	Glu	Asp	Ser
		35					40					45			
Lys	Arg	Pro	Ser	Gly	Val	Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly
		50				55				60					
Asn	Thr	Ala	Ser	Leu	Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala
65					70					75					80
Asp	Tyr	Tyr	Cys	Ser	Ser	Asn	Thr	Arg	Ser	Ser	Thr	Leu	Val	Phe	Gly
			85						90					95	
Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly							
			100					105							

<210> 115
 <211> 228
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Hinge-CH2-CH3 spacer

Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro	Val
1				5					10					15	
Ala	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu
			20					25					30		

Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser
		35					40					45			
Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu
	50					55					60				
Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Gln	Ser	Thr
65				70					75					80	
Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn
				85					90					95	
Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser
		100						105					110		
Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln
	115						120					125			
Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val
	130					135					140				
Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val
145				150						155				160	
Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro
				165					170					175	
Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr
			180					185					190		
Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val
	195					200					205				
Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu
	210					215					220				
Ser	Leu	Gly	Lys												
225															

<210> 116

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<223> VVariable heavy (VH) Anti-BCMA

<400> 116

Gln	Ile	Gln	Leu	Val	Gln	Ser	Gly	Pro	Glu	Leu	Lys	Lys	Pro	Gly	Glu
1				5					10					15	
Thr	Val	Lys	Ile	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	Tyr
			20					25					30		
Ser	Ile	Asn	Trp	Val	Lys	Arg	Ala	Pro	Gly	Lys	Gly	Leu	Lys	Trp	Met
		35					40					45			
Gly	Trp	Ile	Asn	Thr	Glu	Thr	Arg	Glu	Pro	Ala	Tyr	Ala	Tyr	Asp	Phe
	50				55						60				
Arg	Gly	Arg	Phe	Ala	Phe	Ser	Leu	Glu	Thr	Ser	Ala	Ser	Thr	Ala	Tyr
65				70						75				80	
Leu	Gln	Ile	Asn	Asn	Leu	Lys	Tyr	Glu	Asp	Thr	Ala	Thr	Tyr	Phe	Cys
			85						90					95	
Ala	Leu	Asp	Tyr	Ser	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Ser

	100	105	110
Val Thr Val Ser Ser			
115			

<210> 117
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable light (VL) Anti-BCMA

<400> 117
 Asp Ile Val Leu Thr Gln Ser Pro Pro Ser Leu Ala Met Ser Leu Gly
 1 5 10 15
 Lys Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Thr Ile Leu
 20 25 30
 Gly Ser His Leu Ile His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
 35 40 45
 Thr Leu Leu Ile Gln Leu Ala Ser Asn Val Gln Thr Gly Val Pro Ala
 50 55 60
 Arg Phe Ser Gly Ser Gly Ser Arg Thr Asp Phe Thr Leu Thr Ile Asp
 65 70 75 80
 Pro Val Glu Glu Asp Asp Val Ala Val Tyr Tyr Cys Leu Gln Ser Arg
 85 90 95
 Thr Ile Pro Arg Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110

<210> 118
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable heavy (VH) Anti-BCMA

<400> 118
 Gln Ile Gln Leu Val Gln Ser Gly Pro Asp Leu Lys Lys Pro Gly Glu
 1 5 10 15
 Thr Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Phe
 20 25 30
 Gly Met Asn Trp Val Lys Gln Ala Pro Gly Lys Gly Phe Lys Trp Met
 35 40 45
 Ala Trp Ile Asn Thr Tyr Thr Gly Glu Ser Tyr Phe Ala Asp Asp Phe
 50 55 60
 Lys Gly Arg Phe Ala Phe Ser Val Glu Thr Ser Ala Thr Thr Ala Tyr
 65 70 75 80
 Leu Gln Ile Asn Asn Leu Lys Thr Glu Asp Thr Ala Thr Tyr Phe Cys

				85					90					95			
Ala	Arg	Gly	Glu	Ile	Tyr	Tyr	Gly	Tyr	Asp	Gly	Gly	Phe	Ala	Tyr	Trp		
			100					105					110				
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ala								
		115					120										

<210> 119

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable light (VL) Anti-BCMA

<400> 119

Asp	Val	Val	Met	Thr	Gln	Ser	His	Arg	Phe	Met	Ser	Thr	Ser	Val	Gly		
1				5					10					15			
Asp	Arg	Val	Ser	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Asp	Val	Asn	Thr	Ala		
			20					25					30				
Val	Ser	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Lys	Leu	Leu	Ile		
		35					40					45					
Phe	Ser	Ala	Ser	Tyr	Arg	Tyr	Thr	Gly	Val	Pro	Asp	Arg	Phe	Thr	Gly		
	50					55					60						
Ser	Gly	Ser	Gly	Ala	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Val	Gln	Ala		
65				70					75					80			
Glu	Asp	Leu	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	His	Tyr	Ser	Thr	Pro	Trp		
				85					90					95			
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Asp	Ile	Lys							
		100						105									

<210> 120

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable heavy (VH) Anti-BCMA

<400> 120

Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Glu		
1				5					10					15			
Ser	Leu	Lys	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr	Ser	Phe	Thr	Ser	Tyr		
			20					25					30				
Trp	Ile	Gly	Trp	Val	Arg	Gln	Met	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met		
		35					40					45					
Gly	Ile	Ile	Tyr	Pro	Gly	Asp	Ser	Asp	Thr	Arg	Tyr	Ser	Pro	Ser	Phe		
	50					55					60						
Gln	Gly	His	Val	Thr	Ile	Ser	Ala	Asp	Lys	Ser	Ile	Ser	Thr	Ala	Tyr		

65					70					75					80
Leu	Gln	Trp	Ser	Ser	Leu	Lys	Ala	Ser	Asp	Thr	Ala	Met	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Tyr	Ser	Gly	Ser	Phe	Asp	Asn	Trp	Gly	Gln	Gly	Thr	Leu	Val
			100					105						110	
Thr	Val	Ser	Ser												
			115												

<210> 121
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable light (VL) Anti-BCMA

<400> 121
Ser Tyr Glu Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15
Arg Val Thr Met Ser Cys Ser Gly Thr Ser Ser Asn Ile Gly Ser His
20 25 30
Ser Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45
Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Gly Ser Leu
85 90 95
Asn Gly Leu Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 122
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Linker

<400> 122
Gly Gly Gly Gly Ser
1 5

<210> 123
 <211> 4
 <212> PRT

<213> Artificial Sequence

<220>

<223> Linker

<400> 123

Gly Gly Gly Ser
1

<210> 124

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Linker

<400> 124

Ser Arg Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
1 5 10 15
Ser Leu Glu Met Ala
20

<210> 125

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable heavy (VH) Anti-BCMA

<400> 125

Glu 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 Gly Thr Phe Ser Ser Tyr
20 25 30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Arg Ile Ile Pro Ile Leu Gly Ile Ala Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp 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 Ser Gly Tyr Ser Lys Ser Ile Val Ser Tyr Met Asp Tyr Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 126
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Variable light (VL) Anti-BCMA

<400> 126
Leu Pro Val Leu Thr Gln Pro Pro Ser Thr Ser Gly Thr Pro Gly Gln
1 5 10 15
Arg Val Thr Val Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
20 25 30
Val Val Phe Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Val
35 40 45
Ile Tyr Arg Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60
Val Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg
65 70 75 80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95
Ser Gly Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu Gly
100 105 110

<210> 127
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Variable heavy (VH) Anti-BCMA

<400> 127
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 Gly Thr Phe Ser Ser Tyr
20 25 30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Arg Ile Ile Pro Ile Leu Gly Thr Ala Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu 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 Ser Gly Tyr Gly Ser Tyr Arg Trp Glu Asp Ser Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 128

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable light (VL) Anti-BCMA

<400> 128

Gln	Ala	Val	Leu	Thr	Gln	Pro	Pro	Ser	Ala	Ser	Gly	Thr	Pro	Gly	Gln
1				5					10					15	
Arg	Val	Thr	Ile	Ser	Cys	Ser	Gly	Ser	Ser	Ser	Asn	Ile	Gly	Ser	Asn
			20					25					30		
Tyr	Val	Phe	Trp	Tyr	Gln	Gln	Leu	Pro	Gly	Thr	Ala	Pro	Lys	Leu	Leu
		35					40					45			
Ile	Tyr	Ser	Asn	Asn	Gln	Arg	Pro	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser
	50					55					60				
Gly	Ser	Lys	Ser	Gly	Thr	Ser	Ala	Ser	Leu	Ala	Ile	Ser	Gly	Leu	Arg
65					70					75					80
Ser	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Ala	Ala	Trp	Asp	Asp	Ser	Leu
				85					90					95	
Ser	Ala	Ser	Tyr	Val	Phe	Gly	Thr	Gly	Thr	Lys	Val	Thr	Val	Leu	Gly
			100					105						110	

<210> 129

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Variable heavy (VH) Anti-BCMA

<400> 129

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	Tyr
			20					25					30		
Tyr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Arg	Leu	Glu	Trp	Met
		35					40					45			
Gly	Trp	Ile	Asn	Pro	Asn	Ser	Gly	Gly	Thr	Asn	Tyr	Ala	Gln	Lys	Phe
	50					55					60				
Gln	Asp	Arg	Ile	Thr	Val	Thr	Arg	Asp	Thr	Ser	Ser	Asn	Thr	Gly	Tyr
65					70					75					80
Met	Glu	Leu	Thr	Arg	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	

Ala	Arg	Ser	Pro	Tyr	Ser	Gly	Val	Leu	Asp	Lys	Trp	Gly	Gln	Gly	Thr
			100					105					110		
Leu	Val	Thr	Val	Ser	Ser										
			115												

<210> 130
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Variable light (VL) Anti-BCMA

Gln	Ser	Val	Leu	Thr	Gln	Pro	Pro	Ser	Val	Ser	Gly	Ala	Pro	Gly	Gln
1				5				10					15		
Arg	Val	Thr	Ile	Ser	Cys	Thr	Gly	Ser	Ser	Ser	Asn	Ile	Gly	Ala	Gly
			20				25					30			
Phe	Asp	Val	His	Trp	Tyr	Gln	Gln	Leu	Pro	Gly	Thr	Ala	Pro	Lys	Leu
	35					40					45				
Leu	Ile	Tyr	Gly	Asn	Ser	Asn	Arg	Pro	Ser	Gly	Val	Pro	Asp	Arg	Phe
50				55						60					
Ser	Gly	Ser	Lys	Ser	Gly	Thr	Ser	Ala	Ser	Leu	Ala	Ile	Thr	Gly	Leu
65				70					75					80	
Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Gln	Ser	Tyr	Asp	Ser	Ser
			85					90					95		
Leu	Ser	Gly	Tyr	Val	Phe	Gly	Thr	Gly	Thr	Lys	Val	Thr	Val	Leu	Gly
			100					105					110		

<210> 131
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Hinge

Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro
1				5				10	