

SEQUENCE LISTING

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<120> CD33 TARGETED IMMUNOTHERAPIES

<130> BLUE-119.PC

<150> US 62/898,392

<151> 2019-09-10

<150> US 62/845,304

<151> 2019-05-08

<160> 119

<170> PatentIn version 3.5

<210> 1

<211> 364

<212> PRT

<213> Homo sapiens

<400> 1

Met	Pro	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Trp	Ala	Gly	Ala	Leu	Ala
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Met	Asp	Pro	Asn	Phe	Trp	Leu	Gln	Val	Gln	Glu	Ser	Val	Thr	Val	Gln
			20					25					30		

Glu	Gly	Leu	Cys	Val	Leu	Val	Pro	Cys	Thr	Phe	Phe	His	Pro	Ile	Pro
		35					40					45			

Tyr	Tyr	Asp	Lys	Asn	Ser	Pro	Val	His	Gly	Tyr	Trp	Phe	Arg	Glu	Gly
	50					55					60				

Ala	Ile	Ile	Ser	Arg	Asp	Ser	Pro	Val	Ala	Thr	Asn	Lys	Leu	Asp	Gln
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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

Ala Ala Arg Thr Ala Val Gly Arg Asn Asp Thr His Pro Thr Thr Gly
290 295 300

Ser Ala Ser Pro Lys His Gln Lys Lys Ser Lys Leu His Gly Pro Thr
305 310 315 320

Glu Thr Ser Ser Cys Ser Gly Ala Ala Pro Thr Val Glu Met Asp Glu
325 330 335

Glu Leu His Tyr Ala Ser Leu Asn Phe His Gly Met Asn Pro Ser Lys
340 345 350

Asp Thr Ser Thr Glu Tyr Ser Glu Val Arg Thr Gln
355 360

<210> 2
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<213> Artificial Sequence

<220>
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<400> 2

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

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

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Trp Asn Gly Gly His Thr Arg Tyr Ala Asp Ser Val
50 55 60

Gln Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala Asp Asn Thr Met Tyr
65 70 75 80

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

Ala Ala Tyr Ser Asp Tyr His Arg Ile Ala Thr Met Glu Ala Asp Ala
100 105 110

Asp Ser Trp Gly Gln Gly Thr Gln Val Thr Val Ser Ser
115 120 125

<210> 3
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<213> Artificial Sequence

<220>
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<400> 3

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Gly Tyr
20 25 30

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

Ala Arg Ile Ser Gly Asn Asn Leu Ser Thr Glu Tyr Ala Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65 70 75 80

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

Ala Ala Glu Tyr Asp Tyr Ser Ser Gly Asp Phe Val Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Lys Pro
115 120

<210> 4
<211> 118
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<213> Artificial Sequence

<220>

<223> Made in lab - anti-CD33 VHH sequence

<400> 4

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Gly Phe Ser Ala Ser
20 25 30

Leu Met Ser Trp His Arg Gln Ala Pro Gly Lys Gln Arg Asp Leu Val
35 40 45

Ala Ser Ile Thr Arg Asp Gly Arg Ala Asn Tyr Val Glu Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu
65 70 75 80

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

Ala Tyr Ser Phe Asp Tyr Pro Ile Arg Ser Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Lys Pro
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<210> 5

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in lab - anti-CD33 VHH sequence

<400> 5

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

20

25

30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Trp Val
 35 40 45

Ala Ala Ile Thr Thr Ser Gly Asp Thr Thr Tyr Tyr Ala Glu Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
 65 70 75 80

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

Ala Ala His Arg Gly Gly Gly Val Ile Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Thr Val Lys Pro
 115

<210> 6

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in lab - anti-CD33 VHH sequence

<400> 6

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Phe Ser Ile Ser
 20 25 30

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

Ala Ser Thr Thr Ser Ser Gly Thr Thr Asn Tyr Val Glu Ser Val Lys
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu

65		70		75		80
Gln Met Ser Ser	Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr	Cys His				
	85		90			95
Ala Tyr Ile Ala Thr Thr Thr Asp Arg Gly Tyr Arg Gly Tyr Trp Gly						
	100		105			110
Gln Gly Thr Leu Val Thr Val Lys Pro						
	115		120			
<210> 7						
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<213> Artificial Sequence						
<220>						
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<400> 7						
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Ala Gly Gly						
1		5		10		15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Ser Ser Tyr Asn						
	20		25			30
Val Val Gly Trp Tyr Arg Gln Leu Ser Gly Asn Glu Arg Gly Gly Arg						
	35		40			45
Thr Met Val Ala Gln Ile Asn Ala Tyr Gly Asp Thr Asn Tyr Ala Asn						
	50		55			60
Ala Val Val Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn Thr						
65		70		75		80
Val Tyr Leu His Met Ser Asn Leu Lys Pro Glu Asp Thr Gly Val Tyr						
	85		90			95
Tyr Cys Asn Gly Gln Arg Met Leu Glu Asn Tyr Thr Tyr Arg Asp Gln						
	100		105			110
Ser Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro						

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120

<210> 8
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<400> 8

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
 1 5 10 15

Ser Leu Thr Leu Ser Cys Ala Ala Ser Arg Ser Ser Gly Ile Asp Val
 20 25 30

Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
 35 40 45

Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala Ala Ser Leu Ala Asp
 50 55 60

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

Met Lys Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
 85 90 95

His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly Gln Gly Thr Gln Val
 100 105 110

Thr Val Lys Pro
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<210> 9
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 <212> PRT
 <213> Artificial Sequence

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<400> 9

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

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

His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val
35 40 45

Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

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

Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln Asn Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Lys Pro
115 120

<210> 10
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<212> PRT
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<400> 10

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Arg Ser Ser Gly Ile Asp Val
20 25 30

Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
35 40 45

Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala Ala Ser Leu Ala Asp
50 55 60

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

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

His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Lys Pro
115

<210> 11
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<213> Artificial Sequence

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<400> 11

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

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

His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val
35 40 45

Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr Ala Glu Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

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

Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln Asn Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Lys Pro
115 120

<210> 12
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<220>
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<220>
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<222> (124)..(125)
<223> Xaa is any amino acid or absent

<400> 12

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

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

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu Arg Glu Phe Val
35 40 45

Ala Ala Ile Ser Trp Asn Gly Gly His Thr Arg Tyr Ala Asp Ser Val
50 55 60

Gln Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala Asp Asn Thr Met Tyr
65 70 75 80

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

Ala Ala Tyr Ser Asp Tyr His Arg Ile Ala Thr Met Glu Ala Asp Ala
100 105 110

Asp Ser Trp Gly Gln Gly Thr Gln Val Thr Val Xaa Xaa

115

120

125

<210> 13
 <211> 120
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<220>
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<220>
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 <223> Xaa is any amino acid or absent

<400> 13

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr Phe Ser Gly Tyr
 20 25 30

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

Ala Arg Ile Ser Gly Asn Asn Leu Ser Thr Glu Tyr Ala Glu Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
 65 70 75 80

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

Ala Ala Glu Tyr Asp Tyr Ser Ser Gly Asp Phe Val Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Xaa Xaa
 115 120

<210> 14
 <211> 118
 <212> PRT

<213> Artificial Sequence

<220>

<223> Made in lab - anti-CD33 VHH sequence

<220>

<221> MOD_RES

<222> (117)..(118)

<223> Xaa is any amino acid or absent

<400> 14

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Gly Phe Ser Ala Ser
20 25 30

Leu Met Ser Trp His Arg Gln Ala Pro Gly Lys Gln Arg Asp Leu Val
35 40 45

Ala Ser Ile Thr Arg Asp Gly Arg Ala Asn Tyr Val Glu Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu
65 70 75 80

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

Ala Tyr Ser Phe Asp Tyr Pro Ile Arg Ser Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Xaa Xaa
115

<210> 15

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in lab - anti-CD33 VHH sequence

<220>
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<222> (117)..(118)
<223> Xaa is any amino acid or absent

<400> 15

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly Arg Glu Trp Val
35 40 45

Ala Ala Ile Thr Thr Ser Gly Asp Thr Thr Tyr Tyr Ala Glu Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr
65 70 75 80

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

Ala Ala His Arg Gly Gly Gly Val Ile Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Xaa Xaa
115

<210> 16
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<213> Artificial Sequence

<220>
<223> Made in lab - anti-CD33 VHH sequence

<220>
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<223> Xaa is any amino acid or absent

<400> 16

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val Gln Pro Gly Gly
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Phe Ser Ile Ser
20 25 30

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

Ala Ser Thr Thr Ser Ser Gly Thr Thr Asn Tyr Val Glu Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu
65 70 75 80

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

Ala Tyr Ile Ala Thr Thr Thr Asp Arg Gly Tyr Arg Gly Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Xaa Xaa
115 120

<210> 17
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<222> (123)..(124)
<223> Xaa is any amino acid or absent

<400> 17

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile Ser Ser Tyr Asn

20

25

30

Val Val Gly Trp Tyr Arg Gln Leu Ser Gly Asn Glu Arg Gly Gly Arg
 35 40 45

Thr Met Val Ala Gln Ile Asn Ala Tyr Gly Asp Thr Asn Tyr Ala Asn
 50 55 60

Ala Val Val Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Asn Thr
 65 70 75 80

Val Tyr Leu His Met Ser Asn Leu Lys Pro Glu Asp Thr Gly Val Tyr
 85 90 95

Tyr Cys Asn Gly Gln Arg Met Leu Glu Asn Tyr Thr Tyr Arg Asp Gln
 100 105 110

Ser Trp Gly Gln Gly Thr Gln Val Thr Val Xaa Xaa
 115 120

<210> 18
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<400> 18

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
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Ser Leu Thr Leu Ser Cys Ala Ala Ser Arg Ser Ser Gly Ile Asp Val
 20 25 30

Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
 35 40 45

Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala Ala Ser Leu Ala Asp
50 55 60

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

Met Lys Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala
85 90 95

His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly Gln Gly Thr Gln Val
100 105 110

Thr Val Xaa Xaa
115

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

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<220>
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<222> (119)..(120)
<223> Xaa is any amino acid or absent

<400> 19

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

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

His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val
35 40 45

Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu

65		70		75		80
Gln Met Asn Ser	Leu Lys Pro Glu Asp Thr Ala Val Tyr Asn Cys Asn					
	85		90			95

Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln Asn Tyr Trp Gly Gln
100 105 110

Gly Thr Gln Val Thr Val Xaa Xaa
115 120

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<220>
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 <222> (115)..(116)
 <223> Xaa is any amino acid or absent

<400> 20

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Arg Ser Ser Gly Ile Asp Val
20 25 30

Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val Ala
35 40 45

Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala Ala Ser Leu Ala Asp
50 55 60

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

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

His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Xaa Xaa
115

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<223> Xaa is any amino acid or absent

<400> 21

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

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

His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg Glu Leu Val
35 40 45

Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr Ala Glu Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu
65 70 75 80

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

Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln Asn Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Xaa Xaa

115

120

<210> 22

<211> 292

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 22

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Gln Val Thr Leu Arg Glu Ser Gly Gly Gly Leu Val
 20 25 30

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Lys Gly Ser Gly Arg Ala
 35 40 45

Ile Asn Thr Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
 50 55 60

Arg Glu Phe Val Ala Ala Ile Ser Trp Asn Gly Gly His Thr Arg Tyr
 65 70 75 80

Ala Asp Ser Val Gln Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala Asp
 85 90 95

Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr Ala
 100 105 110

Val Tyr His Cys Ala Ala Tyr Ser Asp Tyr His Arg Ile Ala Thr Met
 115 120 125

Glu Ala Asp Ala Asp Ser Trp Gly Gln Gly Thr Gln Val Thr Val Ser
 130 135 140

Ser Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
 145 150 155 160

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr

165

170

175

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
 180 185 190

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
 195 200 205

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
 210 215 220

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
 225 230 235 240

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
 245 250 255

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
 260 265 270

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His
 275 280 285

Arg Arg Arg Gln
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<220>
 <223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 23

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val
 20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg Thr

35

40

45

Phe Ser Gly Tyr Ile Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Glu
50 55 60

Arg Glu Leu Val Ala Arg Ile Ser Gly Asn Asn Leu Ser Thr Glu Tyr
65 70 75 80

Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Tyr Cys Ala Ala Glu Tyr Asp Tyr Ser Ser Gly Asp Phe Val
115 120 125

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly Gly Gly Gly
130 135 140

Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe
145 150 155 160

Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu
165 170 175

Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys
180 185 190

Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val
195 200 205

Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp
210 215 220

Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala
225 230 235 240

Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met
245 250 255

Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly
260 265 270

Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
275 280 285

<210> 24
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<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 24

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val
20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Gly
35 40 45

Phe Ser Ala Ser Leu Met Ser Trp His Arg Gln Ala Pro Gly Lys Gln
50 55 60

Arg Asp Leu Val Ala Ser Ile Thr Arg Asp Gly Arg Ala Asn Tyr Val
65 70 75 80

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

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

Tyr Tyr Cys His Ala Tyr Ser Phe Asp Tyr Pro Ile Arg Ser Tyr Trp
115 120 125

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

Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys
145 150 155 160

Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly
165 170 175

Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met
180 185 190

Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln
195 200 205

Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala
210 215 220

Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu
225 230 235 240

Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu
245 250 255

Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly
260 265 270

Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
275 280 285

<210> 25
<211> 285
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 25

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val
20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
35 40 45

Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys Gly
50 55 60

Arg Glu Trp Val Ala Ala Ile Thr Thr Ser Gly Asp Thr Thr Tyr Tyr
65 70 75 80

Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Tyr Cys Ala Ala His Arg Gly Gly Gly Val Ile Asp Tyr Trp
115 120 125

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

Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys
145 150 155 160

Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly
165 170 175

Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met
180 185 190

Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln
195 200 205

Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala
210 215 220

Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu
225 230 235 240

Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu

245

250

255

Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly
 260 265 270

Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
 275 280 285

<210> 26

<211> 288

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 26

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val
 20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile
 35 40 45

Phe Ser Ile Ser Ile Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
 50 55 60

Arg Glu Leu Val Ala Ser Thr Thr Ser Ser Gly Thr Thr Asn Tyr Val
 65 70 75 80

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

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

Tyr Tyr Cys His Ala Tyr Ile Ala Thr Thr Thr Asp Arg Gly Tyr Arg
 115 120 125

Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly Gly Gly

130

135

140

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
 145 150 155 160

Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu
 165 170 175

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
 180 185 190

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
 195 200 205

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
 210 215 220

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
 225 230 235 240

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
 245 250 255

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
 260 265 270

Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
 275 280 285

<210> 27

<211> 291

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 27

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

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

20

25

30

Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Ile
 35 40 45

Ser Ser Tyr Asn Val Val Gly Trp Tyr Arg Gln Leu Ser Gly Asn Glu
 50 55 60

Arg Gly Gly Arg Thr Met Val Ala Gln Ile Asn Ala Tyr Gly Asp Thr
 65 70 75 80

Asn Tyr Ala Asn Ala Val Val Gly Arg Phe Thr Ile Ser Arg Asp Asp
 85 90 95

Ala Lys Asn Thr Val Tyr Leu His Met Ser Asn Leu Lys Pro Glu Asp
 100 105 110

Thr Gly Val Tyr Tyr Cys Asn Gly Gln Arg Met Leu Glu Asn Tyr Thr
 115 120 125

Tyr Arg Asp Gln Ser Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro
 130 135 140

Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp
 145 150 155 160

Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr
 165 170 175

Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn
 180 185 190

Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp
 195 200 205

Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr
 210 215 220

Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile
 225 230 235 240

Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu
245 250 255

Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu
260 265 270

Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg
275 280 285

Arg Arg Gln
290

<210> 28
<211> 283
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 28

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val
20 25 30

Gln Ala Gly Gly Ser Leu Thr Leu Ser Cys Ala Ala Ser Arg Ser Ser
35 40 45

Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg
50 55 60

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

Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn Thr
85 90 95

Val Tyr Leu Gln Met Lys Asn Leu Lys Pro Glu Asp Thr Ala Val Tyr
100 105 110

Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly Gln
115 120 125

Gly Thr Gln Val Thr Val Lys Pro Gly Gly Gly Gly Ser Gly Val Gln
130 135 140

Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly
145 150 155 160

Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys
165 170 175

Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly
180 185 190

Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser
195 200 205

Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly
210 215 220

Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe
225 230 235 240

Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val
245 250 255

Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe
260 265 270

Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
275 280

<210> 29

<211> 287

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 29

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Gln Ser Gly Gly Gly Ser Val
20 25 30

Gln Val Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr
35 40 45

Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
50 55 60

Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

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

Tyr Asn Cys Asn Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln Asn
115 120 125

Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro Gly Gly Gly Gly
130 135 140

Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe
145 150 155 160

Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu
165 170 175

Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys
180 185 190

Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val
195 200 205

Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp

210

215

220

Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala
 225 230 235 240

Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met
 245 250 255

Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly
 260 265 270

Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
 275 280 285

<210> 30

<211> 283

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 30

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val
 20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Arg Ser Ser
 35 40 45

Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu Arg
 50 55 60

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

Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn Thr
 85 90 95

Val Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr

100

105

110

Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly Gln
 115 120 125

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

Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly
 145 150 155 160

Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys
 165 170 175

Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly
 180 185 190

Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser
 195 200 205

Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly
 210 215 220

Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe
 225 230 235 240

Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val
 245 250 255

Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe
 260 265 270

Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
 275 280

<210> 31

<211> 287

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC binding components

<400> 31

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val
20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser Thr
35 40 45

Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
50 55 60

Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr Ala
65 70 75 80

Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

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

Tyr Tyr Cys Asn Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln Asn
115 120 125

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly Gly Gly Gly
130 135 140

Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe
145 150 155 160

Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu Glu
165 170 175

Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys
180 185 190

Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly Val
195 200 205

Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp
210 215 220

Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His Ala
225 230 235 240

Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg Met
245 250 255

Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile Gly
260 265 270

Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
275 280 285

<210> 32
<211> 617
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 32

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu

305			310					315					320		
Asn	Pro	Gly	Pro	Ser 325	Met	Glu	Thr	Asp	Thr 330	Leu	Leu	Leu	Trp	Val 335	Leu
Leu	Leu	Trp	Val 340	Pro	Gly	Ser	Thr	Gly 345	Gln	Val	Thr	Leu	Arg 350	Glu	Ser
Gly	Gly	Gly 355	Leu	Val	Gln	Ala	Gly 360	Gly	Ser	Leu	Arg	Leu 365	Ser	Cys	Lys
Gly	Ser 370	Gly	Arg	Ala	Ile	Asn 375	Thr	Tyr	Ala	Met	Gly 380	Trp	Phe	Arg	Gln
Ala 385	Pro	Gly	Lys	Glu	Arg 390	Glu	Phe	Val	Ala	Ala 395	Ile	Ser	Trp	Asn	Gly 400
Gly	His	Thr	Arg	Tyr 405	Ala	Asp	Ser	Val	Gln 410	Gly	Arg	Phe	Ala	Ile 415	Ser
Arg	Asp	Asn	Ala 420	Asp	Asn	Thr	Met	Tyr 425	Leu	Gln	Met	Asn 430	Ser	Leu	Lys
Pro	Glu	Asp 435	Thr	Ala	Val	Tyr	His 440	Cys	Ala	Ala	Tyr	Ser 445	Asp	Tyr	His
Arg	Ile 450	Ala	Thr	Met	Glu	Ala 455	Asp	Ala	Asp	Ser	Trp 460	Gly	Gln	Gly	Thr
Gln 465	Val	Thr	Val	Ser	Ser 470	Gly	Gly	Gly	Gly	Ser 475	Gly	Val	Gln	Val	Glu 480
Thr	Ile	Ser	Pro	Gly 485	Asp	Gly	Arg	Thr	Phe 490	Pro	Lys	Arg	Gly	Gln 495	Thr
Cys	Val	Val	His 500	Tyr	Thr	Gly	Met	Leu 505	Glu	Asp	Gly	Lys	Lys 510	Phe	Asp
Ser	Ser	Arg 515	Asp	Arg	Asn	Lys	Pro 520	Phe	Lys	Phe	Met	Leu 525	Gly	Lys	Gln

Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly
530 535 540

Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr
545 550 555 560

Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val
565 570 575

Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly
580 585 590

Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys
595 600 605

Val Arg Cys Arg His Arg Arg Arg Gln
610 615

<210> 33
<211> 612
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 33

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser

290

295

300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Arg Thr Phe Ser Gly Tyr Ile Met Gly Trp Phe Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Ala Arg Ile Ser Gly Asn Asn
 385 390 395 400

Leu Ser Thr Glu Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser
 405 410 415

Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg
 420 425 430

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Glu Tyr Asp Tyr Ser
 435 440 445

Ser Gly Asp Phe Val Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys
 450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
 465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
 485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
 500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His
595 600 605

Arg Arg Arg Gln
610

<210> 34
<211> 610
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 34

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

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

275

280

285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Gly Phe Ser Ala Ser Leu Met Ser Trp His Arg Gln
 370 375 380

Ala Pro Gly Lys Gln Arg Asp Leu Val Ala Ser Ile Thr Arg Asp Gly
 385 390 395 400

Arg Ala Asn Tyr Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala
 420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys His Ala Tyr Ser Phe Asp Tyr Pro
 435 440 445

Ile Arg Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly
 450 455 460

Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly
 465 470 475 480

Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly
 485 490 495

Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys
500 505 510

Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu
515 520 525

Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile
530 535 540

Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro
545 550 555 560

Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly
565 570 575

Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu
580 585 590

Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg
595 600 605

Arg Gln
610

<210> 35
<211> 610
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 35

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly

260

265

270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln
 370 375 380

Ala Pro Gly Lys Gly Arg Glu Trp Val Ala Ala Ile Thr Thr Ser Gly
 385 390 395 400

Asp Thr Thr Tyr Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser
 405 410 415

Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg
 420 425 430

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala His Arg Gly Gly Gly
 435 440 445

Val Ile Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly
 450 455 460

Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly
 465 470 475 480

Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly
485 490 495

Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys
500 505 510

Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu
515 520 525

Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile
530 535 540

Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro
545 550 555 560

Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly
565 570 575

Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu
580 585 590

Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg
595 600 605

Arg Gln
610

<210> 36
<211> 613
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 36

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met

245

250

255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Ile Phe Ser Ile Ser Ile Met Gly Trp Tyr Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Ala Ser Thr Thr Ser Ser Gly
 385 390 395 400

Thr Thr Asn Tyr Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala
 420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys His Ala Tyr Ile Ala Thr Thr Thr
 435 440 445

Asp Arg Gly Tyr Arg Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
 450 455 460

Lys Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro
465 470 475 480

Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His
485 490 495

Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp
500 505 510

Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg
515 520 525

Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys
530 535 540

Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly
545 550 555 560

Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys
565 570 575

Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly
580 585 590

Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg
595 600 605

His Arg Arg Arg Gln
610

<210> 37
<211> 616
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 37

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg

225		230		235		240									
Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys	Met
			245						250					255	
Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg	Gly
			260					265					270		
Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys	Asp
		275					280					285			
Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg	Ser	Gly	Ser
	290					295					300				
Gly	Ala	Thr	Asn	Phe	Ser	Leu	Leu	Lys	Gln	Ala	Gly	Asp	Val	Glu	Glu
305					310					315				320	
Asn	Pro	Gly	Pro	Ser	Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu
				325					330					335	
Leu	Leu	Trp	Val	Pro	Gly	Ser	Thr	Gly	Gln	Val	Gln	Leu	Val	Gln	Ser
			340					345					350		
Gly	Gly	Gly	Leu	Val	Gln	Ala	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala
		355					360					365			
Ala	Ser	Gly	Ser	Ile	Ser	Ser	Tyr	Asn	Val	Val	Gly	Trp	Tyr	Arg	Gln
	370					375					380				
Leu	Ser	Gly	Asn	Glu	Arg	Gly	Gly	Arg	Thr	Met	Val	Ala	Gln	Ile	Asn
385					390					395				400	
Ala	Tyr	Gly	Asp	Thr	Asn	Tyr	Ala	Asn	Ala	Val	Val	Gly	Arg	Phe	Thr
			405						410					415	
Ile	Ser	Arg	Asp	Asp	Ala	Lys	Asn	Thr	Val	Tyr	Leu	His	Met	Ser	Asn
			420					425					430		
Leu	Lys	Pro	Glu	Asp	Thr	Gly	Val	Tyr	Tyr	Cys	Asn	Gly	Gln	Arg	Met
		435					440					445			

Leu Glu Asn Tyr Thr Tyr Arg Asp Gln Ser Trp Gly Gln Gly Thr Gln
450 455 460

Val Thr Val Lys Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr
465 470 475 480

Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys
485 490 495

Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser
500 505 510

Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu
515 520 525

Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln
530 535 540

Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly
545 550 555 560

His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu
565 570 575

Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly
580 585 590

Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val
595 600 605

Arg Cys Arg His Arg Arg Arg Gln
610 615

<210> 38

<211> 608

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 38

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu

210

215

220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Gln Val Gln Leu Val Gln Ser
 340 345 350

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Thr Leu Ser Cys Ala
 355 360 365

Ala Ser Arg Ser Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala
 370 375 380

Pro Gly Lys Glu Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp
 385 390 395 400

Thr Asn Tyr Ala Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp
 405 410 415

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Lys Asn Leu Lys Pro Glu
 420 425 430

Asp Thr Ala Val Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val
435 440 445

Gly Ala Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro Gly Gly Gly
450 455 460

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
465 470 475 480

Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu
485 490 495

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
500 505 510

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
515 520 525

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
530 535 540

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
545 550 555 560

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
565 570 575

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
580 585 590

Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
595 600 605

<210> 39
<211> 612
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 39

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu

210

215

220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Gln Ser
 340 345 350

Gly Gly Gly Ser Val Gln Val Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala
 385 390 395 400

Gly Pro Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
 420 425 430

Glu Asp Thr Ala Val Tyr Asn Cys Asn Ala Trp Ile Asp Tyr Gly Ser
435 440 445

Gly Leu Pro Gln Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Lys
450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His
595 600 605

Arg Arg Arg Gln
610

<210> 40

<211> 608

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 40

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln

195

200

205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Arg Ser Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala
 370 375 380

Pro Gly Lys Glu Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp
 385 390 395 400

Thr Asn Tyr Ala Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp
 405 410 415

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu
420 425 430

Asp Thr Ala Val Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val
435 440 445

Gly Ala Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly Gly Gly
450 455 460

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
465 470 475 480

Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu
485 490 495

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
500 505 510

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
515 520 525

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
530 535 540

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
545 550 555 560

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
565 570 575

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
580 585 590

Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His Arg Arg Arg Gln
595 600 605

<210> 41
<211> 612
<212> PRT
<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC fusion protein

<400> 41

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln

195

200

205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala
 385 390 395 400

Gly Pro Asn Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg Ala
420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala Trp Ile Asp Tyr Gly Ser
435 440 445

Gly Leu Pro Gln Asn Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys
450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Cys Val Arg Cys Arg His
595 600 605

Arg Arg Arg Gln
610

<210> 42

<211> 649
<212> PRT
<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 42

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys

180

185

190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Gln Val Thr Leu Arg Glu Ser
 340 345 350

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Lys
 355 360 365

Gly Ser Gly Arg Ala Ile Asn Thr Tyr Ala Met Gly Trp Phe Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Trp Asn Gly
 385 390 395 400

Gly His Thr Arg Tyr Ala Asp Ser Val Gln Gly Arg Phe Ala Ile Ser
405 410 415

Arg Asp Asn Ala Asp Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys
420 425 430

Pro Glu Asp Thr Ala Val Tyr His Cys Ala Ala Tyr Ser Asp Tyr His
435 440 445

Arg Ile Ala Thr Met Glu Ala Asp Ala Asp Ser Trp Gly Gln Gly Thr
450 455 460

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Val Gln Val Glu
465 470 475 480

Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr
485 490 495

Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp
500 505 510

Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln
515 520 525

Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly
530 535 540

Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr
545 550 555 560

Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val
565 570 575

Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly
580 585 590

Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Ala
595 600 605

Leu Tyr Leu Leu Arg Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys

610

615

620

Pro Pro Gly Gly Gly Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala
 625 630 635 640

Asp Ala His Ser Thr Leu Ala Lys Ile
 645

<210> 43

<211> 644

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 43

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
 20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
 35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
 50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
 65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
 85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
 100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
 115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile

130

135

140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
 145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
 165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
 180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Arg Thr Phe Ser Gly Tyr Ile Met Gly Trp Phe Arg Gln
370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Ala Arg Ile Ser Gly Asn Asn
385 390 395 400

Leu Ser Thr Glu Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser
405 410 415

Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg
420 425 430

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Glu Tyr Asp Tyr Ser
435 440 445

Ser Gly Asp Phe Val Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys
450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu

565

570

575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
 580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu Arg
 595 600 605

Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly Gly
 610 615 620

Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser Thr
 625 630 635 640

Leu Ala Lys Ile

<210> 44

<211> 642

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 44

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
 20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
 35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
 50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
 65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn

85

90

95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
 100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
 115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
 130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
 145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
 165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
 180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Ser Gly Phe Ser Ala Ser Leu Met Ser Trp His Arg Gln
370 375 380

Ala Pro Gly Lys Gln Arg Asp Leu Val Ala Ser Ile Thr Arg Asp Gly
385 390 395 400

Arg Ala Asn Tyr Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
405 410 415

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala
420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys His Ala Tyr Ser Phe Asp Tyr Pro
435 440 445

Ile Arg Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly
450 455 460

Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly
465 470 475 480

Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly
485 490 495

Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys
500 505 510

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

515

520

525

Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile
 530 535 540

Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro
 545 550 555 560

Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly
 565 570 575

Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu
 580 585 590

Phe Ile Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu Arg Arg Asp
 595 600 605

Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly Gly Ser Phe
 610 615 620

Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser Thr Leu Ala
 625 630 635 640

Lys Ile

<210> 45

<211> 642

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 45

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
 20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys

35

40

45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
 50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
 65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
 85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
 100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
 115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
 130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
 145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
 165 170 175

Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
 180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln
370 375 380

Ala Pro Gly Lys Gly Arg Glu Trp Val Ala Ala Ile Thr Thr Ser Gly
385 390 395 400

Asp Thr Thr Tyr Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser
405 410 415

Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg
420 425 430

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala His Arg Gly Gly Gly
435 440 445

Val Ile Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly
450 455 460

Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly

<400> 46

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Ser Ile Phe Ser Ile Ser Ile Met Gly Trp Tyr Arg Gln
370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Ala Ser Thr Thr Ser Ser Gly
385 390 395 400

Thr Thr Asn Tyr Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
405 410 415

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala

420

425

430

Glu Asp Thr Ala Val Tyr Tyr Cys His Ala Tyr Ile Ala Thr Thr Thr
 435 440 445

Asp Arg Gly Tyr Arg Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
 450 455 460

Lys Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro
 465 470 475 480

Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His
 485 490 495

Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp
 500 505 510

Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg
 515 520 525

Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys
 530 535 540

Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly
 545 550 555 560

Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys
 565 570 575

Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly
 580 585 590

Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu
 595 600 605

Arg Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly
 610 615 620

Gly Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser
 625 630 635 640

Thr Leu Ala Lys Ile
645

<210> 47
<211> 648
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 47

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Gln Val Gln Leu Val Gln Ser
340 345 350

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Ser Ile Ser Ser Tyr Asn Val Val Gly Trp Tyr Arg Gln

370

375

380

Leu Ser Gly Asn Glu Arg Gly Gly Arg Thr Met Val Ala Gln Ile Asn
 385 390 395 400

Ala Tyr Gly Asp Thr Asn Tyr Ala Asn Ala Val Val Gly Arg Phe Thr
 405 410 415

Ile Ser Arg Asp Asp Ala Lys Asn Thr Val Tyr Leu His Met Ser Asn
 420 425 430

Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys Asn Gly Gln Arg Met
 435 440 445

Leu Glu Asn Tyr Thr Tyr Arg Asp Gln Ser Trp Gly Gln Gly Thr Gln
 450 455 460

Val Thr Val Lys Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr
 465 470 475 480

Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys
 485 490 495

Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser
 500 505 510

Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu
 515 520 525

Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln
 530 535 540

Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly
 545 550 555 560

His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu
 565 570 575

Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly
 580 585 590

Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Ala Leu
595 600 605

Tyr Leu Leu Arg Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro
610 615 620

Pro Gly Gly Gly Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp
625 630 635 640

Ala His Ser Thr Leu Ala Lys Ile
645

<210> 48

<211> 640

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 48

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu

325

330

335

Leu Leu Trp Val Pro Gly Ser Thr Gly Gln Val Gln Leu Val Gln Ser
 340 345 350

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Thr Leu Ser Cys Ala
 355 360 365

Ala Ser Arg Ser Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala
 370 375 380

Pro Gly Lys Glu Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp
 385 390 395 400

Thr Asn Tyr Ala Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp
 405 410 415

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Lys Asn Leu Lys Pro Glu
 420 425 430

Asp Thr Ala Val Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val
 435 440 445

Gly Ala Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro Gly Gly Gly
 450 455 460

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
 465 470 475 480

Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu
 485 490 495

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
 500 505 510

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
 515 520 525

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
 530 535 540

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
545 550 555 560

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
565 570 575

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
580 585 590

Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu Arg Arg Asp Gln Arg
595 600 605

Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly Gly Ser Phe Arg Thr
610 615 620

Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser Thr Leu Ala Lys Ile
625 630 635 640

<210> 49

<211> 644

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 49

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser

290

295

300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Gln Ser
 340 345 350

Gly Gly Gly Ser Val Gln Val Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala
 385 390 395 400

Gly Pro Asn Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Lys Pro
 420 425 430

Glu Asp Thr Ala Val Tyr Asn Cys Asn Ala Trp Ile Asp Tyr Gly Ser
 435 440 445

Gly Leu Pro Gln Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Lys
 450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
 465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
 485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
 500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu Arg
595 600 605

Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly Gly
610 615 620

Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser Thr
625 630 635 640

Leu Ala Lys Ile

<210> 50
<211> 640
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 50

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met

245

250

255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Arg Ser Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala
 370 375 380

Pro Gly Lys Glu Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp
 385 390 395 400

Thr Asn Tyr Ala Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp
 405 410 415

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu
 420 425 430

Asp Thr Ala Val Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val
 435 440 445

Gly Ala Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly Gly Gly
 450 455 460

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
465 470 475 480

Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu
485 490 495

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
500 505 510

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
515 520 525

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
530 535 540

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
545 550 555 560

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
565 570 575

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
580 585 590

Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu Arg Arg Asp Gln Arg
595 600 605

Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly Gly Ser Phe Arg Thr
610 615 620

Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser Thr Leu Ala Lys Ile
625 630 635 640

<210> 51
<211> 644
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.OX40 fusion protein

<400> 51

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu

210

215

220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala
 385 390 395 400

Gly Pro Asn Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg Ala
 420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys Asn Ala Trp Ile Asp Tyr Gly Ser
435 440 445

Gly Leu Pro Gln Asn Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys
450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Ala Leu Tyr Leu Leu Arg
595 600 605

Arg Asp Gln Arg Leu Pro Pro Asp Ala His Lys Pro Pro Gly Gly Gly
610 615 620

Ser Phe Arg Thr Pro Ile Gln Glu Glu Gln Ala Asp Ala His Ser Thr
625 630 635 640

Leu Ala Lys Ile

<210> 52
<211> 781
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 52

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser

165

170

175

Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
 180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Gln Val Thr Leu Arg Glu Ser
 340 345 350

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Lys
 355 360 365

Gly Ser Gly Arg Ala Ile Asn Thr Tyr Ala Met Gly Trp Phe Arg Gln
 370 375 380

Ala Pro Gly Lys Glu Arg Glu Phe Val Ala Ala Ile Ser Trp Asn Gly
385 390 395 400

Gly His Thr Arg Tyr Ala Asp Ser Val Gln Gly Arg Phe Ala Ile Ser
405 410 415

Arg Asp Asn Ala Asp Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys
420 425 430

Pro Glu Asp Thr Ala Val Tyr His Cys Ala Ala Tyr Ser Asp Tyr His
435 440 445

Arg Ile Ala Thr Met Glu Ala Asp Ala Asp Ser Trp Gly Gln Gly Thr
450 455 460

Gln Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Val Gln Val Glu
465 470 475 480

Thr Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr
485 490 495

Cys Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp
500 505 510

Ser Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln
515 520 525

Glu Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly
530 535 540

Gln Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr
545 550 555 560

Gly His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val
565 570 575

Glu Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly
580 585 590

Gly Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Lys

595

600

605

Lys Lys Pro Leu Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro
610 615 620

Ala Asp Lys Ala Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu
625 630 635 640

Ile Thr Ala Pro Ser Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser
645 650 655

Ala Leu Asp Arg Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly
660 665 670

Val Glu Ala Ser Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser
675 680 685

Asp Ser Ser Pro Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile
690 695 700

Val Asn Val Cys Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln
705 710 715 720

Ala Ser Ser Thr Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro
725 730 735

Lys Asp Glu Gln Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser
740 745 750

Gln Leu Glu Thr Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro
755 760 765

Leu Pro Leu Gly Val Pro Asp Ala Gly Met Lys Pro Ser
770 775 780

<210> 53

<211> 776

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 53

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Arg Thr Phe Ser Gly Tyr Ile Met Gly Trp Phe Arg Gln
370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Ala Arg Ile Ser Gly Asn Asn
385 390 395 400

Leu Ser Thr Glu Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser
405 410 415

Arg Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg

420

425

430

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala Glu Tyr Asp Tyr Ser
 435 440 445

Ser Gly Asp Phe Val Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys
 450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
 465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
 485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
 500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
 515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
 530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
 545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
 565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
 580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys
 595 600 605

Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg
 610 615 620

Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser
 625 630 635 640

Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg
645 650 655

Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly
660 665 670

Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly
675 680 685

Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser
690 695 700

Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met
705 710 715 720

Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val
725 730 735

Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro
740 745 750

Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val
755 760 765

Pro Asp Ala Gly Met Lys Pro Ser
770 775

<210> 54
<211> 774
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 54

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met

245

250

255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
 290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
 305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
 325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
 340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 355 360 365

Ala Ser Gly Ser Gly Phe Ser Ala Ser Leu Met Ser Trp His Arg Gln
 370 375 380

Ala Pro Gly Lys Gln Arg Asp Leu Val Ala Ser Ile Thr Arg Asp Gly
 385 390 395 400

Arg Ala Asn Tyr Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 405 410 415

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala
 420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys His Ala Tyr Ser Phe Asp Tyr Pro
 435 440 445

Ile Arg Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly
 450 455 460

Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly
465 470 475 480

Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly
485 490 495

Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys
500 505 510

Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu
515 520 525

Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile
530 535 540

Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro
545 550 555 560

Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly
565 570 575

Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu
580 585 590

Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys Leu Gln
595 600 605

Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg Gly Thr
610 615 620

Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser Ser Ser
625 630 635 640

Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg Ala Pro
645 650 655

Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala Gly
660 665 670

Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly Gly His

675

680

685

Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser Ser Ser
 690 695 700

Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met Gly Asp
 705 710 715 720

Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val Pro Phe
 725 730 735

Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro Glu Thr
 740 745 750

Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val Pro Asp
 755 760 765

Ala Gly Met Lys Pro Ser
 770

<210> 55

<211> 774

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 55

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
 20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
 35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
 50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp

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

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln
370 375 380

Ala Pro Gly Lys Gly Arg Glu Trp Val Ala Ala Ile Thr Thr Ser Gly
385 390 395 400

Asp Thr Thr Tyr Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser
405 410 415

Arg Asp Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg
420 425 430

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Ala His Arg Gly Gly Gly
435 440 445

Val Ile Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly
450 455 460

Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly
465 470 475 480

Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly
485 490 495

Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys

500

505

510

Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu
 515 520 525

Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile
 530 535 540

Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro
 545 550 555 560

Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly
 565 570 575

Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu
 580 585 590

Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys Leu Gln
 595 600 605

Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg Gly Thr
 610 615 620

Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser Ser Ser
 625 630 635 640

Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg Ala Pro
 645 650 655

Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala Gly
 660 665 670

Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly Gly His
 675 680 685

Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser Ser Ser
 690 695 700

Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met Gly Asp
 705 710 715 720

Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val Pro Phe
725 730 735

Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro Glu Thr
740 745 750

Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val Pro Asp
755 760 765

Ala Gly Met Lys Pro Ser
770

<210> 56
<211> 777
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 56

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu

325

330

335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Gly Ser Ile Phe Ser Ile Ser Ile Met Gly Trp Tyr Arg Gln
370 375 380

Ala Pro Gly Lys Glu Arg Glu Leu Val Ala Ser Thr Thr Ser Ser Gly
385 390 395 400

Thr Thr Asn Tyr Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
405 410 415

Asp Asn Ala Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala
420 425 430

Glu Asp Thr Ala Val Tyr Tyr Cys His Ala Tyr Ile Ala Thr Thr Thr
435 440 445

Asp Arg Gly Tyr Arg Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
450 455 460

Lys Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro
465 470 475 480

Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His
485 490 495

Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp
500 505 510

Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg
515 520 525

Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys
530 535 540

Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly
545 550 555 560

Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys
565 570 575

Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly
580 585 590

Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu
595 600 605

Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala
610 615 620

Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro
625 630 635 640

Ser Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg
645 650 655

Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser
660 665 670

Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro
675 680 685

Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys
690 695 700

Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr
705 710 715 720

Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln
725 730 735

Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr
740 745 750

Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly

755

760

765

Val Pro Asp Ala Gly Met Lys Pro Ser
770 775

<210> 57

<211> 780

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 57

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln

145		150		155		160									
Pro	Phe	Met	Arg	Pro	Val	Gln	Thr	Thr	Gln	Glu	Glu	Asp	Gly	Cys	Ser
				165					170					175	
Cys	Arg	Phe	Pro	Glu	Glu	Glu	Glu	Gly	Gly	Cys	Glu	Leu	Arg	Val	Lys
			180					185					190		
Phe	Ser	Arg	Ser	Ala	Asp	Ala	Pro	Ala	Tyr	Gln	Gln	Gly	Gln	Asn	Gln
		195					200					205			
Leu	Tyr	Asn	Glu	Leu	Asn	Leu	Gly	Arg	Arg	Glu	Glu	Tyr	Asp	Val	Leu
	210					215					220				
Asp	Lys	Arg	Arg	Gly	Arg	Asp	Pro	Glu	Met	Gly	Gly	Lys	Pro	Arg	Arg
225					230					235					240
Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys	Met
				245					250					255	
Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg	Gly
			260					265					270		
Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys	Asp
		275					280					285			
Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg	Ser	Gly	Ser
	290					295					300				
Gly	Ala	Thr	Asn	Phe	Ser	Leu	Leu	Lys	Gln	Ala	Gly	Asp	Val	Glu	Glu
305					310					315				320	
Asn	Pro	Gly	Pro	Ser	Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu
				325					330					335	
Leu	Leu	Trp	Val	Pro	Gly	Ser	Thr	Gly	Gln	Val	Gln	Leu	Val	Gln	Ser
			340					345					350		
Gly	Gly	Gly	Leu	Val	Gln	Ala	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala
		355					360					365			

Ala Ser Gly Ser Ile Ser Ser Tyr Asn Val Val Gly Trp Tyr Arg Gln
370 375 380

Leu Ser Gly Asn Glu Arg Gly Gly Arg Thr Met Val Ala Gln Ile Asn
385 390 395 400

Ala Tyr Gly Asp Thr Asn Tyr Ala Asn Ala Val Val Gly Arg Phe Thr
405 410 415

Ile Ser Arg Asp Asp Ala Lys Asn Thr Val Tyr Leu His Met Ser Asn
420 425 430

Leu Lys Pro Glu Asp Thr Gly Val Tyr Tyr Cys Asn Gly Gln Arg Met
435 440 445

Leu Glu Asn Tyr Thr Tyr Arg Asp Gln Ser Trp Gly Gln Gly Thr Gln
450 455 460

Val Thr Val Lys Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr
465 470 475 480

Ile Ser Pro Gly Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys
485 490 495

Val Val His Tyr Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser
500 505 510

Ser Arg Asp Arg Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu
515 520 525

Val Ile Arg Gly Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln
530 535 540

Arg Ala Lys Leu Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly
545 550 555 560

His Pro Gly Ile Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu
565 570 575

Leu Leu Lys Leu Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly

580

585

590

Val Ala Gly Leu Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys
 595 600 605

Lys Pro Leu Cys Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala
 610 615 620

Asp Lys Ala Arg Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile
 625 630 635 640

Thr Ala Pro Ser Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala
 645 650 655

Leu Asp Arg Arg Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val
 660 665 670

Glu Ala Ser Gly Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp
 675 680 685

Ser Ser Pro Gly Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val
 690 695 700

Asn Val Cys Ser Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala
 705 710 715 720

Ser Ser Thr Met Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys
 725 730 735

Asp Glu Gln Val Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln
 740 745 750

Leu Glu Thr Pro Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu
 755 760 765

Pro Leu Gly Val Pro Asp Ala Gly Met Lys Pro Ser
 770 775 780

<210> 58

<211> 772

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 58

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Gln Val Gln Leu Val Gln Ser
340 345 350

Gly Gly Gly Leu Val Gln Ala Gly Gly Ser Leu Thr Leu Ser Cys Ala
355 360 365

Ala Ser Arg Ser Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala
370 375 380

Pro Gly Lys Glu Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp
385 390 395 400

Thr Asn Tyr Ala Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp

405

410

415

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Lys Asn Leu Lys Pro Glu
 420 425 430

Asp Thr Ala Val Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val
 435 440 445

Gly Ala Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro Gly Gly Gly
 450 455 460

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
 465 470 475 480

Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr Thr Gly Met Leu
 485 490 495

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
 500 505 510

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
 515 520 525

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
 530 535 540

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
 545 550 555 560

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
 565 570 575

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
 580 585 590

Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys Leu Gln Arg Glu
 595 600 605

Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg Gly Thr Gln Gly
 610 615 620

Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser Ser Ser Ser Ser
625 630 635 640

Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg Ala Pro Thr Arg
645 650 655

Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala Gly Glu Ala
660 665 670

Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly Gly His Gly Thr
675 680 685

Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser Ser Ser Asp His
690 695 700

Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met Gly Asp Thr Asp
705 710 715 720

Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val Pro Phe Ser Lys
725 730 735

Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro Glu Thr Leu Leu
740 745 750

Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val Pro Asp Ala Gly
755 760 765

Met Lys Pro Ser
770

<210> 59
<211> 776
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 59

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg

225		230		235		240									
Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln	Lys	Asp	Lys	Met
			245						250					255	
Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu	Arg	Arg	Arg	Gly
			260					265					270		
Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr	Ala	Thr	Lys	Asp
		275					280					285			
Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro	Arg	Ser	Gly	Ser
	290					295					300				
Gly	Ala	Thr	Asn	Phe	Ser	Leu	Leu	Lys	Gln	Ala	Gly	Asp	Val	Glu	Glu
305					310					315				320	
Asn	Pro	Gly	Pro	Ser	Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu
				325					330					335	
Leu	Leu	Trp	Val	Pro	Gly	Ser	Thr	Gly	Glu	Val	Gln	Leu	Val	Gln	Ser
			340					345					350		
Gly	Gly	Gly	Ser	Val	Gln	Val	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala
		355					360					365			
Ala	Ser	Gly	Ser	Thr	Leu	Asn	Ile	Asp	His	Ile	Gly	Trp	Tyr	Arg	Gln
	370					375					380				
Ala	Pro	Gly	Lys	Glu	Arg	Glu	Leu	Val	Gly	Val	Ile	Ser	Ser	Gly	Ala
385					390					395				400	
Gly	Pro	Asn	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg
				405					410					415	
Asp	Asn	Ala	Lys	Asn	Thr	Val	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Pro
			420					425					430		
Glu	Asp	Thr	Ala	Val	Tyr	Asn	Cys	Asn	Ala	Trp	Ile	Asp	Tyr	Gly	Ser
		435					440					445			

Gly Leu Pro Gln Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Lys
450 455 460

Pro Gly Gly Gly Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly
465 470 475 480

Asp Gly Arg Thr Phe Pro Lys Arg Gly Gln Thr Cys Val Val His Tyr
485 490 495

Thr Gly Met Leu Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg
500 505 510

Asn Lys Pro Phe Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly
515 520 525

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys
595 600 605

Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg
610 615 620

Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser
625 630 635 640

Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg
645 650 655

Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly

660

665

670

Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly
 675 680 685

Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser
 690 695 700

Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met
 705 710 715 720

Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val
 725 730 735

Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro
 740 745 750

Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val
 755 760 765

Pro Asp Ala Gly Met Lys Pro Ser
 770 775

<210> 60

<211> 772

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 60

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
 20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
 35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly

50

55

60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu
305 310 315 320

Asn Pro Gly Pro Ser Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu
325 330 335

Leu Leu Trp Val Pro Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser
340 345 350

Gly Gly Gly Glu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
355 360 365

Ala Ser Arg Ser Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala
370 375 380

Pro Gly Lys Glu Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp
385 390 395 400

Thr Asn Tyr Ala Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp
405 410 415

Asn Ala Lys Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu
420 425 430

Asp Thr Ala Val Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val
435 440 445

Gly Ala Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Gly Gly Gly
450 455 460

Gly Ser Gly Val Gln Val Glu Thr Ile Ser Pro Gly Asp Gly Arg Thr
465 470 475 480

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

485

490

495

Glu Asp Gly Lys Lys Phe Asp Ser Ser Arg Asp Arg Asn Lys Pro Phe
 500 505 510

Lys Phe Met Leu Gly Lys Gln Glu Val Ile Arg Gly Trp Glu Glu Gly
 515 520 525

Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu Thr Ile Ser Pro
 530 535 540

Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile Ile Pro Pro His
 545 550 555 560

Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu Glu Gly Gly Arg
 565 570 575

Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu Leu Leu Phe Ile
 580 585 590

Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys Leu Gln Arg Glu
 595 600 605

Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg Gly Thr Gln Gly
 610 615 620

Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser Ser Ser Ser Ser
 625 630 635 640

Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg Ala Pro Thr Arg
 645 650 655

Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly Ala Gly Glu Ala
 660 665 670

Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly Gly His Gly Thr
 675 680 685

Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser Ser Ser Asp His
 690 695 700

Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met Gly Asp Thr Asp
705 710 715 720

Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val Pro Phe Ser Lys
725 730 735

Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro Glu Thr Leu Leu
740 745 750

Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val Pro Asp Ala Gly
755 760 765

Met Lys Pro Ser
770

<210> 61
<211> 776
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH DARIC.TNFR2 fusion protein

<400> 61

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile
130 135 140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg Ser Gly Ser
290 295 300

Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val Glu Glu

305		310		315		320									
Asn	Pro	Gly	Pro	Ser	Met	Leu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu
				325					330					335	
Leu	Leu	Trp	Val	Pro	Gly	Ser	Thr	Gly	Glu	Val	Gln	Leu	Val	Glu	Ser
			340					345					350		
Gly	Gly	Gly	Glu	Val	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala
		355					360					365			
Ala	Ser	Gly	Ser	Thr	Leu	Asn	Ile	Asp	His	Ile	Gly	Trp	Tyr	Arg	Gln
	370					375					380				
Ala	Pro	Gly	Lys	Glu	Arg	Glu	Leu	Val	Gly	Val	Ile	Ser	Ser	Gly	Ala
385					390					395					400
Gly	Pro	Asn	Tyr	Ala	Glu	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg
				405					410					415	
Asp	Asn	Ala	Lys	Asn	Thr	Val	Tyr	Leu	Gln	Met	Ser	Ser	Leu	Arg	Ala
			420					425					430		
Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Asn	Ala	Trp	Ile	Asp	Tyr	Gly	Ser
		435					440					445			
Gly	Leu	Pro	Gln	Asn	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Lys
	450					455					460				
Pro	Gly	Gly	Gly	Gly	Ser	Gly	Val	Gln	Val	Glu	Thr	Ile	Ser	Pro	Gly
465					470					475					480
Asp	Gly	Arg	Thr	Phe	Pro	Lys	Arg	Gly	Gln	Thr	Cys	Val	Val	His	Tyr
				485				490						495	
Thr	Gly	Met	Leu	Glu	Asp	Gly	Lys	Lys	Phe	Asp	Ser	Ser	Arg	Asp	Arg
			500					505					510		
Asn	Lys	Pro	Phe	Lys	Phe	Met	Leu	Gly	Lys	Gln	Glu	Val	Ile	Arg	Gly
		515					520					525			

Trp Glu Glu Gly Val Ala Gln Met Ser Val Gly Gln Arg Ala Lys Leu
530 535 540

Thr Ile Ser Pro Asp Tyr Ala Tyr Gly Ala Thr Gly His Pro Gly Ile
545 550 555 560

Ile Pro Pro His Ala Thr Leu Val Phe Asp Val Glu Leu Leu Lys Leu
565 570 575

Glu Gly Gly Arg Met Ala Leu Ile Val Leu Gly Gly Val Ala Gly Leu
580 585 590

Leu Leu Phe Ile Gly Leu Gly Ile Phe Phe Lys Lys Lys Pro Leu Cys
595 600 605

Leu Gln Arg Glu Ala Lys Val Pro His Leu Pro Ala Asp Lys Ala Arg
610 615 620

Gly Thr Gln Gly Pro Glu Gln Gln His Leu Leu Ile Thr Ala Pro Ser
625 630 635 640

Ser Ser Ser Ser Ser Leu Glu Ser Ser Ala Ser Ala Leu Asp Arg Arg
645 650 655

Ala Pro Thr Arg Asn Gln Pro Gln Ala Pro Gly Val Glu Ala Ser Gly
660 665 670

Ala Gly Glu Ala Arg Ala Ser Thr Gly Ser Ser Asp Ser Ser Pro Gly
675 680 685

Gly His Gly Thr Gln Val Asn Val Thr Cys Ile Val Asn Val Cys Ser
690 695 700

Ser Ser Asp His Ser Ser Gln Cys Ser Ser Gln Ala Ser Ser Thr Met
705 710 715 720

Gly Asp Thr Asp Ser Ser Pro Ser Glu Ser Pro Lys Asp Glu Gln Val
725 730 735

Pro Phe Ser Lys Glu Glu Cys Ala Phe Arg Ser Gln Leu Glu Thr Pro

740

745

750

Glu Thr Leu Leu Gly Ser Thr Glu Glu Lys Pro Leu Pro Leu Gly Val
 755 760 765

Pro Asp Ala Gly Met Lys Pro Ser
 770 775

<210> 62
 <211> 372
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 62

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gln Val Thr Leu Arg Glu Ser Gly Gly Gly Leu
 20 25 30

Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Lys Gly Ser Gly Arg
 35 40 45

Ala Ile Asn Thr Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys
 50 55 60

Glu Arg Glu Phe Val Ala Ala Ile Ser Trp Asn Gly Gly His Thr Arg
 65 70 75 80

Tyr Ala Asp Ser Val Gln Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala
 85 90 95

Asp Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr
 100 105 110

Ala Val Tyr His Cys Ala Ala Tyr Ser Asp Tyr His Arg Ile Ala Thr
 115 120 125

Met Glu Ala Asp Ala Asp Ser Trp Gly Gln Gly Thr Gln Val Thr Val

130

135

140

Ser Ser Ala Ala Ala Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro
 145 150 155 160

Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys
 165 170 175

Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala
 180 185 190

Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu
 195 200 205

Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys
 210 215 220

Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr
 225 230 235 240

Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly
 245 250 255

Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala
 260 265 270

Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg
 275 280 285

Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu
 290 295 300

Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn
 305 310 315 320

Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met
 325 330 335

Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly
 340 345 350

Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala
355 360 365

Leu Pro Pro Arg
370

<210> 63
<211> 367
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 63

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg
35 40 45

Thr Phe Ser Gly Tyr Ile Met Gly Trp Phe Arg Gln Ala Pro Gly Lys
50 55 60

Glu Arg Glu Leu Val Ala Arg Ile Ser Gly Asn Asn Leu Ser Thr Glu
65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Ala Ala Glu Tyr Asp Tyr Ser Ser Gly Asp Phe
115 120 125

Val Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Ala Ala Ala
130 135 140

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
145 150 155 160

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
165 170 175

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
180 185 190

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
195 200 205

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
210 215 220

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
225 230 235 240

Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg
245 250 255

Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln
260 265 270

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
275 280 285

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
290 295 300

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
305 310 315 320

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
325 330 335

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
340 345 350

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg

355

360

365

<210> 64

<211> 365

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 64

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
 20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
 35 40 45

Gly Phe Ser Ala Ser Leu Met Ser Trp His Arg Gln Ala Pro Gly Lys
 50 55 60

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

Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
 85 90 95

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

Val Tyr Tyr Cys His Ala Tyr Ser Phe Asp Tyr Pro Ile Arg Ser Tyr
 115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Ala Ala Ala Thr Thr
 130 135 140

Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln
 145 150 155 160

Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala

165

170

175

Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala
 180 185 190

Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr
 195 200 205

Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
 210 215 220

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
 225 230 235 240

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
 245 250 255

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 260 265 270

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 275 280 285

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 290 295 300

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 305 310 315 320

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 325 330 335

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 340 345 350

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360 365

<210> 65

<211> 365

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 65

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys
50 55 60

Gly Arg Glu Trp Val Ala Ala Ile Thr Thr Ser Gly Asp Thr Thr Tyr
65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

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

Ala Val Tyr Tyr Cys Ala Ala His Arg Gly Gly Gly Val Ile Asp Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Ala Ala Ala Thr Thr
130 135 140

Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln
145 150 155 160

Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala
165 170 175

Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala
180 185 190

Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr
195 200 205

Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
210 215 220

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
225 230 235 240

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
245 250 255

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
260 265 270

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
275 280 285

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
290 295 300

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
305 310 315 320

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
325 330 335

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
340 345 350

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
355 360 365

<210> 66
<211> 368
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 66

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
35 40 45

Ile Phe Ser Ile Ser Ile Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys
50 55 60

Glu Arg Glu Leu Val Ala Ser Thr Thr Ser Ser Gly Thr Thr Asn Tyr
65 70 75 80

Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Tyr Cys His Ala Tyr Ile Ala Thr Thr Thr Asp Arg Gly Tyr
115 120 125

Arg Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Ala Ala
130 135 140

Ala Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile
145 150 155 160

Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala
165 170 175

Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
180 185 190

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu
195 200 205

Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile

210

215

220

Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp
 225 230 235 240

Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
 245 250 255

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
 260 265 270

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
 275 280 285

Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
 290 295 300

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
 305 310 315 320

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
 325 330 335

Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
 340 345 350

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360 365

<210> 67

<211> 371

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 67

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu

20

25

30

Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
 35 40 45

Ile Ser Ser Tyr Asn Val Val Gly Trp Tyr Arg Gln Leu Ser Gly Asn
 50 55 60

Glu Arg Gly Gly Arg Thr Met Val Ala Gln Ile Asn Ala Tyr Gly Asp
 65 70 75 80

Thr Asn Tyr Ala Asn Ala Val Val Gly Arg Phe Thr Ile Ser Arg Asp
 85 90 95

Asp Ala Lys Asn Thr Val Tyr Leu His Met Ser Asn Leu Lys Pro Glu
 100 105 110

Asp Thr Gly Val Tyr Tyr Cys Asn Gly Gln Arg Met Leu Glu Asn Tyr
 115 120 125

Thr Tyr Arg Asp Gln Ser Trp Gly Gln Gly Thr Gln Val Thr Val Lys
 130 135 140

Pro Ala Ala Ala Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala
 145 150 155 160

Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg
 165 170 175

Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys
 180 185 190

Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu
 195 200 205

Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu
 210 215 220

Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln
 225 230 235 240

Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly
245 250 255

Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr
260 265 270

Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg
275 280 285

Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met
290 295 300

Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu
305 310 315 320

Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys
325 330 335

Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu
340 345 350

Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu
355 360 365

Pro Pro Arg
370

<210> 68
<211> 363
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 68

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu
20 25 30

Val Gln Ala Gly Gly Ser Leu Thr Leu Ser Cys Ala Ala Ser Arg Ser
35 40 45

Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
50 55 60

Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala
65 70 75 80

Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn
85 90 95

Thr Val Tyr Leu Gln Met Lys Asn Leu Lys Pro Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly
115 120 125

Gln Gly Thr Gln Val Thr Val Lys Pro Ala Ala Ala Thr Thr Thr Pro
130 135 140

Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu
145 150 155 160

Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His
165 170 175

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
180 185 190

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
195 200 205

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
210 215 220

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
225 230 235 240

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser

245

250

255

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
 260 265 270

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
 275 280 285

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn
 290 295 300

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
 305 310 315 320

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
 325 330 335

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
 340 345 350

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360

<210> 69

<211> 367

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 69

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Gln Ser Gly Gly Gly Ser
 20 25 30

Val Gln Val Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
 35 40 45

Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys

50

55

60

Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Asn Cys Asn Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln
115 120 125

Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro Ala Ala Ala
130 135 140

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
145 150 155 160

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
165 170 175

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
180 185 190

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
195 200 205

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
210 215 220

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
225 230 235 240

Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg
245 250 255

Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln
260 265 270

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
275 280 285

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
290 295 300

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
305 310 315 320

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
325 330 335

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
340 345 350

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
355 360 365

<210> 70

<211> 363

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 70

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Arg Ser
35 40 45

Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
50 55 60

Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala
65 70 75 80

Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn
85 90 95

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

Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly
115 120 125

Gln Gly Thr Leu Val Thr Val Lys Pro Ala Ala Ala Thr Thr Thr Pro
130 135 140

Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu
145 150 155 160

Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His
165 170 175

Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu
180 185 190

Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr
195 200 205

Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe
210 215 220

Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg
225 230 235 240

Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser
245 250 255

Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr
260 265 270

Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys
275 280 285

Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn

290

295

300

Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu
 305 310 315 320

Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly
 325 330 335

His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr
 340 345 350

Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360

<210> 71

<211> 367

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 71

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
 20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
 35 40 45

Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys
 50 55 60

Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr
 65 70 75 80

Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
 85 90 95

Asn Thr Val Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala

100

105

110

Val Tyr Tyr Cys Asn Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln
 115 120 125

Asn Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Ala Ala Ala
 130 135 140

Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala
 145 150 155 160

Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly
 165 170 175

Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile
 180 185 190

Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val
 195 200 205

Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
 210 215 220

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
 225 230 235 240

Cys Ser Cys Arg Phe Pro Glu Glu Glu Gly Gly Cys Glu Leu Arg
 245 250 255

Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln
 260 265 270

Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp
 275 280 285

Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro
 290 295 300

Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp
 305 310 315 320

Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg
325 330 335

Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr
340 345 350

Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
355 360 365

<210> 72

<211> 369

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 72

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gln Val Thr Leu Arg Glu Ser Gly Gly Gly Leu
20 25 30

Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Lys Gly Ser Gly Arg
35 40 45

Ala Ile Asn Thr Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys
50 55 60

Glu Arg Glu Phe Val Ala Ala Ile Ser Trp Asn Gly Gly His Thr Arg
65 70 75 80

Tyr Ala Asp Ser Val Gln Gly Arg Phe Ala Ile Ser Arg Asp Asn Ala
85 90 95

Asp Asn Thr Met Tyr Leu Gln Met Asn Ser Leu Lys Pro Glu Asp Thr
100 105 110

Ala Val Tyr His Cys Ala Ala Tyr Ser Asp Tyr His Arg Ile Ala Thr
115 120 125

Met Glu Ala Asp Ala Asp Ser Trp Gly Gln Gly Thr Gln Val Thr Val
130 135 140

Ser Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
145 150 155 160

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
165 170 175

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
180 185 190

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser
195 200 205

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
210 215 220

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
225 230 235 240

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu
245 250 255

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
260 265 270

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
275 280 285

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
290 295 300

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
305 310 315 320

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
325 330 335

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr

340

345

350

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
 355 360 365

Arg

<210> 73

<211> 364

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 73

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
 20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Arg
 35 40 45

Thr Phe Ser Gly Tyr Ile Met Gly Trp Phe Arg Gln Ala Pro Gly Lys
 50 55 60

Glu Arg Glu Leu Val Ala Arg Ile Ser Gly Asn Asn Leu Ser Thr Glu
 65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
 85 90 95

Lys Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr
 100 105 110

Ala Val Tyr Tyr Cys Ala Ala Glu Tyr Asp Tyr Ser Ser Gly Asp Phe
 115 120 125

Val Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Thr Thr Thr

130

135

140

Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro
 145 150 155 160

Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val
 165 170 175

His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
 180 185 190

Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu
 195 200 205

Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro
 210 215 220

Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys
 225 230 235 240

Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe
 245 250 255

Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu
 260 265 270

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
 275 280 285

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
 290 295 300

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
 305 310 315 320

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
 325 330 335

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
 340 345 350

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
355 360

<210> 74
<211> 362
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 74

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
35 40 45

Gly Phe Ser Ala Ser Leu Met Ser Trp His Arg Gln Ala Pro Gly Lys
50 55 60

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

Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Tyr Cys His Ala Tyr Ser Phe Asp Tyr Pro Ile Arg Ser Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Thr Thr Thr Pro Ala
130 135 140

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
145 150 155 160

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
165 170 175

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala
180 185 190

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
195 200 205

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
210 215 220

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
225 230 235 240

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
245 250 255

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
260 265 270

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
275 280 285

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
290 295 300

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
305 310 315 320

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
325 330 335

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
340 345 350

Ala Leu His Met Gln Ala Leu Pro Pro Arg
355 360

<211> 362
<212> PRT
<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 75

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Phe Ser Ser Tyr Ala Met Gly Trp Phe Arg Gln Ala Pro Gly Lys
50 55 60

Gly Arg Glu Trp Val Ala Ala Ile Thr Thr Ser Gly Asp Thr Thr Tyr
65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
85 90 95

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

Ala Val Tyr Tyr Cys Ala Ala His Arg Gly Gly Gly Val Ile Asp Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Thr Thr Thr Pro Ala
130 135 140

Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser
145 150 155 160

Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr
165 170 175

Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala

180

185

190

Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys
 195 200 205

Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met
 210 215 220

Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe
 225 230 235 240

Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg
 245 250 255

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
 260 265 270

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
 275 280 285

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
 290 295 300

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
 305 310 315 320

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
 325 330 335

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
 340 345 350

Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360

<210> 76

<211> 365

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 76

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
35 40 45

Ile Phe Ser Ile Ser Ile Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys
50 55 60

Glu Arg Glu Leu Val Ala Ser Thr Thr Ser Ser Gly Thr Thr Asn Tyr
65 70 75 80

Val Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Tyr Cys His Ala Tyr Ile Ala Thr Thr Thr Asp Arg Gly Tyr
115 120 125

Arg Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Thr Thr
130 135 140

Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln
145 150 155 160

Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala
165 170 175

Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala
180 185 190

Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr
195 200 205

Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
210 215 220

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
225 230 235 240

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
245 250 255

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
260 265 270

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
275 280 285

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
290 295 300

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
305 310 315 320

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
325 330 335

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
340 345 350

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
355 360 365

<210> 77

<211> 368

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 77

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu
20 25 30

Val Gln Ala Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
35 40 45

Ile Ser Ser Tyr Asn Val Val Gly Trp Tyr Arg Gln Leu Ser Gly Asn
50 55 60

Glu Arg Gly Gly Arg Thr Met Val Ala Gln Ile Asn Ala Tyr Gly Asp
65 70 75 80

Thr Asn Tyr Ala Asn Ala Val Val Gly Arg Phe Thr Ile Ser Arg Asp
85 90 95

Asp Ala Lys Asn Thr Val Tyr Leu His Met Ser Asn Leu Lys Pro Glu
100 105 110

Asp Thr Gly Val Tyr Tyr Cys Asn Gly Gln Arg Met Leu Glu Asn Tyr
115 120 125

Thr Tyr Arg Asp Gln Ser Trp Gly Gln Gly Thr Gln Val Thr Val Lys
130 135 140

Pro Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile
145 150 155 160

Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala
165 170 175

Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr
180 185 190

Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu
195 200 205

Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile
210 215 220

Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp

225 230 235 240
 Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
 245 250 255
 Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
 260 265 270
 Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
 275 280 285
 Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys
 290 295 300
 Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
 305 310 315 320
 Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
 325 330 335
 Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala
 340 345 350
 Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360 365

 <210> 78
 <211> 360
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

 <400> 78

 Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

 His Ala Ala Arg Pro Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu
 20 25 30

 Val Gln Ala Gly Gly Ser Leu Thr Leu Ser Cys Ala Ala Ser Arg Ser

35

40

45

Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
 50 55 60

Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala
 65 70 75 80

Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Thr Val Tyr Leu Gln Met Lys Asn Leu Lys Pro Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly
 115 120 125

Gln Gly Thr Gln Val Thr Val Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
 165 170 175

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
 180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg
 195 200 205

Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro
 210 215 220

Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu
 225 230 235 240

Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala
 245 250 255

Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu
260 265 270

Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly
275 280 285

Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu
290 295 300

Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser
305 310 315 320

Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly
325 330 335

Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu
340 345 350

His Met Gln Ala Leu Pro Pro Arg
355 360

<210> 79
<211> 364
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 79

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Gln Ser Gly Gly Gly Ser
20 25 30

Val Gln Val Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
35 40 45

Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys
50 55 60

Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Asn Cys Asn Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln
115 120 125

Asn Tyr Trp Gly Gln Gly Thr Gln Val Thr Val Lys Pro Thr Thr Thr
130 135 140

Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro
145 150 155 160

Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val
165 170 175

His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
180 185 190

Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu
195 200 205

Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro
210 215 220

Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys
225 230 235 240

Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe
245 250 255

Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu
260 265 270

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp

275

280

285

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
 290 295 300

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
 305 310 315 320

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
 325 330 335

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
 340 345 350

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360

<210> 80

<211> 360

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 80

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
 20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Arg Ser
 35 40 45

Ser Gly Ile Asp Val Met Gly Trp Tyr Arg Gln Ala Pro Gly Lys Glu
 50 55 60

Arg Glu Leu Val Ala Glu Ile Ser Gly Val Gly Asp Thr Asn Tyr Ala
 65 70 75 80

Ala Ser Leu Ala Asp Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Asn

85

90

95

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

Tyr Tyr Cys Asn Ala His Ser Phe Leu Asp Leu Val Gly Ala Trp Gly
 115 120 125

Gln Gly Thr Leu Val Thr Val Lys Pro Thr Thr Thr Pro Ala Pro Arg
 130 135 140

Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg
 145 150 155 160

Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly
 165 170 175

Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr
 180 185 190

Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg
 195 200 205

Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro
 210 215 220

Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu
 225 230 235 240

Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala
 245 250 255

Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu
 260 265 270

Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly
 275 280 285

Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu
 290 295 300

Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser
305 310 315 320

Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly
325 330 335

Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu
340 345 350

His Met Gln Ala Leu Pro Pro Arg
355 360

<210> 81
<211> 364
<212> PRT
<213> Artificial Sequence

<220>
<223> Made in Lab - anti-CD33 VHH chimeric antigen receptor

<400> 81

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
1 5 10 15

His Ala Ala Arg Pro Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu
20 25 30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ser
35 40 45

Thr Leu Asn Ile Asp His Ile Gly Trp Tyr Arg Gln Ala Pro Gly Lys
50 55 60

Glu Arg Glu Leu Val Gly Val Ile Ser Ser Gly Ala Gly Pro Asn Tyr
65 70 75 80

Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

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

Val Tyr Tyr Cys Asn Ala Trp Ile Asp Tyr Gly Ser Gly Leu Pro Gln
115 120 125

Asn Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Lys Pro Thr Thr Thr
130 135 140

Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro
145 150 155 160

Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala Ala Gly Gly Ala Val
165 170 175

His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro
180 185 190

Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile Thr Leu
195 200 205

Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro
210 215 220

Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys
225 230 235 240

Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys Phe
245 250 255

Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu
260 265 270

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
275 280 285

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
290 295 300

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
305 310 315 320

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys

325

330

335

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
 340 345 350

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 355 360

<210> 82

<211> 301

<212> PRT

<213> Artificial Sequence

<220>

<223> Made in Lab - anti-CD33 VHH DARIC signaling component

<400> 82

Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu Leu
 1 5 10 15

His Ala Ala Arg Pro Gly Ser Ile Leu Trp His Glu Met Trp His Glu
 20 25 30

Gly Leu Glu Glu Ala Ser Arg Leu Tyr Phe Gly Glu Arg Asn Val Lys
 35 40 45

Gly Met Phe Glu Val Leu Glu Pro Leu His Ala Met Met Glu Arg Gly
 50 55 60

Pro Gln Thr Leu Lys Glu Thr Ser Phe Asn Gln Ala Tyr Gly Arg Asp
 65 70 75 80

Leu Met Glu Ala Gln Glu Trp Cys Arg Lys Tyr Met Lys Ser Gly Asn
 85 90 95

Val Lys Asp Leu Leu Gln Ala Trp Asp Leu Tyr Tyr His Val Phe Arg
 100 105 110

Arg Ile Ser Lys Ala Ser Ala Gly Thr Gly Ser Asp Ile Tyr Ile Trp
 115 120 125

Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser Leu Val Ile

130

135

140

Thr Met His Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe Lys Gln
 145 150 155 160

Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly Cys Ser
 165 170 175

Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu Arg Val Lys
 180 185 190

Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln
 195 200 205

Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu
 210 215 220

Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg
 225 230 235 240

Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met
 245 250 255

Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly
 260 265 270

Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp
 275 280 285

Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
 290 295 300

<210> 83

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> Consensus Kozak sequence

<400> 83

gccrccatgg

<210> 84
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary linker sequence

<400> 84

Asp Gly Gly Gly Ser
1 5

<210> 85
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary linker sequence

<400> 85

Thr Gly Glu Lys Pro
1 5

<210> 86
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary linker sequence

<400> 86

Gly Gly Arg Arg
1

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

<220>
<223> Exemplary linker sequence

<400> 87

Gly Gly Gly Gly Ser

1

5

<210> 88
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary linker sequence

<400> 88

Glu Gly Lys Ser Ser Gly Ser Gly Ser Glu Ser Lys Val Asp
1 5 10

<210> 89
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary linker sequence

<400> 89

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

Leu Asp

<210> 90
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary linker sequence

<400> 90

Gly Gly Arg Arg Gly Gly Gly Ser
1 5

<210> 91
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> Exemplary linker sequence

<400> 91

Leu Arg Gln Arg Asp Gly Glu Arg Pro
1 5

<210> 92

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary linker sequence

<400> 92

Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro
1 5 10

<210> 93

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary linker sequence

<400> 93

Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
1 5 10 15

<210> 94

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary linker sequence

<400> 94

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

Lys Gly

<210> 95
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Cleavage sequence by TEV protease

<220>
<221> misc_feature
<222> (2)..(3)
<223> Xaa is any amino acid

<220>
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<222> (5)..(5)
<223> Xaa is any amino acid

<220>
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<222> (7)..(7)
<223> Xaa = Gly or Ser

<400> 95

Glu Xaa Xaa Tyr Xaa Gln Xaa
1 5

<210> 96
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Cleavage sequence by TEV protease

<400> 96

Glu Asn Leu Tyr Phe Gln Gly
1 5

<210> 97
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Cleavage sequence by TEV protease

<400> 97

Glu Asn Leu Tyr Phe Gln Ser
1 5

<210> 98
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 98

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> 99
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 99

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

Pro Gly Pro

<210> 100
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 100

Leu Leu Lys Gln Ala Gly Asp Val Glu Glu Asn Pro Gly Pro
1 5 10

<210> 101
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 101

Gly Ser Gly Glu Gly Arg Gly Ser Leu Leu Thr Cys Gly Asp Val Glu
1 5 10 15

Glu Asn Pro Gly Pro
20

<210> 102
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 102

Glu Gly Arg Gly Ser Leu Leu Thr Cys Gly Asp Val Glu Glu Asn Pro
1 5 10 15

Gly Pro

<210> 103
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 103

Leu Leu Thr Cys Gly Asp Val Glu Glu Asn Pro Gly Pro
1 5 10

<210> 104
<211> 23
<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 104

Gly	Ser	Gly	Gln	Cys	Thr	Asn	Tyr	Ala	Leu	Leu	Lys	Leu	Ala	Gly	Asp
1				5					10					15	

Val	Glu	Ser	Asn	Pro	Gly	Pro
						20

<210> 105

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 105

Gln	Cys	Thr	Asn	Tyr	Ala	Leu	Leu	Lys	Leu	Ala	Gly	Asp	Val	Glu	Ser
1				5					10					15	

Asn	Pro	Gly	Pro
			20

<210> 106

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 106

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

<210> 107

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 107

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

Gly Asp Val Glu Ser Asn Pro Gly Pro
20 25

<210> 108

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 108

Val Lys Gln Thr Leu Asn Phe Asp Leu Leu Lys Leu Ala Gly Asp Val
1 5 10 15

Glu Ser Asn Pro Gly Pro
20

<210> 109

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 109

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

<210> 110

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Self-cleaving polypeptide comprising 2A site

<400> 110

Leu Leu Asn Phe Asp Leu Leu Lys Leu Ala Gly Asp Val Glu Ser Asn

1 5 10 15

Pro Gly Pro

<210> 111
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 111

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

Pro Gly Pro

<210> 112
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 112

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

<210> 113
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 113

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

Pro

<210> 114
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 114

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

Asn Pro Gly Pro
20

<210> 115
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 115

Ala Pro Val Lys Gln Thr Leu Asn Phe Asp Leu Leu Lys Leu Ala Gly
1 5 10 15

Asp Val Glu Ser Asn Pro Gly Pro
20

<210> 116
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Self-cleaving polypeptide comprising 2A site

<400> 116

Val Thr Glu Leu Leu Tyr Arg Met Lys Arg Ala Glu Thr Tyr Cys Pro
1 5 10 15

Arg Pro Leu Leu Ala Ile His Pro Thr Glu Ala Arg His Lys Gln Lys

20

25

30

Ile Val Ala Pro Val Lys Gln Thr
 35 40

<210> 117
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Self-cleaving polypeptide comprising 2A site

<400> 117

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

Gly Pro

<210> 118
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Self-cleaving polypeptide comprising 2A site

<400> 118

Leu Leu Ala Ile His Pro Thr Glu Ala Arg His Lys Gln Lys Ile Val
 1 5 10 15

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

Asp Val Glu Ser Asn Pro Gly Pro
 35 40

<210> 119
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Self-cleaving polypeptide comprising 2A site

<400> 119

Glu	Ala	Arg	His	Lys	Gln	Lys	Ile	Val	Ala	Pro	Val	Lys	Gln	Thr	Leu
1				5					10					15	

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

Pro