

SEQUENCE LISTING

<110> Immunwork Inc.

<120> Molecular constructs with targeting and effector elements and their applications

<130> P2919-PCT

<150> US 62/308,349
<151> 2016-03-16

<150> PCT/CN2016/071184
<151> 2016-01-18

<150> US 62/213,012
<151> 2015-09-01

<150> US 62/164,400
<151> 2015-05-20

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Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Ser
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Ser Gly Gly Ser Gly Gly Ser Gly Ser Gly Gly Ser
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163641PCWO-seq1

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 Cys Gly Gly Ser Gly Gly Ser Gly Gly Ser Lys Gly Ser Gly Ser Lys
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 1 5 10 15
 Gly Ser Lys Gly Ser Lys Gly Ser Lys Gly Ser Lys Gly Ser Lys

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1 5

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1 5 10 15
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 <223> Xaa is PEGylated amino acid with two EG units

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<210> 26
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 <223> ACETYLATION

<220>
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<220>
 <221> MOD_RES
 <222> 2,4,6,8,10
 <223> Xaa is PEGylated amino acid with six EG units

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 Cys Xaa Lys Xaa Lys Xaa Lys Xaa Lys Xaa Lys
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<210> 27
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 Cys Gly Ser Lys Gly Ser Lys Gly Ser Lys Gly Ser Lys Gly Ser Lys
 1 5 10 15

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

163641PCWO-seq1

210	Arg	Ser	Ser	Gly	Leu	Pro	Asn	Ile	Pro	Val	Gln	Thr	Ile	Ser	Arg	Ala
225	Ala	Ala	Glu	Lys	Leu	Phe	Gly	Asn	Met	Glu	Gly	Asp	Cys	Pro	Ser	Asp
	Trp	Lys	Thr	Asp	Ser	Thr	Cys	Arg	Met	Val	Thr	Ser	Glu	Ser	Lys	Asn
	Val	Lys	Leu	Thr	Val	Ser	Asn	Val	Leu	Lys	Glu	Ile	Lys	Ile	Leu	Asn
	Ile	Phe	Gly	Val	Ile	Lys	Gly	Phe	Val	Glu	Pro	Asp	His	Tyr	Val	Val
	Val	Gly	Ala	Gln	Arg	Asp	Ala	Trp	Gly	Pro	Gly	Ala	Ala	Lys	Ser	Gly
305	Val	Gly	Thr	Ala	Leu	Leu	Lys	Leu	Ala	Gln	Met	Phe	Ser	Asp	Met	
	Val	Leu	Lys	Asp	Gly	Phe	Gln	Pro	Ser	Arg	Ser	Ile	Ile	Phe	Ala	Ser
	Trp	Ser	Ala	Gly	Asp	Phe	Gly	Ser	Val	Gly	Ala	Thr	Glu	Trp	Leu	Glu
	Gly	Tyr	Leu	Ser	Ser	Leu	His	Leu	Lys	Ala	Phe	Thr	Tyr	Ile	Asn	Leu
	Asp	Lys	Ala	Val	Leu	Gly	Thr	Ser	Asn	Phe	Lys	Val	Ser	Ala	Ser	Pro
385	Leu	Leu	Tyr	Thr	Leu	Ile	Glu	Lys	Thr	Met	Gln	Asn	Val	Lys	His	Pro
	Val	Thr	Gly	Gln	Phe	Leu	Tyr	Gln	Asp	Ser	Asn	Trp	Ala	Ser	Lys	Val
	Glu	Lys	Leu	Thr	Leu	Asp	Asn	Ala	Ala	Phe	Pro	Phe	Leu	Ala	Tyr	Ser
	Gly	Ile	Pro	Ala	Val	Ser	Phe	Cys	Phe	Cys	Glu	Asp	Thr	Asp	Tyr	Pro
	Tyr	Leu	Gly	Thr	Thr	Met	Asp	Thr	Tyr	Lys	Glu	Leu	Ile	Glu	Arg	Ile
465	Pro	Glu	Leu	Asn	Lys	Val	Ala	Arg	Ala	Ala	Ala	Glu	Val	Ala	Gly	Gln
	Phe	Val	Ile	Lys	Leu	Thr	His	Asp	Val	Glu	Leu	Asn	Leu	Asp	Tyr	Glu
	Arg	Tyr	Asn	Ser	Gln	Leu	Leu	Ser	Phe	Val	Arg	Asp	Leu	Asn	Gln	Tyr
	Arg	Ala	Asp	Ile	Lys	Glu	Met	Gly	Leu	Ser	Leu	Gln	Trp	Leu	Tyr	Ser
	Ala	Arg	Gly	Asp	Phe	Phe	Arg	Ala	Thr	Ser	Arg	Leu	Thr	Thr	Asp	Phe
545	Gly	Asn	Ala	Glu	Lys	Thr	Asp	Arg	Phe	Val	Met	Lys	Lys	Leu	Asn	Asp
	Arg	Val	Met	Arg	Val	Glu	Tyr	His	Phe	Leu	Ser	Pro	Tyr	Val	Ser	Pro
	Lys	Glu	Ser	Pro	Phe	Arg	His	Val	Phe	Trp	Gly	Ser	Gly	Ser	His	Thr
	Leu	Pro	Ala	Leu	Leu	Glu	Asn	Leu	Lys	Leu	Arg	Lys	Gln	Asn	Asn	Gly
	Ala	Phe	Asn	Glu	Thr	Leu	Phe	Arg	Asn	Gln	Leu	Ala	Leu	Ala	Thr	Trp
625	Thr	Ile	Gln	Gly	Ala	Ala	Asn	Ala	Leu	Ser	Gly	Asp	Val	Trp	Asp	Ile
	Asp	Asn	Glu	Phe	His	His	His	His	His	His						

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 <212> PRT
 <213> Artificial sequence

<220>
 <223> human CD32

<400> 29
 Gln Ala Ala Ala Pro Pro Lys Ala Val Leu Lys Leu Glu Pro Pro Trp
 Page 8

163641PCWO-seq1

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

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<220>
 <223> scFv of anti-RSV mAb

<400> 30

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

163641PCWO-seq1

<210> 31
 <211> 257
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 <213> Artificial Sequence

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 <223> scFv of anti-endotoxin mAb

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

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 <223> scFv of anti-CD32a mAb

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

163641PCWO-seq1

Gly	Ser	Gly	100	Lys	Pro	Gly	Ser	Gly	105	Glu	Gly	Ser	Thr	Lys	110	Gly	Gln	Val
His	Leu	Val	115	Glu	Ser	Gly	Gly	Gly	120	Val	Val	Gln	Pro	Gly	125	Arg	Ser	Leu
Arg	Leu	Ser	130	Cys	Ala	Ala	Ser	Gly	135	Phe	Thr	Phe	Ser	Ser	140	Tyr	Gly	Met
His	Trp	Val	145	Arg	Gln	Ala	Pro	Gly	150	Lys	Gly	Leu	Glu	Trp	155	Val	Ala	Val
Ile	Trp	Tyr	160	Asp	Gly	Ser	Asn	Tyr	165	Tyr	Tyr	Thr	Asp	Ser	170	Val	Lys	Gly
Arg	Phe	Thr	175	Ile	Ser	Arg	Asp	Asn	180	Ser	Lys	Asn	Thr	Leu	185	Tyr	Leu	Gln
Met	Asn	Ser	190	Leu	Arg	Ala	Glu	Asp	200	Thr	Ala	Val	Tyr	Tyr	205	Cys	Ala	Arg
Asp	Leu	Gly	210	Ala	Ala	Ala	Ser	Asp	215	Tyr	Trp	Gly	Gln	Gly	220	Thr	Leu	Val
Thr	Val	Ser	225	Ser	Gly	Gly	Gly	Gly	230	Ser	Gly	Gly	Gly	Gly	235	Ser	Cys	240
			245						250						255			

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<220>
 <223> scFv of anti-transferrin-1 receptor mAb

<400> 33

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

<210> 34
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163641PCWO-seq1

<223> scFv of anti-beta-amyloid Bapineuzumab mAb

<400> 34

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

<210> 35

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> B6 scFv of anti-human TfR derived from phage display

<400> 35

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

163641PCWO-seq1

Phe	Gly	Gly	Ser	165	Thr	Tyr	Tyr	Ala	Asp	170	Ser	Val	Lys	Gly	Arg	175	Phe	Thr
Ile	Ser	Ala	Asp	180	Thr	Ser	Lys	Asn	185	Thr	Ala	Tyr	Leu	Gln	Met	Asn	Ser	
Leu	Arg	Ala	Glu	195	Asp	Thr	Ala	Val	200	Tyr	Tyr	Cys	Ala	Arg	Trp	Ser	Tyr	
Gly	Phe	Asp	Tyr	210	Trp	Gly	Gln	Gly	215	Thr	Leu	Val	Thr	Val	Ser	Ser		
225					230							235						

<210> 36
 <211> 243
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> scFv of anti-human CD32 derived from phage display

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

<210> 37
 <211> 737
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> (anti-RSV scfv)-IgG1.Fc-(anti-CD32 scFv)

Asp	Ile	Gln	Met	5	Thr	Gln	Ser	Pro	Ser	10	Thr	Leu	Ser	Ala	Ser	Val	Gly
1	Asp	Arg	Val	20	Thr	Ile	Thr	Cys	Lys	25	Cys	Gln	Leu	Ser	Val	Gly	Tyr
His	Trp	Tyr	Gln	35	Gln	Lys	Pro	Gly	40	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr
Asp	Thr	Ser	Lys	Leu	Ala	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser		

163641PCWO-seq1

	50					55					60				
Gly 65	Ser	Gly	Thr	Glu	Phe 70	Thr	Leu	Thr	Ile	Ser 75	Ser	Leu	Gln	Pro	Asp 80
Asp	Phe	Ala	Thr	Tyr 85	Tyr	Cys	Phe	Gln	Gly 90	Ser	Gly	Tyr	Pro	Phe 95	Thr
Phe	Gly	Gly	Gly 100	Thr	Lys	Leu	Glu	Ile 105	Lys	Arg	Gly	Ser	Thr 110	Ser	Gly
Ser	Gly	Lys 115	Pro	Gly	Ser	Gly	Glu 120	Gly	Ser	Thr	Lys	Gly 125	Gln	Val	Thr
Leu	Arg 130	Glu	Ser	Gly	Pro	Ala 135	Leu	Val	Lys	Pro	Thr 140	Gln	Thr	Leu	Thr
Leu 145	Thr	Cys	Thr	Phe	Ser 150	Gly	Phe	Ser	Leu	Ser 155	Thr	Ser	Gly	Met	Ser 160
Val	Gly	Trp	Ile	Arg 165	Gln	Pro	Pro	Gly	Lys 170	Ala	Leu	Glu	Trp	Leu 175	Ala
Asp	Ile	Trp	Trp 180	Asp	Asp	Lys	Lys	Asp 185	Tyr	Asn	Pro	Ser	Leu 190	Lys	Ser
Arg	Leu	Thr 195	Ile	Ser	Lys	Asp	Thr 200	Ser	Lys	Asn	Gln	Val 205	Val	Leu	Lys
Val	Thr 210	Asn	Met	Asp	Pro	Ala 215	Asp	Thr	Ala	Thr	Tyr 220	Tyr	Cys	Ala	Arg
Ser 225	Met	Ile	Thr	Asn	Trp 230	Tyr	Phe	Asp	Val	Trp 235	Gly	Ala	Gly	Thr	Thr 240
Val	Thr	Val	Ser	Ser 245	Ala	Ser	Gly	Gly	Ser 250	Gly	Gly	Gly	Gly	Ser 255	Gly
Gly	Gly	Gly	Ser 260	Pro	Ala	Pro	Glu	Leu 265	Leu	Gly	Gly	Pro	Ser 270	Val	Phe
Leu	Phe	Pro 275	Pro	Lys	Pro	Lys	Asp 280	Thr	Leu	Met	Ile	Ser 285	Arg	Thr	Pro
Glu	Val 290	Thr	Cys	Val	Val	Val 295	Asp	Val	Ser	His	Glu 300	Asp	Pro	Glu	Val
Lys 305	Phe	Asn	Trp	Tyr	Val 310	Asp	Gly	Val	Glu	Val 315	His	Asn	Ala	Lys	Thr 320
Lys	Pro	Arg	Glu	Glu 325	Gln	Tyr	Asn	Ser	Thr 330	Tyr	Arg	Val	Val	Ser 335	Val
Leu	Thr	Val	Leu 340	His	Gln	Asp	Trp	Leu 345	Asn	Gly	Lys	Asp	Tyr 350	Lys	Cys
Lys	Val	Ser 355	Asn	Lys	Ala	Leu	Pro 360	Ala	Pro	Ile	Glu	Lys 365	Thr	Ile	Ser
Lys	Ala 370	Lys	Gly	Gln	Pro	Arg 375	Glu	Pro	Gln	Val	Tyr 380	Thr	Leu	Pro	Pro
Ser 385	Arg	Asp	Glu	Leu	Thr 390	Arg	Asn	Gln	Val	Ser 395	Leu	Thr	Cys	Leu	Val 400
Lys	Gly	Phe	Tyr	Pro 405	Ser	Asp	Ile	Ala	Val 410	Glu	Trp	Glu	Ser	Asn 415	Gly
Gln	Pro	Glu	Asn 420	Asn	Tyr	Lys	Thr	Thr 425	Pro	Pro	Val	Leu	Asp 430	Ser	Asp
Gly	Ser	Phe 435	Phe	Leu	Tyr	Ser	Lys 440	Leu	Thr	Val	Asp	Lys 445	Ser	Arg	Trp
Gln	Gln 450	Gly	Asn	Val	Phe	Ser 455	Cys	Ser	Val	Met	His 460	Glu	Ala	Leu	His
Asn 465	His	Tyr	Thr	Gln	Lys 470	Ser	Leu	Ser	Leu	Ser 475	Pro	Gly	Lys	Gly	Gly 480
Gly	Gly	Ser	Gly	Gly 485	Gly	Gly	Ser	Gly	Gly 490	Gly	Gly	Ser	Ala	Ile 495	Gln
Leu	Thr	Gln	Ser 500	Pro	Ser	Ser	Leu	Ser 505	Ala	Ser	Val	Gly	Asp 510	Arg	Val
Thr	Ile	Thr 515	Cys	Arg	Ala	Ser	Gln 520	Gly	Ile	Asn	Ser	Ala 525	Leu	Ala	Trp
Tyr	Gln 530	Gln	Lys	Pro	Gly	Lys 535	Ala	Pro	Lys	Leu	Leu 540	Ile	Tyr	Asp	Ala
Ser 545	Ser	Leu	Glu	Ser	Gly 550	Val	Pro	Ser	Arg	Phe 555	Ser	Gly	Ser	Gly	Ser 560
Gly	Thr	Asp	Phe	Thr 565	Leu	Thr	Ile	Ser	Ser 570	Leu	Gln	Pro	Glu	Asp 575	Phe
Ala	Thr	Tyr	Tyr 580	Cys	Gln	Gln	Phe	Asn 585	Ser	Tyr	Pro	His	Thr 590	Phe	Gly
Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Gly	Ser	Thr	Ser	Gly	Ser	Gly

163641PCWO-seq1

Lys Pro 595 Ser Gly Glu Gly 600 Thr Lys Gly Gln 605 Val His Leu Val
 610 Gly Ser Gly Gly Gly Val Val Gln Pro Gly Arg Ser Leu Arg Leu Ser
 625 Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Gly Met His Trp Val
 645 Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Val Ile Trp Tyr
 660 Asp Gly Ser Asn Tyr Tyr Tyr Thr Asp Ser Val Lys Gly Arg Phe Thr
 675 Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser
 690 Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Leu Gly
 705 Ala Ala Ala Ser Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 725 730 735
 Ser

<210> 38

<211> 738

<212> PRT

<213> Artificial sequence

<220>

<223> (anti-endotoxin scfv)-IgG1.Fc-(anti-CD32 scFv)

<400> 38

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

163641PCWO-seq1

305	Thr	Lys	Pro	Arg	Glu	310	Glu	Gln	Tyr	Asn	Ser	315	Thr	Tyr	Arg	Val	Val	320	Ser
					325							330					335		
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Asp	Tyr	Lys				
			340					345					350						
Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile				
		355					360					365							
Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro				
	370					375					380								
Pro	Ser	Arg	Asp	Glu	Leu	Thr	Arg	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu				
385					390					395								400	
Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn				
			405						410										
Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser				
			420					425					430						
Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg				
		435					440					445							
Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu				
	450					455					460								
His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys	Gly				
465					470					475									
Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Ala	Ile				
			485						490										
Gln	Leu	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly	Asp	Arg				
			500					505					510						
Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Asn	Ser	Ala	Leu	Ala				
		515					520						525						
Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr	Asp				
	530					535					540								
Ala	Ser	Ser	Leu	Glu	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser	Gly				
545					550					555									
Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu	Asp				
			565						570					575					
Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Phe	Asn	Ser	Tyr	Pro	His	Thr	Phe				
		580						585					590						
Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Gly	Ser	Thr	Ser	Gly	Ser				
		595					600					605							
Gly	Lys	Pro	Gly	Ser	Gly	Glu	Gly	Ser	Thr	Lys	Gly	Gln	Val	His	Leu				
	610					615					620								
Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg	Ser	Leu	Arg	Leu				
625					630					635									
Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Ser	Tyr	Gly	Met	His	Trp				
			645						650					655					
Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	Ala	Val	Ile	Trp				
		660						665					670						
Tyr	Asp	Gly	Ser	Asn	Tyr	Tyr	Tyr	Thr	Asp	Ser	Val	Lys	Gly	Arg	Phe				
		675					680					685							
Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn				
	690					695					700								
Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Leu				
705					710					715									
Gly	Ala	Ala	Ala	Ser	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val				
			725						730					735					

Ser Ser

<210> 39
 <211> 658
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> (IFN-beta)Avonex-IgG4.Fc-(anti-TfR scFv)

<400> 39
 Met Ser Tyr Asn Leu Leu Gly Phe Leu Gln Arg Ser Ser Asn Phe Gln
 1 5 10 15
 Cys Gln Lys Leu Leu Trp Gln Leu Asn Gly Arg Leu Glu Tyr Cys Leu

Page 16

25

Page 17

163641PCWO-seq1

Trp	Met	Asn	Trp	565	Lys	Gln	Arg	Pro	570	Gln	Gly	Leu	Glu	575	Ile
Gly	Met	Ile	His	580	Pro	Ser	Asp	Ser	585	Glu	Val	Arg	Leu	Asn	Phe
Lys	Asp	Lys	Ala	595	Thr	Leu	Thr	Val	600	Asp	Thr	Ser	Ser	605	Tyr
Met	610	Gln	Leu	Asn	Ser	Pro	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Cys
625	Ala	Arg	Phe	Gly	Leu	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Leu	Val
Ser	Ser			645					650					655	

<210> 40
 <211> 738
 <212> PRT
 <213> Artificial sequence

<220>
 <223> (anti-integrin a4 scfv)--IgG4.Fc-(anti-TfR scFv)

Ser	Ile	Val	Met	Thr	Gln	Thr	Pro	Lys	Phe	Leu	Leu	Val	Ser	Ala	Gly
1			5	Ile	Thr	Cys	Lys	Ala	10	Gln	Ser	Val	Thr	15	Asp
Asp	Arg	Val	20	Gln	Gln	Lys	Pro	Gly	25	Ser	Pro	Lys	Leu	30	Ile
Val	Ala	Trp	35	Asn	Arg	Tyr	Thr	Gly	40	Val	Pro	Asp	Arg	45	Gly
Tyr	50	Ala	Ser	Asn	Arg	55	Thr	Phe	Thr	Ile	Ser	Thr	Val	60	Ala
Ser	65	Gly	Tyr	Gly	Thr	70	Phe	Cys	Gln	75	Asp	Tyr	Ser	80	Tyr
Glu	Asp	Leu	Ala	Val	Tyr	85	Phe	Gln	90	Gln	Asp	Ser	Ser	95	Pro
Thr	Phe	Gly	Gly	Gly	Thr	100	Lys	Leu	105	Ile	Lys	Arg	Gly	110	Thr
Gly	Ser	Gly	Lys	Pro	Gly	Ser	Gly	Glu	120	Gly	Ser	Thr	Lys	125	Val
Leu	Gln	Gln	Ser	Gly	Ala	Glu	Leu	Val	135	Lys	Pro	Gly	Ala	140	Lys
Leu	145	Phe	Cys	Thr	Ala	Ser	Gly	Phe	Asn	Ile	Lys	Asp	Thr	155	Met
Trp	Val	Lys	Gln	Arg	165	Pro	Gln	Gln	Gly	Leu	Glu	Trp	Ile	170	Arg
Asp	Pro	Ala	Ser	Gly	Asp	Thr	Lys	Tyr	185	Asp	Pro	Lys	Phe	190	Val
Ala	Thr	Ile	Thr	Ala	Asp	Thr	Ser	Asn	200	Thr	Ala	Trp	Leu	205	Gln
Ser	Ser	Leu	Thr	Ser	Glu	Asp	Thr	Ala	215	Val	Tyr	Tyr	Cys	220	Ala
Met	225	Trp	Val	Ser	Thr	Gly	Tyr	Ala	Leu	Asp	Phe	Trp	Gly	235	Gln
Thr	Val	Thr	Val	Ser	245	Gly	Gly	Gly	Gly	250	Ser	Gly	Gly	255	Ala
Gly	Gly	Ser	Pro	Pro	Cys	Pro	Ser	Cys	265	Pro	Ala	Pro	Glu	270	Phe
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	280	Lys	Pro	Lys	Asp	285	Thr
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	295	Val	Val	Val	Asp	300	Val
Glu	305	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	315	Val
His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Gln	330	Gln	Phe	Asn	335	Ser
Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	345	His	Gln	Asp	Trp	350	Leu
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile

163641PCWO-seq1

Glu	Lys	355	Ile	Ser	Lys	Ala	360	Gly	Gln	Pro	Arg	365	Glu	Pro	Gln	Val
	370	Thr				375	Lys				380					
Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	
385					390					395					400	
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	
				405					410					415		
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Tyr	Lys	Thr	Thr	Thr	Pro	Pro	
			420					425				430				
Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	
		435					440					445				
Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	
	450					455					460					
His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	
465					470					475					480	
Leu	Gly	Lys	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	
			485						490					495		
Gly	Ser	Asp	Ile	Val	Ile	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	
		500						505				510				
Leu	Gly	Asp	Thr	Ile	Leu	Ile	Thr	Cys	His	Ala	Ser	Gln	Asn	Ile	Asn	
		515					520					525				
Val	Trp	Leu	Ser	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Asn	Ala	Pro	Lys	Leu	
	530					535					540					
Leu	Ile	Tyr	Lys	Ala	Ser	Asn	Leu	His	Thr	Gly	Val	Pro	Ser	Arg	Phe	
545					550					555					560	
Ser	Gly	Ser	Gly	Ser	Gly	Thr	Gly	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	
				565					570					575		
Gln	Pro	Glu	Asp	Ile	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Gly	Gln	Ser	Tyr	
			580					585				590				
Pro	Trp	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Gly	Ser	
		595					600					605				
Thr	Ser	Gly	Ser	Gly	Lys	Pro	Gly	Ser	Gly	Glu	Gly	Ser	Thr	Lys	Gly	
	610					615					620					
Gln	Val	Gln	Leu	Gln	Gln	Pro	Gly	Ala	Ala	Leu	Val	Arg	Pro	Gly	Ala	
625					630					635					640	
Ser	Met	Arg	Leu	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Ser	Phe	Thr	Thr	Tyr	
				645					650					655		
Trp	Met	Asn	Trp	Val	Lys	Gln	Arg	Pro	Gly	Gln	Gly	Leu	Glu	Leu	Ile	
		660						665				670				
Gly	Met	Ile	His	Pro	Ser	Asp	Ser	Glu	Val	Arg	Leu	Asn	Gln	Lys	Phe	
		675					680					685				
Lys	Asp	Lys	Ala	Thr	Leu	Thr	Val	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr	
	690					695					700					
Met	Gln	Leu	Asn	Ser	Pro	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	
705					710					715					720	
Ala	Arg	Phe	Gly	Leu	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Leu	Thr	Val	
				725					730					735		
Ser	Ser															