

SEQUENCE LISTING

<110> Nascient Limited

<120> Anti-Tenascin C Antibodies and Uses Thereof

<130> P000497SG1

<140> 11201700598S

<141> 2015-08-07

<150> GB - 1414021.4

<151> 2014-08-07

<160> 159

<170> BiSSAP 1.2

<210> 1

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VH CDR1

<400> 1

Glu	Leu	Ser	Met	His
1				5

<210> 2

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VH CDR2

<400> 2

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

Gly

<210> 3

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VH CDR3

<400> 3

Ala	Gln	Lys	Glu	Thr	Tyr	Ala	Leu	Thr	Tyr
1				5					10

<210> 4

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VH amino acid sequence

<400> 4

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

<210> 5

<211> 11

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VL CDR1

<400> 5

Arg	Ala	Ser	Gln	Tyr	Ile	Gln	Gly	Phe	Leu	Asn
1			5						10	

<210> 6

<211> 7

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VL CDR2

<400> 6

Ala	Ala	Ser	Thr	Leu	Gln	Asp
1				5		

<210> 7

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VL CDR3

<400> 7

Gln	Gln	Ser	Tyr	Ser	Thr	Pro	Trp	Thr
1				5				

<210> 8

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 2A5 VL amino acid sequence

<400> 8

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

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<210> 9

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VH CDR1

<400> 9

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Asp Tyr Ala Met His
1           5

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<210> 10

<211> 17

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VH CDR2

<400> 10

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Gly Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1           5           10           15
Gly

```

<210> 11

<211> 11

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VH CDR3

<400> 11

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

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<210> 12

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VH amino acid sequence

<400> 12

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

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<210> 13

<211> 7

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VL CDR2

<400> 13

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Asp Ala Ser Asn Leu Glu Thr
1           5

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<210> 14

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VL CDR3

<400> 14

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Gln Gln Ser Tyr Ser Thr Pro Gln Thr
1           5

```

<210> 15

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody B12 VL amino acid sequence

<400> 15

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

<210> 16
 <211> 5
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VH CDR1

<400> 16
 Ser Tyr Gly Ile Ser
 1 5

<210> 17
 <211> 17
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VH CDR2

<400> 17
 Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu Gln
 1 5 10 15
 Gly

<210> 18
 <211> 8
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VH CDR3

<400> 18
 Asn Gln Asp Ser Ser Ser Asp Tyr
 1 5

<210> 19
 <211> 117
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VH amino acid sequence

<400> 19
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
 50 55 60
 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr

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

<210> 20
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VL CDR3

<400> 20
 Gln Gln Ser Tyr Ser Thr Leu Gln Thr
 1 5

<210> 21
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VL amino acid sequence

<400> 21															
Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ala	Ser	Leu	Pro	Thr	Ser	Val	Gly
1				5					10					15	
Asp	Arg	Val		Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Tyr	Ile	Gln	Gly
			20					25					30		Phe
Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile
		35					40					45			
Tyr	Asp	Ala	Ser	Asn	Leu	Glu	Thr	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	Tyr	Ser	Thr	Leu	Gln
				85					90					95	
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Asp	Ile	Lys	Arg				
			100					105							

<210> 22
 <211> 5
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 VH CDR1

<400> 22
 Ser Tyr Gly Met His
 1 5

<210> 23
 <211> 17
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody F3 VH CDR2

<400> 23

Val	Ile	Ser	Tyr	Asp	Gly	Ser	Asn	Lys	Tyr	Tyr	Ala	Asp	Ser	Val	Lys
1				5					10					15	

Gly

<210> 24

<211> 16

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody F3 VH CDR3

<400> 24

Glu	Gly	Tyr	Asp	Gln	Leu	Phe	Ser	Ala	Glu	Ser	Asn	Ala	Phe	Asp	Ile
1				5					10					15	

<210> 25

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody F3 VH amino acid sequence

<400> 25

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

<210> 26

<211> 13

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody F3 VL CDR1

<400> 26

Thr	Arg	Ser	Ser	Gly	Ser	Ile	Ala	Ser	Tyr	Phe	Val	Gln
1				5					10			

<210> 27

<211> 7

<212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 VL CDR2

<400> 27
 Glu Asp Asn Gln Arg Pro Ser
 1 5

<210> 28
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 VL CDR3

<400> 28
 Gln Ser Tyr Asp Ser Ser Asn Trp Val
 1 5

<210> 29
 <211> 113
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 VL amino acid sequence

<400> 29
 Asn Phe Met Leu Ala Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
 1 5 10 15
 Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Ile Ala Ser Tyr
 20 25 30
 Phe Val Gln Trp Phe Gln Gln Arg Pro Gly Ser Ala Pro Thr Ala Val
 35 40 45
 Ile Tyr Glu Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60
 Gly Ser Ile Asp Ser Ser Ser Asn Ser Ala Ser Leu Thr Ile Ser Gly
 65 70 75 80
 Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser
 85 90 95
 Ser Asn Trp Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly Gln
 100 105 110
 Pro

<210> 30
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_B1 (derived from B12) VH CDR3

<400> 30
 Val Met Ser Ser Met Glu Asp Ala Phe Asp Ile
 1 5 10

<210> 31
 <211> 120

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 165_13_B1 (derived from B12) VH amino acid sequence

<400> 31

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

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<210> 32

<211> 11

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 165_13_B6 (derived from B12) VH CDR3

<400> 32

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Gly Gln Lys Gly Glu Gly Asp Thr Phe Asp Ile
1          5          10

```

<210> 33

<211> 120

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 165_13_B6 (derived from B12) VH amino acid sequence

<400> 33

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

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<210> 34
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_D1 (derived from B12) VH CDR3

<400> 34
 Gly Thr Arg Gly Glu Gly Asp Thr Phe Asp Ile
 1 5 10

<210> 35
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_D1 (derived from B12) VH amino acid sequence

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

<210> 36
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_C3 (derived from B12) VH CDR3

<400> 36
 Ser Tyr Gln Ser Asp Glu Asp Ala Phe Asp Ile
 1 5 10

<210> 37
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_C3 (derived from B12) VH amino acid sequence

<400> 37
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr

```

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

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<210> 38
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_D4 (derived from B12) VH CDR3

<400> 38
 Gly Thr Val Gly Glu Gly Asp Thr Phe Asp Ile
 1 5 10

<210> 39
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_D4 (derived from B12) VH amino acid sequence

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<400> 39
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1      5      10      15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
      20      25      30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35      40      45
Ser Gly Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
      50      55      60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65      70      75      80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
      85      90      95
Ala Lys Gly Thr Val Gly Glu Gly Asp Thr Phe Asp Ile Trp Gly Gln
      100      105      110
Gly Thr Met Val Thr Val Ser Ser
      115      120

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<210> 40
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_A4 (derived from B12) VH CDR3

<400> 40
 Asp Lys Tyr Pro Val Leu Asp Thr Phe Asp Ile

1 5 10

<210> 41
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_A4 (derived from B12) VH amino acid sequence

<400> 41
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95
 Ala Lys Asp Lys Tyr Pro Val Leu Asp Thr Phe Asp Ile Trp Gly Gln
 100 105 110
 Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 42
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_B3 (derived from B12) VH CDR3

<400> 42
 Ala Leu Ala Arg Gly His Asp Thr Phe Asp Ile
 1 5 10

<210> 43
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_B3 (derived from B12) VH amino acid sequence

<400> 43
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95
 Ala Lys Ala Leu Ala Arg Gly His Asp Thr Phe Asp Ile Trp Gly Gln

100 105 110
 Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 44
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_E1 (derived from B12) VH CDR3

<400> 44
 Asp Ile Ser Ala Val Met Asp Val Pro Gln Thr
 1 5 10

<210> 45
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 165_13_E1 (derived from B12) VH amino acid sequence

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

<210> 46
 <211> 11
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 180_11_F5 (derived from B12) VH CDR3

<400> 46
 Val Met Arg Thr Gly Leu Asp Thr Phe Asp Ile
 1 5 10

<210> 47
 <211> 120
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 180_11_F5 (derived from B12) VH amino acid sequence

<400> 47

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

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<210> 48

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_E3 (derived from 2A5) VH CDR3

<400> 48

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Gln Arg Tyr Val Trp Glu Ala Leu Thr Tyr
1          5          10

```

<210> 49

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_E3 (derived from 2A5) VH amino acid sequence

<400> 49

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

```

<210> 50

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_D6 (derived from 2A5) VH CDR3

<400> 50

Ala Gln Ala Asp Pro His Leu Phe Thr Tyr
1 5 10

<210> 51

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_D6 (derived from 2A5) VH amino acid sequence

<400> 51

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

<210> 52

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_H4 (derived from 2A5) VH CDR3

<400> 52

Gly Arg Phe Val Trp Glu Ala Leu Thr Tyr
1 5 10

<210> 53

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_H4 (derived from 2A5) VH amino acid sequence

<400> 53

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

```

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

```

```

<210> 54
<211> 10
<212> PRT
<213> Homo sapiens

```

```

<220>
<223> Antibody 160_01_A4 (derived from 2A5) VH CDR3

```

```

<400> 54
Ala Gln Lys Glu Thr Leu Gly Asn Ala Ile
1              5              10

```

```

<210> 55
<211> 119
<212> PRT
<213> Homo sapiens

```

```

<220>
<223> Antibody 160_01_A4 (derived from 2A5) VH amino acid sequence

```

```

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

```

```

<210> 56
<211> 10
<212> PRT
<213> Homo sapiens

```

```

<220>
<223> Antibody 160_01_F1 (derived from 2A5) VH CDR3

```

```

<400> 56
Ala Gln Ser Pro Trp Ser Gly Met Thr Tyr
1              5              10

```

```

<210> 57
<211> 119
<212> PRT
<213> Homo sapiens

```

<220>

<223> Antibody 160_01_F1 (derived from 2A5) VH amino acid sequence

<400> 57

```

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

```

<210> 58

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_G2 (derived from 2A5) VH CDR3

<400> 58

```

Tyr Thr Leu Asp Asn Met Ala Leu Thr Tyr
1           5           10

```

<210> 59

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 160_01_G2 (derived from 2A5) VH amino acid sequence

<400> 59

```

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

```

<210> 60

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 161_01_F6, also known as 160_01_F6 (derived from 2A5) VH CDR3

<400> 60

Ala	Gln	Lys	Glu	Asn	Ile	Ala	Asn	Arg	His
1				5					10

<210> 61

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 161_01_F6, also known as 160_01_F6 (derived from 2A5) VH amino acid sequence

<400> 61

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

<210> 62

<211> 10

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 161_01_A12 (derived from 2A5) VH CDR3

<400> 62

Ala	Gln	Pro	Thr	Ala	Leu	Ala	Asn	Thr	Tyr
1				5					10

<210> 63

<211> 119

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 161_01_A12 (derived from 2A5) VH amino acid sequence

<400> 63

Glu	Val	Arg	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu

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

<210> 64
 <211> 10
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 161_01_C09 (derived from 2A5) VH CDR3

<400> 64
 Ala Gln Leu Pro Tyr Leu Ala Gln Thr Tyr
 1 5 10

<210> 65
 <211> 119
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 161_01_C09 (derived from 2A5) VH amino acid sequence

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

<210> 66
 <211> 10
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 161_01_H10 (derived from 2A5) VH CDR3

<400> 66
 Ala Gln Pro Val Trp Ala Pro Gly Thr Tyr

1 5 10

<210> 67
 <211> 119
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 161_01_H10 (derived from 2A5) VH amino acid sequence

<400> 67
 Glu Val Arg Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20 25 30
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Thr Ala Gln Pro Val Trp Ala Pro Gly Thr Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 68
 <211> 10
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 161_01_C11 (derived from 2A5) VH CDR3

<400> 68
 Ala Gln Lys Glu Trp Leu Pro Asp Val Thr
 1 5 10

<210> 69
 <211> 119
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 161_01_C11 (derived from 2A5) VH amino acid sequence

<400> 69
 Glu Val Arg Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20 25 30
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Thr Ala Gln Lys Glu Trp Leu Pro Asp Val Thr Trp Gly Gln Gly

100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 70
 <211> 10
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_D3 (derived from 2A5) VH CDR3

<400> 70
 Ala Gln Ile His Pro Leu Gly Leu Thr Tyr
 1 5 10

<210> 71
 <211> 119
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_D3 (derived from 2A5) VH amino acid sequence

<400> 71
 Glu Val Arg Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20 25 30
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Thr Ala Gln Ile His Pro Leu Gly Leu Thr Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 72
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C6 (derived from 2A5) VL CDR3

<400> 72
 Gln Asn Gln Tyr Ala Gly Pro Trp Thr
 1 5

<210> 73
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C6 (derived from 2A5) VL amino acid sequence

<400> 73

```

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

```

<210> 74

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 162_02_H5 (derived from 2A5) VL CDR3

<400> 74

```

Gln Asn Gln Tyr Thr Gly Pro Trp Thr
1           5

```

<210> 75

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 162_02_H5 (derived from 2A5) VL amino acid sequence

<400> 75

```

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

```

<210> 76

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 162_02_F3 (derived from 2A5) VL CDR3

<400> 76

```

Gln Asn Gln Tyr Arg Gly Pro Trp Thr

```

1 5
 <210> 77
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_F3 (derived from 2A5) VL amino acid sequence

<400> 77
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Pro Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Asp Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Tyr 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 Asn Gln Tyr Arg Gly Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 78
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C1 (derived from 2A5) VL CDR3

<400> 78
 Leu His His Tyr Arg Ala Pro Trp Thr
 1 5

<210> 79
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C1 (derived from 2A5) VL amino acid sequence

<400> 79
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Pro Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Asp Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Tyr 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 Leu His His Tyr Arg Ala Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 80
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C2 (derived from 2A5) VL CDR3

<400> 80
 Met His His Tyr Arg Ala Pro Trp Thr
 1 5

<210> 81
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C2 (derived from 2A5) VL amino acid sequence

<400> 81
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Pro Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Asp Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Tyr 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 Met His His Tyr Arg Ala Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 82
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_F4 (derived from 2A5) VL CDR3

<400> 82
 Met His His Tyr Arg Ser Pro Trp Thr
 1 5

<210> 83
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_F4 (derived from 2A5) VL amino acid sequence

<400> 83
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Pro Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile

```

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

```

<210> 84
 <211> 9
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C3 (derived from 2A5) VL CDR3

<400> 84
 Met Gln His Tyr Asp Gly Pro Trp Thr
 1 5

<210> 85
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_C3 (derived from 2A5) VL amino acid sequence

```

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

```

<210> 86
 <211> 10
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 162_02_E11 (derived from 2A5) VL CDR3

<400> 86
 Leu His His Tyr Arg Ser Pro Thr Trp Thr
 1 5 10

<210> 87
 <211> 109
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody 162_02_E11 (derived from 2A5) VL amino acid sequence

<400> 87

```

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

```

<210> 88

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 163_02_A12 (derived from 2A5) VL CDR3

<400> 88

```

Leu His His Tyr Arg Glu Pro Trp Thr
1      5

```

<210> 89

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 163_02_A12 (derived from 2A5) VL amino acid sequence

<400> 89

```

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

```

<210> 90

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 163_02_D11 (derived from 2A5) VL CDR3

<400> 90

Leu His His Tyr Lys Ser Pro Trp Thr
1 5

<210> 91

<211> 108

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 163_02_D11 (derived from 2A5) VL amino acid sequence

<400> 91

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

<210> 92

<211> 228

<212> PRT

<213> Homo sapiens

<220>

<223> Amino acid sequence of human tenascin-C FBG domain

<400> 92

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

			180					185				190					
Gly	Val	Asn	Trp	Phe	His	Trp	Lys	Gly	His	Glu	His	Ser	Ile	Gln	Phe		
		195					200					205					
Ala	Glu	Met	Lys	Leu	Arg	Pro	Ser	Asn	Phe	Arg	Asn	Leu	Glu	Gly	Arg		
	210					215					220						
Arg	Lys	Arg	Ala														
225																	

<210> 93
 <211> 228
 <212> PRT
 <213> Mus musculus

<220>
 <223> Amino acid sequence of mouse tenascin-C FBG domain

<400> 93

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

<210> 94
 <211> 228
 <212> PRT
 <213> Rattus norvegicus

<220>
 <223> Amino acid sequence of rat tenascin-C FBG domain

<400> 94

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Asn	Gly	Asp	Thr	Thr	Ser	Gly	Leu	Tyr	Thr	Ile	Tyr	Ile	Asn	Gly	Asp		
		20						25				30					
Lys	Thr	Gln	Ala	Leu	Glu	Val	Tyr	Cys	Asp	Met	Thr	Ser	Asp	Gly	Gly		

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

<210> 95

<211> 228

<212> PRT

<213> Canis lupus familiaris

<220>

<223> Amino acid sequence of dog tenascin-C FBG domain

<400> 95

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

210
Arg Lys Arg Ala
225

215

220

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<211> 227
<212> PRT
<213> Homo sapiens

<220>
<223> Amino acid sequence of human tenascin-R FBG domain

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

<210> 97
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
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<210> 98
<211> 67
<212> DNA
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<210> 99
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 gtcatagcc 69

<210> 100
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>
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 gtcctc 66

<210> 101
 <211> 66
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<210> 103
 <211> 67
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 103

cattgtccct tggccccaga tatcsnnsnn snnsnnsnns nncgagatat cttttgcaca 60

gtaatac 67

<210> 104

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

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<222> 1..67

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<222> 35..36

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<222> 41..42

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tgcacag 67

<210> 105

<211> 66

<212> DNA

<213> Artificial Sequence

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 atcttc 66

<210> 106
 <211> 69
 <212> DNA
 <213> Artificial Sequence

<220>
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<221> misc_feature

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<221> misc_feature

<222> 38..39

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<222> 41..42

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<221> misc_feature

<222> 44..45

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gtaagttgc

69

<210> 107

<211> 69

<212> DNA

<213> Artificial Sequence

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<222> 1..69

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<221> misc_feature

<222> 29..30

<223> /note="wherein 'n' is A, T, G or C"

<220>

<221> misc_feature

<222> 32..33

<223> /note="wherein 'n' is A, T, G or C"

<220>

<221> misc_feature

<222> 35..36

<223> /note="wherein 'n' is A, T, G or C"

<220>

<221> misc_feature

<222> 38..39

<223> /note="wherein 'n' is A, T, G or C"

<220>

<221> misc_feature

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<222> 41..42
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 44..45
<223> /note="wherein 'n' is A, T, G or C"

<400> 107
ggttccctgg cccagtagg tcaaggcsnn snnnsnnsnns nnsnntgttg cacagtaata      60
cacggccgt                                     69

<210> 108
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..66
<223> /mol_type="unassigned DNA"
      /note="2A5 VH 3.2 primer"
      /organism="Artificial Sequence"

<220>
<221> misc_feature
<222> 26..27
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 29..30
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 32..33
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 35..36
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 38..39
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 41..42
<223> /note="wherein 'n' is A, T, G or C"

<400> 108
cagggttccc tggccccagt aggtsnnsnn snnnsnnsnns nnctgggctg ttgcacagta      60
atacac                                           66

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<210> 109
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <222> 1..66
 <223> /mol_type="unassigned DNA"
 /note="2A5 VH 3.3 primer"
 /organism="Artificial Sequence"

<220>
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 <222> 26..27
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<220>
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 <222> 29..30
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<220>
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 <222> 32..33
 <223> /note="wherein 'n' is A, T, G or C"

<220>
 <221> misc_feature
 <222> 35..36
 <223> /note="wherein 'n' is A, T, G or C"

<220>
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 <222> 38..39
 <223> /note="wherein 'n' is A, T, G or C"

<220>
 <221> misc_feature
 <222> 41..42
 <223> /note="wherein 'n' is A, T, G or C"

<400> 109
 ggtgaccagg gttccctggc ccasnnnsnn snnnsnnnsnn nctcttttct gggctgttgc 60

acagta 66

<210> 110
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <222> 1..66
 <223> /mol_type="unassigned DNA"
 /note="2A5 VL 3.1 primer"
 /organism="Artificial Sequence"

<220>
 <221> misc_feature

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<222> 26..27
<223> /note="wherein 'n' is A, T, G or C"

<220>
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<220>
<221> misc_feature
<222> 32..33
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<220>
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<222> 35..36
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 38..39
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 41..42
<223> /note="wherein 'n' is A, T, G or C"

<400> 110
gggtcccttggt ccgaacgtcc acggsnnsnn snnsnnsnns nnacagtagt aagttgcaaa      60

atcttc                                                                    66

<210> 111
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<222> 1..66
<223> /mol_type="unassigned DNA"
      /note="2A5 VL 3.2 primer"
      /organism="Artificial Sequence"

<220>
<221> misc_feature
<222> 26..27
<223> /note="wherein 'n' is A, T, G or C"

<220>
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<222> 29..30
<223> /note="wherein 'n' is A, T, G or C"

<220>
<221> misc_feature
<222> 32..33
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<220>

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<221> misc_feature
 <222> 35..36
 <223> /note="wherein 'n' is A, T, G or C"

<220>
 <221> misc_feature
 <222> 38..39
 <223> /note="wherein 'n' is A, T, G or C"

<220>
 <221> misc_feature
 <222> 41..42
 <223> /note="wherein 'n' is A, T, G or C"

<400> 111
 ctccaccttg gtcccttggc cgaasnnsnn snnnsnnsnns nnactctgtt gacagtagta 60
 agttgc 66

<210> 112
 <211> 119
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 2A5 Framework Germlined: VH amino acid sequence

<400> 112
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20 25 30
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Thr Ala Gln Lys Glu Thr Tyr Ala Leu Thr Tyr Trp Gly Gln Gly
 100 105 110
 Thr Leu Val Thr Val Ser Ser
 115

<210> 113
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 2A5 Framework Germlined: VL amino acid sequence

<400> 113
 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 Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly

```

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

```

```

<210> 114
<211> 7
<212> PRT
<213> Homo sapiens

```

```

<220>
<223> Antibody 2A5 CDRs changed as a result of the germlined sequence
      VL CDR2

```

```

<400> 114
Ala Ala Ser Ser Leu Gln Ser
1              5

```

```

<210> 115
<211> 120
<212> PRT
<213> Homo sapiens

```

```

<220>
<223> Antibody B12 Framework Germlined: VH amino acid sequence

```

```

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

```

```

<210> 116
<211> 17
<212> PRT
<213> Homo sapiens

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```

<220>
<223> Antibody B12 CDRs changed as a result of the germlined sequence
      VH CDR2

```

```

<400> 116
Gly Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1              5              10              15
Tyr

```

<210> 117
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody B12 Framework Germlined: VL amino acid sequence

<400> 117

```

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

```

<210> 118
 <211> 7
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody B12 CDRs changed as a result of the germlined sequence
 VL CDR2

<400> 118

```

Asp Ala Ser Ser Leu Gln Ser
1           5

```

<210> 119
 <211> 117
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody D8 Framework Germlined: VH amino acid sequence

<400> 119

```

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

```

<210> 120
 <211> 108
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody D8 Framework Germlined: VL amino acid sequence

<400> 120

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

<210> 121
 <211> 7
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody D8 CDRs changed as a result of the germlined sequence VL CDR2

<400> 121

Asp	Ala	Ser	Ser	Leu	Gln	Ser
1				5		

<210> 122
 <211> 125
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody F3 Framework germlined: VH amino acid sequence

<400> 122

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

115 120 125

<210> 123
 <211> 113
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 Framework germlined: VL amino acid sequence

<400> 123
 Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
 1 5 10 15
 Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Ile Ala Ser Tyr
 20 25 30
 Phe Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45
 Ile Tyr Glu Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60
 Gly Ser Ile Asp Ser Ser Ser Asn Ser Ala Ser Leu Thr Ile Ser Gly
 65 70 75 80
 Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser
 85 90 95
 Ser Asn Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
 100 105 110
 Pro

<210> 124
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 2A5 VL amino acid sequence

<400> 124
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Pro Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Thr Leu Gln Asp Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Tyr 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 Tyr Ser Thr Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 125
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody B12 VL amino acid sequence

<400> 125
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Pro Thr Pro Val Gly

```

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

```

<210> 126
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 VL amino acid sequence

```

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

```

<210> 127
 <211> 110
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 VL amino acid sequence

```

<400> 127
Asn Phe Met Leu Ala Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1           5           10           15
Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Ile Ala Ser Tyr
                20                25                30
Phe Val Gln Trp Phe Gln Gln Arg Pro Gly Ser Ala Pro Thr Ala Val
                35                40                45
Ile Tyr Glu Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
                50                55                60
Gly Ser Ile Asp Ser Ser Ser Asn Ser Ala Ser Leu Thr Ile Ser Gly
65                70                75                80
Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser
                85                90                95
Ser Asn Trp Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
                100                105                110

```

<210> 128
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody 162_02_C6 (derived from 2A5) VL amino acid sequence

<400> 128

```

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

```

<210> 129
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody 162_02_H5 (derived from 2A5) VL amino acid sequence

<400> 129

```

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

```

<210> 130
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>

<223> Antibody 162_02_F3 (derived from 2A5) VL amino acid sequence

<400> 130

```

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

```

<213> Homo sapiens

<223> Antibody 162 02 C1 (derived from 2A5) VL amino acid sequence

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

<213> Homo sapiens

<223> Antibody 162 02 C2 (derived from 2A5) VL amino acid sequence

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

<213> Homo sapiens

<220>

<223> Antibody 162_02_F4 (derived from 2A5) VL amino acid sequence

<400> 133

```

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

```

<210> 134

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 162_02_C3 (derived from 2A5) VL amino acid sequence

<400> 134

```

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

```

<210> 135

<211> 9

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 162_02_E11 (derived from 2A5) VL CDR3

<400> 135

```

Leu His His Tyr Arg Ser Pro Trp Thr
1      5

```

<210> 136

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 162_02_E11 (derived from 2A5) VL amino acid sequence

<400> 136

```

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

```

<210> 137

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 163_02_A12 (derived from 2A5) VL amino acid sequence

<400> 137

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

```

<210> 138

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<223> Antibody 163_02_D11 (derived from 2A5) VL amino acid sequence

<400> 138

```

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

```

				85					90					95
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys				
				100				105						

<210> 139
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody 2A5 Framework Germlined: VL amino acid sequence

<400> 139
 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 Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 140
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody B12 Framework Germlined: VL amino acid sequence

<400> 140
 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 Tyr Ile Gln Gly Phe
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Gln
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
 100 105

<210> 141
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody D8 Framework Germlined: VL amino acid sequence

<400> 141
 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 Tyr Ile Gln Gly Phe
      20           25           30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
      35           40           45
Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
      50           55           60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65           70           75           80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Leu Gln
      85           90           95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100           105

```

<210> 142
 <211> 110
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Antibody F3 Framework germlined: VL amino acid sequence

```

<400> 142
Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1           5           10           15
Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Ile Ala Ser Tyr
      20           25           30
Phe Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
      35           40           45
Ile Tyr Glu Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
      50           55           60
Gly Ser Ile Asp Ser Ser Ser Asn Ser Ala Ser Leu Thr Ile Ser Gly
65           70           75           80
Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser
      85           90           95
Ser Asn Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
      100           105           110

```

<210> 143
 <211> 446
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> IgG4 165_13_C3 (constant region with hinge modification as described in Angal 1993)

```

<400> 143
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1           5           10           15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
      20           25           30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35           40           45
Ser Gly Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
      50           55           60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65           70           75           80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
      85           90           95
Ala Lys Ser Tyr Gln Ser Asp Glu Asp Ala Phe Asp Ile Trp Gly Gln
      100           105           110

```

Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val
		115					120					125			
Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala
		130				135					140				
Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser
145					150					155					160
Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val
			165						170					175	
Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro
		180					185						190		
Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys
		195					200					205			
Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro
		210				215				220					
Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val
225				230				235							240
Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr
			245					250						255	
Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu
			260					265					270		
Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys
		275					280					285			
Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser
	290					295					300				
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys
305				310					315						320
Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile
			325					330						335	
Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro
		340						345					350		
Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu
		355					360					365			
Val	Lys	Gly	Phe	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly
	370					375					380				
Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp
385				390						395					400
Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp
			405					410						415	
Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His
			420				425					430			
Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys		
		435					440					445			

<210> 144

<211> 23

<212> PRT

<213> Homo sapiens

<220>

<223> Human Tenascin-C TA domain

<400> 144

Gly	Val	Leu	Lys	Lys	Val	Ile	Arg	His	Lys	Arg	Gln	Ser	Gly	Val	Asn
1			5						10					15	
Ala	Thr	Leu	Pro	Glu	Glu	Asn									
			20												

<210> 145

<211> 476

<212> PRT

<213> Homo sapiens

<220>

<223> Human Tenascin-C EGFL domain

<400> 145

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Cys Cys Leu Gln Pro Ala Thr Gly Arg Leu Asp Thr Arg Pro Phe Cys
1      5      10      15
Ser Gly Arg Gly Asn Phe Ser Thr Glu Gly Cys Gly Cys Val Cys Glu
20      25      30
Pro Gly Trp Lys Gly Pro Asn Cys Ser Glu Pro Glu Cys Pro Gly Asn
35      40      45
Cys His Leu Arg Gly Arg Cys Ile Asp Gly Gln Cys Ile Cys Asp Asp
50      55      60
Gly Phe Thr Gly Glu Asp Cys Ser Gln Leu Ala Cys Pro Ser Asp Cys
65      70      75      80
Asn Asp Gln Gly Lys Cys Val Asn Gly Val Cys Ile Cys Phe Glu Gly
85      90      95
Tyr Ala Gly Ala Asp Cys Ser Arg Glu Ile Cys Pro Val Pro Cys Ser
100     105     110
Glu Glu His Gly Thr Cys Val Asp Gly Leu Cys Val Cys His Asp Gly
115     120     125
Phe Ala Gly Asp Asp Cys Asn Lys Pro Leu Cys Leu Asn Asn Cys Tyr
130     135     140
Asn Arg Gly Arg Cys Val Glu Asn Glu Cys Val Cys Asp Glu Gly Phe
145     150     155     160
Thr Gly Glu Asp Cys Ser Glu Leu Ile Cys Pro Asn Asp Cys Phe Asp
165     170     175
Arg Gly Arg Cys Ile Asn Gly Thr Cys Tyr Cys Glu Glu Gly Phe Thr
180     185     190
Gly Glu Asp Cys Gly Lys Pro Thr Cys Pro His Ala Cys His Thr Gln
195     200     205
Gly Arg Cys Glu Glu Gly Gln Cys Val Cys Asp Glu Gly Phe Ala Gly
210     215     220
Leu Asp Cys Ser Glu Lys Arg Cys Pro Ala Asp Cys His Asn Arg Gly
225     230     235     240
Arg Cys Val Asp Gly Arg Cys Glu Cys Asp Asp Gly Phe Thr Gly Ala
245     250     255
Asp Cys Gly Glu Leu Lys Cys Pro Asn Gly Cys Ser Gly His Gly Arg
260     265     270
Cys Val Asn Gly Gln Cys Val Cys Asp Glu Gly Tyr Thr Gly Glu Asp
275     280     285
Cys Ser Gln Leu Arg Cys Pro Asn Asp Cys His Ser Arg Gly Arg Cys
290     295     300
Val Glu Gly Lys Cys Val Cys Glu Gln Gly Phe Lys Gly Tyr Asp Cys
305     310     315     320
Ser Asp Met Ser Cys Pro Asn Asp Cys His Gln His Gly Arg Cys Val
325     330     335
Asn Gly Met Cys Val Cys Asp Asp Gly Tyr Thr Gly Glu Asp Cys Arg
340     345     350
Asp Arg Gln Cys Pro Arg Asp Cys Ser Asn Arg Gly Leu Cys Val Asp
355     360     365
Gly Gln Cys Val Cys Glu Asp Gly Phe Thr Gly Pro Asp Cys Ala Glu
370     375     380
Leu Ser Cys Pro Asn Asp Cys His Gly Gln Gly Arg Cys Val Asn Gly
385     390     395     400
Gln Cys Val Cys His Glu Gly Phe Met Gly Lys Asp Cys Lys Glu Gln
405     410     415
Arg Cys Pro Ser Asp Cys His Gly Gln Gly Arg Cys Val Asp Gly Gln
420     425     430
Cys Ile Cys His Glu Gly Phe Thr Gly Leu Asp Cys Gly Gln His Ser
435     440     445
Cys Pro Ser Asp Cys Asn Asn Leu Gly Gln Cys Val Ser Gly Arg Cys
450     455     460

```

Ile Cys Asn Glu Gly Tyr Ser Gly Glu Asp Cys Ser
 465 470 475

<210> 146
 <211> 1352
 <212> PRT
 <213> Homo sapiens

<220>
 <223> Human Tenascin-C FNIII domain

<400> 146
 Glu Val Ser Pro Pro Lys Asp Leu Val Val Thr Glu Val Thr Glu Glu
 1 5 10 15
 Thr Val Asn Leu Ala Trp Asp Asn Glu Met Arg Val Thr Glu Tyr Leu
 20 25 30
 Val Val Tyr Thr Pro Thr His Glu Gly Gly Leu Glu Met Gln Phe Arg
 35 40 45
 Val Pro Gly Asp Gln Thr Ser Thr Ile Ile Gln Glu Leu Glu Pro Gly
 50 55 60
 Val Glu Tyr Phe Ile Arg Val Phe Ala Ile Leu Glu Asn Lys Lys Ser
 65 70 75 80
 Ile Pro Val Ser Ala Arg Val Ala Thr Tyr Leu Pro Ala Pro Glu Gly
 85 90 95
 Leu Lys Phe Lys Ser Ile Lys Glu Thr Ser Val Glu Val Glu Trp Asp
 100 105 110
 Pro Leu Asp Ile Ala Phe Glu Thr Trp Glu Ile Ile Phe Arg Asn Met
 115 120 125
 Asn Lys Glu Asp Glu Gly Glu Ile Thr Lys Ser Leu Arg Arg Pro Glu
 130 135 140
 Thr Ser Tyr Arg Gln Thr Gly Leu Ala Pro Gly Gln Glu Tyr Glu Ile
 145 150 155 160
 Ser Leu His Ile Val Lys Asn Asn Thr Arg Gly Pro Gly Leu Lys Arg
 165 170 175
 Val Thr Thr Thr Arg Leu Asp Ala Pro Ser Gln Ile Glu Val Lys Asp
 180 185 190
 Val Thr Asp Thr Thr Ala Leu Ile Thr Trp Phe Lys Pro Leu Ala Glu
 195 200 205
 Ile Asp Gly Ile Glu Leu Thr Tyr Gly Ile Lys Asp Val Pro Gly Asp
 210 215 220
 Arg Thr Thr Ile Asp Leu Thr Glu Asp Glu Asn Gln Tyr Ser Ile Gly
 225 230 235 240
 Asn Leu Lys Pro Asp Thr Glu Tyr Glu Val Ser Leu Ile Ser Arg Arg
 245 250 255
 Gly Asp Met Ser Ser Asn Pro Ala Lys Glu Thr Phe Thr Thr Gly Leu
 260 265 270
 Asp Ala Pro Arg Asn Leu Arg Arg Val Ser Gln Thr Asp Asn Ser Ile
 275 280 285
 Thr Leu Glu Trp Arg Asn Gly Lys Ala Ala Ile Asp Ser Tyr Arg Ile
 290 295 300
 Lys Tyr Ala Pro Ile Ser Gly Gly Asp His Ala Glu Val Asp Val Pro
 305 310 315 320
 Lys Ser Gln Gln Ala Thr Thr Lys Thr Thr Leu Thr Gly Leu Arg Pro
 325 330 335
 Gly Thr Glu Tyr Gly Ile Gly Val Ser Ala Val Lys Glu Asp Lys Glu
 340 345 350
 Ser Asn Pro Ala Thr Ile Asn Ala Ala Thr Glu Leu Asp Thr Pro Lys
 355 360 365
 Asp Leu Gln Val Ser Glu Thr Ala Glu Thr Ser Leu Thr Leu Leu Trp
 370 375 380
 Lys Thr Pro Leu Ala Lys Phe Asp Arg Tyr Arg Leu Asn Tyr Ser Leu
 385 390 395 400

Pro	Thr	Gly	Gln	Trp	Val	Gly	Val	Gln	Leu	Pro	Arg	Asn	Thr	Thr	Ser	405	410	415
Tyr	Val	Leu	Arg	Gly	Leu	Glu	Pro	Gly	Gln	Glu	Tyr	Asn	Val	Leu	Leu	420	425	430
Thr	Ala	Glu	Lys	Gly	Arg	His	Lys	Ser	Lys	Pro	Ala	Arg	Val	Lys	Ala	435	440	445
Ser	Thr	Glu	Gln	Ala	Pro	Glu	Leu	Glu	Asn	Leu	Thr	Val	Thr	Glu	Val	450	455	460
Gly	Trp	Asp	Gly	Leu	Arg	Leu	Asn	Trp	Thr	Ala	Ala	Asp	Gln	Ala	Tyr	465	470	480
Glu	His	Phe	Ile	Ile	Gln	Val	Gln	Glu	Ala	Asn	Lys	Val	Glu	Ala	Ala	485	490	495
Arg	Asn	Leu	Thr	Val	Pro	Gly	Ser	Leu	Arg	Ala	Val	Asp	Ile	Pro	Gly	500	505	510
Leu	Lys	Ala	Ala	Thr	Pro	Tyr	Thr	Val	Ser	Ile	Tyr	Gly	Val	Ile	Gln	515	520	525
Gly	Tyr	Arg	Thr	Pro	Val	Leu	Ser	Ala	Glu	Ala	Ser	Thr	Gly	Glu	Thr	530	535	540
Pro	Asn	Leu	Gly	Glu	Val	Val	Val	Ala	Glu	Val	Gly	Trp	Asp	Ala	Leu	545	550	560
Lys	Leu	Asn	Trp	Thr	Ala	Pro	Glu	Gly	Ala	Tyr	Glu	Tyr	Phe	Phe	Ile	565	570	575
Gln	Val	Gln	Glu	Ala	Asp	Thr	Val	Glu	Ala	Ala	Gln	Asn	Leu	Thr	Val	580	585	590
Pro	Gly	Gly	Leu	Arg	Ser	Thr	Asp	Leu	Pro	Gly	Leu	Lys	Ala	Ala	Thr	595	600	605
His	Tyr	Thr	Ile	Thr	Ile	Arg	Gly	Val	Thr	Gln	Asp	Phe	Ser	Thr	Thr	610	615	620
Pro	Leu	Ser	Val	Glu	Val	Leu	Thr	Glu	Glu	Val	Pro	Asp	Met	Gly	Asn	625	630	640
Leu	Thr	Val	Thr	Glu	Val	Ser	Trp	Asp	Ala	Leu	Arg	Leu	Asn	Trp	Thr	645	650	655
Thr	Pro	Asp	Gly	Thr	Tyr	Asp	Gln	Phe	Thr	Ile	Gln	Val	Gln	Glu	Ala	660	665	670
Asp	Gln	Val	Glu	Glu	Ala	His	Asn	Leu	Thr	Val	Pro	Gly	Ser	Leu	Arg	675	680	685
Ser	Met	Glu	Ile	Pro	Gly	Leu	Arg	Ala	Gly	Thr	Pro	Tyr	Thr	Val	Thr	690	695	700
Leu	His	Gly	Glu	Val	Arg	Gly	His	Ser	Thr	Arg	Pro	Leu	Ala	Val	Glu	705	710	720
Val	Val	Thr	Glu	Asp	Leu	Pro	Gln	Leu	Gly	Asp	Leu	Ala	Val	Ser	Glu	725	730	735
Val	Gly	Trp	Asp	Gly	Leu	Arg	Leu	Asn	Trp	Thr	Ala	Ala	Asp	Asn	Ala	740	745	750
Tyr	Glu	His	Phe	Val	Ile	Gln	Val	Gln	Glu	Val	Asn	Lys	Val	Glu	Ala	755	760	765
Ala	Gln	Asn	Leu	Thr	Leu	Pro	Gly	Ser	Leu	Arg	Ala	Val	Asp	Ile	Pro	770	775	780
Gly	Leu	Glu	Ala	Ala	Thr	Pro	Tyr	Arg	Val	Ser	Ile	Tyr	Gly	Val	Ile	785	790	800
Arg	Gly	Tyr	Arg	Thr	Pro	Val	Leu	Ser	Ala	Glu	Ala	Ser	Thr	Ala	Lys	805	810	815
Glu	Pro	Glu	Ile	Gly	Asn	Leu	Asn	Val	Ser	Asp	Ile	Thr	Pro	Glu	Ser	820	825	830
Phe	Asn	Leu	Ser	Trp	Met	Ala	Thr	Asp	Gly	Ile	Phe	Glu	Thr	Phe	Thr	835	840	845
Ile	Glu	Ile	Ile	Asp	Ser	Asn	Arg	Leu	Leu	Glu	Thr	Val	Glu	Tyr	Asn	850	855	860
Ile	Ser	Gly	Ala	Glu	Arg	Thr	Ala	His	Ile	Ser	Gly	Leu	Pro	Pro	Ser	865	870	880
Thr	Asp	Phe	Ile	Val	Tyr	Leu	Ser	Gly	Leu	Ala	Pro	Ser	Ile	Arg	Thr	885	890	895

```

Lys Thr Ile Ser Ala Thr Ala Thr Thr Glu Ala Leu Pro Leu Leu Glu
      900                      905                      910
Asn Leu Thr Ile Ser Asp Ile Asn Pro Tyr Gly Phe Thr Val Ser Trp
      915                      920                      925
Met Ala Ser Glu Asn Ala Phe Asp Ser Phe Leu Val Thr Val Val Asp
      930                      935                      940
Ser Gly Lys Leu Leu Asp Pro Gln Glu Phe Thr Leu Ser Gly Thr Gln
945      950                      955                      960
Arg Lys Leu Glu Leu Arg Gly Leu Ile Thr Gly Ile Gly Tyr Glu Val
      965                      970                      975
Met Val Ser Gly Phe Thr Gln Gly His Gln Thr Lys Pro Leu Arg Ala
      980                      985                      990
Glu Ile Val Thr Glu Ala Glu Pro Glu Val Asp Asn Leu Leu Val Ser
      995                      1000                     1005
Asp Ala Thr Pro Asp Gly Phe Arg Leu Ser Trp Thr Ala Asp Glu Gly
      1010                     1015                     1020
Val Phe Asp Asn Phe Val Leu Lys Ile Arg Asp Thr Lys Lys Gln Ser
1025      1030                     1035                     1040
Glu Pro Leu Glu Ile Thr Leu Leu Ala Pro Glu Arg Thr Arg Asp Leu
      1045                     1050                     1055
Thr Gly Leu Arg Glu Ala Thr Glu Tyr Glu Ile Glu Leu Tyr Gly Ile
      1060                     1065                     1070
Ser Lys Gly Arg Arg Ser Gln Thr Val Ser Ala Ile Ala Thr Thr Ala
      1075                     1080                     1085
Met Gly Ser Pro Lys Glu Val Ile Phe Ser Asp Ile Thr Glu Asn Ser
      1090                     1095                     1100
Ala Thr Val Ser Trp Arg Ala Pro Thr Ala Gln Val Glu Ser Phe Arg
1105      1110                     1115                     1120
Ile Thr Tyr Val Pro Ile Thr Gly Gly Thr Pro Ser Met Val Thr Val
      1125                     1130                     1135
Asp Gly Thr Lys Thr Gln Thr Arg Leu Val Lys Leu Ile Pro Gly Val
      1140                     1145                     1150
Glu Tyr Leu Val Ser Ile Ile Ala Met Lys Gly Phe Glu Glu Ser Glu
      1155                     1160                     1165
Pro Val Ser Gly Ser Phe Thr Thr Ala Leu Asp Gly Pro Ser Gly Leu
      1170                     1175                     1180
Val Thr Ala Asn Ile Thr Asp Ser Glu Ala Leu Ala Arg Trp Gln Pro
1185      1190                     1195                     1200
Ala Ile Ala Thr Val Asp Ser Tyr Val Ile Ser Tyr Thr Gly Glu Lys
      1205                     1210                     1215
Val Pro Glu Ile Thr Arg Thr Val Ser Gly Asn Thr Val Glu Tyr Ala
      1220                     1225                     1230
Leu Thr Asp Leu Glu Pro Ala Thr Glu Tyr Thr Leu Arg Ile Phe Ala
      1235                     1240                     1245
Glu Lys Gly Pro Gln Lys Ser Ser Thr Ile Thr Ala Lys Phe Thr Thr
      1250                     1255                     1260
Asp Leu Asp Ser Pro Arg Asp Leu Thr Ala Thr Glu Val Gln Ser Glu
1265      1270                     1275                     1280
Thr Ala Leu Leu Thr Trp Arg Pro Pro Arg Ala Ser Val Thr Gly Tyr
      1285                     1290                     1295
Leu Leu Val Tyr Glu Ser Val Asp Gly Thr Val Lys Glu Val Ile Val
      1300                     1305                     1310
Gly Pro Asp Thr Thr Ser Tyr Ser Leu Ala Asp Leu Ser Pro Ser Thr
      1315                     1320                     1325
His Tyr Thr Ala Lys Ile Gln Ala Leu Asn Gly Pro Leu Arg Ser Asn
      1330                     1335                     1340
Met Ile Gln Thr Ile Phe Thr Thr
1345                      1350

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<210> 147

<211> 228

<212> PRT

<213> Homo sapiens

<220>

<223> Human Tenascin-C FBG domain

<400> 147

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

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<210> 148

<211> 7616

<212> DNA

<213> Homo sapiens

<220>

<221> source

<222> 1..7616

<223> /mol_type="unassigned DNA"
 /note="Human Tenascin-C nucleotide sequence"
 /organism="Homo sapiens"

<400> 148

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attacagagg aaggagctcg ctatataagc cagccaaaagt tggctgcacc ggccacagcc      60
tgccctactgt caccgcctc tcccgcgcg agatacacgc ccccgccctcc gtggggcacia      120
aggcagcgct gctgggggaac tcgggggaac gcgcacgtgg gaaccgccgc agctccacac      180
tccaggtact tcttccaagg acctaggtct ctcgcccatac ggaaagaaaa taattctttc      240
aagaagatca gggacaactg atttgaagtc tactctgtgc ttctaaatcc ccaattctgc      300
tgaaagtgag ataccctaga gccctagagc cccagcagca cccagccaaa cccacctcca      360

```

ccatgggggc	catgactcag	ctgttggcag	gtgtctttct	tgctttcctt	gccctcgcta	420
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