

2009186_0217_SL
SEQUENCE LISTING

<110> ADIMAB LLC

<120> ANTI-RESPIRATORY SYNCYTIAL VIRUS ANTIBODIES, AND METHODS OF THEIR
GENERATION AND USE

<130> 2009186-0217

<140>

<141>

<150> 62/411,500

<151> 2016-10-21

<160> 1858

<170> PatentIn version 3.5

<210> 1

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1

caggtgcagc tggtggagtc tggctctgcg ctggtgaaac ccacacagac cctcacactg	60
acctgcagct tctccggggtt ctcactcacc actaggagaa tgtgtgtgag ctggatccgt	120
cagaccccag ggaaggccct ggagtggctt gcacgcattg attgggatga tgataaagac	180
tacagcacat ctctgaagac caggctcacc atctccaagg acacctcaa aaaccaggtg	240
gtccttacia tgaccaacat ggaccctgtg gacacggcca cgtattactg tgcacggacc	300
cacatttatg atagtagtgg ttattatcta tactactttg actactgggg ccagggaacc	360
ctggtcaccg tctcttca	378

<210> 2

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<221> source

2009186_0217_SL

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 2

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

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

Arg Met Cys Val Ser Trp Ile Arg Gln Thr Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Asp Tyr Ser Thr Ser
50 55 60

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

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

Cys Ala Arg Thr His Ile Tyr Asp Ser Ser Gly Tyr Tyr Leu Tyr Tyr
100 105 110

Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 3

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 3

Phe Ser Leu Thr Thr Arg Arg Met Cys Val Ser
1 5 10

<210> 4

<211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 4
 ttctcactca ccactaggag aatgtgtgtg agc

33

<210> 5
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 5
 Arg Ile Asp Trp Asp Asp Asp Lys Asp Tyr Ser Thr Ser Leu Lys Thr
 1 5 10 15

<210> 6
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 6
 cgcattgatt gggatgatga taaagactac agcacatctc tgaagacc

48

<210> 7
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

2009186_0217_SL

<400> 7

Ala Arg Thr His Ile Tyr Asp Ser Ser Gly Tyr Tyr Leu Tyr Tyr Phe
1 5 10 15

Asp Tyr

<210> 8

<211> 54

<212> DNA

<213> Artificial Sequence

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 8

gcacggaccc acatttatga tagtagtggt tattatctat actactttga ctac 54

<210> 9

<211> 321

<212> DNA

<213> Artificial Sequence

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 9

gatattgtgc tgaccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60

atcacttgcc gggcaagtca gaccattgcc agctatttaa attggtatca gcagaaacca 120

gggaaagccc ctgaactcct gatctatgct gcaaccaatt tgcagagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcgacct 240

gaagattttg caagttacta ctgtcaacag agttacagta gtccctggac gttcggccaa 300

gggaccaaag tggatatcaa a 321

<210> 10

<211> 107

<212> PRT

<213> Artificial Sequence

2009186_0217_SL

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 10

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

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

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

Tyr	Ala	Ala	Thr	Asn	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	Arg	Pro
65					70					75					80

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

Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Asp	Ile	Lys
			100					105		

<210> 11

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 11

Arg	Ala	Ser	Gln	Thr	Ile	Ala	Ser	Tyr	Leu	Asn
1				5					10	

<210> 12

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 12

cgggcaagtc agaccattgc cagctattta aat

33

<210> 13

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 13

Ala Ala Thr Asn Leu Gln Ser

1 5

<210> 14

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 14

gctgcaacca atttgagag t

21

<210> 15

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 15

Gln Gln Ser Tyr Ser Ser Pro Trp Thr

1

5

<210> 16

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 16

caacagagtt acagtagtcc ctggacg

27

<210> 17

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 17

gaggtgcagc tggtggagtc tggcccagga ctggtgaagc cttcggggac cctgtccctc 60

acctgcactg tctctggtga ctccatgagt gattactact ggagctggat ccggcagttcc 120

ccagggaggg gactggagtg gcttggatat atctattacg atgggagcac caactacaac 180

ccctccctca agggtcgagg caccatttca atagacacgt ccaagagcca gttctccctg 240

acgctgagct ctgtgaaggc tgcggacacg gccgtgtatt actgtgcgag aggggaagtac 300

tatgatagag gtggttatta cctgttctac cttgactact ggggccaggg aatactggtc 360

accgtctcct ca 372

<210> 18

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

2009186_0217_SL

<400> 18

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

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

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

Gly Tyr Ile Tyr Tyr Asp Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

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

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

Arg Gly Lys Tyr Tyr Asp Arg Gly Gly Tyr Tyr Leu Phe Tyr Leu Asp
100 105 110

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

<210> 19

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 19

Asp Ser Met Ser Asp Tyr Tyr Trp Ser
1 5

<210> 20

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 20

gactccatga gtgattacta ctggagc

27

<210> 21

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 21

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

<210> 22

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 22

tatatctatt acgatgggag caccaactac aaccctccc tcaagggt

48

<210> 23

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 23

Ala Arg Gly Lys Tyr Tyr Asp Arg Gly Gly Tyr Tyr Leu Phe Tyr Leu

Asp Tyr

<210> 24

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 24

gcgagagggga agtactatga tagaggtggt tattacctgt tctaccttga ctac 54

<210> 25

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

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<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 25

gacatccggt tgaccagtc tccatcctcc ctgtctgcat ctgtgggaga cagagtcacc 60

atcacttgcc gggcaagtca gaccattgcc agctatgtaa actggtatca gcagaaacca 120

gggaaagccc ctaaactcct tatctatgct gcatccagtt tgcaagatgg ggttccatca 180

aggttcagtg gcagtggatc tgggacagat ttcgctctca ccatcagcag tctgcaacct 240

gaagattttg caatttactt ttgtcaacag agttacagta ccccatatt cactttcggc 300

cctgggacca aggtggaaat caaa 324

<210> 26

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

2009186_0217_SL

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 26

Asp	Ile	Arg	Leu	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	Thr	Ile	Ala	Ser	Tyr
			20					25					30		

Val	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	Asp	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				

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

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

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

<210> 27

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 27

Arg	Ala	Ser	Gln	Thr	Ile	Ala	Ser	Tyr	Val	Asn
1				5				10		

<210> 28

<211> 33

<212> DNA

<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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<400> 28
 cgggcaagtc agaccattgc cagctatgta aac

33

<210> 29
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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<400> 29
 Ala Ala Ser Ser Leu Gln Asp
 1 5

<210> 30
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 30
 gctgcatcca gtttgcaaga t

21

<210> 31
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 31
 Gln Gln Ser Tyr Ser Thr Pro Ile Phe Thr
 1 5 10

<210> 32
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 32
 caacagagtt acagtacccc catattcact 30

<210> 33
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
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 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 33
 gaggtgcagc tggtggagtc tgggggcgcc ttggtaaagc cggggggggct ccttagactc 60
 tcctgtgtag gcactggact cactttcact actgcctaca tgagctgggc ccgccaggct 120
 ccagggaagg ggctggagtg ggttggtcgt attaagagca aaagtgatgg tgggacaaca 180
 gactacccta caccgtcaa aggcagattc accatctcaa gagatgaatc caaaaacacc 240
 ctgtatctgc aaatgaacag cctgaaaatc gaggacacag ccgtctatta ttgtaccaca 300
 gataggggga taacagctcg tcctatcttc gactcctggg gccagggaac cctgggtcacc 360
 gtctcctca 369

<210> 34
 <211> 123
 <212> PRT
 <213> Artificial Sequence

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 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 34

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

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

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

Gly Arg Ile Lys Ser Lys Ser Asp Gly Gly Thr Thr Asp Tyr Pro Thr
50 55 60

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

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

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

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

<210> 35

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 35

Leu Thr Phe Thr Thr Ala Tyr Met Ser
1 5

<210> 36

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 36

ctcactttca ctactgccta catgagc

27

<210> 37

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 37

Arg	Ile	Lys	Ser	Lys	Ser	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Pro	Thr	Pro
1				5					10					15	

Val Lys Gly

<210> 38

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 38

cgtattaaga gcaaaagtga tgggtgggaca acagactacc ctacacccgt caaaggc

57

<210> 39

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

2009186_0217_SL

<400> 39

Thr Thr Asp Arg Gly Ile Thr Ala Arg Pro Ile Phe Asp Ser
1 5 10

<210> 40

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 40

accacagata gggggataac agctcgtcct atcttcgact cc 42

<210> 41

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 41

cagtctgtct tgacgcagcc gccctcagtg tctggggccc tagggcggag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcgggttatg atgtacattg gtacaggcaa 120

cttccaggaa cagcccccaa actcctcatt tatggtaaca ccaaacggcc ctgagggtc 180

cctgaccgat tctctggctc caagtatgcc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgacgctga ttattactgc cagtcctatg acggcggcct gagggttat 300

gtcttcggaa ctgggaccaa gctcaccgtc cta 333

<210> 42

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

2009186_0217_SL

<400> 42

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

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

Tyr Asp Val His Trp Tyr Arg Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Thr Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Tyr Ala Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Asp Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Gly
85 90 95

Leu Ser Gly Tyr Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 43

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 43

Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 44

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 44

actgggagca gctccaacat cggggcgggt tatgatgtac at

42

<210> 45

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 45

Gly Asn Thr Lys Arg Pro Ser

1 5

<210> 46

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 46

ggtaacacca aacggcctc a

21

<210> 47

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 47

Gln Ser Tyr Asp Gly Gly Leu Ser Gly Tyr Val

1 5 10

<210> 48

<211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 48
 cagtcctatg acggcggcct gagtggttat gtc 33

<210> 49
 <211> 390
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 49
 caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
 tcctgcaagg cttctggagg caacgtcaac atctatggaa tcagttgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggaggg atcatcccta tttatgatac aacaaagtac 180
 gcacagaaat tccaggacag agtcacgatt accgcggaca aatccacgag tacagcctac 240
 atggagttga gcagcctgag atctgaggac acggccgtat atttctgtgc gagagatctt 300
 gattacgata ttttgactgg ttattccgta aactactact actacggtat ggacgtctgg 360
 ggccaaggga ccacggtcac cgtctcctca 390

<210> 50
 <211> 130
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

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

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

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

Gly Gly Ile Ile Pro Ile Tyr Asp Thr Thr Lys Tyr Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Asp Leu Asp Tyr Asp Ile Leu Thr Gly Tyr Ser Val Asn Tyr
100 105 110

Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
115 120 125

Ser Ser
130

<210> 51

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 51

Gly Asn Val Asn Ile Tyr Gly Ile Ser
1 5

<210> 52

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 52

ggcaacgtca acatctatgg aatcagt

27

<210> 53

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 53

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

Asp

<210> 54

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 54

gggatcatcc ctatttatga tacaacaaag tacgcacaga aattccagga c

51

<210> 55

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
heavy chain variable region CDR H3"

<400> 55

Ala	Arg	Asp	Leu	Asp	Tyr	Asp	Ile	Leu	Thr	Gly	Tyr	Ser	Val	Asn	Tyr
1				5					10					15	

Tyr	Tyr	Tyr	Gly	Met	Asp	Val
			20			

<210> 56

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 56

gcgagagatc ttgattacga tatTTtgact ggTtattccg taaactacta ctactacggt	60
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atggacgtc	69
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<210> 57

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 57

cagtctgtcc tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc	60
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tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcag	120
---	-----

cttccaggaa cagcccccaa actcctcatc tatggtaaca tcaatcggcc ctcaggggtc	180
---	-----

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc	240
---	-----

caggctgagg atgaggctga ttattactgc cagtcctgtg acagcagcct aagtgggttg	300
---	-----

gtgttcggcg gagggaccaa gctgaccatc cta	333
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<210> 58

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 58
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Ile Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Cys Asp Ser Ser
85 90 95

Leu Ser Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Ile Leu
100 105 110

<210> 59
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 59
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 60
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 60
 actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 61
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 61
 Gly Asn Ile Asn Arg Pro Ser
 1 5

<210> 62
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 62
 ggtaacatca atcggccctc a

21

<210> 63
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L3"

<400> 63

Gln Ser Cys Asp Ser Ser Leu Ser Gly Trp Val
1 5 10

<210> 64

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 64

cagtcctgtg acagcagcct aagtggttgg gtg

33

<210> 65

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 65

caggtccagc ttgtacagtc tggggctgaa gtgaagaggc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctttgcta tcaactgggt gcgacaggcc 120

cctggacaag ggcttgagt gatgggaggg ctcatcccta tctttggtac accaaacaac 180

gcacagaagt tccagggcag agtcacgatt accgcggacg aatccacgag cacagcctac 240

atggagctga gcagcctgag atctgaggac acggccgtct attactgtgc ctcatcagga 300

tattttgact ggcaacctgg ggggtcctac tggttcgacc cctggggcca gggaaccctg 360

gtcaccgtct cctca 375

<210> 66

<211> 125

<212> PRT

<213> Artificial Sequence

2009186_0217_SL

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 66

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

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

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

Gly Gly Leu Ile Pro Ile Phe Gly Thr Pro Asn Asn Ala Gln Lys Phe
50 55 60

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

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

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

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

<210> 67

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 67

Gly Thr Phe Ser Ser Phe Ala Ile Asn
1 5

<210> 68
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 68
 ggcaccttca gcagctttgc tatcaac

27

<210> 69
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 69
 Gly Leu Ile Pro Ile Phe Gly Thr Pro Asn Asn Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 70
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 70
 gggctcatcc ctatctttgg tacaccaaac aacgcacaga agttccaggg c

51

<210> 71
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 71

Ala	Ser	Leu	Arg	Tyr	Phe	Asp	Trp	Gln	Pro	Gly	Gly	Ser	Tyr	Trp	Phe
1				5				10						15	

Asp Pro

<210> 72

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 72

gcctcattac gatattttga ctggcaacct ggggggtcct actggttcga cccc	54
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<210> 73

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 73

cagcctgggc tgactcagcc accctcagtg tcagtggccc caggaaagac ggccaggatt	60
gcctgtgggg gagacaacat tggaactaaa ggagtgcact ggtaccagca gaagccaggc	120
caggcccctg tgctgggtcat ctattatgat agcgaccggc cctcagggat ccctgagcga	180
ttctctggtt ccaactctgg gaacacggcc accctgacca tcagcgggggt cgaagccggg	240
gatgaggccg actactactg tcaggtttgg gatactattg atgatcataa ggatggacta	300
ttcggcggag ggaccaagct caccgtccta	330

<210> 74
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 74
 Gln Pro Gly Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
 1 5 10 15

Thr Ala Arg Ile Ala Cys Gly Gly Asp Asn Ile Gly Thr Lys Gly Val
 20 25 30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
 50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Thr Ile Asp Asp His
 85 90 95

Lys Asp Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
 100 105 110

<210> 75
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 75
 Gly Gly Asp Asn Ile Gly Thr Lys Gly Val His

1

5

10

<210> 76

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 76

gggggagaca acattggaac taaaggagtg cac

33

<210> 77

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 77

Tyr Asp Ser Asp Arg Pro Ser

1

5

<210> 78

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 78

tatgatagcg accggcctc a

21

<210> 79

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 79

Gln Val Trp Asp Thr Ile Asp Asp His Lys Asp Gly Leu
1 5 10

<210> 80

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 80

caggtttggg atactattga tgatcataag gatggacta

39

<210> 81

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 81

cagggtccagc ttgtgcagtc tggaggtgag gtgaagaagc ctggcgccctc agtgaaggctc 60

tcctgcaagg cttctggtta cacctttacc acctatggaa tcagctgggt gcgacaggcc 120

cctggacatg ggcttgagtg gctgggatgg atcagcccta agaattggcaa cacaaagtat 180

gcacagaagg tccagggcag agtcaccatg accatagacc caaccacgag tacagcctac 240

atggaactga ggagcctgag atcagacgac acggccatgt attactgtgc gagagactat 300

attgtagcaa tagtggctgc tctccccac ggtatggacg tctggggcca agggaccctg 360

gtcactgtct cctca 375

<210> 82

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 82

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

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

Gly Trp Ile Ser Pro Lys Asn Gly Asn Thr Lys Tyr Ala Gln Lys Val
50 55 60

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

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

Ala Arg Asp Tyr Ile Val Ala Ile Val Ala Ala Leu Pro His Gly Met
100 105 110

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

<210> 83

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 83

Tyr Thr Phe Thr Thr Tyr Gly Ile Ser

1

5

<210> 84
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 84
 tacaccttta ccacctatgg aatcagc

27

<210> 85
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 85
 Trp Ile Ser Pro Lys Asn Gly Asn Thr Lys Tyr Ala Gln Lys Val Gln
 1 5 10 15

Gly

<210> 86
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 86
 tggatcagcc ctaagaatgg caacacaaag tatgcacaga aggtccaggg c

51

<210> 87
 <211> 18

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 87

Ala	Arg	Asp	Tyr	Ile	Val	Ala	Ile	Val	Ala	Ala	Leu	Pro	His	Gly	Met
1				5				10						15	

Asp Val

<210> 88

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 88

gcgagagact	atattgtagc	aatagtggct	gctctcccc	acggtatgga	cgtc	54
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<210> 89

<211> 318

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 89

cagtctgtct	tgacgcagcc	gccctccctg	tccgtgtccc	caggacagac	agccagcatc	60
tcctgctctg	gggatcagtt	ggggaataaa	tatgtttggt	ggtatcagca	gaagccaggc	120
cagtcccctg	ttctgggtcat	ctatcaagat	tccaggcggc	cctcaggggt	ccctgagcga	180
ttctctgggt	ccaactccgg	gaacacagcc	actctgaccg	tcggcgggac	ccagcctatg	240
gatgaggctg	actattactg	tcaggcgtgg	gacagcagca	ttcgggtatt	cggcggaggg	300

accaaggtga ccgtccta

<210> 90

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 90

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

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

Cys Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Leu Val Ile Tyr
35 40 45

Gln Asp Ser Arg Arg Pro Ser Gly Val Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Val Gly Gly Thr Gln Pro Met
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Gln Ala Trp Asp Ser Ser Ile Arg Val
85 90 95

Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105

<210> 91

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 91
 Ser Gly Asp Gln Leu Gly Asn Lys Tyr Val Cys
 1 5 10

<210> 92
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 92
 tctggggatc agttggggaa taaatatgtt tgt 33

<210> 93
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 93
 Gln Asp Ser Arg Arg Pro Ser
 1 5

<210> 94
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 94
 caagattcca ggcgccctc a 21

<210> 95
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 95

Gln Ala Trp Asp Ser Ser Ile Arg Val

1 5

<210> 96

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 96

caggcgtggg acagcagcat tcgggta

27

<210> 97

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 97

caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cctctggagg ctctttgagc acctatggga tccactgggt gcgacaggcc 120

cctggccaag gccttgagtg ggtgggaggg gtcattgactg tctatggcaa aacaacctac 180

ggacagaact tccagggcag agtcaccatt gccgtggaca gatcgaccaa cacagcctac 240

atggaactga gcagcctaac atctgacgac acgggtactt attactgtgc gacagactcc 300

tactatgttt ggactggttc ttatccccc ccctttgacc tctggggcca gggaaccctg 360

gtcaccgtct cctca 375

<210> 98

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<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 98

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

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

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

Gly Gly Val Met Thr Val Tyr Gly Lys Thr Thr Tyr Gly Gln Asn Phe
50 55 60

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

Met Glu Leu Ser Ser Leu Thr Ser Asp Asp Thr Gly Thr Tyr Tyr Cys
85 90 95

Ala Thr Asp Ser Tyr Tyr Val Trp Thr Gly Ser Tyr Pro Pro Pro Phe
100 105 110

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

<210> 99

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 99

Gly Ser Leu Ser Thr Tyr Gly Ile His

1 5

<210> 100

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 100

ggctccttga gcacctatgg gatccac

27

<210> 101

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 101

Gly Val Met Thr Val Tyr Gly Lys Thr Thr Tyr Gly Gln Asn Phe Gln

1 5 10 15

Gly

<210> 102

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 102

ggggtcatga ctgtctatgg caaaacaacc tacggacaga acttccaggg c

51

<210> 103
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 103
 Ala Thr Asp Ser Tyr Tyr Val Trp Thr Gly Ser Tyr Pro Pro Pro Phe
 1 5 10 15

Asp Leu

<210> 104
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 104
 gcgacagact cctactatgt ttggactggg tcttatcccc ccccctttga cctc 54

<210> 105
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 105
 gaaattgtgt tgaccagac tccaggcacc cagtctttgt ctccaggga aagtgccacc 60
 ctctcctgca gggccagtca cagtgtcggc aacgactact tggcctggta tcagcagaag 120
 cctggccagt ctccccggct cctcattcac ggtgcataca ggagggaactc tggcatccca 180
 gacaggttca ttggcagtgg gtctgggaca gacttcactc tcaccatcga cagtctggag 240

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cctgacgatt gtgcagtata ttactgtcag cagtatggga gctggcctct cactttcggc 300

ggagggacca aagtggatat caaa 324

<210> 106

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 106

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

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

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

Ile His Gly Ala Tyr Arg Arg Asp Ser Gly Ile Pro Asp Arg Phe Ile
50 55 60

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

Pro Asp Asp Cys Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Trp Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
100 105

<210> 107

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L1"

<400> 107

Arg Ala Ser His Ser Val Gly Asn Asp Tyr Leu Ala
1 5 10

<210> 108

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 108

agggccagtc acagtgtcgg caacgactac ttggcc

36

<210> 109

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 109

Gly Ala Tyr Arg Arg Asp Ser
1 5

<210> 110

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 110

ggtgcataca ggagggactc t

21

<210> 111

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 111

Gln Gln Tyr Gly Ser Trp Pro Leu Thr

1

5

<210> 112

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 112

cagcagtatg ggagctggcc tctcact

27

<210> 113

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 113

gaggtgcagc tgggtggagtc tggggggaggc gtgggtccagc ctgggaggtc cctgagactc 60

tcctgtgtta cctctggatt catcttcagc aattatgcta tgcactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcagtt atatcctttg atgcagacaa tgaatattat 180

gcagagtccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgatgtat 240

ctgcaaatac acagcctgag agccggggac acagctctct attactgtgc gagagatcct 300

ctgggtatag gagtgaaggg ctacgttgac ttctggggcc aggggaaccct ggtcaccgtc 360

tcctca 366

<210> 114
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 114
 Glu 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 Val Thr Ser Gly Phe Ile Phe Ser Asn Tyr
 20 25 30

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

Ala Val Ile Ser Phe Asp Ala Asp Asn Glu Tyr Tyr Ala Glu Ser Val
 50 55 60

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

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

Ala Arg Asp Pro Leu Gly Ile Gly Val Lys Gly Tyr Val Asp Phe Trp
 100 105 110

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

<210> 115
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

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heavy chain variable region CDR H1"

<400> 115

Phe Ile Phe Ser Asn Tyr Ala Met His
1 5

<210> 116

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 116

ttcatcttca gcaattatgc tatgcac

27

<210> 117

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 117

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

Gly

<210> 118

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 118

gttatatcct ttgatgcaga caatgaatat tatgcagagt ccgtgaaggg c

51

<210> 119
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 119
 Ala Arg Asp Pro Leu Gly Ile Gly Val Lys Gly Tyr Val Asp Phe
 1 5 10 15

<210> 120
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 120
 gcgagagatc ctctgggtat aggagtgaag ggctacgttg acttc 45

<210> 121
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 121
 tcctctgagc tgagtcagcc accctcagtg tcagtggccc caggagagac ggccaggatt 60
 acttgtgggg gagacaactt tggaagtgaac ggtctgcact ggtaccagca gaagccaggc 120
 caggcccctg tgttggtcat ctattatgat agcgaccggc cctcagggat ccctgagcga 180
 ttctccggct ccatctctgg gaacacggcc accttgacca tcagcagggt cgaagccggg 240
 gatgaggccg actatttctg tcagggtgtgg gatagtatta gtgatcatct ggtattcggc 300

ggggggacca aggtgaccgt ccta

<210> 122

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 122

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

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

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

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

Leu Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105

<210> 123

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 123

Gly Gly Asp Asn Phe Gly Ser Asp Gly Leu His
 1 5 10

<210> 124

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 124

gggggagaca actttggaag tgacggtctg cac

33

<210> 125

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 125

Tyr Asp Ser Asp Arg Pro Ser
 1 5

<210> 126

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 126

tatgatagcg accggccctc a

21

<210> 127

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 127

Gln Val Trp Asp Ser Ile Ser Asp His Leu Val
1 5 10

<210> 128

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 128

caggtgtggg atagtattag tgatcatctg gta

33

<210> 129

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 129

caggtccagc ttgtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agttatgcta tcaactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaggg atcatccctg cttttggtac aacaatctac 180

gcacagaggt tccaggacag agtcacgatt accgcggaca aatccacgag cacagcctac 240

atggagctga ggagcctgag atctgaggac acggccgtgt attactgtgc gaggtcacca 300

cccttttggga gtgactatag ccgtgggtgg ttgacccct ggggccaggg aaccctggtc 360

accgtctcct ca 372

<210> 130

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<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 130

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

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

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

Gly Gly Ile Ile Pro Ala Phe Gly Thr Thr Ile Tyr Ala Gln Arg Phe
50 55 60

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

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

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

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

<210> 131

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 131

Gly Thr Phe Ser Ser Tyr Ala Ile Asn

1 5

<210> 132

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 132

ggcaccttca gcagttatgc tatcaac

27

<210> 133

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 133

Gly Ile Ile Pro Ala Phe Gly Thr Thr Ile Tyr Ala Gln Arg Phe Gln

1 5 10 15

Asp

<210> 134

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 134

gggatcatcc ctgcctttgg tacaacaatc tacgcacaga ggttccagga c

51

<210> 135
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 135
 Ala Arg Ser Pro Pro Phe Trp Ser Asp Tyr Ser Arg Gly Trp Phe Asp
 1 5 10 15

Pro

<210> 136
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 136
 gcgaggtcac cacccttttg gagtgactat agccgtgggt ggttcgaccc c 51

<210> 137
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 137
 gaaacgacac tcacgcagtc tccatccgcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gaccattagc ggctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtcg 180
 agattcagtg gcagtagcgc tgggacagat ttcactctct ccatcagcaa tctacaacct 240

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gaagattttg caacttacta ctgtcaacag agttacacta ccccggtggac gttcggccaa 300

gggaccaagg tggaaatcaa a 321

<210> 138

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 138

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

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

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

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

<210> 139

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L1"

<400> 139

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

<210> 140

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 140

cgggcaagtc agaccattag cggctattta aat

33

<210> 141

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 141

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 142

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 142

gctgcatcca gtttgcaaag t

21

<210> 143

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 143

Gln Gln Ser Tyr Thr Pro Trp Thr

1

5

<210> 144

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 144

caacagagtt acactacccc gtggacg

27

<210> 145

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 145

caggtccagc tgggtgcagtc tggagcagag gtgaaaaagc ccggagactc tctgaagatc 60

tcctgtaaga atgctggaca cacctctaga atctactgga tcgcctgggt gcgccagatg 120

cccgcgaaag gcctggagta catgggcatc atctttcctg gtgactctga taccagatac 180

agtccgtcct tccgaggcca ggtcaccatc tcagccgaca ggtccatcag aactgcctac 240

ctgcagttga gcagcctgaa ggcctcggac accggcattt attactgtgc gacacagggg 300

cttgaggggg cttttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 146

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 146
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Asp
 1 5 10 15

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

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

Gly Ile Ile Phe Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60

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

Leu Gln Leu Ser Ser Leu Lys Ala Ser Asp Thr Gly Ile Tyr Tyr Cys
 85 90 95

Ala Thr Gln Gly Leu Glu Gly Ala Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Thr Val Ser Ser
 115

<210> 147
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 147

His Thr Ser Arg Ile Tyr Trp Ile Ala

1 5

<210> 148

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 148

cacacctcta gaatctactg gatcgcc

27

<210> 149

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 149

Ile Ile Phe Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe Arg

1 5 10 15

Gly

<210> 150

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 150

atcatctttc ctggtgactc tgataccaga tacagtcctg ccttccgagg c

51

<210> 151
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 151
 Ala Thr Gln Gly Leu Glu Gly Ala Phe Asp Tyr
 1 5 10

<210> 152
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 152
 gcgacacagg ggcttgaggg ggcttttgac tac 33

<210> 153
 <211> 324
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 153
 gacatccggt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc aggcgagtca ggacattagc aaccagttaa attggtatca gcagaaacca 120
 gggacagccc ctaagctcct catctacgat gcaccccttt tgcaaacagg ggtcccatca 180
 aggttcagtg gaagtggatc tgggacacat ttacttttca ccatcaccag cctgcagcct 240
 gaagattttg caacatattt ctgtcagcat tatgatagtt tcccatatt cactttcggc 300
 cctgggacca agctggagat caaa 324

<210> 154
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 154
 Asp Ile Arg Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

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

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

Ser Gly Ser Gly Thr His Phe Thr Phe Thr Ile Thr Ser Leu Gln Pro
 65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln His Tyr Asp Ser Phe Pro Ile
 85 90 95

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

<210> 155
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 155
 Gln Ala Ser Gln Asp Ile Ser Asn Gln Leu Asn

1

5

10

<210> 156
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 156
caggcgagtc aggacattag caaccagtta aat

33

<210> 157
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 157
Asp Ala Ser Phe Leu Gln Thr
1 5

<210> 158
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 158
gatgcatcct ttttgcaaac a

21

<210> 159
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 159

Gln His Tyr Asp Ser Phe Pro Ile Phe Thr

1 5 10

<210> 160

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 160

cagcattatg atagtttccc catattcact

30

<210> 161

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 161

gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgcgactc 60

tcctgtgcag cctctggatt cacctttgat gattatgccca tgcactgggt ccggcaagct 120

ccaggggaagg gcctggagtg ggtctcaggc atcagttgga atagtggat tgtaaagtat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag aactgaggac acggccttgt attatttgtt aaaagacggt 300

tataccagca gttggcactc ggactaccac tacggcttgg acgtctgggg ccaagggacc 360

acggtcaccg tctcctca 378

<210> 162

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 162

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 Trp Asn Ser Gly Ile Val Lys 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 Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Val Lys Asp Gly Tyr Thr Ser Ser Trp His Ser Asp Tyr His Tyr Gly
100 105 110

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

<210> 163

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 163

Phe Thr Phe Asp Asp Tyr Ala Met His

1

5

<210> 164
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 164
 ttcacctttg atgattatgc catgcac

27

<210> 165
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 165
 Gly Ile Ser Trp Asn Ser Gly Ile Val Lys Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 166
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 166
 ggcatcagtt ggaatagtgg tattgttaaag tatgcggact ctgtgaaggg c

51

<210> 167
 <211> 19

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 167

Val	Lys	Asp	Gly	Tyr	Thr	Ser	Ser	Trp	His	Ser	Asp	Tyr	His	Tyr	Gly
1				5				10						15	

Leu Asp Val

<210> 168

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 168

gtaaaagacg	gttataccag	cagttggcac	tcggactacc	actacggctt	ggacgtc	57
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<210> 169

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 169

gatattgtga	tgactcagtc	tccagccacc	ctgtctctgt	ctccagggga	cagagccacc	60
------------	------------	------------	------------	------------	------------	----

ctctcctgca	gggccagtc	gaatgttatc	agcaacttgg	cctggtacca	gcagaaacct	120
------------	-----------	------------	------------	------------	------------	-----

ggccaggctc	ccaggctcct	catctatact	gtatccacca	gggccactgg	tatcccagcc	180
------------	------------	------------	------------	------------	------------	-----

aggttcagtg	gcagtgggtc	tgggacagac	ttcactctca	ccatcagcag	cctgcagtct	240
------------	------------	------------	------------	------------	------------	-----

gaagattttg	cagtttatta	ctgtcagcag	tataataact	ggcctctcac	tttcggcgga	300
------------	------------	------------	------------	------------	------------	-----

gggaccaagg tggaaatcaa a

<210> 170
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 170
 Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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

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

Tyr Thr Val Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
 85 90 95

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

<210> 171
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 171

Arg Ala Ser Gln Asn Val Ile Ser Asn Leu Ala
 1 5 10

<210> 172

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 172

agggccagtc agaatgttat cagcaacttg gcc

33

<210> 173

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 173

Thr Val Ser Thr Arg Ala Thr
 1 5

<210> 174

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 174

actgtatcca ccagggccac t

21

<210> 175

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 175

Gln Gln Tyr Asn Asn Trp Pro Leu Thr

1

5

<210> 176

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 176

cagcagtata ataactggcc tctcact

27

<210> 177

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 177

caggtccagc ttgtgcagtc tggggctgag gtgaagaagc ctgggtcgtc ggtgaaggtc 60

tcctgcaagg cttctggaga caccttcaac agttattcca tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggagga atcctcccta tgtttggttc gtcagactac 180

gcacagaagt tccagggcag actcacaatt accgcggacg aatccacgag gacagcctac 240

atggagctga acagtctgac atctgaggac acggccattt actactgtgc gagagacaat 300

tactatgttt ggactggtcg ttatcccgaa tttgacttct ggggccaggg aaccctggtc 360

accgtctcct ca 372

<210> 178

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<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 178

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

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

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

Gly Gly Ile Leu Pro Met Phe Gly Ser Ser Asp Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Leu Thr Ile Thr Ala Asp Glu Ser Thr Arg Thr Ala Tyr
65 70 75 80

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

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

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

<210> 179

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 179

Asp Thr Phe Asn Ser Tyr Ser Ile Ser

1 5

<210> 180

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 180

gacaccttca acagttattc catcagc

27

<210> 181

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 181

Gly Ile Leu Pro Met Phe Gly Ser Ser Asp Tyr Ala Gln Lys Phe Gln

1 5 10 15

Gly

<210> 182

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 182

ggaatcctcc ctatgtttgg ttcgtcagac tacgcacaga agttccaggg c

51

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<210> 183
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 183
 Ala Arg Asp Asn Tyr Tyr Val Trp Thr Gly Arg Tyr Pro Glu Phe Asp
 1 5 10 15

Phe

<210> 184
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 184
 gcgagagaca attactatgt ttggactggg cggtatcccg aatttgactt c 51

<210> 185
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 185
 gaaattgtgt tgacacagtc tccaggcacc ctgtccttgt ctccagggga tgaagccacc 60
 ctctcctgca gggccagtca gagggttacc agcaattact tagcctggta ccagcagagg 120
 cctggccagg ctcccaggct cctcatctct ggtgcatcca gaagggccac tgccgtccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240

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cctgaagatt ttgcagttta ttactgtcag caatatggaa gcacaccgat caccttcggc 300

caggggacac gactggagat taaa 324

<210> 186

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 186

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

Asp Glu Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Ser Asn
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Ser Gly Ala Ser Arg Arg Ala Thr Ala Val Pro Asp Arg Phe Ser
50 55 60

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

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

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 187

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L1"

<400> 187

Arg Ala Ser Gln Ser Val Thr Ser Asn Tyr Leu Ala
1 5 10

<210> 188

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 188

agggccagtc agagtgttac cagcaattac ttagcc

36

<210> 189

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 189

Gly Ala Ser Arg Arg Ala Thr
1 5

<210> 190

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 190

ggtgcatcca gaagggccac t

21

<210> 191

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 191

Gln Gln Tyr Gly Ser Thr Pro Ile Thr

1

5

<210> 192

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 192

cagcaatatg gaagcacacc gatcacc

27

<210> 193

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 193

caggtccagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata cactttcacc aatgatataa actgggtgcg acaggccact 120

ggacaagggc ttgagtggat ggggtggatg aaccctaaca atggtcacac aggctatgca 180

cagagcttcg agggcagagt cagcatgacc aggaactccg ccataaacac agcctacctg 240

gagctgagca gcctgagatt tgacgatacg gccatatatt atttgtgtata caatttctgg 300

agtgattctt cagtctcctg gggccaggga accctgggtca ccgtctcctc a 351

<210> 194

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<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 194

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 Asn Asp
20 25 30

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

Trp Met Asn Pro Asn Asn Gly His Thr Gly Tyr Ala Gln Ser Phe Glu
50 55 60

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

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

Tyr Asn Phe Trp Ser Asp Ser Ser Val Ser Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 195

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 195

Tyr Thr Phe Thr Asn Asp Ile Asn

1 5

<210> 196

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 196

tacactttca ccaatgatat aaac

24

<210> 197

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 197

Trp Met Asn Pro Asn Asn Gly His Thr Gly Tyr Ala Gln Ser Phe Glu

1 5 10 15

Gly

<210> 198

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 198

tggatgaacc ctaacaatgg tcacacaggc tatgcacaga gcttcgaggg c

51

<210> 199
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 199
 Val Tyr Asn Phe Trp Ser Asp Ser Ser Val Ser
 1 5 10

<210> 200
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 200
 gtatacaatt tctggagtga ttcttcagtc tcc 33

<210> 201
 <211> 333
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 201
 cagtctgtcg tgacgcagcc gccctcagtg tctggggccc cagggcagag tgtcgccatc 60
 tcctgcactg ggagcagctc caacatcggg ccaggttatg atgtacactg gtatcagcaa 120
 cttccgggag cagcccccaa actcctcatc tatggtgaca gcaatcggcc ctcaggggtc 180
 cctgaccgat tctctacctc caagtctggc acctcagttt ccctggccat cactggggtc 240
 caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct ccgtggttat 300
 gtcttcggaa ctgggaccaa gctcaccgtc cta 333

<210> 202
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 202
 Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

Ser Val Ala Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Pro Gly
 20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Ala Ala Pro Lys Leu
 35 40 45

Leu Ile Tyr Gly Asp Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
 50 55 60

Ser Thr Ser Lys Ser Gly Thr Ser Val Ser Leu Ala Ile Thr Gly Leu
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
 85 90 95

Leu Arg Gly Tyr Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
 100 105 110

<210> 203
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 203
 Thr Gly Ser Ser Ser Asn Ile Gly Pro Gly Tyr Asp Val His

1

5

10

<210> 204
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 204
 actgggagca gctccaacat cgggccaggt tatgatgtac ac 42

<210> 205
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 205
 Gly Asp Ser Asn Arg Pro Ser
 1 5

<210> 206
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 206
 ggtgacagca atcgccctc a 21

<210> 207
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 207

Gln Ser Tyr Asp Ser Ser Leu Arg Gly Tyr Val
1 5 10

<210> 208

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 208

cagtcctatg acagcagcct ccgtggttat gtc

33

<210> 209

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 209

caggtccagc ttgtacagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggttt cacctttact aattatggta taagttgggt gcgacaggcc 120

cctggacgag ggcttgagtg gatgggctgg atcagcgctt acaatggtaa cacagagtat 180

gcacagaagc tccaagacag actcaccatg accacagaca catctacgaa cacagcctac 240

atggagttga ggagcctgag atctgacgac acggccctat attattgtgc gagagagtca 300

ggtgtcgcag cagctgctac cttactttac tggggccagg gaaccctggt caccgtctcc 360

tca 363

<210> 210

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 210

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 Phe Thr Phe Thr Asn Tyr
20 25 30

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

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Glu Tyr Ala Gln Lys Leu
50 55 60

Gln Asp Arg Leu Thr Met Thr Thr Asp Thr Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Ser Gly Val Ala Ala Ala Ala Thr Leu Leu Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 211

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 211

Phe Thr Phe Thr Asn Tyr Gly Ile Ser

1

5

<210> 212
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 212
 ttcaccttta ctaattatgg tataagt

27

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 213
 Trp Ile Ser Ala Tyr Asn Gly Asn Thr Glu Tyr Ala Gln Lys Leu Gln
 1 5 10 15

Asp

<210> 214
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 214
 tggatcagcg cttacaatgg taacacagag tatgcacaga agctccaaga c

51

<210> 215
 <211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 215

Ala	Arg	Glu	Ser	Gly	Val	Ala	Ala	Ala	Ala	Thr	Leu	Leu	Tyr
1				5					10				

<210> 216

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 216

gcgagagagt	caggtgtcgc	agcagctgct	accttacttt	ac	42
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<210> 217

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 217

gaaacgacac	tcacgcagtc	tccactctcc	ctgcccgtca	cccttggaca	accggcctcc	60
atctcctgca	ggtctagtca	aagcctcgta	tacagcgatg	gaaacaccta	cttgagttgg	120
tttcagcaga	ggccaggcca	atctccaagg	cgctaattt	ataaggtttc	taaccgggac	180
tctggggtcc	cagacagatt	cagcggcagt	gggtcaggcg	ctgatttcac	actgaaaatc	240
agcaggggtg	aggctgagga	tgttgggggt	tattactgca	tgcaagggtat	atactggcct	300
cggacgttcg	gccaaaggac	caaagtggat	atcaaa			336

<210> 218

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<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 218

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

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30

Asp Gly Asn Thr Tyr Leu Ser Trp Phe Gln Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

Ile Tyr Trp Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
100 105 110

<210> 219

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 219

Arg Ser Ser Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr Leu Ser
1 5 10 15

<210> 220
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 220
 aggtctagtc aaagcctcgt atacagcgat ggaaacacct acttgagt

48

<210> 221
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 221
 Lys Val Ser Asn Arg Asp Ser
 1 5

<210> 222
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 222
 aaggtttcta accgggactc t

21

<210> 223
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L3"

<400> 223

Met Gln Gly Ile Tyr Trp Pro Arg Thr
1 5

<210> 224

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 224

atgcaaggta tatactggcc tcggacg

27

<210> 225

<211> 390

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 225

caggtgcagc tggtggagtc tggggctgag gtgcagaagc ctggggcctc agtgaagatt 60

tcttgcaagg catctggata caagttcatc agctactcca tacactgggt gcgacaggcc 120

cctggacaag gacttgagt gatgggagta atcaaccctg gtggcgggtct cacaaactat 180

gcacagaagt tccaggacag actcaccatg accaggggaca cgtccacggc cacagtgacc 240

atggaactga ggagcctgag atctgacgac agggccgtat atttttgtgg tagagaagac 300

tcatattgta gtggagacag ctgcttcaat tccggttcgg ggcgctgggt cgactcctgg 360

ggccaggga ccctgggtcac cgtctcctca 390

<210> 226

<211> 130

<212> PRT

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 226

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

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

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

Gly Val Ile Asn Pro Gly Gly Gly Leu Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Leu Thr Met Thr Arg Asp Thr Ser Thr Ala Thr Val Thr
65 70 75 80

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

Gly Arg Glu Asp Ser Tyr Cys Ser Gly Asp Ser Cys Phe Asn Ser Gly
100 105 110

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

Ser Ser
130

<210> 227

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 227

Tyr Lys Phe Ile Ser Tyr Ser Ile His

1

5

<210> 228

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 228

tacaagttca tcagctactc catacac

27

<210> 229

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 229

Val Ile Asn Pro Gly Gly Gly Leu Thr Asn Tyr Ala Gln Lys Phe Gln

1

5

10

15

Asp

<210> 230

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 230

gtaatcaacc ctggtggcgg tctcacaac tatgcacaga agttccagga c

51

<210> 231
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 231
 Gly Arg Glu Asp Ser Tyr Cys Ser Gly Asp Ser Cys Phe Asn Ser Gly
 1 5 10 15

Ser Gly Arg Trp Val Asp Ser
 20

<210> 232
 <211> 69
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 232
 ggtagagaag actcatattg tagtggagac agctgcttca attccgggtc ggggcgctgg 60
 gtcgactcc 69

<210> 233
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 233
 gacatccagg tgaccagtc tccatcgtcc ctgtctgcat ctgtcggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcgttatc acctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctcaactcct ggtctatgct gcttccattt tgcaaagtgg ggtcccatcc 180

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agcttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagta cccctcatac ttttggccag 300
gggaccaaag tggatatcaa a 321

<210> 234
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 234
Asp Ile Gln Val 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 Ser Val Ile Thr Tyr
20 25 30

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

Tyr Ala Ala Ser Ile Leu Gln Ser Gly Val Pro Ser Ser 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 Thr Tyr Ser Thr Pro His
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
100 105

<210> 235
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 235

Arg Ala Ser Gln Ser Val Ile Thr Tyr Leu Asn

1 5 10

<210> 236

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 236

cgggcaagtc agagcggttat cacctattta aat

33

<210> 237

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 237

Ala Ala Ser Ile Leu Gln Ser

1 5

<210> 238

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 238

gctgcttcca ttttgcaaag t

21

<210> 239
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 239
 Gln Gln Thr Tyr Ser Thr Pro His Thr
 1 5

<210> 240
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 240
 caacagactt acagtacccc tcatact 27

<210> 241
 <211> 363
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 241
 gaggtgcagc tgggtggagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggtta cacctttgcc aactatggta tcacctgggt gcgacaggcc 120
 cctggacaag ggcttgagta catgggatgg atcagcgctt acaatggtaa cacaaactat 180
 gcacagaagt tccagggcag agtcaccatg accacggaca catccacgag cacagcgtac 240
 atggagctga ggagcctgag atctgacgac acggccattt attactgtgc gagagatccc 300
 ggtgttacgg ctgctgtgct acttgactac tggggccagg gagccctggt caccgtctcc 360

tca

363

<210> 242

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 242

Glu Val Gln Leu Val Glu 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 Ala Asn Tyr
 20 25 30

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

Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 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 Ile Tyr Tyr Cys
 85 90 95

Ala Arg Asp Pro Gly Val Thr Ala Ala Val Leu Leu Asp Tyr Trp Gly
 100 105 110

Gln Gly Ala Leu Val Thr Val Ser Ser
 115 120

<210> 243

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 243

Tyr Thr Phe Ala Asn Tyr Gly Ile Thr

1 5

<210> 244

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 244

tacacctttg ccaactatgg tacc

27

<210> 245

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 245

Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe Gln

1 5 10 15

Gly

<210> 246

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 246
 tggatcagcg cttacaatgg taacacaaac tatgcacaga agttccaggg c 51

<210> 247
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 247
 Ala Arg Asp Pro Gly Val Thr Ala Ala Val Leu Leu Asp Tyr
 1 5 10

<210> 248
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 248
 gcgagagatc ccggtgttac ggctgctgtg ctacttgact ac 42

<210> 249
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 249
 gatatttgtt tgaccagtc tccactctcc ctgcccgtca cccttgga gccggcctcc 60
 atctcctgca ggtctagtca aagcctcgta ttcagtgatg gaaacaccta cttgagttgg 120
 tttcagcaga ggccaggcca atctccaagg cgcctacttt ataaggtttc taaccgggac 180
 tctgggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgacaatc 240

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agcagggtgg aggctgagga tgttgggggtt tattactgct tgcaaggtag acccccttac 300

acttttggcc aggggaccaa agtggatatac aaa 333

<210> 250

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 250

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

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

Asp	Gly	Asn	Thr	Tyr	Leu	Ser	Trp	Phe	Gln	Gln	Arg	Pro	Gly	Gln	Ser
		35					40					45			

Pro	Arg	Arg	Leu	Leu	Tyr	Lys	Val	Ser	Asn	Arg	Asp	Ser	Gly	Val	Pro
	50					55					60				

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

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

Thr	Pro	Pro	Tyr	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Asp	Ile	Lys
			100					105					110	

<210> 251

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

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light chain variable region CDR L1"

<400> 251

Arg Ser Ser Gln Ser Leu Val Phe Ser Asp Gly Asn Thr Tyr Leu Ser
1 5 10 15

<210> 252

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 252

aggtctagtc aaagcctcgt attcagtgat ggaaacacct acttgagt

48

<210> 253

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 253

Lys Val Ser Asn Arg Asp Ser
1 5

<210> 254

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 254

aaggtttcta accgggactc t

21

<210> 255

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 255

Leu Gln Gly Thr Pro Pro Tyr Thr

1

5

<210> 256

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 256

ttgcaaggta caccctta cact

24

<210> 257

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 257

caggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaagtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt agctatccta tgcactgggt ccgccaggct 120

ccaggcgagg ggctggagtg gatggccgta atctcatatg atggagccaa taaatactat 180

gaagactcct taaagggccg attcaccatc tccagagaca attccaagga cactctgttt 240

ctgcaaata acaacctgag acctgaggac acggctgtct attactgtgc gagagggagg 300

acttcgcata taaatacacc cgagactaag tggggccagg gaaccttggt caccgtctcc 360

tca 363

<210> 258
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 258
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Lys
 1 5 10 15

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

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

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

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

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

Ala Arg Gly Arg Thr Ser His Ile Asn Thr Pro Glu Thr Lys Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 259
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

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heavy chain variable region CDR H1"

<400> 259

Phe Thr Phe Ser Ser Tyr Pro Met His
1 5

<210> 260

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 260

ttcaccttca gtagctatcc tatgcac

27

<210> 261

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 261

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

Gly

<210> 262

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 262

gtaatctcat atgatggagc caataaatac tatgaagact ccttaaaggg c

51

<210> 263
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 263
 Ala Arg Gly Arg Thr Ser His Ile Asn Thr Pro Glu Thr Lys
 1 5 10

<210> 264
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 264
 gcgagaggga ggacttcgca tataaatata cccgagacta ag 42

<210> 265
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 265
 gaaattgtgt tgacgcagtc tccaacctta gtgtctgcat ctacaggaga cacagtcacc 60
 atcagttgcc ggatgagtca gggcattaac ggttatttag cctggtttca gaaaaaacca 120
 gggaaagccc ctgacctcct gatctatggt gcatccactt tgcaagatgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttactctca ccatcagtcg cctgcagtct 240
 gaagatttgg caacttatta ttgtcaacag tattacagtt tgccgtggac gttcggccaa 300

gggaccaaag tggatatcaa a

<210> 266
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 266
 Glu Ile Val Leu Thr Gln Ser Pro Thr Leu Val Ser Ala Ser Thr Gly
 1 5 10 15

Asp Thr Val Thr Ile Ser Cys Arg Met Ser Gln Gly Ile Asn Gly Tyr
 20 25 30

Leu Ala Trp Phe Gln Lys Lys Pro Gly Lys Ala Pro Asp Leu Leu Ile
 35 40 45

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

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

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

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
 100 105

<210> 267
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 267

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

<210> 268

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 268

cggatgagtc agggcattaa cggttattta gcc

33

<210> 269

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 269

Gly Ala Ser Thr Leu Gln Asp
 1 5

<210> 270

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 270

ggtgcatcca ctttgcaaga t

21

<210> 271

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 271

Gln Gln Tyr Tyr Ser Leu Pro Trp Thr

1 5

<210> 272

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 272

caacagtatt acagtttgcc gtggacg

27

<210> 273

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 273

caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata cagcttcacc gactactata tacactgggt gcgacaggcc 120

cctggacaag ggcttgagtg gataggatgg atcaacccta acagtgggtg cacaaccttt 180

gcacagaact ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagccttc 240

ctggagctga gcaggctaaa atctgacgac acggccgtat attattgtgc gagagacgtt 300

ctctggttaa acggattctg gggcctggga accctgggtca ccgtctcttc a 351

<210> 274

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 274

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 Ser Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Thr Phe Ala Gln Asn Phe
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 275

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 275

Tyr Ser Phe Thr Asp Tyr Tyr Ile His

1

5

<210> 276
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 276
 tacagcttca ccgactacta tatacac

27

<210> 277
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 277
 Trp Ile Asn Pro Asn Ser Gly Gly Thr Thr Phe Ala Gln Asn Phe Gln
 1 5 10 15

Gly

<210> 278
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 278
 tggatcaacc ctaacagtgg tggcacaacc tttgcacaga actttcaggg c

51

<210> 279
 <211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 279

Ala	Arg	Asp	Val	Leu	Trp	Leu	Asn	Gly	Phe
1				5				10	

<210> 280

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 280

gcgagagacg	ttctctgggtt	aaacggattc	30
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<210> 281

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 281

cagtctgtgg	tgacgcagcc	gccctcagt	tctgcggccc	caggacagaa	ggtcaccatc	60
tcctgctctg	gaagcagctc	caacattggg	aataattatg	tatcctggta	tcagcagttc	120
cgaggaacag	cccccaaagt	cctcatttat	gaaaataata	agcgaacctc	agggattcct	180
gaccgattct	ctggctccaa	gtctggcacg	tcagccaccc	tgggcatcac	cggactccag	240
actgggggacg	aggccgatta	ttactgcgga	acatgggata	gcagcctgag	tactggcccc	300
tatgtggtat	tcggcggagg	gaccaagctg	accgtccta			339

<210> 282

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 282
 Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
 1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
 20 25 30

Tyr Val Ser Trp Tyr Gln Gln Phe Arg Gly Thr Ala Pro Lys Val Leu
 35 40 45

Ile Tyr Glu Asn Asn Lys Arg Thr Ser Gly Ile Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Gly Ile Thr Gly Leu Gln
 65 70 75 80

Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp Ser Ser Leu
 85 90 95

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

Leu

<210> 283
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 283

Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn Tyr Val Ser
 1 5 10

<210> 284

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 284

tctggaagca gctccaacat tgggaataat tatgtatcc

39

<210> 285

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 285

Glu Asn Asn Lys Arg Thr Ser
 1 5

<210> 286

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 286

gaaaataata agcgaacctc a

21

<210> 287

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 287

Gly Thr Trp Asp Ser Ser Leu Ser Thr Gly Pro Tyr Val Val
1 5 10

<210> 288

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 288

ggaacatggg atagcagcct gagtactggc ccctatgtgg ta

42

<210> 289

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 289

caggtccagc tggtgcagtc tggggctgag gcgaagaagc ctggggcctc agtgaaggtt 60

tcctgtaagg catctggata tacctttacc agctactatt tgcaactgggt gcgacaggcc 120

cctggacaag ggcctgagtg gatgggaata atcaaccctg gtggtggttag cacagagttg 180

tcacagaagt tccagggcag agtcaccttg actagggaca cgtccacgag cacagtctac 240

atggaggtga ccagcctgac atctgaggac acggccgtct attactgtgc gagagcccgg 300

atacagctct gggcaccaaa ttactacggt atggacgtct ggggccaaagg gaccacggtc 360

accgtctctt ca 372

<210> 290

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<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 290

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Ala 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

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

Gly Ile Ile Asn Pro Gly Gly Gly Ser Thr Glu Leu Ser Gln Lys Phe
50 55 60

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

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

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

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

<210> 291

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 291

Tyr Thr Phe Thr Ser Tyr Tyr Leu His

1 5

<210> 292

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 292

tataacctta ccagctacta ttgacac

27

<210> 293

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 293

Ile Ile Asn Pro Gly Gly Gly Ser Thr Glu Leu Ser Gln Lys Phe Gln

1 5 10 15

Gly

<210> 294

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 294

ataatcaacc ctggtggtgg tagcacagag ttgtcacaga agttccaggg c

51

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<210> 295
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 295
 Ala Arg Ala Arg Ile Gln Leu Trp Ala Pro Asn Tyr Tyr Gly Met Asp
 1 5 10 15

Val

<210> 296
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 296
 gcgagagccc ggatacagct ctgggcacca aattactacg gtatggacgt c 51

<210> 297
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 297
 gacatccagt tgaccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggccagtca tggcattacc agttatttag cctgggtatca gcaaaaacca 120
 gggaatgccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtgggtc tgagacacag ttcactctca caatcagcgg cctgcagcct 240

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gaagattttg caacttatta ctgtcaacag cttaatcgtt accctctaac gttcggccaa 300

gggaccaagg tggaaatcaa a 321

<210> 298

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 298

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Arg Tyr Pro Leu
85 90 95

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

<210> 299

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L1"

<400> 299

Arg Ala Ser His Gly Ile Thr Ser Tyr Leu Ala
1 5 10

<210> 300

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 300

cgggccagtc atggcattac cagttattta gcc

33

<210> 301

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 301

Ala Ala Ser Thr Leu Gln Ser
1 5

<210> 302

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 302

gctgcatcca ctttgcaaag t

21

<210> 303

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 303

Gln Gln Leu Asn Arg Tyr Pro Leu Thr

1

5

<210> 304

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 304

caacagctta atcgttaccc tctaacg

27

<210> 305

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 305

caggtccagc ttgtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaagatc 60

tcctgcaaga cctctggtta cacctttacg agctctgtga tcagctgggt gcggcaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaccggtc acagaagtag cacaaactat 180

gcacagagac tccagggtag agtcaccatg accacagaca catccacgag cacagcctat 240

atggagctga ggagcctgag gtctgacgac acggccgtgt attactgtgc gagagccgat 300

ggtaggttcgg ggagttatta tagcgcctgg ggccaggga ccctgggtcac cgtctcctca 360

<210> 306

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<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 306

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 307

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 307

Tyr Thr Phe Thr Ser Ser Val Ile Ser

1 5

<210> 308

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 308

tacaccttta cgagctctgt gatcagc

27

<210> 309

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 309

Trp Ile Thr Gly His Arg Ser Ser Thr Asn Tyr Ala Gln Arg Leu Gln

1 5 10 15

Gly

<210> 310

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 310

tggatcaccg gtcacagaag tagcacaac tatgcacaga gactccaggg t

51

<210> 311
 <211> 13
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 311
 Ala Arg Ala Asp Gly Gly Ser Gly Ser Tyr Tyr Ser Ala
 1 5 10

<210> 312
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 312
 gcgagagccg atggtggttc ggggagttat tatagcgcc 39

<210> 313
 <211> 324
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 313
 tcctatgagc tgacacagcc accctcagcg tcagtggccc caggaaagac ggccaggatc 60
 tcctgtgggg gaaacaacat tggaactaag agtgtccact ggtaccagca gaagccaggc 120
 caggcccctg tcttggtcat ctatcatgat agccaccggc cctcagggat ccctgagcga 180
 ttctctggct ccaactctgg gaacacggcc accctgacca tcagtagggt cgaagccggg 240
 gatgaggccg actattattg tcagctgtgg gatagtagta gtgattccca tgtcttcgga 300
 actgggacca agctcaccgt ccta 324

<210> 314
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 314
 Ser Tyr Glu Leu Thr Gln Pro Pro Ser Ala Ser Val Ala Pro Gly Lys
 1 5 10 15

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

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

His Asp Ser His Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
 50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Gln Leu Trp Asp Ser Ser Ser Asp Ser
 85 90 95

His Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
 100 105

<210> 315
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 315
 Gly Gly Asn Asn Ile Gly Thr Lys Ser Val His

1

5

10

<210> 316
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 316
gggggaaaca acattggaac taagagtgtc cac

33

<210> 317
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 317
His Asp Ser His Arg Pro Ser
1 5

<210> 318
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 318
catgatagcc accggccctc a

21

<210> 319
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 319

Gln Leu Trp Asp Ser Ser Ser Asp Ser His Val

1

5

10

<210> 320

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 320

cagctgtggg atagtagtag tgattcccat gtc

33

<210> 321

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 321

caggtgcagc tggtgcagtc tgggggaggc ctggtcaagc ctggggggtc cctgagactc 60

tcctgtgcag cctcgggatt caccatcagt gggtataaca tgttctgggt ccgccagcct 120

ccggggaagg ggctggagtg ggtctcatcc attactgctg gtagtagtta tttaaactat 180

gcagactcag tgaagggccg tttcatcgtc tccagagaca acgccaagaa ttcactgtat 240

ctgcaaatga acagcctgag agccgaggac acggctgttt atttctgtgc gagagcacct 300

cttttaccg ctatgatgga cctctggggc caagggacca cggtcaccgt ctctca 357

<210> 322

<211> 119

<212> PRT

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 322

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

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

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

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

Lys Gly Arg Phe Ile Val 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 Val Tyr Phe Cys
85 90 95

Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 323

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 323

Phe Thr Ile Ser Gly Tyr Asn Met Phe
1 5

<210> 324
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 324
 ttcacatca gtggttataa catgttc

27

<210> 325
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 325
 Ser Ile Thr Ala Gly Ser Ser Tyr Leu Asn Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 326
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 326
 tccattactg ctggtagtag ttatttaaac tatgcagact cagtgaaggg c

51

<210> 327
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 327

Ala	Arg	Ala	Pro	Leu	Leu	Pro	Ala	Met	Met	Asp	Leu
1				5					10		

<210> 328

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 328

gcgagagcac ctcttttacc cgctatgatg gacctc

36

<210> 329

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 329

cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcaa 120

cttccaggaa cagcccccaa actcctcatc tataactaaca acaatcggcc ctgaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ctattactgc cagtcctatg acagaagcct gaatggttat 300

gtcttcggaa ctgggaccaa gctcaccgtc cta 333

<210> 330

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 330

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

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Arg Ser
85 90 95

Leu Asn Gly Tyr Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 331

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 331

Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 332

<211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 332
 actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 333
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 333
 Thr Asn Asn Asn Arg Pro Ser
 1 5

<210> 334
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 334
 actaacaaca atcggccctc a

21

<210> 335
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 335

Gln Ser Tyr Asp Arg Ser Leu Asn Gly Tyr Val

1

5

10

<210> 336

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 336

cagtcctatg acagaagcct gaatggttat gtc

33

<210> 337

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 337

caggtccagc ttgtacagtc tggggctgag gtgaagaagc ctggggcctc actgatggtc 60

tcctgctcgg cttctggata cattttcaac agtgacatca actgggtgcg acaggcccct 120

ggacaagggc ttgagtggat ggggtggatg aaccctaaga atggtcacac aggctatgca 180

caggaattcg agggcagagt cagcatgacc aggaactcct ccaaaactat tgcctatctg 240

cagctgagca gcctgacata tgaagacacg gccgtctatt attgtgttta cgatttctgg 300

agtgatgatt cagtcaagtg gggccgggga accctgggtca ccgtctcctc a 351

<210> 338

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

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<400> 338

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

Ser Leu Met Val Ser Cys Ser Ala Ser Gly Tyr Ile Phe Asn Ser Asp
20 25 30

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

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

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

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

Tyr Asp Phe Trp Ser Asp Asp Ser Val Lys Trp Gly Arg Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 339

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 339

Tyr Ile Phe Asn Ser Asp Ile Asn
1 5

<210> 340

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 340

tacattttca acagtgacat caac

24

<210> 341

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 341

Trp	Met	Asn	Pro	Lys	Asn	Gly	His	Thr	Gly	Tyr	Ala	Gln	Glu	Phe	Glu
1				5					10					15	

Gly

<210> 342

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 342

tggatgaacc ctaagaatgg tcacacaggc tatgcacagg aattcgaggg c

51

<210> 343

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
heavy chain variable region CDR H3"

<400> 343

Val Tyr Asp Phe Trp Ser Asp Asp Ser Val Lys
1 5 10

<210> 344

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 344

gtttacgatt tctggagtga tgattcagtc aag 33

<210> 345

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 345

cagtctgtgg tgacgcagcc gccctcagtg tctggggccc cagggcagag tgtcgccatc 60

tcctgctctg ggagcagctc caacatcggg ccaggttatg atgtacactg gtaccagcaa 120

cttccgggat cagcccccaa actcctcatc tacggtgaca acaatcggcc ctccaggggtc 180

cctgagcgat tctctacctc caagtctggc acctcagcct cactggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctttg acagcagcct gcgtgggttat 300

gtcttcggaa ctgggaccaa ggtgaccgtc cta 333

<210> 346

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 346

Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Ser Val Ala Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Pro Gly
20 25 30

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

Leu Ile Tyr Gly Asp Asn Asn Arg Pro Ser Gly Val Pro Glu Arg Phe
50 55 60

Ser Thr Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Phe Asp Ser Ser
85 90 95

Leu Arg Gly Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 347

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region CDR L1"

<400> 347

Ser Gly Ser Ser Ser Asn Ile Gly Pro Gly Tyr Asp Val His
1 5 10

<210> 348

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 348

tctgggagca gctccaacat cgggccaggt tatgatgtac ac

42

<210> 349

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 349

Gly Asp Asn Asn Arg Pro Ser

1 5

<210> 350

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 350

ggtgacaaca atcggcctc a

21

<210> 351

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 351

Gln Ser Phe Asp Ser Ser Leu Arg Gly Tyr Val

1 5 10

<210> 352
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 352
 cagtcctttg acagcagcct gcgtggttat gtc 33

<210> 353
 <211> 381
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 353
 caggtccagc tggtagcagtc tggagcagcg gtgaaaaagc ccggggagtc tctgaagatc 60
 tcctgtaagg gtttttgata cagctttacc aagtattgga tcggctgggt gcgccaggtg 120
 cccgggaaag gcctggagtg gatagggatc atctctccta ctgactctaa taccagatac 180
 agcccgtcct tccgaggcca ggtagccatg tcagccgaca agtccatcag tgccgcctac 240
 ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacacagc 300
 agtccgtata gcagtggctg gtacggagat acatacttct ttgactcctg gggccaggga 360
 accctgggtca ccgtctcctc a 381

<210> 354
 <211> 127
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 354

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg His Ser Ser Pro Tyr Ser Ser Gly Trp Tyr Gly Asp Thr Tyr
100 105 110

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

<210> 355

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 355

Tyr Ser Phe Thr Lys Tyr Trp Ile Gly
1 5

<210> 356

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 356

tacagcttta ccaagtattg gatcggc

27

<210> 357

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 357

Ile	Ile	Ser	Pro	Thr	Asp	Ser	Asn	Thr	Arg	Tyr	Ser	Pro	Ser	Phe	Arg
1				5				10					15		

Gly

<210> 358

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 358

atcatctctc ctactgactc taataccaga tacagcccgt ccttccgagg c

51

<210> 359

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

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<400> 359

Ala Arg His Ser Ser Pro Tyr Ser Ser Gly Trp Tyr Gly Asp Thr Tyr
1 5 10 15

Phe Phe Asp Ser
20

<210> 360

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 360

gcgagacaca gcagtccgta tagcagtggc tggtagcgag atacatactt ctttgactcc 60

<210> 361

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 361

cagcctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60

tcttgttctg gaagcaactc caacatcggg actaatactg tgaactggta ccagcagctc 120

cctggaacgg cccccaaagt cctcatccat aataataatg agcggccctc aggggtccct 180

gaccgattct ctggctcaa gtctggcacc tcagcctccc tggccatcag tgggctccag 240

tctgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag aggttatgtc 300

ttcggaactg ggaccaaggt gaccgtccta 330

<210> 362

<211> 110

<212> PRT

<213> Artificial Sequence

2009186_0217_SL

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 362

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

Arg Val Thr Ile Ser Cys Ser Gly Ser Asn Ser Asn Ile Gly Thr Asn
20 25 30

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

Ile His Asn Asn Asn Glu Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

Arg Gly Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 363

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 363

Ser Gly Ser Asn Ser Asn Ile Gly Thr Asn Thr Val Asn
1 5 10

<210> 364

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 364

tctggaagca actccaacat cgggactaat actgtgaac

39

<210> 365

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 365

Asn Asn Asn Glu Arg Pro Ser

1 5

<210> 366

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 366

aataataatg agcggccctc a

21

<210> 367

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 367

Ala Ala Trp Asp Asp Ser Leu Arg Gly Tyr Val

<210> 368
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 368
 gcagcatggg atgacagcct gagaggttat gtc 33

<210> 369
 <211> 390
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 369
 caggtgcagc tggtgcaatc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
 tcctgcaagg cttctggagg caccttcggc agctatgcta tcagctgggt gcgacaggcc 120
 cctggacaag gacttgagtg gatgggaggg accatcccta tctttggtac agcagaccac 180
 gcacagaagt tccagggcag agtcacgata accgcggaca aatccacgag cacagcgtac 240
 atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc gagaggtgtt 300
 ttccgcgtag gttgtagtga taccagctgc ctcaaaaact actacggtac ggacgtctgg 360
 ggccaaggga ccacggtcac cgtctcctca 390

<210> 370
 <211> 130
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

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<400> 370

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

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

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

Gly Gly Thr Ile Pro Ile Phe Gly Thr Ala Asp His Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Gly Val Phe Arg Val Gly Cys Ser Asp Thr Ser Cys Leu Lys
100 105 110

Asn Tyr Tyr Gly Thr Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
115 120 125

Ser Ser
130

<210> 371

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 371

Gly Thr Phe Gly Ser Tyr Ala Ile Ser
1 5

<210> 372
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 372
 ggacaccttcg gcagctatgc tatcagc

27

<210> 373
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 373
 Gly Thr Ile Pro Ile Phe Gly Thr Ala Asp His Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 374
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 374
 gggaccatcc ctatctttgg tacagcagac cacgcacaga agttccaggg c

51

<210> 375
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 375

Ala	Arg	Gly	Val	Phe	Arg	Val	Gly	Cys	Ser	Asp	Thr	Ser	Cys	Leu	Lys
1				5				10						15	

Asn	Tyr	Tyr	Gly	Thr	Asp	Val
			20			

<210> 376

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 376

gcgagaggtg	ttttccgcgt	aggttgtagt	gataccagct	gcctcaaaaa	ctactacggt	60
------------	------------	------------	------------	------------	------------	----

acggacgtc	69
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<210> 377

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 377

cagtctgttc	tgattcagcc	tgccctccgtg	tctgggtctc	ctggacagtc	gatcacgcgc	60
------------	------------	-------------	------------	------------	------------	----

tcctgcactg	gatccagcgg	tgacgttggt	gcttataagt	atgtctcctg	gtaccaacaa	120
------------	------------	------------	------------	------------	------------	-----

cacccaggca	gaggcccaa	actcataatt	tatgatgtca	gtgctcggcc	ctcagggatt	180
------------	-----------	------------	------------	------------	------------	-----

tctgatcgct	tctctggctc	caagtctggc	aacacggcct	ccctgaccat	ctctggggctc	240
------------	------------	------------	------------	------------	-------------	-----

caggctgagg	acgaggctga	ctattactgc	agctcatatt	caagcagcag	cactctcgta	300
------------	------------	------------	------------	------------	------------	-----

gtattcggcg gagggaccaa ggtgaccgtc cta

<210> 378

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 378

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

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

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

Ile Ile Tyr Asp Val Ser Ala Arg Pro Ser Gly Ile Ser Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Ser Ser Ser
85 90 95

Ser Thr Leu Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 379

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 379

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

<210> 380

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 380

actggatcca gcggtgacgt tgggtgcttat aagtatgtct cc

42

<210> 381

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 381

Asp Val Ser Ala Arg Pro Ser
 1 5

<210> 382

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 382

gatgtcagtg ctcggccctc a

21

<210> 383

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 383

Ser	Ser	Tyr	Ser	Ser	Ser	Ser	Thr	Leu	Val	Val
1				5					10	

<210> 384

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 384

agctcatatt caagcagcag cactctcgta gta

33

<210> 385

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 385

caggtccagc tggtgcagtc tgggggaggg ttggtgcagc ctgggggggtc cctgagactc 60

tcttgtgtag gctctggatt caccttcagt acctatagta tgaactgggt ccgtcaggct 120

ccagggaagg ggctggagtg ggtttcacac attagtagta gtagtggttac catgtactac 180

gcagactttg tgaagggccg attcaccatc tccagagaca atgccaagaa ctactgtat 240

ctgcaaataa ccagcctgag agccgaggac acggctgtgt attactgtgc gagagatgcg 300

ggaccagttt ggagtgggta ttacgactac ggtatggacg tctggggcca agggaccacg 360

gtcactgtct cctca 375

<210> 386

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<211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 386
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

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

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

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

Ala Arg Asp Ala Gly Pro Val Trp Ser Gly Tyr Tyr Asp Tyr Gly Met
 100 105 110

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

<210> 387
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 387

Phe Thr Phe Ser Thr Tyr Ser Met Asn

1

5

<210> 388

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 388

ttcaccttca gtacctatag tatgaac

27

<210> 389

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 389

His Ile Ser Ser Ser Ser Val Thr Met Tyr Tyr Ala Asp Phe Val Lys

1

5

10

15

Gly

<210> 390

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 390

cacattagta gtagtagtgt taccatgtac tacgcagact ttgtgaaggg c

51

<210> 391
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 391
 Ala Arg Asp Ala Gly Pro Val Trp Ser Gly Tyr Tyr Asp Tyr Gly Met
 1 5 10 15

Asp Val

<210> 392
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 392
 gcgagagatg cgggaccagt ttggagtggg tattacgact acggtatgga cgtc 54

<210> 393
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 393
 gaaacgacac tcacgcagtc tccagccacg ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagggttagc agcctcttag cctgggtacca acagaaacct 120
 ggccaggctc ccaggctcct cttttttgat gcatccaaga gggccactgg catcccagcc 180
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240

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gaagattttg cagtctatta ctgtcagcag cgttacaact ggcctccgct cactttcggc 300

ggagggacca aggtggaaat caaa 324

<210> 394

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 394

Glu Thr Thr Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Leu
20 25 30

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

Phe Asp Ala Ser Lys Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Tyr Asn Trp Pro Pro
85 90 95

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

<210> 395

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

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light chain variable region CDR L1"

<400> 395

Arg Ala Ser Gln Ser Val Ser Ser Leu Leu Ala
1 5 10

<210> 396

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 396

agggccagtc agagtgttag cagcctctta gcc

33

<210> 397

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 397

Asp Ala Ser Lys Arg Ala Thr
1 5

<210> 398

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 398

gatgcatcca agagggccac t

21

<210> 399

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 399

Gln Gln Arg Tyr Asn Trp Pro Pro Leu Thr
1 5 10

<210> 400

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 400

cagcagcggtt acaactggcc tccgctcact 30

<210> 401

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 401

gaggtgcagc tgggtggagtc tggggggaggc ttgggtccagc ctggcaggctc cctgagactc 60

tcctgtgcag cttttggatt cacctttgat gattatgccca tgcactgggt ccggcaagct 120

ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggttt cataggctat 180

gcggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa ctccctgtct 240

ctgcaaataa acagtctgag aactgaggat acggccttgt attactgtgc aaaaactgat 300

ggagcagtgg ctgtcgacgg gccctttgac tactggggcc aggggaaccct ggtcaccgtc 360

tcctca 366

<210> 402
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 402
 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 Phe 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 Trp Asn Ser Gly Phe Ile Gly Tyr Ala Asp Ser Val
 50 55 60

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

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

Ala Lys Thr Asp Gly Ala Val Ala Val Asp Gly Pro Phe Asp Tyr Trp
 100 105 110

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

<210> 403
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

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heavy chain variable region CDR H1"

<400> 403

Phe Thr Phe Asp Asp Tyr Ala Met His
1 5

<210> 404

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 404

ttcacctttg atgattatgc catgcac

27

<210> 405

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 405

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

Gly

<210> 406

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 406

ggtattagtt ggaatagtgg tttcataggc tatgcggact ctgtgaaggg c

51

<210> 407
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 407
 Ala Lys Thr Asp Gly Ala Val Ala Val Asp Gly Pro Phe Asp Tyr
 1 5 10 15

<210> 408
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 408
 gcaaaaactg atggagcagt ggctgtcgac gggcccttg actac 45

<210> 409
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 409
 gaaattgtgt tgacacagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagc ggctatttaa gttggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatccattct acatctagtt tgcaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttactctca ccatcaccag tctgcaacct 240
 gaggattttg caacttacta ctgtcaacag agttacattg cccctccgac ttttggccag 300

gggaccaagg tggaaatcaa a

<210> 410
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 410
 Glu Ile Val Leu 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 Ser Ile Ser Gly Tyr
 20 25 30

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

His Ser Thr 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 Thr Ser Leu Gln Pro
 65 70 75 80

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

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

<210> 411
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 411

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

<210> 412

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 412

cgggcaagtc agagcattag cggctattta agt

33

<210> 413

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 413

Ser Thr Ser Ser Leu Gln Ser
 1 5

<210> 414

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 414

tctacatcta gtttgcaaag t

21

<210> 415

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 415

Gln Gln Ser Tyr Ile Ala Pro Pro Thr

1 5

<210> 416

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 416

caacagagtt acattgcccc tccgact

27

<210> 417

<211> 348

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 417

caggtccagc tggtagagtc tggggctgag gtgaagaagc ctgggtcctc gatgaaggtc 60

tcctgccagg cttctggagg ccccttcagc acctatacta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaggt atcatccctg tctttggtac accaaactac 180

gcgcagaagt tccacggcag agtcacgatt accgcggacc aatccacgag cacagcctac 240

atggagttga gtagcctgag atctgaggac accgccgttt attactgtgc gggagccccc 300

taccctatgg acgtctgggg ccaagggacc acggtcaccg tctcctca 348

<210> 418

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 418

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

Ser Met Lys Val Ser Cys Gln Ala Ser Gly Gly Pro Phe Ser Thr Tyr
20 25 30

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

Gly Gly Ile Ile Pro Val Phe Gly Thr Pro Asn Tyr Ala Gln Lys Phe
50 55 60

His Gly Arg Val Thr Ile Thr Ala Asp Gln Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Ala Gly Ala Pro Tyr Pro Met Asp Val Trp Gly Gln Gly Thr Thr Val
100 105 110

Thr Val Ser Ser
115

<210> 419

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 419

Gly Pro Phe Ser Thr Tyr Thr Ile Ser

1

5

<210> 420
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 420
 ggccccttca gcacctatac tatcagc

27

<210> 421
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 421
 Gly Ile Ile Pro Val Phe Gly Thr Pro Asn Tyr Ala Gln Lys Phe His
 1 5 10 15

Gly

<210> 422
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 422
 ggtatcatcc ctgtcttttg tacaccaaac tacgcgcaga agttccacgg c

51

<210> 423
 <211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 423

Ala Gly Ala Pro Tyr Pro Met Asp Val

1

5

<210> 424

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 424

gcgggagccc cctaccctat ggacgtc

27

<210> 425

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 425

gaaattgtat tgacacagtc tccagccacc ctgtctttgt ctccagggga gagagccacc 60

ctctcctgca gggccagtca gagtgttgcc agctccttag cctggtacca acagaaacct 120

ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180

aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240

gaagattttg cagtttatta ctgtcagcag cgtaccaact ggcaggggct ctctttcggc 300

ggagggacca aagtggatat caaa 324

<210> 426

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<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 426

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ala Ser Ser
20 25 30

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

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Thr Asn Trp Gln Gly
85 90 95

Leu Ser Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
100 105

<210> 427

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 427

Arg Ala Ser Gln Ser Val Ala Ser Ser Leu Ala
1 5 10

<210> 428
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 428
 agggccagtc agagtgttgc cagctcctta gcc

33

<210> 429
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 429
 Asp Ala Ser Asn Arg Ala Thr
 1 5

<210> 430
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 430
 gatgcatcca acagggccac t

21

<210> 431
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
light chain variable region CDR L3"

<400> 431

Gln Gln Arg Thr Asn Trp Gln Gly Leu Ser
1 5 10

<210> 432

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 432

cagcagcgta ccaactggca ggggctctct 30

<210> 433

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 433

cagggtccagc ttgtgcagtc tggaggtgag gtcaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttatc agttatggta tcacctgggt gcgacaggcc 120

cctggacaag ggcctgagtg gatgggatgg atcagccctt acaacggtga cacaactat 180

gcacagaagc tccagggcag agtcaccatg accacagaca catccacgac cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccatat attattgtgc gagacggtac 300

gatattttga ctggcggggg ctggttcgac tcctggggcc agggaaccct ggtcaccgtc 360

tcctca 366

<210> 434

<211> 122

<212> PRT

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 434

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

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

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

Gly Trp Ile Ser Pro Tyr Asn Gly Asp Thr Asn Tyr Ala Gln Lys Leu
50 55 60

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

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

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

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

<210> 435

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 435

Tyr Thr Phe Ile Ser Tyr Gly Ile Thr
1 5

<210> 436
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 436
 tacaccttta tcagttatgg tacc

27

<210> 437
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 437
 Trp Ile Ser Pro Tyr Asn Gly Asp Thr Asn Tyr Ala Gln Lys Leu Gln
 1 5 10 15

Gly

<210> 438
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 438
 tggatcagcc cttacaacgg tgacacaaac tatgcacaga agctccaggg c

51

<210> 439
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 439

Ala	Arg	Arg	Tyr	Asp	Ile	Leu	Thr	Gly	Gly	Gly	Trp	Phe	Asp	Ser
1				5				10					15	

<210> 440

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 440

gcgagacggg acgatatttt gactggcggg ggctgggttcg actcc

45

<210> 441

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 441

gatattgtga tgactcagtc tccttcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcaattgcc gggcaagtca gagcattatc agctatttaa attggtatca gcaaaaacca 120

gggaaagccc ctgagctcct aatctatgct gcgtccagtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagag ttcactctca ccatcagcag tctgcaacct 240

gaagattttg caacgtacta ctgtcaacag agttacagta cccctcttag tttcggcctt 300

gggaccaagg tggagatcaa a 321

<210> 442

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 442

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

Asp	Arg	Val	Thr	Ile	Asn	Cys	Arg	Ala	Ser	Gln	Ser	Ile	Ile	Ser	Tyr
			20					25					30		

Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Glu	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	Glu	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	Leu
				85					90					95	

Ser	Phe	Gly	Pro	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105		

<210> 443

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 443

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

<210> 444

<211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 444
 cgggcaagtc agagcattat cagctattta aat

33

<210> 445
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 445
 Ala Ala Ser Ser Leu Gln Ser
 1 5

<210> 446
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 446
 gctgcgtcca gtttgcaaag t

21

<210> 447
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 447

Gln Gln Ser Tyr Ser Thr Pro Leu Ser

1 5

<210> 448

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 448

caacagagtt acagtacccc tcttagt

27

<210> 449

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 449

caggtccagc ttgtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60

tcctgtaaga cttctggata caaatattacc aattactgga tcggctgggt gcgccagatg 120

cccgggaaaag gcctggagtg gatggggatc atctatcctg gtgactctga tgccagatac 180

agcccgtcct tccaaggcca ggtcaccttc tcagccgaca agtccatcag caccgcctac 240

ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacaagat 300

aacagtggct gggccgactt ctttcctttt gactactggg gccagggaac cctggtcacc 360

gtctcctca 369

<210> 450

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

2009186_0217_SL

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 450

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

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

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

Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ala Arg Tyr Ser Pro Ser Phe
50 55 60

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

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

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

<210> 451

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 451

Tyr Lys Phe Thr Asn Tyr Trp Ile Gly
1 5

<210> 452

<211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 452
 tacaaattta ccaattactg gatcggc

27

<210> 453
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 453
 Ile Ile Tyr Pro Gly Asp Ser Asp Ala Arg Tyr Ser Pro Ser Phe Gln
 1 5 10 15

Gly

<210> 454
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 454
 atcatctatc ctggtgactc tgatgccaga tacagcccgt ccttccaagg c

51

<210> 455
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>

2009186_0217_SL

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 455

Ala	Arg	Gln	Asp	Asn	Ser	Gly	Trp	Ala	Asp	Phe	Phe	Pro	Phe	Asp	Tyr
1				5				10					15		

<210> 456

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 456

gcgagacaag	ataacagtgg	ctgggccgac	ttcttttcct	ttgactac	48
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<210> 457

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 457

gaaacgacac	tcacgcagtc	tccaggcacc	ctgtctttgt	ctccagggga	aagagccacc	60
------------	------------	------------	------------	------------	------------	----

ctctcctgca	gggccagtca	cagtttttagc	agcagctact	tagcctggta	ccagcagaaa	120
------------	------------	-------------	------------	------------	------------	-----

cctggccagg	ctcccaggct	cctcatctat	gctgcatcca	acagggccac	tggcatccca	180
------------	------------	------------	------------	------------	------------	-----

gacaggttca	gtggcagtgg	gtctgggaca	gacttcactc	tcaccatcag	cagactggag	240
------------	------------	------------	------------	------------	------------	-----

cctgaagatt	ttgcagtgta	tttctgtcag	cagtatgata	gctcaccgtg	gacgttcggc	300
------------	------------	------------	------------	------------	------------	-----

caagggacca	aggtggagat	caaa				324
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<210> 458

<211> 108

<212> PRT

<213> Artificial Sequence

2009186_0217_SL

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 458

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser His Ser Phe Ser Ser Ser
20 25 30

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

Ile Tyr Ala Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 459

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 459

Arg Ala Ser His Ser Phe Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 460

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 460

agggccagtc acagtttttag cagcagctac ttagcc

36

<210> 461

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 461

Ala Ala Ser Asn Arg Ala Thr

1

5

<210> 462

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 462

gctgcatcca acagggccac t

21

<210> 463

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 463

Gln Gln Tyr Asp Ser Ser Pro Trp Thr

1

5

<210> 464
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 464
 cagcagtatg atagctcacc gtggacg 27

<210> 465
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 465
 gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaaatc cctgagactc 60
 tcctgtgccg cgtcgggatt catcttcagt ggctatggca tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcgttt atatggtttg atggaagttc tacatattat 180
 gcagactccg tgaagggccg tttcaccatc tccaaagacg attccaagca gacggtatat 240
 ttgcaaatga acaggctgag agccgaggac acggctgtct actactgtgc gagagacccc 300
 ttatTTTTat acaattataa tgacgaacct ttgactact ggggacaggg aaccctggtc 360
 accgtctcct ca 372

<210> 466
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

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<400> 466

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

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

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

Ala Phe Ile Trp Phe Asp Gly Ser Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Arg Asp Pro Leu Phe Leu Tyr Asn Tyr Asn Asp Glu Pro Phe Asp
100 105 110

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

<210> 467

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 467

Phe Ile Phe Ser Gly Tyr Gly Met His
1 5

<210> 468

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 468

ttcatcttca gtggctatgg catgcac

27

<210> 469

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 469

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

Gly

<210> 470

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 470

tttatatgggt ttgatggaag ttctacatat tatgcagact ccgtgaaggg c

51

<210> 471

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

2009186_0217_SL
heavy chain variable region CDR H3"

<400> 471

Ala Arg Asp Pro Leu Phe Leu Tyr Asn Tyr Asn Asp Glu Pro Phe Asp
1 5 10 15

Tyr

<210> 472

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 472

gcgagagacc cttattttt atacaattat aatgacgaac cttttgacta c 51

<210> 473

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 473

tcctatgagc tgacacagcc accctcagcg tctggttccc ccgggcagag cgtcaccatc 60

tcttgttctg gaagcagctc caatatcggg ggtaattttg tgtactggta ccagcaactg 120

cccggaacgg cccccaaagt cctcatctat aggaataatc agcggccctc aggggtccct 180

gaccgattct ctggctcaa gtctggcact tcagcctccc tggccatcag tgggctccgg 240

tccgacgatg aggctgatta ttattgttca gtatgggatg acagcctaaa tggtcggctg 300

ttcggcggag ggaccaagct gaccgtccta 330

<210> 474

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 474

Ser Tyr Glu Leu Thr Gln Pro Pro Ser Ala Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Gly Asn
20 25 30

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

Ile Tyr Arg Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg
65 70 75 80

Ser Asp Asp Glu Ala Asp Tyr Tyr Cys Ser Val Trp Asp Asp Ser Leu
85 90 95

Asn Gly Arg Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 475

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 475

Ser Gly Ser Ser Ser Asn Ile Gly Gly Asn Phe Val Tyr
1 5 10

<210> 476

<211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 476
 tctggaagca gctccaatat cgggggtaat tttgtgtac

39

<210> 477
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 477
 Arg Asn Asn Gln Arg Pro Ser
 1 5

<210> 478
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 478
 aggaataatc agcggccctc a

21

<210> 479
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

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<400> 479

Ser Val Trp Asp Asp Ser Leu Asn Gly Arg Leu
1 5 10

<210> 480

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 480

tcagtatggg atgacagcct aaatggtcgg ctg 33

<210> 481

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 481

gaggtgcagc tggtggagtc tgggggaggt gtggtccggc ctggggggtc cctgagactc 60

tcctgtgcag cctctggatt caagtttgat gattatggca tgagctgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctgca attatttgga atagtggtag cacaggttat 180

gcagactctg tgaagggccg attcatcatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga atagtctgag agccgaagac acggccttgt attactgtgc gagagtcggg 300

gggataacga agtggtggta ctacggtatg gacctctggg gccaaaggac cacggtcacc 360

gtctcctca 369

<210> 482

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

2009186_0217_SL

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 482

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Asp Asp Tyr
20 25 30

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

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

Lys Gly Arg Phe Ile 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 Arg Val Gly Gly Ile Thr Lys Trp Trp Tyr Tyr Gly Met Asp Leu
100 105 110

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

<210> 483

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 483

Phe Lys Phe Asp Asp Tyr Gly Met Ser
1 5

<210> 484

<211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 484
 ttcaagtttg atgattatgg catgagc

27

<210> 485
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 485
 Ala Ile Ile Trp Asn Ser Gly Ser Thr Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 486
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 486
 gcaattattt ggaatagtg tagcacaggt tatgcagact ctgtgaaggg c

51

<210> 487
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 487

Ala Arg Val Gly Gly Ile Thr Lys Trp Trp Tyr Tyr Gly Met Asp Leu
1 5 10 15

<210> 488

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 488

gcgagagtcg gggggataac gaagtgggtgg tactacggta tggacctc 48

<210> 489

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 489

gaaacgacac tcacgcagtc tccatccttc ctgtctgcat ctgtcggaga cagagtcacc 60

atcacttgcc gggccagtca gggcttgagc aattatttag cctgggtatca gcaaaaacca 120

gggagagccc ccaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180

aggttcagag gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240

gaagatcttg caacttatta ctgtcaacac cttaatagtt accctctcac tttcggcgga 300

gggaccaagg tggagatcaa a 321

<210> 490

<211> 107

<212> PRT

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 490

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

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

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

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

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

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

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

<210> 491

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 491

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

<210> 492

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 492

cgggccagtc agggcttgag caattattta gcc

33

<210> 493

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 493

Ala Ala Ser Thr Leu Gln Ser

1 5

<210> 494

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 494

gctgcatcca ctttgcaaag t

21

<210> 495

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 495

Gln His Leu Asn Ser Tyr Pro Leu Thr

1

5

<210> 496
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 496
 caacaccta atagttaccc tctcact 27

<210> 497
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 497
 gaggtgcagc tggtggagtc gggccccgga ctggtgaagc cttcggagac cctgtccctc 60
 atctgcagag tctttggtgg gtccgtcagg aggggggact acaactggaa ttggatccgg 120
 cagccccag ggaagggact ggagtggatt ggctatatcg attatagtgg gaccaccaag 180
 tacaatccct ccctcaagag ccgagtgacc atatcagaag acacgtccag gaatcagttc 240
 tccctggagc tgaggtctgt gaccgccgcg gacacggcca tgtattactg tgcgagagac 300
 gttggaagta ctccctacaa ctattacggt atggacgtct ggggccaagg gaccacggtc 360
 accgtctcct ca 372

<210> 498
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

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<400> 498

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

Thr Leu Ser Leu Ile Cys Arg Val Phe Gly Gly Ser Val Arg Arg Gly
20 25 30

Asp Tyr Asn Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Ile Gly Tyr Ile Asp Tyr Ser Gly Thr Thr Lys Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Asp Val Gly Ser Thr Pro Tyr Asn Tyr Tyr Gly Met Asp
100 105 110

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

<210> 499

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 499

Gly Ser Val Arg Arg Gly Asp Tyr Asn Trp Asn
1 5 10

<210> 500

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 500

gggtccgtca ggagggggga ctacaactgg aat

33

<210> 501

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 501

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

<210> 502

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 502

tatatcgatt atagtgggac caccaagtac aatccctccc tcaagagc

48

<210> 503

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 503

Ala Arg Asp Val Gly Ser Thr Pro Tyr Asn Tyr Tyr Gly Met Asp Val

<210> 504
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 504
 gcgagagacg ttggaagtac tccctacaac tattacggta tggacgtc 48

<210> 505
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 505
 gaaattgtgt tgacgcagtc tccaggcacc ctgtccttgt ctccagggga aagagccacc 60
 ctctcctgta gggccagtca gactattaaa aacaactact tagcctggta ccaacagaaa 120
 cctggccagg ctcccaggct cctcatgtat ggtgtatcca gcaggccgac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcagtc tcaccatcga cagactggag 240
 cctgaagatt ttgcagtata ttactgtcag cagtttggtta ggtcaccgga gctcactttc 300
 ggcgaggaggga ccaaggtgga aatcaaa 327

<210> 506
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 506

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

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

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

Met Tyr Gly Val Ser Ser Arg Pro Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Arg Ser Pro
85 90 95

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

<210> 507

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 507

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

<210> 508

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 508
 agggccagtc agactattaa aaacaactac ttagcc 36

<210> 509
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 509
 Gly Val Ser Ser Arg Pro Thr
 1 5

<210> 510
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 510
 ggtgtatcca gcaggccgac t 21

<210> 511
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 511
 Gln Gln Phe Gly Arg Ser Pro Glu Leu Thr
 1 5 10

<210> 512
 <211> 30
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 512

cagcagtttg gtaggtcacc ggagctcact

30

<210> 513

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 513

caggtgcagc tacagcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60

acctgcgctg tctatggtgg gtccttcagt ggttactact ggggctggat ccgccagccc 120

ccagggaagg ggctggagtg gattggggaa gtcaatcata gtggaacctc caattacaac 180

ccgtccctca cgagtcgagt caccatatca gtagaccctg ccaagaaaca gttgtccctg 240

aagctgaact ctgtgaccgc cgcggacacg gctgtctatt actgtgcgag agctccttgg 300

tatactcacg ccatggacgt ctggggccaa gggaccacgg tcaccgtctc ctca 354

<210> 514

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 514

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

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

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

Gly Glu Val Asn His Ser Gly Thr Ser Asn Tyr Asn Pro Ser Leu Thr
50 55 60

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

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

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

Thr Val Thr Val Ser Ser
115

<210> 515
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 515
Gly Ser Phe Ser Gly Tyr Tyr Trp Gly
1 5

<210> 516
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 516

gggtccttca gtggttacta ctggggc

27

<210> 517
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 517
 Glu Val Asn His Ser Gly Thr Ser Asn Tyr Asn Pro Ser Leu Thr Ser
 1 5 10 15

<210> 518
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 518
 gaagtcaatc atagtgaac ctccaattac aaccggtccc tcacgagt

48

<210> 519
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 519
 Ala Arg Ala Pro Trp Tyr Thr His Ala Met Asp Val
 1 5 10

<210> 520
 <211> 36
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 520

gcgagagctc cttggtatac tcacgccatg gacgtc

36

<210> 521

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 521

cagtctgtcc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcacta gaaccagcag tgacgttggt gcttatagtt atgtctcctg gtaccaacaa 120

cacccaggca aagcccccaa actcatgatt tatgatgtca ataatcggcc ctcagggggtt 180

tctaatacgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggctgagg acgaggctga ttattactgc agctcatata caaacagcaa cactctcggg 300

gtgttcggcg gagggaccaa gctgaccgtc cta 333

<210> 522

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 522

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

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

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

Met Ile Tyr Asp Val Asn Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Asn Ser
85 90 95

Asn Thr Leu Gly Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 523

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 523

Thr Arg Thr Ser Ser Asp Val Gly Ala Tyr Ser Tyr Val Ser
1 5 10

<210> 524

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 524

actagaacca gcagtgacgt tgggtgcttat agttatgtct cc

42

<210> 525

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 525

Asp Val Asn Asn Arg Pro Ser

1 5

<210> 526

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 526

gatgtcaata atcggcctc a

21

<210> 527

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 527

Ser Ser Tyr Thr Asn Ser Asn Thr Leu Gly Val

1 5 10

<210> 528

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 528

agctcatata caaacagcaa cactctcggg gtg

33

<210> 529

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 529

gaggtgcagc tggtggagtc tgggggactc gtggtacagc ctgggggggtc cctgagactg 60

tcctgtgcag cctctggatt catctttgat gattatacca tgactgggt ccgtcaagct 120

ccggggaagg gtctggagtg gatctctctt attagttggg atagtcttga cacatactat 180

gcaggctctg tgcagggccg cttcaccatc tccagagaca acagcagaaa ctccctctat 240

ctgcgaatga acagtctgag acctgaggac accgccttgt attactgtgc aaaaacaaag 300

tataggggta cttattacta ctttgactcg tggggccagg gaaccctgggt caccgtctcc 360

tca 363

<210> 530

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 530

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

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

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

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

Ala Lys Thr Lys Tyr Arg Gly Thr Tyr Tyr Tyr Phe Asp Ser Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 531
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 531
Phe Ile Phe Asp Asp Tyr Thr Met His
1 5

<210> 532
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 532
ttcatctttg atgattatac catgcac

27

<210> 533
<211> 17
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 533

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

Gly

<210> 534

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 534

cttattagtt gggatagtct tgacacatac tatgcaggct ctgtgcaggg c

51

<210> 535

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 535

Ala	Lys	Thr	Lys	Tyr	Arg	Gly	Thr	Tyr	Tyr	Tyr	Phe	Asp	Ser
1				5					10				

<210> 536

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 536

gcaaaaacaa agtatagggg tacttattac tactttgact cg

42

<210> 537

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 537

gacatccggg tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180

aggttcagtg gacgtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240

gaagatattg caacatatta ctgtcaacaa tatgataatc tccctccggt cactttcggc 300

cctgggacca aggtggaaat caaa 324

<210> 538

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 538

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

Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr
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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Pro
85 90 95

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

<210> 539
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 539
Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 540
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 540
caggcgagtc aggacattag caactattta aat

33

<210> 541
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 541

Asp Ala Ser Asn Leu Glu Thr

1 5

<210> 542

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 542

gatgcatcca atttgaaac a

21

<210> 543

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 543

Gln Gln Tyr Asp Asn Leu Pro Pro Val Thr

1 5 10

<210> 544

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 544

caacaatatg ataatctccc tccggtcact

30

<210> 545
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 545
 gaggtgcagc tggtggagtc tgggggaggc ctggtcaagc cggggggggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttcagt agttatggca tgcactgggt ccgccaggcg 120
 ccagggaagg ggctagagtg ggtctcatcc attactgctg gtagtagtta catggactac 180
 gcagactcag tgaagggccg attcaccgtc tccagagaca acggcaagaa ctactgtac 240
 ctgcaaataa acagcctgag agccgaggac acggctgtct acttctgtgc gagagaggac 300
 tatgatagtc gtgtttatta ccttaagtgg ttcgaccctt ggggccaggg aaccctggtc 360
 accgtctcct ca 372

<210> 546
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 546
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Lys 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
 Ser Ser Ile Thr Ala Gly Ser Ser Tyr Met Asp Tyr Ala Asp Ser Val
 50 55 60

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

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

Ala Arg Glu Asp Tyr Asp Ser Arg Val Tyr Tyr Leu Lys Trp Phe Asp
100 105 110

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

<210> 547
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 547
Phe Thr Phe Ser Ser Tyr Gly Met His
1 5

<210> 548
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 548
ttcaccttca gtagttatgg catgcac

27

<210> 549
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 549

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

Gly

<210> 550

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 550

tccattactg ctggtagtag ttacatggac tacgcagact cagtgaaggg c

51

<210> 551

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 551

Ala	Arg	Glu	Asp	Tyr	Asp	Ser	Arg	Val	Tyr	Tyr	Leu	Lys	Trp	Phe	Asp
1				5				10						15	

Pro

<210> 552

<211> 51

<212> DNA

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 552

gcgagagagg actatgatag tcgtgtttat taccttaagt ggttcgaccc c 51

<210> 553

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 553

cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag agtcaccatc 60

tcctgcactg ggagcagctc caacatcggg acaggttatg atgtacactg gtaccagcag 120

cttccaggat cagcccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctgggtc caagtctggc acctcagcct ccctggccat cactggggtc 240

caggctgagg atgaggctga ctattattgc cagtcctatg acagcagtcg gagtgggttat 300

gtcttcggaa ctgggaccaa gctgaccgtc cta 333

<210> 554

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 554

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

Arg	Val	Thr	Ile	Ser	Cys	Thr	Gly	Ser	Ser	Ser	Asn	Ile	Gly	Thr	Gly
			20					25					30		

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

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Arg Ser Gly Tyr Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 555
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 555
Thr Gly Ser Ser Ser Asn Ile Gly Thr Gly Tyr Asp Val His
1 5 10

<210> 556
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 556
actgggagca gctccaacat cgggacaggt tatgatgtac ac

42

<210> 557
<211> 7
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 557

Gly Asn Ser Asn Arg Pro Ser

1 5

<210> 558

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 558

ggtaacagca atcggcctc a

21

<210> 559

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 559

Gln Ser Tyr Asp Ser Ser Arg Ser Gly Tyr Val

1 5 10

<210> 560

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 560

cagtcctatg acagcagtcg gagtggttat gtc

33

<210> 561

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 561

gaggtgcagc tggtggagtc tgggggcgcc ttggtaaagc cggggggggtc ccttagactc 60

tcctgtgtag gcactggact cacttttact actgcctaca tgagctgggc ccgccaggct 120

ccagggaagg ggctggagtg ggttggtcgc attaagagca aaagtgatgg tgggacaaca 180

gagtacccta caccgtcaa aggcagattc accatctcaa gagatgaatc caaaaacacc 240

ctgtatctgc aaatgaacag cctgaaaatc gaggacacag ccgtctatta ttgtaccaca 300

gataggggga taacagctcg tcctatcttc gactcctggg gccagggaac cctggtcacc 360

gtctcctca 369

<210> 562

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 562

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

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Gly Arg Ile Lys Ser Lys Ser Asp Gly Gly Thr Thr Glu Tyr Pro Thr
50 55 60

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

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

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

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

<210> 563

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 563

Leu Thr Phe Thr Thr Ala Tyr Met Ser

1

5

<210> 564

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 564

ctcactttca ctactgccta catgagc

27

<210> 565

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 565

Arg	Ile	Lys	Ser	Lys	Ser	Asp	Gly	Gly	Thr	Thr	Glu	Tyr	Pro	Thr	Pro
1				5					10					15	

Val Lys Gly

<210> 566

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 566

cgcat	taaga	gcaaa	agtga	tggtg	gggaca	acaga	gtacc	ctaca	cccg	tcaa	aggc	57
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<210> 567

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 567

Thr	Thr	Asp	Arg	Gly	Ile	Thr	Ala	Arg	Pro	Ile	Phe	Asp	Ser
1				5					10				

<210> 568

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 568

accacagata gggggataac agctcgtcct atcttcgact cc

42

<210> 569

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 569

cagtctgtct tgacgcagcc gccctcagtg tctggggccc tagggcggag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacattg gtacaggcaa 120

cttccaggaa cagcccccaa actcctcatt tatggtaaca ccaaacggcc ctgagggtc 180

cctgaccgat tctctggctc caagtatgcc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgacgctga ttattactgc cagtcctatg acggcggcct gagggttat 300

gtcttcggaa ctggcaccca gctgaccgtc ctc 333

<210> 570

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 570

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

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

Tyr Asp Val His Trp Tyr Arg Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

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Leu Ile Tyr Gly Asn Thr Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Tyr Ala Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Asp Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Gly
85 90 95

Leu Ser Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu
100 105 110

<210> 571
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 571
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 572
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 572
actgggagca gctccaacat cggggcaggt tatgatgtac at

42

<210> 573
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 573

Gly Asn Thr Lys Arg Pro Ser

1 5

<210> 574

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 574

ggtaacacca aacggccctc a

21

<210> 575

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 575

Gln Ser Tyr Asp Gly Gly Leu Ser Gly Tyr Val

1 5 10

<210> 576

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 576

cagtcctatg acggcggcct gagtgttat gtc

33

<210> 577
 <211> 381
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 577
 caggtccagc ttgtgcagtc tgggggaggc ctggtcaggc ctgggggggtc cctgagactc 60
 tcctgtgcag cctctggatt catgttcagt acctacagca tgaactggct ccgcacggtc 120
 ccagggaagg ggctggagtg ggtctcatcc attagtggta gtagcagtca catatactac 180
 gcagactcag tgaagggccg attcaccatc tccagagaca acaccaagaa ctcactgtat 240
 ctgcaaatga acagcctgag acccgaagac acggctttat attactgtgc gagatatttt 300
 ggtgactact cagggttggg gaactactac tactacggta tggacgtctg gggccagggg 360
 accacgggtca ccgtctcctc a 381

<210> 578
 <211> 127
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 578
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Arg Pro Gly Gly
 1 5 10 15

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

Ser Met Asn Trp Leu Arg Thr Val Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ser Ile Ser Gly Ser Ser Ser His Ile Tyr Tyr Ala Asp Ser Val
 50 55 60

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

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

Ala Arg Tyr Phe Gly Asp Tyr Ser Gly Leu Gly Asn Tyr Tyr Tyr Tyr
100 105 110

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

<210> 579
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 579
Phe Met Phe Ser Thr Tyr Ser Met Asn
1 5

<210> 580
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 580
ttcatgttca gtacctacag catgaac

27

<210> 581
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 581

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

Gly

<210> 582

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 582

tccattagtg gtagtagcag tcacatatac tacgcagact cagtgaaggg c

51

<210> 583

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 583

Ala	Arg	Tyr	Phe	Gly	Asp	Tyr	Ser	Gly	Leu	Gly	Asn	Tyr	Tyr	Tyr	Tyr
1				5					10					15	

Gly	Met	Asp	Val
			20

<210> 584

<211> 60

<212> DNA

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 584

gcgagatatt ttggtgacta ctcagggttg gggaactact actactacgg tatggacgtc 60

<210> 585

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 585

gatattgtga tgacgcagtc tccagtctcc ctgcccgtca cccctggaga gccggcctcc 60

atctcctgca ggtctagtca gaggcctctg cattctaata gaaacaacta tttggattgg 120

tacctgcaga ggccagggca gtctccacag ctctcatct atttgggttc taatcgggcc 180

tccgggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgagaatc 240

agcagagtgg aggctgagga tgttgggggtt tattactgca tgcaagctct acaaactcct 300

cgcttcggcg gagggaccaa ggtggaaatc aaa 333

<210> 586

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 586

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

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Asn Gly Asn Asn Tyr Leu Asp Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60

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

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

Leu Gln Thr Pro Arg Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 587

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 587

Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Asn Asn Tyr Leu Asp
1 5 10 15

<210> 588

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 588

aggtctagtc agagcctcct gcattctaatt ggaaacaact atttggat

48

<210> 589

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 589

Leu Gly Ser Asn Arg Ala Ser

1 5

<210> 590

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 590

ttgggttcta atcgggcctc c

21

<210> 591

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 591

Met Gln Ala Leu Gln Thr Pro Arg

1 5

<210> 592

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 592

atgcaagctc tacaaactcc tcgc

24

<210> 593

<211> 390

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 593

gaggtgcagc tggtggagtc tgggggacac ttggtacagc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt agctatagta tgaactgggt ccgccaggct 120

ccagggaagg ggctggagtg gatttcatac attagtagta gtagtagtac catgtactac 180

gcagactctg tgaagggccg attcaccatg tccagagaca atgccaagaa ctactgtat 240

ctgcaaatga acagcctgag agacgaggac acggctttgt attactgtgc gagagatttc 300

ccccctatta atctagcagc gacaaccga aactactact actatgttat ggacgtctgg 360

ggccaaggga ccacggtcac cgtctcctca 390

<210> 594

<211> 130

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 594

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

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Ser Tyr Ile Ser Ser Ser Ser Ser Thr Met Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

Ala Arg Asp Phe Pro Pro Ile Asn Leu Ala Ala Thr Thr Arg Asn Tyr
100 105 110

Tyr Tyr Tyr Val Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
115 120 125

Ser Ser
130

<210> 595
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 595
Phe Thr Phe Ser Ser Tyr Ser Met Asn
1 5

<210> 596
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 596
ttcaccttca gtagctatag tatgaac

<210> 597
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 597
 Tyr Ile Ser Ser Ser Ser Ser Thr Met Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 598
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 598
 tacattagta gtagtagtag taccatgtac tacgcagact ctgtgaaggg c 51

<210> 599
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 599
 Ala Arg Asp Phe Pro Pro Ile Asn Leu Ala Ala Thr Thr Arg Asn Tyr
 1 5 10 15

Tyr Tyr Tyr Val Met Asp Val
 20

<210> 600
 <211> 69
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 600
 gcgagagatt tccccctat taatctagca gcgacaaccc gaaactacta ctactatgtt 60
 atggacgtc 69

<210> 601
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 601
 gacatccagt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaacctcct aatctatgct acatccaatt tgaaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta cctcgtagac ttttggccag 300
 gggaccaaag tggatatcaa a 321

<210> 602
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 602

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Asp Ile Gln Leu 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 Ser Ile Ser Ser Tyr
20 25 30

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

Tyr Ala Thr Ser Asn Leu Lys 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 Ser Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
100 105

<210> 603

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 603

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

<210> 604

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 604
cgggcaagtc agagcattag cagctattta aat 33

<210> 605
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 605
Ala Thr Ser Asn Leu Lys Ser
1 5

<210> 606
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 606
gctacatcca atttgaaaag t 21

<210> 607
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 607
Gln Gln Ser Tyr Ser Thr Ser Tyr Thr
1 5

<210> 608
<211> 27
<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 608

caacagagtt acagtacctc gtacact

27

<210> 609

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 609

gaggtgcagc tgggtggagtc cggccctact ctggtgaaac ccacacagac cctcacgctg 60

acctgcacct tctctggggtt ctactcacc actattggag tgggtgtggg ctggatccgt 120

cagccccag gaaaggccct ggagtttctt ggaatcgttt attgggatga tgataagcgg 180

tacagcccat ctctgaagag caggctcacc atcaccaagg acacctcaa aaaccaggtg 240

gtccttacga tgaccacgtt ggcccctgag gacacaggca catattactg tacatacgcc 300

cgctatagca gtgccttggt cgggggttac tactttcact cgtggggcca gggaaccctg 360

gtcaccgtct cctca 375

<210> 610

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 610

Glu Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln

1

5

10

15

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Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Thr Thr Ile
20 25 30

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

Phe Leu Gly Ile Val Tyr Trp Asp Asp Asp Lys Arg Tyr Ser Pro Ser
50 55 60

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

Val Leu Thr Met Thr Thr Leu Ala Pro Glu Asp Thr Gly Thr Tyr Tyr
85 90 95

Cys Thr Tyr Ala Arg Tyr Ser Ser Ala Leu Phe Gly Gly Tyr Tyr Phe
100 105 110

His Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 611

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 611

Phe Ser Leu Thr Thr Ile Gly Val Gly Val Gly
1 5 10

<210> 612

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 612
 ttctcactca ccactattgg agtgggtgtg ggc 33

<210> 613
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 613
 Ile Val Tyr Trp Asp Asp Asp Lys Arg Tyr Ser Pro Ser Leu Lys Ser
 1 5 10 15

<210> 614
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 614
 atcgtttatt gggatgatga taagcgggtac agcccatctc tgaagagc 48

<210> 615
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 615
 Thr Tyr Ala Arg Tyr Ser Ser Ala Leu Phe Gly Gly Tyr Tyr Phe His
 1 5 10 15

Ser

<210> 616
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 616
 acatacgcgcc gctatagcag tgccttggtc gggggttact actttcactc g 51

<210> 617
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 617
 cagtctgtcc tgacgcagcc gccctcggtg tcagtggccc caggacagac ggccaagatt 60
 acctgtgggg gaaacgacat tggaagtaga agtgtgcact ggtaccagca gaagccaggc 120
 caggcccctg tgctggctgt ctatgataat agcgaccggc cctcagggat ccctgaacga 180
 ttctctggct ccaattctgg agacacggcc accctgacca tcagcagggt cgaagccggg 240
 gatgaggccg tctattactg tcagggtgtgg gagagtagtg gtgatcatcc gaggatattc 300
 ggcggaggga ccaagctcac cgtccta 327

<210> 618
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 618
 Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Gln
 1 5 10 15

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

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

Asp Asn Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

Asp Glu Ala Val Tyr Tyr Cys Gln Val Trp Glu Ser Ser Gly Asp His
85 90 95

Pro Arg Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105

<210> 619

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 619

Gly Gly Asn Asp Ile Gly Ser Arg Ser Val His
1 5 10

<210> 620

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 620

gggggaaacg acattggaag tagaagtgtg cac

33

<210> 621
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 621
 Asp Asn Ser Asp Arg Pro Ser
 1 5

<210> 622
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 622
 gataatagcg accggccctc a

21

<210> 623
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 623
 Gln Val Trp Glu Ser Ser Gly Asp His Pro Arg Ile
 1 5 10

<210> 624
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 624

caggtgtggg agagtagtgg tgatcatccg aggata

36

<210> 625

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 625

gaggtgcagc tggtggagtc tgggggccc ctggtaaagc cgggggggtc ccttagactc 60

tcctgtgtag gcactggact cactttcact actgcctaca tgagctgggc ccgccaggct 120

ccagggaagg ggctggagtg ggttggtcgt attctgagca aaagtgatgg tgggacaaca 180

gactacccta caccgtcaa aggcagattc accatctcaa gagatgaatc taaaaacacc 240

ctgtatctgc aaatgaacag cctgaaaatc gaggacacag ccgtctatta ttgtaccaca 300

gataggggga taacagctcg tcctatcttc gactcctggg gccagggaac cctgggtcacc 360

gtctcctca 369

<210> 626

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 626

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

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

Gly Arg Ile Leu Ser Lys Ser Asp Gly Gly Thr Thr Asp Tyr Pro Thr
 50 55 60

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

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

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

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

<210> 627

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 627

Leu Thr Phe Thr Thr Ala Tyr Met Ser
 1 5

<210> 628

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 628

ctcactttca ctactgccta catgagc

<210> 629

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 629

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

Val Lys Gly

<210> 630

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 630

cgtattctga gcaaaagtga tgggtgggaca acagactacc ctacacccgt caaaggc

57

<210> 631

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 631

Thr	Thr	Asp	Arg	Gly	Ile	Thr	Ala	Arg	Pro	Ile	Phe	Asp	Ser
1				5					10				

<210> 632

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<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 632
accacagata gggggataac agctcgtcct atcttcgact cc 42

<210> 633
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 633
cagtctgtgc tgacgcagcc gccctcagtg tctggggccc tagggcggag ggtcaccatc 60
tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacattg gtacaggcaa 120
cttccaggaa cagcccccaa actcctcatt tatggtaaca ccaaacggcc ctcaggggtc 180
cctgaccgat tctctggctc caagtatgcc acctcagcct ccctggccat cactgggctc 240
caggctgacg atgacgctga ttattactgc cagtcctatg acggcggcct gagtgggttat 300
gtcttcggaa ctgggaccaa ggtcaccgtc cta 333

<210> 634
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 634
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Leu Gly Arg
1 5 10 15

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

Tyr Asp Val His Trp Tyr Arg Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Thr Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Tyr Ala Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Asp Asp Asp Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Gly
85 90 95

Leu Ser Gly Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 635

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 635

Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 636

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 636

actgggagca gctccaacat cggggcaggt tatgatgtac at

42

<210> 637
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 637
 Gly Asn Thr Lys Arg Pro Ser
 1 5

<210> 638
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 638
 ggtaacacca aacggccctc a

21

<210> 639
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 639
 Gln Ser Tyr Asp Gly Gly Leu Ser Gly Tyr Val
 1 5 10

<210> 640
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 640

cagtcctatg acggcggcct gagtggttat gtc

33

<210> 641

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 641

caggtccagc tggtgcagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60

tcctgtgcag gctctggatt caccttcagt agctataccc tgaactgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcatcc attagtagta gtagtactta catatactac 180

gcagactcag tgaagggccg attcaccatc tccagagaca acgccaagaa ctactgcat 240

ctgcaaatga acagcctgag agccgaggac acggctgtgt attattgtgc gagagctgac 300

tatgatagaa gtgtttatca cctcaattgg ttcgaccctt ggggccaggg aacctggtc 360

accgtctcct ca 372

<210> 642

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 642

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

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

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Thr Leu Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu His
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 Ala Asp Tyr Asp Arg Ser Val Tyr His Leu Asn Trp Phe Asp
100 105 110

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

<210> 643

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 643

Phe Thr Phe Ser Ser Tyr Thr Leu Asn
1 5

<210> 644

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 644

ttcaccttca gtagctatac cctgaac

<210> 645
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 645
 Ser Ile Ser Ser Ser Ser Thr Tyr Ile Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 646
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 646
 tccattagta gtagtagtac ttacatatac tacgcagact cagtgaaggg c 51

<210> 647
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 647
 Ala Arg Ala Asp Tyr Asp Arg Ser Val Tyr His Leu Asn Trp Phe Asp
 1 5 10 15

Pro

<210> 648
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 648
 gcgagagctg actatgatag aagtgtttat cacctcaatt ggttcgaccc c 51

<210> 649
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 649
 cagtctgtgt tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
 tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcaa 120
 cttccaggag cagcccccaa actcctcatc tatggtaaca ccaatcggcc ctgagggtc 180
 cctgaccgat tttctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
 caggctgacg atgaggctga ttattactgc cagtcctatg acagcagcct gaggggcact 300
 tgggtgttcg gcggaggac caagctcacc gtccta 336

<210> 650
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 650
 Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Ala Ala Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Thr Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 651

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 651

Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 652

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 652

actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 653

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 653

Gly Asn Thr Asn Arg Pro Ser

1 5

<210> 654

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 654

ggtaacacca atcggcctc a

21

<210> 655

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 655

Gln Ser Tyr Asp Ser Ser Leu Ser Gly Thr Trp Val

1 5 10

<210> 656

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 656

cagtcctatg acagcagcct gagtggcact tgggtg

36

<210> 657

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 657

gaggtgcagc tggttgagtc tgggggaggc ttggtacagc cagggcggtc cctgagactc 60

tcttgttcag gttctggatt cacctttggg gattatgctc tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtaggtttc attagaagca aagcctatgg tgggacaaca 180

gaatacgccg cgtctgtgaa aggcagattc accatctcaa gagatgattc caaaagcatc 240

gcctatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtactatg 300

gctgtagtgg tgccagggtgc tacagatgct tttgatatct ggggccaagg gacaatggtc 360

accgtctctt ca 372

<210> 658

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 658

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

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

Gly Phe Ile Arg Ser Lys Ala Tyr Gly Gly Thr Thr Glu Tyr Ala Ala
50 55 60

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

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

Tyr Cys Thr Met Ala Val Val Val Pro Gly Ala Thr Asp Ala Phe Asp
100 105 110

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 659

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 659

Phe Thr Phe Gly Asp Tyr Ala Leu Ser
1 5

<210> 660

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 660

ttcacctttg gggattatgc tctgagc

27

<210> 661

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 661

Phe	Ile	Arg	Ser	Lys	Ala	Tyr	Gly	Gly	Thr	Thr	Glu	Tyr	Ala	Ala	Ser
1				5					10					15	

Val Lys Gly

<210> 662

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 662

ttcattagaa gcaaagccta tgggtgggaca acagaatacg ccgcgtctgt gaaaggc

57

<210> 663

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 663

Thr	Met	Ala	Val	Val	Val	Pro	Gly	Ala	Thr	Asp	Ala	Phe	Asp	Ile
1			5						10					15

<210> 664

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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 664
actatggctg tagtggtgcc aggtgctaca gatgcttttg atatc 45

<210> 665
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 665
aattttatgc tgactcagcc ccactctgtg tcggagtctc cggggaagac ggtaaccatc 60
tcctgtaccc gcagcagtgg cagcattgcc agcgactatg tgcagtgggtt ccagcagcgc 120
ccgggcagtt cccccgccac tgtgatctat caggataacc aaagaccctc tggggtcctt 180
gatcggttct ctggctccat cgacacctcc tccaactctg cctccctcac catctctgga 240
ctgaagactg aggacgaggc tgactactac tgtcactctt atgatatag caatccttgg 300
gtgttcggcg gagggaccaa gctcaccgtc cta 333

<210> 666
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 666
Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Phe Gln Gln Arg Pro Gly Ser Ser Pro Ala Thr Val
35 40 45

Ile Tyr Gln Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Ile Asp Thr 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 His Ser Tyr Asp Ser
85 90 95

Ser Asn Pro Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 667

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 667

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

<210> 668

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 668

accgcagca gtggcagcat tgccagcgac tatgtgcag

39

<210> 669
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 669
 Gln Asp Asn Gln Arg Pro Ser
 1 5

<210> 670
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 670
 caggataacc aaagaccctc t

21

<210> 671
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 671
 His Ser Tyr Asp Ser Ser Asn Pro Trp Val
 1 5 10

<210> 672
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 672

cactcttatg atagtagcaa tccttgggtg

30

<210> 673

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 673

gaggtgcagc tggtggagtc cggaggaggc ttgatccagc cggggggggtc cctgagactc 60

tcctgtgcag tctctgggtt cagcgtcagc agcaactata taagttgggt ccgccagcct 120

ccagggaagg ggctggagtg ggtctcagtt agttatagta gtggtgtcac agactacgca 180

gactccgtga agggccgatt caccacctcc agagacaact ccaagaacac gctgtatctt 240

caaatgaaca gcctgagagg cgaagacacg gccgtctatt actgtgagag agagttgggt 300

ccaaatttct atgaaagtca tggttatatt tccgtgtggg gccagggaac cctggtcacc 360

gtctcctca 369

<210> 674

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 674

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

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

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

Ser Val Ser Tyr Ser Ser Gly Val Thr Asp Tyr Ala Asp Ser Val Lys
 50 55 60

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

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

Arg Glu Leu Val Pro Asn Phe Tyr Glu Ser His Gly Tyr Phe Ser Val
 100 105 110

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

<210> 675

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 675

Phe Ser Val Ser Ser Asn Tyr Ile Ser
 1 5

<210> 676

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 676

ttcagcgtca gcagcaacta tataagt

<210> 677
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 677
 Val Ser Tyr Ser Ser Gly Val Thr Asp Tyr Ala Asp Ser Val Lys Gly
 1 5 10 15

<210> 678
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 678
 gttagttata gtagtggtgt cacagactac gcagactccg tgaagggc 48

<210> 679
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 679
 Ala Arg Glu Leu Val Pro Asn Phe Tyr Glu Ser His Gly Tyr Phe Ser
 1 5 10 15

Val

<210> 680
 <211> 51
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 680

gcgagagagt tgggtgcaaaa tttctatgaa agtcatgggtt atttttccgt g 51

<210> 681

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 681

gatattgtga tgactcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagagttgac agcagctact tagcctggta ccagcagaaa 120

cctggccagg ctcccaggct cctcatctat ggtggatcca gcagggccac tggcatccca 180

gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag caggctggag 240

cctgaagatt ttgcgttgta ttactgtcag cagtatgggt tctcacagac gttcggccaa 300

gggaccaagg tggagatcaa a 321

<210> 682

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 682

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

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

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

Ile Tyr Gly Gly Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

Pro Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Gly Phe Ser Gln
85 90 95

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

<210> 683
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 683
Arg Ala Ser Gln Arg Val Asp Ser Ser Tyr Leu Ala
1 5 10

<210> 684
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 684
agggccagtc agagagttga cagcagctac ttagcc

36

<210> 685

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 685
 Gly Gly Ser Ser Arg Ala Thr
 1 5

<210> 686
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 686
 ggtggatcca gcagggccac t

21

<210> 687
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 687
 Gln Gln Tyr Gly Phe Ser Gln Thr
 1 5

<210> 688
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 688
cagcagtatg gtttctcaca gacg 24

<210> 689
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 689
gaggtgcagc tgttggagac tgggggaggc ttggttaagc cggggggggtc cctgagactc 60
tcctgtgaag ccactggatt cactttcagc gactttgccca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcactg attaaaagta gtgattatcc atactatgca 180
gactccgtga ggggccgctt caccatctcc agagacaatt ccaagaacac cctgtatctg 240
cgaatggaca acctgagagc cgacgacacg gccgtgtatt actgtgccaa ggacgccgat 300
ttttggagtg gtgaggccta caatggaggg tacaactttg actcctgggg ccagggaacc 360
ctggtcaccg tctcctca 378

<210> 690
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 690
Glu Val Gln Leu Leu Glu Thr Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Glu Ala Thr Gly Phe Thr Phe Ser Asp Phe
20 25 30

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

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Ser Leu Ile Lys Ser Ser Asp Tyr Pro Tyr Tyr Ala Asp Ser Val Arg
50 55 60

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

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

Lys Asp Ala Asp Phe Trp Ser Gly Glu Ala Tyr Asn Gly Gly Tyr Asn
100 105 110

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

<210> 691

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 691

Phe Thr Phe Ser Asp Phe Ala Met Ser
1 5

<210> 692

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 692

ttcactttca gcgactttgc catgagc

27

<210> 693

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 693
 Leu Ile Lys Ser Ser Asp Tyr Pro Tyr Tyr Ala Asp Ser Val Arg Gly
 1 5 10 15

<210> 694
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 694
 ctgattaaaa gtagtgatta tccatactat gcagactccg tgaggggc 48

<210> 695
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 695
 Ala Lys Asp Ala Asp Phe Trp Ser Gly Glu Ala Tyr Asn Gly Gly Tyr
 1 5 10 15

Asn Phe Asp Ser
 20

<210> 696
 <211> 60
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 696

gccaaggacg ccgatttttg gagtggtgag gcctacaatg gaggggtacaa ctttgactcc 60

<210> 697

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 697

gaaattgtat tgacacagtc tccagccacc ctgtctgtct ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtattggc accaacttgg cctggtacca gcaaaaacct 120

ggccaggctc cccggctcct catcttttgg gcctcaacca gggccacggg tatcccagcc 180

aggttcactg gcagtgggtc tgggacagag ttactcttca ccatcggcag cctccagtct 240

gaagattttg cagtttatta ctgtcagcag tacaatcagt ggcctccgat cactttcggc 300

ggagggacca aggtggaaat caaa 324

<210> 698

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 698

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

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

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

Phe Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Gly Ser Leu Gln Ser
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Gln Trp Pro Pro
 85 90 95

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

<210> 699

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 699

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

<210> 700

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 700

agggccagtc agagtattgg caccaacttg gcc

33

<210> 701

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 701

Gly Ala Ser Thr Arg Ala Thr

1 5

<210> 702

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 702

ggtgcctcaa ccagggccac g

21

<210> 703

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 703

Gln Gln Tyr Asn Gln Trp Pro Pro Ile Thr

1 5 10

<210> 704

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 704

cagcagtaca atcagtggcc tccgatcact

30

<210> 705

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 705

gaggtgcagc tgttggagtc tgggggaggc gtggtccagc ctgggaagtc cctgagactc 60

tcctgtgtag cctctggatt caccttcggt gactatggca tgcaactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcagtt atatcagatg gtggaagcac taaatactat 180

gcagactccg tgaagggccg attcaccatc gccagagaca attccaagaa cacgctgaat 240

ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gaaagatttg 300

gcttggattt ttggactggg tgcttcatat atggacgtct ggggccaagg gaccctggtc 360

accgtctcct ca 372

<210> 706

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 706

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

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

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

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

Ala Lys Asp Leu Ala Trp Ile Phe Gly Leu Gly Ala Ser Tyr Met Asp
100 105 110

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

<210> 707

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 707

Phe Thr Phe Gly Asp Tyr Gly Met His

1

5

<210> 708

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 708

ttcaccttcg gtgactatgg catgcac

27

<210> 709

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 709

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

Gly

<210> 710

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 710

gttatatcag atggtggaag cactaaatac tatgcagact ccgtgaaggg c

51

<210> 711

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 711

Ala	Lys	Asp	Leu	Ala	Trp	Ile	Phe	Gly	Leu	Gly	Ala	Ser	Tyr	Met	Asp
1				5				10						15	

Val

<210> 712

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 712

gcgaaagatt tggcttggat ttttggactg ggtgcttcat atatggacgt c 51

<210> 713

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 713

gacatccagt tgaccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gactgttagt agcagctact tagcctggta ccagcagaaa 120

cctggccagg ctcccaggct cctcatctat gatgcatcca gcagggccac tggcatccca 180

gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240

cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcaccttt cgggctcact 300

ttcggcggag ggaccaaggt ggaaatcaaa 330

<210> 714

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 714

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Thr Val Ser Ser Ser
20 25 30

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

Ile Tyr Asp Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Phe Gly Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 715
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 715
Arg Ala Ser Gln Thr Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 716
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 716
agggccagtc agactgttag tagcagctac ttagcc

36

<210> 717

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 717
 Asp Ala Ser Ser Arg Ala Thr
 1 5

<210> 718
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 718
 gatgcatcca gcagggccac t

21

<210> 719
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 719
 Gln Gln Tyr Gly Ser Ser Pro Phe Gly Leu Thr
 1 5 10

<210> 720
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 720
cagcagtatg gtagctcacc tttcgggctc act 33

<210> 721
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 721
caggtccagc tggtgcagtc tgggggaggc ttggtacagc cgggggggtc cctgcgactc 60
tcctgtgcag cctctggatt cacctttggg agacatgcca tgacgtgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtcgcaggc attactgcta ctggggaccc cacatactac 180
ccagactccg tgaagggccg gttcgccgtc tccagagaca actcccggaa cacgctttat 240
ctgcaaattg acagtctgag agtcgaggac acggccctat attactgtgc gagaagttgg 300
gatgactacg gtgacctgga ctggtacttc gctctctggg gccgtggcac aatggtcacc 360
gtctcttca 369

<210> 722
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 722
Gln Val Gln Leu Val Gln 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 Gly Arg His
20 25 30

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

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

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

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

Ala Arg Ser Trp Asp Asp Tyr Gly Asp Leu Asp Trp Tyr Phe Ala Leu
100 105 110

Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 723
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 723
Phe Thr Phe Gly Arg His Ala Met Thr
1 5

<210> 724
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 724
ttcacctttg ggagacatgc catgacg

27

<210> 725

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 725
Gly Ile Thr Ala Thr Gly Asp Pro Thr Tyr Tyr Pro Asp Ser Val Lys
1 5 10 15

Gly

<210> 726
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 726
ggcattactg ctactgggga cccacatac taccagact ccgtgaaggg c 51

<210> 727
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 727
Ala Arg Ser Trp Asp Asp Tyr Gly Asp Leu Asp Trp Tyr Phe Ala Leu
1 5 10 15

<210> 728
<211> 48
<212> DNA
<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 728

gcgagaagtt gggatgacta cggtagacctg gactgggtact tcgctctc 48

<210> 729

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 729

gaaattgtga tgacacagtc tccagccatc ctgtctgtgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagggttagc agcagcttgg cctggtacca gcagaaacct 120

ggccaggctc ctaggctcct catctacggt gcatccacca gggccactgg tatcccaccc 180

cggttcagtg gcagtgggtc tgggacacaa ttcactctca ccatcagcag cctgcagtct 240

gaagatgttg cagtatatta ctgtcagcag tatagtgtact ggcctccgct cactttcggc 300

gggggggacca aggtggaaat caaa 324

<210> 730

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 730

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

Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Ser	Val	Ser	Ser	Ser
			20					25					30		

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Pro Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80

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

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

<210> 731
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 731
 Arg Ala Ser Gln Ser Val Ser Ser Ser Leu Ala
 1 5 10

<210> 732
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 732
 agggccagtc agagtgttag cagcagcttg gcc

33

<210> 733
 <211> 7
 <212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 733

Gly Ala Ser Thr Arg Ala Thr

1 5

<210> 734

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 734

ggtgcatcca ccagggccac t

21

<210> 735

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 735

Gln Gln Tyr Ser Asp Trp Pro Pro Leu Thr

1 5 10

<210> 736

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 736

cagcagtata gtgactggcc tccgctcact

30

<210> 737

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 737

gaggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60

tcctgtggag cctctggatt caagttcagt gactactaca tgagttggat ccgccaggct 120

ccagggaagg ggctagagtg ggtttcacac attagtagta gtaatagtta cataaactac 180

gcagactctg tgaagggccg attcaccatc tccagggaca acgccaggaa ctactgtct 240

ctgcaaatga acagcctgag agccgaggac acggccgtgt attactgtgc gagattcccc 300

ctttactgta gtcgttcctc ctgctcccat tacgttgact actggggcca gggaaccctg 360

gtcaccgtct cctca 375

<210> 738

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 738

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

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Ser His Ile Ser Ser Ser Asn Ser Tyr Ile Asn Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ser Leu Ser
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 Phe Pro Leu Tyr Cys Ser Arg Ser Ser Cys Ser His Tyr Val
100 105 110

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

<210> 739
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 739
Phe Lys Phe Ser Asp Tyr Tyr Met Ser
1 5

<210> 740
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 740
ttcaagttca gtgactacta catgagt

27

<210> 741
<211> 17
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 741

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

Gly

<210> 742

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 742

cacattagta gtagtaatag ttacataaac tacgcagact ctgtgaaggg c

51

<210> 743

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 743

Ala	Arg	Phe	Pro	Leu	Tyr	Cys	Ser	Arg	Ser	Ser	Cys	Ser	His	Tyr	Val
1				5					10					15	

Asp Tyr

<210> 744

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 744

gcgagattcc ccctttactg tagtcgttcc tcctgctccc attacgttga ctac 54

<210> 745

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 745

cagtctgtcc tgactcagcc tccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcggctc caacatcggg gcaggttatg atgtacactg gtaccagcag 120

cttccaggaa cagcccccaa actcctcatc tatgataaca acaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggttgagg atgaggctga ttattactgc cagtcctatg acaggagcct gagtgtggta 300

ttcggcggag ggaccaaggt caccgtccta 330

<210> 746

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 746

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

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

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Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Asp Asn Asn Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

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

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 747
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 747
Thr Gly Ser Gly Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 748
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 748
actgggagcg gctccaacat cggggcaggt tatgatgtac ac

42

<210> 749

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 749
 Asp Asn Asn Asn Arg Pro Ser
 1 5

<210> 750
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 750
 gataacaaca atcggcctc a

21

<210> 751
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 751
 Gln Ser Tyr Asp Arg Ser Leu Ser Val Val
 1 5 10

<210> 752
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 752
cagtcctatg acaggagcct gagtggtgta 30

<210> 753
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 753
caggtgcagc tgggtgcaatc tggaccagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata tacgtttact acctactgga tcggctgggt gcgccagagg 120
cccgggaagg gcctggagtg gatgggaatc atccatcccg gtgactctga taccagatac 180
agtccgtcct tacaaggcca ggtcaccatc tcagtcgaca agtccatcaa taccgcctac 240
ctgcagtgga ggagtttgaa ggcctcggac accggcatgt attattgtgc gagattcgaa 300
tacggtgact tcgggaatga cttctggggc cagggaaccc tggtcactgt ctcctca 357

<210> 754
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 754
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Val Lys Lys Pro Gly Glu
1 5 10 15

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

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

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Gly Ile Ile His Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Leu
50 55 60

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

Leu Gln Trp Arg Ser Leu Lys Ala Ser Asp Thr Gly Met Tyr Tyr Cys
85 90 95

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

Thr Leu Val Thr Val Ser Ser
115

<210> 755

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 755

Tyr Thr Phe Thr Thr Tyr Trp Ile Gly
1 5

<210> 756

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 756

tatacgttta ctacctactg gatcggc

27

<210> 757

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 757

Ile	Ile	His	Pro	Gly	Asp	Ser	Asp	Thr	Arg	Tyr	Ser	Pro	Ser	Leu	Gln
1				5				10						15	

Gly

<210> 758

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 758

atcatccatc ccggtgactc tgataccaga tacagtcctgt ccttacaagg c

51

<210> 759

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 759

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

<210> 760

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 760

gcgagattcg aatacgggtga cttcgggaat gacttc

36

<210> 761

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 761

aattttatgc tgactcagcc ccactctgtg tcggagtctc cggggaagac ggtaaccatc 60

tcctgctccc gcagcagtgagg cagcattgcc aacaactatg tgcagtggtta ccagcagcgc 120

ccgggcagtt cccccaccac tgtgatctat gaggataacc aaagaccctc tgggggtcct 180

gatcgggttct ctgggtccat cgacagctcc tccaactctg cctccctcac catctctgga 240

ctgaagactg aggacgaggc agactactac tgtcagtctt atgatagtag caatcatagg 300

gtgttcggcg gagggaccaa gctcaccgtc cta 333

<210> 762

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 762

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 Ser Arg Ser Ser Gly Ser Ile Ala Asn Asn
20 25 30

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

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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 His Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 763
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 763
Ser Arg Ser Ser Gly Ser Ile Ala Asn Asn Tyr Val Gln
1 5 10

<210> 764
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 764
tcccgagca gtggcagcat tgccaacaac tatgtgcag

39

<210> 765
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 765

Glu Asp Asn Gln Arg Pro Ser

1 5

<210> 766

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 766

gaggataacc aaagaccctc t

21

<210> 767

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 767

Gln Ser Tyr Asp Ser Ser Asn His Arg Val

1 5 10

<210> 768

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 768

cagtcttatg atagtagcaa tcatagggtg

30

<210> 769
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 769
 gaggtgcagc tgttgagtc tgggggaggc ttggtacagc ctgggggggtc cctgcgactc 60
 tcctgtgcag cctctggatt cacctttagg agatatgcc a tgacctgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtcgcagct attactgcta ctggtgatac cacatactac 180
 ccagactccg taaagggccg gttcgccgtc tccagagaca attcccggaa cacgctttat 240
 ctgcaaattgg acagtctgag agccgaggac acggccctat attactgtgc gaaaagttgg 300
 gatgactacg gtgacctgga ctggtacttc gctctctggg gccgtggcac cctggtcacc 360
 gtctcctca 369

<210> 770
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 770
 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 Arg Arg Tyr
 20 25 30

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

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

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

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

Ala Lys Ser Trp Asp Asp Tyr Gly Asp Leu Asp Trp Tyr Phe Ala Leu
100 105 110

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 771
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 771
Phe Thr Phe Arg Arg Tyr Ala Met Thr
1 5

<210> 772
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 772
ttcaccttta ggagatatgc catgacc

27

<210> 773
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 773

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

Gly

<210> 774

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 774

gctattactg ctactggtga taccacatac taccagact ccgtaaaggg c

51

<210> 775

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 775

Ala	Lys	Ser	Trp	Asp	Asp	Tyr	Gly	Asp	Leu	Asp	Trp	Tyr	Phe	Ala	Leu
1				5					10					15	

<210> 776

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 776
gcgaaaagtt gggatgacta cggtgacctg gactgggtact tcgctctc 48

<210> 777
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 777
gatattgtga tgaccagtc tccagccatc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagcttgg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctacggt gcatccacca gggccactgg tatcccaccc 180
cggttcagtg gcagtgggtc tgggacacaa ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtgtatta ctgtcagcag tatagtgact ggctccgct cactttcggc 300
ggggggacca aggtggagat caaa 324

<210> 778
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 778
Asp Ile Val Met Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30

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

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Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Pro Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Gln Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

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

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

<210> 779

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 779

Arg Ala Ser Gln Ser Val Ser Ser Ser Leu Ala
1 5 10

<210> 780

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 780

agggccagtc agagtgttag cagcagcttg gcc

33

<210> 781

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 781

Gly Ala Ser Thr Arg Ala Thr

1 5

<210> 782

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 782

ggtgcatcca ccagggccac t

21

<210> 783

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 783

Gln Gln Tyr Ser Asp Trp Pro Pro Leu Thr

1 5 10

<210> 784

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 784

cagcagtata gtgactggcc tccgctcact

30

<210> 785

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<211> 369
<212> DNA
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 785
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tcctgtgcag cctctagatt caccttttagc agctatgccca tgagctgggt ccgccaggct 120
ccaggaagg ggctggagtg ggtctcaact attagtggta gtggtattag cacgtactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag cgccgaggac acggccgtat attactgtgc gaaagaattg 300
agggagtatt actatgatag cagtggcttt gactactggg gccaggggaac cctggtcacc 360
gtctcctca 369

<210> 786
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 786
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Arg Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Thr Ile Ser Gly Ser Gly Ile Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

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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 Ser Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Glu Leu Arg Glu Tyr Tyr Tyr Asp Ser Ser Gly Phe Asp Tyr
100 105 110

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

<210> 787

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 787

Phe Thr Phe Ser Ser Tyr Ala Met Ser
1 5

<210> 788

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 788

ttcaccttta gcagctatgc catgagc

27

<210> 789

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 789

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

Gly

<210> 790

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 790

actattagtg gtagtggtat tagcacgtac tacgcagact ccgtgaaggg c

51

<210> 791

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 791

Ala	Lys	Glu	Leu	Arg	Glu	Tyr	Tyr	Tyr	Asp	Ser	Ser	Gly	Phe	Asp	Tyr
1				5					10					15	

<210> 792

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 792

gcgaaagaat tgaggagta ttactatgat agcagtggct ttgactac

48

<210> 793

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 793

cagcctgtgc tgactcagtc tcgctcagtg tccgggtctc ctgaacagtc agtcaccatc 60

tcctgcactg gaaccagcag tgatgttggg gggtataact atgtctcctg gtaccaacag 120

caccaggca aagccccaa actcatgatt tatgatgtca gtaagcggcc ctcaggggtc 180

cctgatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggctgagg atgagtctga ttattactgc tgctcatatg caggcaccta cacttatgtc 300

ttcggaactg ggaccaaggt caccgtccta 330

<210> 794

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 794

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

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

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

Met Ile Tyr Asp Val Ser Lys Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

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Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ser Asp Tyr Tyr Cys Cys Ser Tyr Ala Gly Thr
85 90 95

Tyr Thr Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 795
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 795
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 796
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 796
actggaacca gcagtgatgt tgggtggttat aactatgtct cc

42

<210> 797
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 797

Asp Val Ser Lys Arg Pro Ser

1 5

<210> 798

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 798

gatgtcagta agcggccctc a

21

<210> 799

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 799

Cys Ser Tyr Ala Gly Thr Tyr Thr Tyr Val

1 5 10

<210> 800

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 800

tgctcatatg caggcaccta cacttatgtc

30

<210> 801

<211> 381

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 801

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gaggtgcagc tgttggagtc tgggggaggc gtgggtccagc ctgggaggtc cctgaaactc      60
tcctgtgcag cctctggatt cagcttcact accgatgtta tgcactggat acgccaggct      120
ccaggcaagg ggctggagtg ggtggcagtt atttcaactg atggagccaa ttcatactac      180
gcagagtccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgttt      240
ctgcagatga gcagcctgag agctgaggac acggctgtgt attattgtgc gagccaggga      300
tatcattatg ttaatatggc tgatgtggga gtgccctcgt ttgaccactg gggccaggga      360
accctgggtca ccgtctcctc a                                              381

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<210> 802

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 802

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

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

Ala Ser Gln Gly Tyr His Tyr Val Asn Met Ala Asp Val Gly Val Pro
100 105 110

Ser Phe Asp His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 803
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 803
Phe Ser Phe Thr Thr Asp Val Met His
1 5

<210> 804
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 804
ttcagcttca ctaccgatgt tatgcac

27

<210> 805
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 805

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

Gly

<210> 806

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 806

gttatttcaa ctgatggagc caattcatac tacgcagagt ccgtgaaggg c

51

<210> 807

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 807

Ala	Ser	Gln	Gly	Tyr	His	Tyr	Val	Asn	Met	Ala	Asp	Val	Gly	Val	Pro
1				5					10					15	

Ser	Phe	Asp	His
			20

<210> 808

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

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<400> 808
gcgagccagg gatatcatta tgttaatatg gctgatgtgg gagtgccctc gtttgaccac 60

<210> 809
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 809
gaaacgacac tcacgcagtc tccatcctcc ctgtctgcat ctgtcggaga cagagtcacc 60
atcacttgcc gggcacgtcg gagcattgac aactatttaa attggtatca gcacaaacca 120
gggacagccc ctaagctcct gatctatgct gtatccagtt tgcctagcgg ggtcccatcg 180
agattcagtg gcagtggatc tggggcagac ttcactctca ccatcagcag tctgcaacct 240
gaagatcttg caacttacta ctgtcaacag agttacatga cccctccac ttttggccag 300
gggaccaagc tggagatcaa a 321

<210> 810
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 810
Glu Thr Thr Leu 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 Arg Arg Ser Ile Asp Asn Tyr
20 25 30
Leu Asn Trp Tyr Gln His Lys Pro Gly Thr Ala Pro Lys Leu Leu Ile
35 40 45

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

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

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

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

<210> 811
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 811
Arg Ala Arg Arg Ser Ile Asp Asn Tyr Leu Asn
1 5 10

<210> 812
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 812
cgggcacgtc ggagcattga caactattta aat

33

<210> 813
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 813

Ala Val Ser Ser Leu Pro Ser
1 5

<210> 814

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 814

gctgtatcca gtttgcttag c

21

<210> 815

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 815

Gln Gln Ser Tyr Met Thr Pro Pro Thr
1 5

<210> 816

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 816

caacagagtt acatgacccc tcccact

27

<210> 817

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<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 817
gaggtgcagc tgttggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggcgg caccttcagc agctatgcta taacctgggt gcgacaggcc 120
cctggacaag gacttgagtg gatgggaggg atcatcccta tccttggaac aacaacctac 180
gcacagaggt tccagggcag agtcacgatt accgcggaca aatccacgac aacagcctac 240
atggagctga gtcgcctgag atctgaggac acggccgtct attactgtgc gaaaacggtg 300
tcacaatatc ccaacaccta caactacggc atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 818
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 818
Glu Val Gln Leu Leu Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
20 25 30
Ala Ile Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Gly Ile Ile Pro Ile Leu Gly Thr Thr Thr Tyr Ala Gln Arg Phe
50 55 60

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

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

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

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

<210> 819

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 819

Gly Thr Phe Ser Ser Tyr Ala Ile Thr
1 5

<210> 820

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 820

ggcaccttca gcagctatgc tataacc

27

<210> 821

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 821

Gly	Ile	Ile	Pro	Ile	Leu	Gly	Thr	Thr	Thr	Tyr	Ala	Gln	Arg	Phe	Gln
1				5				10						15	

Gly

<210> 822

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 822

gggatcatcc ctatccttgg aacaacaacc tacgcacaga ggttccaggg c

51

<210> 823

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 823

Ala	Lys	Thr	Val	Ser	Gln	Tyr	Pro	Asn	Thr	Tyr	Asn	Tyr	Gly	Met	Asp
1				5				10					15		

Val

<210> 824

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 824

gcgaaaacgg tgtcacaata tcccaacacc tacaactacg gcatggacgt c 51

<210> 825

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 825

gaaattgtga tgacacagtc tccctcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gagcgtttagc atctatttaa actggtatca gcagaaacca 120

gggaaaaccc ctgagctcct gatctatggt gcatcccgtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240

gaagattttg caacttacta ctgtctacag acgtactcta cccccctcac cttcggccaa 300

gggaccaagg tggaatcaa a 321

<210> 826

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 826

Glu Ile Val 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 Ser Val Ser Ile Tyr
20 25 30

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

Tyr Gly Ala Ser Arg 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 Leu Gln Thr Tyr Ser Thr Pro Leu
85 90 95

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

<210> 827
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 827
Arg Ala Ser Gln Ser Val Ser Ile Tyr Leu Asn
1 5 10

<210> 828
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 828
cgggcaagtc agagcgtag catctattta aac

33

<210> 829
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 829

Gly Ala Ser Arg Leu Gln Ser

1 5

<210> 830

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 830

ggtgcatccc gtttgcaaag t

21

<210> 831

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 831

Leu Gln Thr Tyr Ser Thr Pro Leu Thr

1 5

<210> 832

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 832

ctacagacgt actctacccc cctcacc

27

<210> 833
 <211> 390
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 833
 caggtgcagc tggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
 tcctgcaagg cttctggagg caccttcggc agggattcta tcagctgggt gcgacaggcc 120
 cctgggcagg gccttgagt gatgggaggg atcaacccta tctttcatac atcacactac 180
 gcacagaaat tccagggcag agtcacaatt accgcggacg agtccacgag cacagcctac 240
 atggaactgg gcaacctgag atctgaggac acggccatgt attactgtgc gagagttccc 300
 cccccccggg gtcattgtga gagtaccagc tgtttatggg ggacctatct tgccttctgg 360
 ggccagggaa ccctggtcac cgtctcctca 390

<210> 834
 <211> 130
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 834
 Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Gly Arg Asp
 20 25 30
 Ser Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Ile Asn Pro Ile Phe His Thr Ser His Tyr Ala Gln Lys Phe
 50 55 60

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

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

Ala Arg Val Pro Pro Pro Arg Gly His Cys Glu Ser Thr Ser Cys Leu
100 105 110

Trp Gly Thr Tyr Phe Ala Phe Trp Gly Gln Gly Thr Leu Val Thr Val
115 120 125

Ser Ser
130

<210> 835
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 835
Gly Thr Phe Gly Arg Asp Ser Ile Ser
1 5

<210> 836
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 836
ggcaccttcg gcaggattc tatcagc

27

<210> 837

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 837
 Gly Ile Asn Pro Ile Phe His Thr Ser His Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 838
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 838
 gggatcaacc ctatctttca tacatcacac tacgcacaga aattccaggg c 51

<210> 839
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 839
 Ala Arg Val Pro Pro Pro Arg Gly His Cys Glu Ser Thr Ser Cys Leu
 1 5 10 15

Trp Gly Thr Tyr Phe Ala Phe
 20

<210> 840

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 840
 gcgagagttc ccccccccg gggtcattgt gagagtacca gctgtttatg ggggacctat 60
 tttgccttc 69

<210> 841
 <211> 327
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 841
 gaaacgacac tcacgcagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtc gagggttcgc agctacttag cctggtacca gcagaaacct 120
 ggccaggctc ccaggctcct catctatgat gcatccatca gggctactgg catcccagcc 180
 aggttcagtg gcagtgggtc tggggcagac ttcactctca ccatcagcag cctcgagcct 240
 gaagattttg cagtttatta ctgtcagctg cgtgactact ggccctccac gtggacgttc 300
 ggccaaggga ccaaggtgga aatcaaa 327

<210> 842
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 842
 Glu Thr Thr Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Val Arg Ser Tyr
20 25 30

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

Tyr Asp Ala Ser Ile Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Leu Arg Asp Tyr Trp Pro Pro
85 90 95

Thr Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 843

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 843

Arg Ala Ser Gln Arg Val Arg Ser Tyr Leu Ala
1 5 10

<210> 844

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 844

agggccagtc agagggttcg cagctactta gcc

33

<210> 845
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 845
 Asp Ala Ser Ile Arg Ala Thr
 1 5

<210> 846
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 846
 gatgcatcca tcagggtac t

21

<210> 847
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 847
 Gln Leu Arg Asp Tyr Trp Pro Pro Thr Trp Thr
 1 5 10

<210> 848
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 848

cagctgcgtg actactggcc tcccacgtgg acg

33

<210> 849

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 849

gaggtgcagc tgttggagtc tgggggagac ctggtacagc cggggggggtc cctgagactc 60

tcctgtgcag cctctggatt ccccttcagc agccatagca tgaactgggt ccgccaggct 120

ccagggaagg gcctggagtg gatctcatac attagtgggt gtagtgatac cattcagtac 180

gcagactctg tgaagggccg atttaccatc tccagagaca atgtcaagaa ttcactgtat 240

ctgcaaatga acagcctgag agccgaggac acggctgtct attactgtgc gagagaccag 300

tatatttggga actatgtgga acctcttgac tactgggggcc agggaaccct ggtcaccgtc 360

tcctca 366

<210> 850

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 850

Glu Val Gln Leu Leu Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Gly
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Pro Phe Ser Ser His
20 25 30

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Val Lys Asn Ser 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 Asp Gln Tyr Ile Trp Asn Tyr Val Glu Pro Leu Asp Tyr Trp
 100 105 110

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

<210> 851
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 851
 Phe Pro Phe Ser Ser His Ser Met Asn
 1 5

<210> 852
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 852

ttcccccttca gcagccatag catgaac

27

<210> 853

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 853

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

Gly

<210> 854

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 854

tacattagtg gtggtagtg taccattcag tacgcagact ctgtgaaggg c

51

<210> 855

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 855

Ala Arg Asp Gln Tyr Ile Trp Asn Tyr Val Glu Pro Leu Asp Tyr
1 5 10 15

<210> 856

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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 856
gcgagagacc agtatatttg gaactatgtg gaacctcttg actac 45

<210> 857
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 857
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattagc tattatttag gctggtatca gcagaaagca 120
gggaaagccc cgaagctcct gatttatgct gtatccaatt tgcaaactgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatttcg caacttatta ttgtctacaa gatcacactt gcccttggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 858
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 858
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

Leu Gly Trp Tyr Gln Gln Lys Ala Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Val Ser Asn Leu Gln 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 Leu Gln Asp His Thr Cys Pro Trp
85 90 95

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

<210> 859

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 859

Arg Ala Ser Gln Asp Ile Ser Tyr Tyr Leu Gly
1 5 10

<210> 860

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 860

cgggcaagtc aggacattag ctattattta ggc

<210> 861
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 861
 Ala Val Ser Asn Leu Gln Thr
 1 5

<210> 862
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 862
 gctgtatcca atttgcaaac t

21

<210> 863
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 863
 Leu Gln Asp His Thr Cys Pro Trp Thr
 1 5

<210> 864
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic light chain variable region CDR L3"

<400> 864

ctacaagatc acacttgccc ttggacg

27

<210> 865

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 865

gagggtgcagc tggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaagtc 60

tcctgcaagg tttctggagg caccttcagc acttatggta tcagctggat acaacaggcc 120

cctggacaag ggcttgagtg ggtgggaggg atcatcccta tgtttgggac agcaaactac 180

gcacagaggt ttcagggcag agtcaccctt accgcggacg aaggcacgaa cacagcttac 240

atggagctga acaacctgag atctgaggac acggccatgt attactgtgc gagagatcga 300

ggtaataacg gccgctacta cgctatggac gtctggggcc aggggaccac ggtcaccgtc 360

tcctca 366

<210> 866

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 866

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

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

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Gly Ile Ser Trp Ile Gln Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45

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

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

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

Ala Arg Asp Arg Gly Asn Asn Gly Arg Tyr Tyr Ala Met Asp Val Trp
100 105 110

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

<210> 867

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 867

Gly Thr Phe Ser Thr Tyr Gly Ile Ser
1 5

<210> 868

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 868

ggcaccttca gcacttatgg tatcagc

<210> 869
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 869
 Gly Ile Ile Pro Met Phe Gly Thr Ala Asn Tyr Ala Gln Arg Phe Gln
 1 5 10 15

Gly

<210> 870
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 870
 gggatcatcc ctatgtttgg gacagcaaac tacgcacaga ggtttcaggg c 51

<210> 871
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 871
 Ala Arg Asp Arg Gly Asn Asn Gly Arg Tyr Tyr Ala Met Asp Val
 1 5 10 15

<210> 872
 <211> 45
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 872

gcgagagatc gaggtaataa cggccgctac tacgctatgg acgtc

45

<210> 873

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 873

gatattgtgc tgaccagac tccagccacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgtcacc acctacttag cgtggtacca acagaaacct 120

ggccaggctc ccaggctcct catctatgat acatccaaca gggccactgg catcccagcc 180

aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240

gaagattttg cagttttatta ctgtcagcag cgtaacaact ggccgccgac cttcggccaa 300

gggacacgac tggagattaa a 321

<210> 874

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 874

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Thr Tyr
20 25 30

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

Tyr Asp Thr Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Asn Asn Trp Pro Pro
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 875

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 875

Arg Ala Ser Gln Ser Val Thr Thr Tyr Leu Ala
1 5 10

<210> 876

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 876

agggccagtc agagtgtcac cacctactta gcg

33

<210> 877

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 877
 Asp Thr Ser Asn Arg Ala Thr
 1 5

<210> 878
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 878
 gatacatcca acagggccac t

21

<210> 879
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 879
 Gln Gln Arg Asn Asn Trp Pro Pro Thr
 1 5

<210> 880
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 880
cagcagcgta acaactggcc gccgacc 27

<210> 881
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 881
gaggtgcagc tggttgagtc tgggggaggc ctggtcaagc ctggggggtc cctgagactc 60
tcctgtgcag cctcgggatt caccatcagt gggtataaca tggtctgggt ccgccagcct 120
ccggggaagg ggctggagtg ggtctcatcc attactgctg gtagtagtta tttaaactat 180
gcagactcag tgaagggccg tttcatcgtc tccagagaca acgccaagaa ttcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt atttctgtgc gagagcacct 300
cttttaccgc ctatgatgga cctctggggc caagggacca cggtcaccgt ctctca 357

<210> 882
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 882
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

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

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

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

Lys Gly Arg Phe Ile Val 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 Val Tyr Phe Cys
85 90 95

Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 883
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 883
Phe Thr Ile Ser Gly Tyr Asn Met Phe
1 5

<210> 884
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 884
ttcaccatca gtggttataa catgttc

27

<210> 885
<211> 17
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 885

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

Gly

<210> 886

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 886

tccattactg ctggtagtag ttatttaaac tatgcagact cagtgaaggg c

51

<210> 887

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 887

Ala	Arg	Ala	Pro	Leu	Leu	Pro	Ala	Met	Met	Asp	Leu
1				5				10			

<210> 888

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 888

gcgagagcac ctcttttacc cgctatgatg gacctc

36

<210> 889

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 889

cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcagggttatg atgtacactg gtaccagcaa 120

cttccaggaa cagcccccaa actcctcatc tatactaaca acaatcggcc ctcaagggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ctattactgc cagtcctatg acagaagcct gaatgggtat 300

gtcttcggaa ctgggaccaa gctcaccgtc cta 333

<210> 890

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 890

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

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

Tyr	Asp	Val	His	Trp	Tyr	Gln	Gln	Leu	Pro	Gly	Thr	Ala	Pro	Lys	Leu
		35					40					45			

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Arg Ser
85 90 95

Leu Asn Gly Tyr Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 891
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 891
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 892
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 892
actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 893
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 893

Thr Asn Asn Asn Arg Pro Ser

1 5

<210> 894

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 894

actaacaaca atcggcctc a

21

<210> 895

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 895

Gln Ser Tyr Asp Arg Ser Leu Asn Gly Tyr Val

1 5 10

<210> 896

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 896

cagtcctatg acagaagcct gaatggttat gtc

33

<210> 897
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 897
 gaggtgcagc tggtggagac tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60
 tcctgtgcag gctctggatt caccttcagt agctataccc tgaactgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcatct attagtagta gtagtactta catatactac 180
 gcagactcag tgaagggccg attcaccatc tccagagaca acgccaagaa ctcaactgcat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attattgtgc gagagctgac 300
 tatgatagaa gtgtttatca cctcaattgg ctcgaccctt ggggccaggg aaccctggtc 360
 accgtctcct ca 372

<210> 898
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 898
 Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

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

Thr Leu Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

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

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Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu His
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 Ala Asp Tyr Asp Arg Ser Val Tyr His Leu Asn Trp Leu Asp
100 105 110

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

<210> 899
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 899
Phe Thr Phe Ser Ser Tyr Thr Leu Asn
1 5

<210> 900
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 900
ttcaccttca gtagctatac cctgaac

27

<210> 901
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 901

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

Gly

<210> 902

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 902

tctattagta gtagtagtac ttacatatac tacgcagact cagtgaaggg c

51

<210> 903

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 903

Ala	Arg	Ala	Asp	Tyr	Asp	Arg	Ser	Val	Tyr	His	Leu	Asn	Trp	Leu	Asp
1				5					10					15	

Pro

<210> 904

<211> 51

<212> DNA

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 904

gcgagagctg actatgatag aagtgtttat cacctcaatt ggctcgaccc c 51

<210> 905

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 905

cagcctgtgc tgactcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcaa 120

cttccaggag cagcccccaa actcctcatc tatggtaaca ccaatcggcc ctcaggggtc 180

cctgaccgat tttctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgacg atgaggctga ttattactgc cagtcctatg acagcagcct gagtggcact 300

tgggtgttcg gcggagggac caagctcacc gtccta 336

<210> 906

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 906

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

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

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Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Ala Ala Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Thr Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 907

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 907

Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 908

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 908

actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 909

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 909

Gly Asn Thr Asn Arg Pro Ser

1 5

<210> 910

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 910

ggtaacacca atcggcctc a

21

<210> 911

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 911

Gln Ser Tyr Asp Ser Ser Leu Ser Gly Thr Trp Val

1 5 10

<210> 912

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 912

cagtcctatg acagcagcct gagtggcact tgggtg

36

<210> 913

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 913

caggtgcagc tggtgcagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gaccactaca tgacctggat ccgccaggct 120

ccagggaagg ggctggagtg ggtttcatac attagcagta ctagtagttt cacaaactac 180

gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa gtcactttat 240

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagaccgc 300

aattggggat atgcctatgg ttctgactac tggggccagg gaaccctggc caccgtctcc 360

tca 363

<210> 914

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 914

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

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Ser Tyr Ile Ser Ser Thr Ser Ser Phe Thr Asn Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser 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 Asp Arg Asn Trp Gly Tyr Ala Tyr Gly Ser Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 915

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 915

Phe Thr Phe Ser Asp His Tyr Met Thr
1 5

<210> 916

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 916

ttcaccttca gtaggacta catgacc

27

<210> 917

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 917

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

Gly

<210> 918

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 918

tacattagca gtactagtag tttcacaac tacgcagact ctgtgaaggg c

51

<210> 919

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 919

Ala	Arg	Asp	Arg	Asn	Trp	Gly	Tyr	Ala	Tyr	Gly	Ser	Asp	Tyr
1				5					10				

<210> 920

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 920

gcgagagacc gcaattgggg atatgcctat ggttctgact ac

42

<210> 921

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 921

gacatccggg tgaccagtc tccagacacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgttagc agcacctact tagcctggta ccagcagaaa 120

cctggccagg ctcccaggct cctcatttat ggtgcattcg gcagggccac tggcatccca 180

gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240

cctgaagatt ttgcagtgtta ttactgtcag ctgtatggta actcacggac gttcggccaa 300

gggaccaagc tgagatcaa a 321

<210> 922

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 922

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Thr
20 25 30

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

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Ile Tyr Gly Ala Phe Gly Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Leu Tyr Gly Asn Ser Arg
85 90 95

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

<210> 923
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 923
Arg Ala Ser Gln Ser Val Ser Ser Thr Tyr Leu Ala
1 5 10

<210> 924
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 924
agggccagtc agagtgttag cagcacctac ttagcc

36

<210> 925
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 925

Gly Ala Phe Gly Arg Ala Thr
1 5

<210> 926

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 926

ggtgcattcg gcagggccac t

21

<210> 927

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 927

Gln Leu Tyr Gly Asn Ser Arg Thr
1 5

<210> 928

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 928

cagctgtatg gtaactcacg gacg

24

<210> 929
 <211> 411
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 929
 gaggtgcagc tgggtggagtc tggggggaggc ttggtacagc ctgggggggtc cctgagaatc 60
 tcctgtgcag cctctggatt ctccattagt agtcatgccg tgagctgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcagtt attagtggga gtggtggtga cacacactcc 180
 gtagttcaag gtcgtggtag tggcacatat tacgcagact ccgtgaaggg ccggttcacc 240
 atctccagag acaatgtcag gaacacagtg tatctgcaaa tgaatagcct gagggtcgag 300
 gacacggccg tatattattg tgcgaaagac gacccacgc ttttttggag tggttcgggg 360
 tactacggaa tggacgtctg gggccaaggg accacggtca ccgtctcctc a 411

<210> 930
 <211> 137
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 930
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

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

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

Ser Val Ile Ser Gly Ser Gly Gly Asp Thr His Ser Val Val Gln Gly
 50 55 60

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

Ile Ser Arg Asp Asn Val Arg Asn Thr Val Tyr Leu Gln Met Asn Ser
85 90 95

Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys Ala Lys Asp Asp Pro
100 105 110

Thr Leu Phe Trp Ser Gly Ser Gly Tyr Tyr Gly Met Asp Val Trp Gly
115 120 125

Gln Gly Thr Thr Val Thr Val Ser Ser
130 135

<210> 931
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 931
Phe Ser Ile Ser Ser His Ala Val Ser
1 5

<210> 932
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 932
ttctccatta gtagtcatgc cgtgagc

27

<210> 933

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 933
Val Ile Ser Gly Ser Gly Gly Asp Thr His Ser Val Val Gln Gly Arg
1 5 10 15

Gly Ser Gly Thr Tyr Tyr Ala Asp Ser Val Lys Gly
20 25

<210> 934
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 934
gttattagtg ggagtgggtg tgacacacac tccgtagttc aaggctcgtg tagtggcaca 60
tattacgcag actccgtgaa gggc 84

<210> 935
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 935
Ala Lys Asp Asp Pro Thr Leu Phe Trp Ser Gly Ser Gly Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 936
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 936
 gcgaaagacg accccacgct tttttggagt ggttcggggt actacggaat ggacgtc 57

<210> 937
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 937
 gacatccggg tgaccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
 atcacttgcc aggcgagtca gggcattagc gactctttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctacggt gcatccaaat tggaaccagg ggtctcatca 180
 aggttcagcg gacgaggatc tgggagagat ttacttttca ccatcagcag cctgcagcct 240
 gaagatatcg gaacatatta ctgtcaacag tatgataatc tccctctgac tttcggccct 300
 gggaccaagc tggagatcaa a 321

<210> 938
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 938
 Asp Ile Arg Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

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

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

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

Glu Asp Ile Gly Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
85 90 95

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

<210> 939

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 939

Gln Ala Ser Gln Gly Ile Ser Asp Ser Leu Asn
1 5 10

<210> 940

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 940

caggcgagtc agggcattag cgactcttta aat

33

<210> 941
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 941
 Gly Ala Ser Lys Leu Glu Pro
 1 5

<210> 942
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 942
 ggtgcatcca aattggaacc a

21

<210> 943
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 943
 Gln Gln Tyr Asp Asn Leu Pro Leu Thr
 1 5

<210> 944
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 944

caacagtatg ataatctccc tctgact

27

<210> 945

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 945

gaggtgcagc tggtggagac ggggggcggc ttgatacagc cggggggggtc cctgagactc 60

tcctgcgtgg cctccggatt cagccttagg aactatgcct taggttggct ccgccaggcg 120

ccagggaagg ggctggagtg ggtctcaggt ggctattatg gtgatgtcta ttacacggac 180

tccgtgaagg gccggttcgc cgtctccagg gacaattccg gggacacagt atatctagaa 240

atggacaacc tgagagtcga agacacggcc gtgtattact gtgcgagaat ggagacagt 300

accactgatg caggctcggg atgggactgg tacttcgagg tctggggccg cggcacccctg 360

gtcactgtct cctca 375

<210> 946

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 946

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

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

Ser Gly Gly Tyr Tyr Gly Asp Val Tyr Tyr Thr Asp Ser Val Lys Gly
50 55 60

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

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

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

Glu Val Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 947

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 947

Phe Ser Leu Arg Asn Tyr Ala Leu Gly
1 5

<210> 948

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 948

ttcagcctta ggaactatgc cttaggt

27

<210> 949

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 949

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

<210> 950

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 950

ggtggctatt atggtgatgt ctattacacg gactccgtga agggc

45

<210> 951

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 951

Ala	Arg	Met	Glu	Thr	Val	Thr	Thr	Asp	Ala	Gly	Ser	Gly	Trp	Asp	Trp
1				5				10						15	

Tyr	Phe	Glu	Val
			20

<210> 952

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<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 952
gcgagaatgg agacagtgac cactgatgca ggctcgggat gggactggta cttcgaggtc 60

<210> 953
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 953
gaaacgacac tcacgcagtc tccagccacc ctgtctttgt ctccagggga ttgggccacc 60
ctctcctgca gggccagtca gagtgttggc acctacttag cctggtacca acacaaacct 120
ggccaggctc ccagactcct cattcatgat gcatccaaca gggccagtga catcccatcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatccgcgg cctagagcct 240
gaagattttg cagtttatta ctgtcagcaa catcgcgact ggcggccggt cactttcggc 300
ggagggacca aggttgaaat caaa 324

<210> 954
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 954
Glu Thr Thr Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

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

His Asp Ala Ser Asn Arg Ala Ser Asp Ile Pro Ser Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Arg Asp Trp Arg Pro
85 90 95

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

<210> 955

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 955

Arg Ala Ser Gln Ser Val Gly Thr Tyr Leu Ala
1 5 10

<210> 956

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 956

agggccagtc agagtgttgg cacctactta gcc

33

<210> 957
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 957
 Asp Ala Ser Asn Arg Ala Ser
 1 5

<210> 958
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 958
 gatgcatcca acagggccag t

21

<210> 959
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 959
 Gln Gln His Arg Asp Trp Arg Pro Val Thr
 1 5 10

<210> 960
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 960

cagcaacatc gcgactggcg gccggtcact

30

<210> 961

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 961

cagggtccagc ttgtgcagtc tggggctgag gcgaagaagc ctggggcctc agtgaaggtc 60

tcctgcacgg cgtctggata caccttcacc aatgatatta actgggtgcg ccaggccact 120

ggacaagggc ttgagtggat ggggtggatg aaccctaaca acggtcacac aggatatgga 180

cagaagttcg aggacagagt caccttgaca agggactcct ccagaagcac agcctacatg 240

gaactgagca gcctgagatt tgaggacacg gccgtgtact attgtgtata caatTTTTTgg 300

agcgattctt cagtcagttg gggccgggga accctgggtca ccgtctcctc a 351

<210> 962

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 962

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

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

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

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Trp Met Asn Pro Asn Asn Gly His Thr Gly Tyr Gly Gln Lys Phe Glu
50 55 60

Asp Arg Val Thr Leu Thr Arg Asp Ser Ser Arg Ser Thr Ala Tyr Met
65 70 75 80

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

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

Val Thr Val Ser Ser
115

<210> 963
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 963
Tyr Thr Phe Thr Asn Asp Ile Asn
1 5

<210> 964
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 964
tacaccttca ccaatgatat taac

24

<210> 965

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 965
 Trp Met Asn Pro Asn Asn Gly His Thr Gly Tyr Gly Gln Lys Phe Glu
 1 5 10 15

Asp

<210> 966
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 966
 tggatgaacc ctaacaacgg tcacacagga tatggacaga agttcgagga c 51

<210> 967
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 967
 Val Tyr Asn Phe Trp Ser Asp Ser Ser Val Ser
 1 5 10

<210> 968
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 968

gtatacaatt tttggagcga ttcttcagtc agt

33

<210> 969

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 969

cagtctgtcg tgacgcagcc gccctcagtg tctggggccc cagggcagag tgtcgccatc 60

tcctgcactg ggagcagctc caacatcggg ccagcctatg atgtacactg gtaccagcag 120

actccgggag cagcccccaa actcctcatc tatggtgaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctacctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctttg acagcagcct gcgtgggttat 300

gtcttcggaa ctgggaccaa ggtgaccgtc cta 333

<210> 970

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 970

Gln	Ser	Val	Val	Thr	Gln	Pro	Pro	Ser	Val	Ser	Gly	Ala	Pro	Gly	Gln
1				5				10						15	

Ser	Val	Ala	Ile	Ser	Cys	Thr	Gly	Ser	Ser	Ser	Asn	Ile	Gly	Pro	Ala
			20					25					30		

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Tyr Asp Val His Trp Tyr Gln Gln Thr Pro Gly Ala Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asp Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Thr Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Phe Asp Ser Ser
85 90 95

Leu Arg Gly Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 971

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 971

Thr Gly Ser Ser Ser Asn Ile Gly Pro Ala Tyr Asp Val His
1 5 10

<210> 972

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 972

actgggagca gctccaacat cgggccagcc tatgatgtac ac

42

<210> 973

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 973

Gly Asp Ser Asn Arg Pro Ser

1 5

<210> 974

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 974

ggtgacagca atcggcctc a

21

<210> 975

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 975

Gln Ser Phe Asp Ser Ser Leu Arg Gly Tyr Val

1 5 10

<210> 976

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 976

cagtcctttg acagcagcct gcgtggttat gtc

33

<210> 977

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 977

caggtccagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120

actggacatg ggcttgagtg gatgggatgg atgagcccta acagtgggtta cacaggctat 180

gcacagaagt tccagggcag agtcaccatg agcaggaaca cctccacagg cacagcctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagaggcc 300

cgggacctac gagtgggagc tactaacttt gactactggg gccagggaac cctggtcacc 360

gtctcctca 369

<210> 978

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 978

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

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

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

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

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

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

<210> 979

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 979

Tyr Thr Phe Thr Ser Tyr Asp Ile Asn

1

5

<210> 980

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 980

tacaccttca ccagttatga tatcaac

27

<210> 981

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 981

Trp	Met	Ser	Pro	Asn	Ser	Gly	Tyr	Thr	Gly	Tyr	Ala	Gln	Lys	Phe	Gln
1				5					10					15	

Gly

<210> 982

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 982

tggatgagcc ctaacagtgg ttacacaggc tatgcacaga agttccaggg c

51

<210> 983

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 983

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

<210> 984

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 984

gcgagagagg cccgggacct acgagtggga gctactaact ttgactac

48

<210> 985

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 985

cagcctgtgc tgactcagcc accctcagtg tccgtgtccc caggacagac agccagcata 60

acctgctctg gagataaatt gggagataaa tatatttcgt ggtatcaaca gaggccaggc 120

cagtcccctg taatggtaat ttatcaagat agcaaggggc cctcagggat ccctgagcga 180

ttctctggct ccaactctgg gaacacagcc actctgacca tcagcgggac gcaggctatg 240

gatgaggctg actattactg tcaggcgtgg gacagcagca tagatgtggg attcggcgga 300

gggaccaagc tcaccgtcct a 321

<210> 986

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 986

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

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

Ser Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Val Met Val Ile Tyr
35 40 45

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Gln Asp Ser Lys Gly Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Thr Gln Ala Met
65 70 75 80

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

Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105

<210> 987

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 987

Ser Gly Asp Lys Leu Gly Asp Lys Tyr Ile Ser
1 5 10

<210> 988

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 988

tctggagata aattgggaga taaatatatt tcg

33

<210> 989

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 989

Gln Asp Ser Lys Gly Pro Ser

1 5

<210> 990

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 990

caagatagca aggggcctc a

21

<210> 991

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 991

Gln Ala Trp Asp Ser Ser Ile Asp Val Val

1 5 10

<210> 992

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 992

caggcgtggg acagcagcat agatgtggta

30

<210> 993
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 993
 caggtccagc tggtgcagtc tgggcctgag atgaagaagc ctgggtcctc cgtgaaggtc 60
 tcctgcaagc cttctggagg caccttcagc agctactctg tcagctgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggagga atcatccga tatttggttc gtcagactac 180
 gcacagaagt ttcagggcag actcacaatt acagaggacg aatccacgaa gacatcctac 240
 atgcagctga acaacctgac atctgacgac acggccattt atttctgtgc gagagacaac 300
 tactatgttt ggactggtca ctatcccgaa ttgacttct ggggccaggg aaccctggtc 360
 accgtctcct ca 372

<210> 994
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 994
 Gln Val Gln Leu Val Gln Ser Gly Pro Glu Met Lys Lys Pro Gly Ser
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Pro Ser Gly Gly Thr Phe Ser Ser Tyr
 20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Ser Ser Asp Tyr Ala Gln Lys Phe
 50 55 60

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Gln Gly Arg Leu Thr Ile Thr Glu Asp Glu Ser Thr Lys Thr Ser Tyr
65 70 75 80

Met Gln Leu Asn Asn Leu Thr Ser Asp Asp Thr Ala Ile Tyr Phe Cys
85 90 95

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

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

<210> 995
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 995
Gly Thr Phe Ser Ser Tyr Ser Val Ser
1 5

<210> 996
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 996
ggcaccttca gcagctactc tgtcagc

27

<210> 997
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 997

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

Gly

<210> 998

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 998

ggaatcatcc	cgatatttgg	ttcgtcagac	tacgcacaga	agtttcaggg	c	51
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<210> 999

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 999

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

Phe

<210> 1000

<211> 51

<212> DNA

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1000

gcgagagaca actactatgt ttggactggt cactatcccg aatttgactt c 51

<210> 1001

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1001

gaaacgacac tcacgcagtc tccaggcacc ctgtccttgt ctctagggga gactgccacc 60

ctctcctgca gggccagtca gagtgtgaga agcgattact tagcctggta ccaacagaaa 120

ccaggccagg ctcccaggct cctcatctct ggtgcatcca acagggccac tgccatccca 180

gagaggttca ctggcagtgg gtctgggaca gacttcactc tcaccatcag cagcctggag 240

cctgcagatt ttgcagtgtg ttattgtcag cagtatggta gcacaccgat caccttcggc 300

caggggacac gactggagat taaa 324

<210> 1002

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1002

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

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

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

Ile Ser Gly Ala Ser Asn Arg Ala Thr Ala Ile Pro Glu Arg Phe Thr
50 55 60

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

Pro Ala Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Thr Pro
85 90 95

Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 1003
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1003
Arg Ala Ser Gln Ser Val Arg Ser Asp Tyr Leu Ala
1 5 10

<210> 1004
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1004
agggccagtc agagtgtgag aagcgattac ttagcc

36

<210> 1005
<211> 7
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1005

Gly Ala Ser Asn Arg Ala Thr

1 5

<210> 1006

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1006

ggtgcatcca acagggccac t

21

<210> 1007

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1007

Gln Gln Tyr Gly Ser Thr Pro Ile Thr

1 5

<210> 1008

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1008

cagcagtatg gtagcacacc gatacacc

27

<210> 1009

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1009

caggtgcagc tgcaggagtc ggggggaggc ttggtacagc ctgggggggtc cctgagactc 60

tcctgttcag cctctggatt cacctttagt aactatggca tgagttgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcaggt attggtgtga gtgatggaag cacacactac 180

gcggactccg tgaagggccg gttcatcatc tccagagaca attccaagaa catgctgtct 240

ctgcaaatga gcagcctggg agtcgacgac acggccgtat attactgtgc gagaattgta 300

attgttggag tattacgatt tcaggagtgg ttatcatctg acgggatgga cgtctggggc 360

caagggacca cggtcacctg ctcctca 387

<210> 1010

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1010

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

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

Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Met Leu Ser
65 70 75 80

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

Ala Arg Ile Val Ile Val Gly Val Leu Arg Phe Gln Glu Trp Leu Ser
100 105 110

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

Ser

<210> 1011

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1011

Phe Thr Phe Ser Asn Tyr Gly Met Ser
1 5

<210> 1012

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1012

ttcaccttta gtaactatgg catgagt

27

<210> 1013
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1013
 Gly Ile Gly Val Ser Asp Gly Ser Thr His Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1014
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1014
 ggtattggtg tgagtgatgg aagcacacac tacgcggact ccgtgaaggg c 51

<210> 1015
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1015
 Ala Arg Ile Val Ile Val Gly Val Leu Arg Phe Gln Glu Trp Leu Ser
 1 5 10 15

Ser Asp Gly Met Asp Val
 20

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<210> 1016
 <211> 66
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1016
 gcgagaattg taattgttgg agtattacga tttcaggagt ggttatcatc tgacgggatg 60
 gacgtc 66

<210> 1017
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1017
 gatattgtga tgaccagac tccatcttcc gtgtctgcat ctgtaggaga cagagtcacg 60
 atcacttgtc gggcgagtca ggccattagt ggcgggtag cctggatatca gcagaaagca 120
 ggaaaagccc ctaaactcct gatctatgct gcatccaatt tgccaagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
 gaggattttg cgacttatta ttgtcaacag gctaacagtt tccccttcac cttcggccaa 300
 gggacacgac tggagattaa a 321

<210> 1018
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1018

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

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

Leu Ala Trp Tyr Gln Gln Lys Ala Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Asn Leu Pro 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 Ala Asn Ser Phe Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 1019

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1019

Arg Ala Ser Gln Ala Ile Ser Gly Gly Leu Ala
1 5 10

<210> 1020

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1020
cgggcgagtc aggccattag tggcgggtta gcc 33

<210> 1021
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1021
Ala Ala Ser Asn Leu Pro Ser
1 5

<210> 1022
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1022
gctgcatcca atttgccaag t 21

<210> 1023
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1023
Gln Gln Ala Asn Ser Phe Pro Phe Thr
1 5

<210> 1024
<211> 27
<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1024

caacaggcta acagtttccc cttcacc

27

<210> 1025

<211> 357

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1025

gaggtgcagc tgttggagtc tgggggaggc ctggtcaagc ctgggggggc cctgagactc 60

tcctgtgcag cctcgggatt caccatcggt gggtataaca tgttctgggt ccgccagcct 120

ccggggaagg ggctggagtg ggtctcatcc attactgctg gtagtagtta tttaaactat 180

gcagactcag tgaagggccg tttcatcgtc tccagagaca acgccaagaa ttcactgtat 240

ctgcaaataa acagcctgag agccgaggac acggctgttt atttctgtgc gagagcacct 300

cttttaccgc ctatgatgga cctctggggc caagggaacca cggtcaccgt ctcctca 357

<210> 1026

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1026

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

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

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

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

Lys Gly Arg Phe Ile Val 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 Val Tyr Phe Cys
 85 90 95

Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
 115

<210> 1027
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1027
 Phe Thr Ile Gly Gly Tyr Asn Met Phe
 1 5

<210> 1028
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1028

ttcaccatcg gtggttataa catgttc

27

<210> 1029

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1029

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

Gly

<210> 1030

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1030

tccattactg ctggtagtag ttatttaaac tatgcagact cagtgaaggg c

51

<210> 1031

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1031

Ala	Arg	Ala	Pro	Leu	Leu	Pro	Ala	Met	Met	Asp	Leu
1				5				10			

<210> 1032

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<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1032
gcgagagcac ctcttttacc cgctatgatg gacctc 36

<210> 1033
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1033
cagtctgtgg tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcaa 120
cttccaggaa cagcccccaa actcctcatc tatactaaca acaatcggcc ctcaggggtc 180
cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
caggctgagg atgaggctga ctattactgc cagtcctatg acagaagcct gaatggttat 300
gtcttcggaa ctggcaccca gctgaccgtc ctc 333

<210> 1034
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1034
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Arg Ser
85 90 95

Leu Asn Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu
100 105 110

<210> 1035
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1035
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1036
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1036
actgggagca gctccaacat cggggcaggt tatgatgtac ac

<210> 1037
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1037
 Thr Asn Asn Asn Arg Pro Ser
 1 5

<210> 1038
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1038
 actaacaaca atcggcctc a

21

<210> 1039
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1039
 Gln Ser Tyr Asp Arg Ser Leu Asn Gly Tyr Val
 1 5 10

<210> 1040
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1040

cagtcctatg acagaagcct gaatggttat gtc

33

<210> 1041

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1041

cagggtccagc ttgtacagtc tgggggaggc ttggtcaagg ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccatcagt ggcttctaca tgacctggat ccgccaggct 120

ccagggaagg ggctggagtg ggtttcatcc attagtggta gtagtagtta cacaaactac 180

gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctactgtat 240

ctgcacatga acagcctgag agccgaggac acggctgtat attactgtgc gagaataagg 300

ccggatgata gtagtggtta tcctgactac tggggccagg gaaccctggt caccgtctcc 360

tca 363

<210> 1042

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1042

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

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

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 1043
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1043
 Phe Thr Ile Ser Gly Phe Tyr Met Thr
 1 5

<210> 1044
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1044
 ttcacatca gtggcttcta catgacc

<210> 1045
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1045
 Ser Ile Ser Gly Ser Ser Ser Tyr Thr Asn Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1046
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1046
 tccattagtg gtagtagtag ttacacaaac tacgcagact ctgtgaaggg c 51

<210> 1047
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1047
 Ala Arg Ile Arg Pro Asp Asp Ser Ser Gly Tyr Pro Asp Tyr
 1 5 10

<210> 1048
 <211> 42
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1048

gcgagaataa ggccggatga tagtagtggt tctcctgact ac

42

<210> 1049

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1049

cagtctgtgt tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gctgggttatg atgtacactg gtgccagcag 120

cttccaggaa cagcccccaa actcctcatc tatggtaaca acaatcggcc ctccaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gaggggcttt 300

gtcttcggaa ctgggaccaa ggtgaccgtc cta 333

<210> 1050

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1050

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

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

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Tyr Asp Val His Trp Cys Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Asn Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Phe Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1051
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1051
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1052
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1052
actgggagca gctccaacat cggggctggt tatgatgtac ac

42

<210> 1053

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1053
 Gly Asn Asn Asn Arg Pro Ser
 1 5

<210> 1054
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1054
 ggtaacaaca atcggcctc a

21

<210> 1055
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1055
 Gln Ser Tyr Asp Ser Ser Leu Ser Gly Phe Val
 1 5 10

<210> 1056
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1056
cagtcctatg acagcagcct gagtggcttt gtc 33

<210> 1057
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1057
gaggtgcagc tggtggagtc tggggctgag gtgaggaagc ctggggcctc agtgcaggtt 60
tcctgcaagg catctggata caccttcacc agctactata tgcactgggt gcgacaggcc 120
cctggacacg ggcttgagtg gatgggaatg atctacccta gtggtggtag cacaagctac 180
gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag cacagtctac 240
atggagctga gcagcctgag atctgaggac gcggccgtgt attactgtgc gagagaccgg 300
gcagggtgta gtggtggtag ctgttactat tatggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 1058
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1058
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
1 5 10 15

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

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

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Gly Met Ile Tyr Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80

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

Ala Arg Asp Arg Ala Gly Cys Ser Gly Gly Ser Cys Tyr Tyr Tyr Gly
100 105 110

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

<210> 1059
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1059
Tyr Thr Phe Thr Ser Tyr Tyr Met His
1 5

<210> 1060
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1060
tacaccttca ccagctacta tatgcac

27

<210> 1061

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1061
 Met Ile Tyr Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1062
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1062
 atgatctacc ctagtggtgg tagcacaagc tacgcacaga agttccaggg c 51

<210> 1063
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1063
 Ala Arg Asp Arg Ala Gly Cys Ser Gly Gly Ser Cys Tyr Tyr Tyr Gly
 1 5 10 15

Met Asp Val

<210> 1064

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<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1064
gcgagagacc gggcagggtg tagtggtggt agctgttact attatggtat ggacgtc 57

<210> 1065
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1065
aattttatgc tgactcagcc cccctcagtg tccgtgtccc caggacagac agccagcatc 60
acctgctctg gaaataaatt gggggataaa tatgcttgct ggtatcaaca aaagccaggc 120
cagtcccctg tgctgggtcat ctctcaagat agcaagcggc cctcagggat ccctgagcga 180
ttctctggct ccaactctgg gaacacagcc actctgacca tcagcgggac ccaggctatg 240
gatgaggctg actattactg tcaggcgtgg gacagtagaa ctgttgatt cggcggaggg 300
accaagctga ccgtccta 318

<210> 1066
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1066
Asn Phe Met Leu Thr Gln Pro Pro Ser Val Ser Val Ser Pro Gly Gln
1 5 10 15

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

Cys Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Leu Val Ile Ser
35 40 45

Gln Asp Ser Lys Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Thr Gln Ala Met
65 70 75 80

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

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105

<210> 1067
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1067
Ser Gly Asn Lys Leu Gly Asp Lys Tyr Ala Cys
1 5 10

<210> 1068
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1068
tctggaaata aattggggga taaatatgct tgc

<210> 1069
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1069
Gln Asp Ser Lys Arg Pro Ser
1 5

<210> 1070
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1070
caagatagca agcggccctc a

21

<210> 1071
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1071
Gln Ala Trp Asp Ser Arg Thr Val Val
1 5

<210> 1072
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1072

caggcgtggg acagtagaac tgttgta

27

<210> 1073

<211> 381

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1073

gaggtgcagc tgggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagt agttatgaaa tcagctgggt gcgacaggcc 120

cctggacaag gacttgagtg gatgggaggg atcaacccta tgtttggagc agcaaactac 180

gcacagaagt tccaggacag agtcacgatt atcgcggaca aatccacggg cacagtctac 240

atggaactga gcagcctgag atctgaggac acggccctct attactgtgc gagagaacgc 300

tacccgtcta cggatgacta ttataggagt ggctcgttact acggggagtg gggccagggg 360

accacggtca ccgtctcctc a 381

<210> 1074

<211> 127

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1074

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

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

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

Gly Gly Ile Asn Pro Met Phe Gly Ala Ala Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Glu Arg Tyr Pro Ser Thr Asp Asp Tyr Tyr Arg Ser Gly Arg
100 105 110

Tyr Tyr Gly Glu Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 1075
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1075
Gly Thr Phe Ser Ser Tyr Glu Ile Ser
1 5

<210> 1076
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1076
ggcaccttca gtagttatga aatcagc

<210> 1077
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1077
 Gly Ile Asn Pro Met Phe Gly Ala Ala Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1078
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1078
 gggatcaacc ctatgtttgg agcagcaaac tacgcacaga agttccagga c 51

<210> 1079
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1079
 Ala Arg Glu Arg Tyr Pro Ser Thr Asp Asp Tyr Tyr Arg Ser Gly Arg
 1 5 10 15

Tyr Tyr Gly Glu
 20

<210> 1080
 <211> 60
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1080
 gcgagagaac gctacccgctc tacggatgac tattatagga gtggctgcta ctacggggag 60

<210> 1081
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1081
 gaaacgacac tcacgcagtc tccttcacc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggccagtc gagtattcgt agttggttgg cctggtatca gcagaaacca 120
 gggaaagccc cgaagctcct gatctatagg gcgtctactt cagacagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttcacgctca ccatcagcag cctgcagcct 240
 gatgattttg caatttatta ctgccaacag tataatagca tcccagtgac gttcggccaa 300
 gggaccaagc tggagatcaa a 321

<210> 1082
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1082
 Glu Thr Thr Leu Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15

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

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Arg Ala Ser Thr Ser Asp Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

Asp Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Tyr Asn Ser Ile Pro Val
85 90 95

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

<210> 1083
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1083
Arg Ala Ser Gln Ser Ile Arg Ser Trp Leu Ala
1 5 10

<210> 1084
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1084

cgggccagtc agagtattcg tagttggttg gcc

33

<210> 1085
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1085
 Arg Ala Ser Thr Ser Asp Ser
 1 5

<210> 1086
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1086
 agggcgtcta cttcagacag t

21

<210> 1087
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1087
 Gln Gln Tyr Asn Ser Ile Pro Val Thr
 1 5

<210> 1088
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1088

caacagtata atagcatccc agtgacg

27

<210> 1089

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1089

gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cgtctggatt cacattcagt gactatgcc a tgcaactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaggtaa taaatactat 180

gcagactccg cgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gaaagatcgc 300

gggtctatct ggaacgttgg ggatggtatg gacgtctggg gccaaaggac cacggtcacc 360

gtctcttca 369

<210> 1090

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1090

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

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

Ala Val Ile Trp Tyr Asp Gly Gly Asn Lys Tyr Tyr Ala Asp Ser Ala
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 Lys Asp Arg Gly Ser Ile Trp Asn Val Gly Asp Gly Met Asp Val
100 105 110

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

<210> 1091
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1091
Phe Thr Phe Ser Asp Tyr Ala Met His
1 5

<210> 1092
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1092

ttcacattca gtgactatgc catgcac

27

<210> 1093
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1093
 Val Ile Trp Tyr Asp Gly Gly Asn Lys Tyr Tyr Ala Asp Ser Ala Lys
 1 5 10 15

Gly

<210> 1094
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1094
 gttatatggt atgatggagg taataaatac tatgcagact ccgcgaaggg c

51

<210> 1095
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1095
 Ala Lys Asp Arg Gly Ser Ile Trp Asn Val Gly Asp Gly Met Asp Val
 1 5 10 15

<210> 1096

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<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1096
gcgaaagatc gcgggtctat ctggaacgtt ggggatggta tggacgtc 48

<210> 1097
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1097
cagcctgtgc tgactcagcc accctcggtg tcagtggccc caggacagac ggccagggtt 60
acctgtgggg gaaacaacat tggagctaag agtgtccact ggtaccagca gaagccaggc 120
caggcccctg tgctggctgt cgatgatgat accgaccggc cctcagggat ccctgagcga 180
ttctctggct ccaactctgg gaacacggcc accctgacca tcagcagggt cgaagccggg 240
gatgaggccg actattactg tcagggtgtgg gatgctagta ttggtcctct ttatgtcttc 300
ggaactggga ccaagctcac cgtccta 327

<210> 1098
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1098
Gln Pro Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Gln
1 5 10 15

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

His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Val Asp
35 40 45

Asp Asp Thr Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ala Ser Ile Gly Pro
85 90 95

Leu Tyr Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105

<210> 1099
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1099
Gly Gly Asn Asn Ile Gly Ala Lys Ser Val His
1 5 10

<210> 1100
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1100
gggggaaaca acattggagc taagagtgtc cac

<210> 1101
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1101
 Asp Asp Thr Asp Arg Pro Ser
 1 5

<210> 1102
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1102
 gatgataccg accggccctc a

21

<210> 1103
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1103
 Gln Val Trp Asp Ala Ser Ile Gly Pro Leu Tyr Val
 1 5 10

<210> 1104
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1104

caggtgtggg atgctagtat tggctcctctt tatgtc

36

<210> 1105

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1105

caggtccagc tgggtgcagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggttt caccttcagt gacttttcta tgcactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcactc atctcaaagc atggaagcaa taaatattat 180

tcagactccc tgaagggttc attcatcatc tccagagaca actccaagaa cacgctctat 240

ctccaactga acagcctggg agctgaggac acggctctgt attactgtgc gagagatgcg 300

gttccccatt atgattacgt ctggggaaac tttgactact ggggcccggg aaccctggtc 360

accgtctcct ca 372

<210> 1106

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1106

Gln Val Gln Leu Val Gln 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 Asp Phe
20 25 30

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

Ala Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu
50 55 60

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

Leu Gln Leu Asn Ser Leu Gly Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

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

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

<210> 1107
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1107
Phe Thr Phe Ser Asp Phe Ser Met His
1 5

<210> 1108
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1108
ttcaccttca gtgacttttc tatgcac

<210> 1109
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1109
Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu Lys
1 5 10 15

Gly

<210> 1110
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1110
ctcatctcaa atgatggaag caataaatat tattcagact ccctgaaggg t 51

<210> 1111
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1111
Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
1 5 10 15

Tyr

<210> 1112
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1112
 gcgagagatg cggttcccca ttatgattac gtctggggaa actttgacta c 51

<210> 1113
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1113
 cagcctgtgc tgactcagcc tgcctccgtg tctgcgtctc ctggacagtc gatcaccatc 60
 tcctgcactg gaaccagcag tgacgttggt gggtataatt atgtctcctg gtaccaacag 120
 caccaggca aagccccaa actcatagtt tatgagggtca gtaatcggcc ctgaggggtt 180
 tctaatacgt tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240
 caggctgacg acgaggctga ttattactgc agctcatata caagtttcac tcccgtggta 300
 ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1114
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1114
 Gln Pro Val Leu Thr Gln Pro Ala Ser Val Ser Ala Ser Pro Gly Gln
 1 5 10 15

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

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

Ile Val Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Thr Pro Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1115
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1115
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 1116
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1116

actggaacca gcagtgcagt tgggtggttat aattatgtct cc

42

<210> 1117
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1117
 Glu Val Ser Asn Arg Pro Ser
 1 5

<210> 1118
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1118
 gaggtcagta atcggccttc a

21

<210> 1119
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1119
 Ser Ser Tyr Thr Ser Phe Thr Pro Val Val
 1 5 10

<210> 1120
 <211> 30
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1120

agctcatata caagtttcac tcccgtggtgta

30

<210> 1121

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1121

gaggtgcagc tggtggagtc tgggggaggc ttggttcagc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt cacttttagc gactttgcca tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcactt attaaaagta gtgattatgc atactatgca 180

gactccgtga ggggccggtt caccatctcc agagacaatt ccaagaacac cctgtatctg 240

cgaatgaaca gcctgagagc cgacgacacg gccgtatatt actgtgcgaa agacgccgat 300

ttttggagtg gtgattccta caatggaggg tacaactttg actcctgggg ccagggaacc 360

ctggtcaccg tctcctca 378

<210> 1122

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1122

Glu Val Gln Leu Val 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 Asp Phe
20 25 30

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

Ser Leu Ile Lys Ser Ser Asp Tyr Ala Tyr Tyr Ala Asp Ser Val Arg
50 55 60

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

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

Lys Asp Ala Asp Phe Trp Ser Gly Asp Ser Tyr Asn Gly Gly Tyr Asn
100 105 110

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

<210> 1123
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1123
Phe Thr Phe Ser Asp Phe Ala Met Ser
1 5

<210> 1124
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1124

ttcacttttta gcgactttgc catgagc

27

<210> 1125
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1125
 Leu Ile Lys Ser Ser Asp Tyr Ala Tyr Tyr Ala Asp Ser Val Arg Gly
 1 5 10 15

<210> 1126
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1126
 cttattaaaa gtagtgatta tgcatactat gcagactccg tgaggggc

48

<210> 1127
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1127
 Ala Lys Asp Ala Asp Phe Trp Ser Gly Asp Ser Tyr Asn Gly Gly Tyr
 1 5 10 15

Asn Phe Asp Ser
 20

<210> 1128

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<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1128
gcgaaagacg ccgatttttg gagtggtgat tcctacaatg gaggggtacaa ctttgactcc 60

<210> 1129
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1129
gatattgtgc tgaccagtc tccagccacc ctgtctgtat ctccagggga aagagccacc 60
ctctcctgca gggccagtc gagtggtggc accaacttgg cctggtacca gcaaaaacct 120
ggccaggctc cccggctcct catcttttgt gcctcaacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataagt ggctccgct cactttcggc 300
ggagggacca aagtggatat caaa 324

<210> 1130
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1130
Asp Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

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

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

Phe Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

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

Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
100 105

<210> 1131
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1131
Arg Ala Ser Gln Ser Val Gly Thr Asn Leu Ala
1 5 10

<210> 1132
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1132
agggccagtc agagtgttgg caccaacttg gcc

<210> 1133
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1133
 Gly Ala Ser Thr Arg Ala Thr
 1 5

<210> 1134
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1134
 ggtgcctcaa ccagggccac t

21

<210> 1135
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1135
 Gln Gln Tyr Asn Lys Trp Pro Pro Leu Thr
 1 5 10

<210> 1136
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1136
cagcagtata ataagtggcc tccgctcact 30

<210> 1137
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1137
cagggtccagc ttgtgcagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt catcttcagt gactactaca tggctctggat ccgtcaggct 120
ccagggaagg ggctggagtg ggtttcatac attagtagta gcagcagata cataaactac 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcaactgtt 240
ctgcaaatac acaccgtgag agccgaggac acggctgtgt attactgtgc gcaaggctgg 300
tattccgatt tttggagtgg tcccattagg atttggggcc aggaaccct ggtcaccgtc 360
tcctca 366

<210> 1138
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1138
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser Asp Tyr
20 25 30

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

Ser Tyr Ile Ser Ser Ser Ser Arg Tyr Ile Asn Tyr Ala Asp Ser Val
 50 55 60

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

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

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

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

<210> 1139
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1139
 Phe Ile Phe Ser Asp Tyr Tyr Met Val
 1 5

<210> 1140
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1140
 ttcatcttca gtgactacta catggtc

<210> 1141
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1141
 Tyr Ile Ser Ser Ser Ser Arg Tyr Ile Asn Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1142
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1142
 tacattagta gtagcagcag atacataaac tacgcagact ctgtgaaggg c 51

<210> 1143
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1143
 Ala Gln Gly Trp Tyr Ser Asp Phe Trp Ser Gly Pro Ile Arg Ile
 1 5 10 15

<210> 1144
 <211> 45
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1144

gcgcaaggct ggtattccga tttttggagt ggtcccata ggatt

45

<210> 1145

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1145

gacatccagt tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc aggcgagtca ggacattagt aactctttaa attggtttca gcagaaacct 120

gggaaagccc ctaagctcct gatcttcgat gcatacaatc tggaaacagg ggtcccatca 180

aggttcagtg gaagtggatc tgggacagat tttaccctca ccatcagcag cctgcagcct 240

gaagatattg caacatatta ctgtcagcag aatgataatc tcgttctcac tttcggcgga 300

gggaccaagc tggagatcaa a 321

<210> 1146

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1146

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

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

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Leu Asn Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

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

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

<210> 1147
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1147
 Gln Ala Ser Gln Asp Ile Ser Asn Ser Leu Asn
 1 5 10

<210> 1148
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1148
 caggcgagtc aggacattag taactcttta aat

33

<210> 1149

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1149
 Asp Ala Tyr Asn Leu Glu Thr
 1 5

<210> 1150
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1150
 gatgcataca atctggaaac a

21

<210> 1151
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1151
 Gln Gln Asn Asp Asn Leu Val Leu Thr
 1 5

<210> 1152
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1152
cagcagaatg ataatctcgt tctcact 27

<210> 1153
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1153
caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacgtttgat aattacccca tgcactggat ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttagc atagtggaag cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagacgcc 300
cattactttg ataatagcgg tcactactac tacggtctgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 1154
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1154
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 Asn Tyr
20 25 30
Pro Met His Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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Ser Gly Ile Ser Trp His Ser Gly Ser Ile Gly 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 Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Lys Asp Ala His Tyr Phe Asp Asn Ser Gly His Tyr Tyr Tyr Gly
100 105 110

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

<210> 1155
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1155
Phe Thr Phe Asp Asn Tyr Pro Met His
1 5

<210> 1156
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1156
ttcacgtttg ataattaccc catgcac

27

<210> 1157

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1157
 Gly Ile Ser Trp His Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1158
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1158
 ggtattagtt ggcatagttg aagcataggc tatgcggact ctgtgaaggg c 51

<210> 1159
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1159
 Ala Lys Asp Ala His Tyr Phe Asp Asn Ser Gly His Tyr Tyr Tyr Gly
 1 5 10 15

Leu Asp Val

<210> 1160

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<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1160
gcaaaagacg cccattactt tgataatagc ggctactact actacgggtct ggacgtc 57

<210> 1161
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1161
gaaattgtgt tgacacagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gaatattatc aacaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctctggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcaccag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggccgctcac tttcggcgga 300
gggaccaaag tggatatcaa a 321

<210> 1162
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1162
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

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

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

Ser Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Thr Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
100 105

<210> 1163
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1163
Arg Ala Ser Gln Asn Ile Ile Asn Asn Leu Ala
1 5 10

<210> 1164
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1164
agggccagtc agaataattat caacaactta gcc

<210> 1165
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1165
 Gly Ala Ser Thr Arg Ala Thr
 1 5

<210> 1166
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1166
 ggtgcatcca ccagggccac t

21

<210> 1167
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1167
 Gln Gln Tyr Asn Asn Trp Pro Leu Thr
 1 5

<210> 1168
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1168

cagcagtata ataactggcc gctcact

27

<210> 1169

<211> 387

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1169

cagggtccagc tggtgcagtc tgggggaggc ttggtacagc cagggcggtc cctgagactc 60

tcctgtacag cctctggatt cagcttcagt gattatggag tgacctgggt ccgccaggct 120

ccagggaagg ggctggagtg gataggtttc gtcagaacca agggttatgg agggacaaca 180

gagtacgccg cgtctgtgag aggcagattc accatctcaa gagatgactc caaaagcgtc 240

gcctatctac aattgaacag cctgaaagtc gaggatacag ccgtctatta ctgttctggg 300

gcatcacggg gcttttggag tgggcccaacc tactactact ttggtatgga cgtctggggc 360

catgggacca cggtcactgt ctctca 387

<210> 1170

<211> 129

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1170

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

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

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

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

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

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

Tyr Cys Ser Gly Ala Ser Arg Gly Phe Trp Ser Gly Pro Thr Tyr Tyr
 100 105 110

Tyr Phe Gly Met Asp Val Trp Gly His Gly Thr Thr Val Thr Val Ser
 115 120 125

Ser

<210> 1171
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1171
 Phe Ser Phe Ser Asp Tyr Gly Val Thr
 1 5

<210> 1172
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1172
ttcagcttca gtgattatgg agtgacc 27

<210> 1173
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1173
Phe Val Arg Thr Lys Gly Tyr Gly Gly Thr Thr Glu Tyr Ala Ala Ser
1 5 10 15

Val Arg Gly

<210> 1174
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1174
ttcgtcagaa ccaagggtta tggagggaca acagagtacg ccgcgtctgt gagaggc 57

<210> 1175
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1175
Ser Gly Ala Ser Arg Gly Phe Trp Ser Gly Pro Thr Tyr Tyr Tyr Phe
1 5 10 15

Gly Met Asp Val
20

<210> 1176
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1176
tctggggcat cacggggctt ttggagtggg ccaacctact actactttgg tatggacgtc 60

<210> 1177
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1177
gaaattgtgt tgacacagtc tccactctcc ctggccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catggtaatg gatacaacta cttggattgg 120
tacctgcaga agccagggca gtctccacaa ctctgatct tttgggggttc ttatcgggcc 180
tccggggccc ctgacaggtt cagtgccagt ggatcaggct cagagtttac actgaaaatc 240
agaagagtgg aggctgagga tgtggggggtt tattactgca tgcaacctct acaaacaact 300
tttggccagg ggaccaaagt ggatatcaaa 330

<210> 1178
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

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<400> 1178

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

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

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

Pro Gln Leu Leu Ile Phe Trp Gly Ser Tyr Arg Ala Ser Gly Ala Pro
50 55 60

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

Arg Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Pro
85 90 95

Leu Gln Thr Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
100 105 110

<210> 1179

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1179

Arg Ser Ser Gln Ser Leu Leu His Gly Asn Gly Tyr Asn Tyr Leu Asp
1 5 10 15

<210> 1180

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1180

aggcttagtc agagcctcct gcatggtaat ggatacaact acttggat

48

<210> 1181

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1181

Trp Gly Ser Tyr Arg Ala Ser

1 5

<210> 1182

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1182

tggggttctt atcgggcctc c

21

<210> 1183

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1183

Met Gln Pro Leu Gln Thr Thr

1 5

<210> 1184

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<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1184
atgcaacctc tacaacaac t 21

<210> 1185
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1185
caggtccagc tgggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctaaagatc 60
tcctgtaagg gttctggata cacctttaga atgtattgga tcggctgggc gcgcctgctg 120
cccgggaaag gcctggagtg gataggaatc atctatcctg gtgactctga taccaggtac 180
aaccctgtccc tccaaggcca ggtcaccatg tcagtcgaca agtccatcaa caccgcctac 240
ctccagtggg gaagcctgaa ggcctcggac agcgccattt attactgtgc gagactgaga 300
ttacatcccc agagtggaat ggacgtctgg ggccaaggga ccctgggtcac cgtctcctca 360

<210> 1186
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1186
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15

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Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Arg Met Tyr
20 25 30

Trp Ile Gly Trp Ala Arg Leu Leu Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

Leu Gln Trp Gly Ser Leu Lys Ala Ser Asp Ser Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Leu Arg Leu His Pro Gln Ser Gly Met Asp Val Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1187
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1187
Tyr Thr Phe Arg Met Tyr Trp Ile Gly
1 5

<210> 1188
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1188
tacaccttta gaatgtattg gatcggc

27

<210> 1189
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1189
Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Asn Pro Ser Leu Gln
1 5 10 15

Gly

<210> 1190
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1190
atcatctatc ctggtgactc tgataccagg tacaaccgt ccctccaagg c

51

<210> 1191
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1191
Ala Arg Leu Arg Leu His Pro Gln Ser Gly Met Asp Val
1 5 10

<210> 1192
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1192
 gcgagactga gattacatcc ccagagtgga atggacgtc 39

<210> 1193
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1193
 aattttatgc tgactcagcc ccactctgtg tcggagtctc cggggaagac ggtagttatc 60
 tcctgcaccc gcagcagtgg cagcattgcc ggctactatg tgcagtggta ccaacatcgc 120
 ccgggcagtt cccccactac tgtgatatat gaggatgacc aaagaccctc tgggggtcct 180
 gatcggttct ctgggtccgt cgacagctcc tccaactctg cctccctcac catctctgga 240
 ctgaagactg aggacgaggc tgactactat tgtcagtcct atgataacgc catttgggtg 300
 ttcggcggag ggaccaagct caccgtccta 330

<210> 1194
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1194
 Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
 1 5 10 15

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Thr Val Val Ile Ser Cys Thr Arg Ser Ser Gly Ser Ile Ala Gly Tyr
20 25 30

Tyr Val Gln Trp Tyr Gln His Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asp Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Val 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 Asn
85 90 95

Ala Ile Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1195
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1195
Thr Arg Ser Ser Gly Ser Ile Ala Gly Tyr Tyr Val Gln
1 5 10

<210> 1196
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1196

acccgcagca gtggcagcat tgccggctac tatgtgcag

39

<210> 1197
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1197
 Glu Asp Asp Gln Arg Pro Ser
 1 5

<210> 1198
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1198
 gaggatgacc aaagaccctc t

21

<210> 1199
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1199
 Gln Ser Tyr Asp Asn Ala Ile Trp Val
 1 5

<210> 1200
 <211> 27
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1200

cagtcctatg ataacgccat ttgggtg

27

<210> 1201

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1201

cagggtgcagc ttgtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agtaaaactac 180

gcacagaagt tccagggcag agtcacgatt accgcggacg aatccacgag cacagcctac 240

atggagctga gcagtctgag atctgaggac acggccgtgt attactgtgc gagagatcgt 300

tcggtgaccc ctcgctacta cggtatggac gtctgggggcc aagggaccac ggtcaccgtc 360

tcctca 366

<210> 1202

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1202

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

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

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Asp Arg Ser Val Thr Pro Arg Tyr Tyr Gly Met Asp Val Trp
100 105 110

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

<210> 1203
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1203
Gly Thr Phe Ser Ser Tyr Ala Ile Ser
1 5

<210> 1204
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1204

ggcaccttca gcagctatgc tatcagc

27

<210> 1205
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1205
 Gly Ile Ile Pro Ile Phe Gly Thr Val Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1206
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1206
 gggatcatcc ctatctttgg tacagtaaac tacgcacaga agttccaggg c

51

<210> 1207
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1207
 Ala Arg Asp Arg Ser Val Thr Pro Arg Tyr Tyr Gly Met Asp Val
 1 5 10 15

<210> 1208

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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1208
gcgagagatc gttcgggtgac ccctcgctac tacggtatgg acgtc 45

<210> 1209
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1209
gaaattgtga tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agctacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcagcac cgtagcaact ggcctccact cactttcggc 300
cctgggacca agctggagat caaa 324

<210> 1210
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1210
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30

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

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Arg Ser Asn Trp Pro Pro
85 90 95

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

<210> 1211
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1211
Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
1 5 10

<210> 1212
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1212
agggccagtc agagtgttag cagctactta gcc

<210> 1213
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1213
 Asp Ala Ser Asn Arg Ala Thr
 1 5

<210> 1214
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1214
 gatgcatcca acagggccac t

21

<210> 1215
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1215
 Gln His Arg Ser Asn Trp Pro Pro Leu Thr
 1 5 10

<210> 1216
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1216
cagcaccgta gcaactggcc tccactcact 30

<210> 1217
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1217
gaggtgcagc tggttgagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60
tcctgtgcag cctcgggatt caccatcagt ggttataaca tggttctgggt ccgccagcct 120
ccggggaagg ggctggagtg ggtctcatcc attactgctg gtagtagtta tttaaactat 180
gcagactcag tgaagggccg tttcatcgtc tccagagaca acgccaagaa ttcactgtat 240
ctgcaaataa acagcctgag agccgaggac acggctgttt atttctgtgc gagagcacct 300
cttttacccg ctatgatgga cctctggggc caagggacca cggtcaccgt ctctca 357

<210> 1218
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1218
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

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

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

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

Lys Gly Arg Phe Ile Val 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 Val Tyr Phe Cys
85 90 95

Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu Trp Gly Gln Gly
100 105 110

Thr Thr Val Thr Val Ser Ser
115

<210> 1219
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1219
Phe Thr Ile Ser Gly Tyr Asn Met Phe
1 5

<210> 1220
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1220
ttcaccatca gtggttataa catgttc

27

<210> 1221

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1221
 Ser Ile Thr Ala Gly Ser Ser Tyr Leu Asn Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1222
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1222
 tccattactg ctggtagtag ttatttaaac tatgcagact cagtgaaggg c 51

<210> 1223
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1223
 Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu
 1 5 10

<210> 1224
 <211> 36
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1224

gcgagagcac ctcttttacc cgctatgatg gacctc

36

<210> 1225

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1225

cagtctgtgc tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcaa 120

cttccaggaa cagcccccaa actcctcatc tatactaaca acaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ctattactgc cagtcctatg acagaagcct gaatggttat 300

gtcttcggaa ctgggaccaa ggtcaccgtc cta 333

<210> 1226

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1226

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

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

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Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Arg Ser
85 90 95

Leu Asn Gly Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1227
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1227
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1228
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1228
actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 1229
<211> 7
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1229

Thr Asn Asn Asn Arg Pro Ser

1 5

<210> 1230

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1230

actaacaaca atcggcctc a

21

<210> 1231

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1231

Gln Ser Tyr Asp Arg Ser Leu Asn Gly Tyr Val

1 5 10

<210> 1232

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1232

cagtcctatg acagaagcct gaatggttat gtc

33

<210> 1233
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1233
 gaggtgcagc tggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
 tcctgcaagg cttctgcaga caccttcagc agttatgcta tcagctgggt gcggcaggcc 120
 cctggacaag ggcttgagtg gatgggaggg atcctcccta tccttggtac agcaaactcc 180
 gcacagaagt tccggggcag agtcacgttt accgcggacg aatccacgac cacagcctac 240
 atggaactga gcagcctgag atctgaggac acggccgtct attactgcgc gaggcttgct 300
 ggaccacggg ggccggggta cggtatggac gtctggggcc aagggaccct ggtcaccgtc 360
 tcctca 366

<210> 1234
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1234
 Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Ala Asp Thr Phe Ser Ser Tyr
 20 25 30
 Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

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Gly Gly Ile Leu Pro Ile Leu Gly Thr Ala Asn Ser Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Leu Ala Gly Pro Arg Trp Pro Gly Tyr Gly Met Asp Val Trp
100 105 110

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

<210> 1235
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1235
Asp Thr Phe Ser Ser Tyr Ala Ile Ser
1 5

<210> 1236
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1236
gacaccttca gcagttatgc tatcagc

27

<210> 1237
<211> 17
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1237

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

Gly

<210> 1238

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1238

gggatcctcc ctatccttgg tacagcaaac tccgcacaga agttccgggg c

51

<210> 1239

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1239

Ala	Arg	Leu	Ala	Gly	Pro	Arg	Trp	Pro	Gly	Tyr	Gly	Met	Asp	Val
1				5					10					15

<210> 1240

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1240

gcgaggcttg ctggaccacg gtggccgggg tacggtatgg acgtc 45

<210> 1241

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1241

gacatccagt tgaccagtc tccatccttc ctgtctgctt ctgtaggaga cagagtcacc 60

atcacttgcc gggccagtca gggcattagc agttatttag cctggtatca acagaaacca 120

gggaaagccc ctaaactcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagaa ttcacttca caatcagcag cctgcagcct 240

gaagattttg caacttatta ctgtcagcag cttaacagtt tccccctcac cttcggcgga 300

gggaccaagg tggaatcaa a 321

<210> 1242

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1242

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

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

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Phe Pro Leu
85 90 95

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

<210> 1243
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1243
Arg Ala Ser Gln Gly Ile Ser Ser Tyr Leu Ala
1 5 10

<210> 1244
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1244
cgggccagtc agggcattag cagttattta gcc

33

<210> 1245
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1245
 Ala Ala Ser Thr Leu Gln Ser
 1 5

<210> 1246
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1246
 gctgcatcca ctttgcaaag t

21

<210> 1247
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1247
 Gln Gln Leu Asn Ser Phe Pro Leu Thr
 1 5

<210> 1248
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1248
 cagcagctta acagtttccc cctcacc

27

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<210> 1249
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1249
 caggtccagc tggtgcagtc tggggctgag gtgacgaagc ctggggcctc agtgagggtc 60
 tcctgcaaat tttccgcata caccctctct gcattatcca ttcactgggt gcgacaggct 120
 cctggaaaag gccttgagtg gatgggagct tttgatcctg aggatgggtga gccaatctac 180
 tcacagcatt tccagggcag agtcaccatg accgaggaca cttctacaca gacagcctac 240
 atggagctga acagcctgag atctgaggac acggccgttt attactgttc atccgtagga 300
 ccagcggggg ggttcgaccc ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 1250
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1250
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Thr Lys Pro Gly Ala
 1 5 10 15
 Ser Val Arg Val Ser Cys Lys Phe Ser Ala Tyr Thr Leu Ser Ala Leu
 20 25 30
 Ser Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 Gly Ala Phe Asp Pro Glu Asp Gly Glu Pro Ile Tyr Ser Gln His Phe
 50 55 60

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Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Gln Thr Ala Tyr
65 70 75 80

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

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

Leu Val Thr Val Ser Ser
115

<210> 1251
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1251
Tyr Thr Leu Ser Ala Leu Ser Ile His
1 5

<210> 1252
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1252
tacacctct ctgcattatc cattcac

27

<210> 1253
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1253

Ala	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Pro	Ile	Tyr	Ser	Gln	His	Phe	Gln
1				5				10						15	

Gly

<210> 1254

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1254

gcttttgatc ctgaggatgg tgagccaatc tactcacagc atttccaggg c

51

<210> 1255

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1255

Ser	Ser	Val	Gly	Pro	Ala	Gly	Trp	Phe	Asp	Pro
1				5				10		

<210> 1256

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1256

tcatccgtag gaccagcggg gtggttcgac ccc

33

<210> 1257
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1257
 gacatccggt tgaccagtc tccatcctcc ctgtctgcat ctgtgggaga cagagtcagc 60
 atcacttgcc gggcaagtca gagcattagc agctatttac attggtatca acaaaaacca 120
 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggtcagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaccag agttacattc cccattcac tttcggccct 300
 gggaccaagc tggagatcaa a 321

<210> 1258
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1258
 Asp Ile Arg Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

Leu His 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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Ser Tyr Ile Pro Pro Phe
85 90 95

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

<210> 1259
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1259
Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu His
1 5 10

<210> 1260
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1260
cgggcaagtc agagcattag cagctattta cat

33

<210> 1261
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1261
Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 1262
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1262
gctgcatcca gtttgcaaag t 21

<210> 1263
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1263
His Gln Ser Tyr Ile Pro Pro Phe Thr
1 5

<210> 1264
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1264
caccagagtt acattccccc attcact 27

<210> 1265
<211> 360
<212> DNA

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<213> Artificial Sequence

 $\langle 220 \rangle$

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic  
heavy chain variable region"
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<400> 1265

gaggtgcagc tggtggagtc tgggggagggc ctggtcaagc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt caccatcact agctatggca tgaactgggt ccgccaggct 120

ccaggaaagg ggctggagtg ggtctcatcc attagtagta gtagtagttt catacactat 180

ggagactcag tgaagggtcg attcaccatc tccagagaca acgccaagaa ctactgtat 240

ctgcaaatga acagcctgag agccgggggac acggctgtat actactgtgt gagagactcg 300

ggccaccaggg actaccgcgg ggactactgg ggccaggggaa ccctgggtcac cgtctcctca 360

$\langle 210 \rangle$ 1266

$\langle 211 \rangle$ 120

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic  
heavy chain variable region"
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<400> 1266

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

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

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

Ser Ser Ile Ser Ser Ser Ser Ser Phe Ile His Tyr Gly 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

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

Val Arg Asp Ser Gly His Gln Asp Tyr Arg Gly Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 1267
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1267
 Phe Thr Ile Thr Ser Tyr Gly Met Asn
 1 5

<210> 1268
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1268
 ttcacatca ctagctatgg catgaac

27

<210> 1269
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1269

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Ser Ile Ser Ser Ser Ser Ser Phe Ile His Tyr Gly Asp Ser Val Lys
1 5 10 15

Gly

<210> 1270
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1270
tccattagta gtagtagtag tttcatcac tatggagact cagtgaagg t 51

<210> 1271
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1271
Val Arg Asp Ser Gly His Gln Asp Tyr Arg Gly Asp Tyr
1 5 10

<210> 1272
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1272
gtgagagact cgggccacca ggactaccgc ggggactac 39

<210> 1273

<211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1273
 cagtctgtgg tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtctccatc 60
 tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcag 120
 cttccaggaa cagcccccaa actcctcatc tatactaaca acaatcggcc ctcagggggtc 180
 cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat caatgggctc 240
 caggctgagg atgaggctga ttattactgc cagtcctatg acaggagcct gagtgggttg 300
 gtgttcggcg gagggaccaa gctcaccgtc cta 333

<210> 1274
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1274
 Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15
 Arg Val Ser Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly
 20 25 30
 Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
 35 40 45
 Leu Ile Tyr Thr Asn Asn Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
 50 55 60
 Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Asn Gly Leu
 65 70 75 80

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Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Arg Ser
85 90 95

Leu Ser Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1275
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1275
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1276
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1276
actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 1277
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1277
Thr Asn Asn Asn Arg Pro Ser
1 5

<210> 1278
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1278
actaacaaca atcggcctc a

21

<210> 1279
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1279
Gln Ser Tyr Asp Arg Ser Leu Ser Gly Trp Val
1 5 10

<210> 1280
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1280
cagtcctatg acaggagcct gagtggttgg gtg

33

<210> 1281
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1281

```

caggtgcagc tgggtggagtc tggctctgcg ttggtgaaac ccacacagac cctcacactg      60
acctg'gcct tctctgggtt ctcactcacc actcgtggga tgtctgtgag ctggatccgt      120
cagccccag ggaaggccct ggagtggctt gcacgcattg attgggatga tgataaatac      180
tacagcacct ctctgaagac caggctcacc atctccaagg acacctcaa aaaccaggtg      240
gtcctcacia tgagcaacat ggaccctgtg gacacagcca cgtattactg tgcacgggcg      300
tctctctatg atagtgggtg ctattacctt tttttctttg actactgggg ccaggaacc      360
ctggtcaccg tctcctca                                     378

```

<210> 1282

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1282

```

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

```

```

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

```

```

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

```

```

Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser
50              55              60

```

```

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

```

```

Val Leu Thr Met Ser Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
            85              90              95

```

Cys Ala Arg Ala Ser Leu Tyr Asp Ser Gly Gly Tyr Tyr Leu Phe Phe
 100 105 110

Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 1283
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1283
 Phe Ser Leu Thr Thr Arg Gly Met Ser Val Ser
 1 5 10

<210> 1284
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1284
 ttctcactca ccactcgtgg gatgtctgtg agc

33

<210> 1285
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1285
 Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser Leu Lys Thr
 1 5 10 15

<210> 1286
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1286
 cgcatgtgatt gggatgatga taaatactac agcacctctc tgaagacc 48

<210> 1287
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1287
 Ala Arg Ala Ser Leu Tyr Asp Ser Gly Gly Tyr Tyr Leu Phe Phe Phe
 1 5 10 15

Asp Tyr

<210> 1288
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1288
 gcacgggcgt ctctctatga tagtggtggc tattaccttt ttttctttga ctac 54

<210> 1289
 <211> 321
 <212> DNA

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<213> Artificial Sequence

 $\langle 220 \rangle$

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic  
light chain variable region"
```

<400> 1289

gatattgtga tgactcagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60

atcacttgcc gggcaagcca gagcattggc agttatttaa attggtatca gcagaaacca 120

gggaaagtcc cgaaactcct gatctatgct gcatccaatt tgcaagggtgg ggtcccatca 180

agggtttcgtg gcagtggatc tgggacagat ttcactctca ccatcagcaa tctgcaacct 240

gaagattttg caagttacta ctgtcaactg agttacagta gcctttggac gttcggccaa 300

gggaccaagg tggaaatcaa a 321

<210> 1290

<211> 107

<212> PRT

<213> Artificial Sequence

 $\langle 220 \rangle$

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic  
light chain variable region"
```

<400> 1290

Asp Ile Val 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 Ser Ile Gly Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
35 40 45

Tyr Ala Ala Ser Asn Leu Gln Gly Gly Val Pro Ser Arg Phe Arg Gly
50 55 60

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

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

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

<210> 1291
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1291
Arg Ala Ser Gln Ser Ile Gly Ser Tyr Leu Asn
1 5 10

<210> 1292
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1292
cgggcaagcc agagcattgg cagttattta aat

33

<210> 1293
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1293
Ala Ala Ser Asn Leu Gln Gly
1 5

<210> 1294
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1294
 gctgcatcca atttgcaagg t 21

<210> 1295
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1295
 Gln Leu Ser Tyr Ser Ser Leu Trp Thr
 1 5

<210> 1296
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1296
 caactgagtt acagtagcct ttggacg 27

<210> 1297
 <211> 351
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

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```

<400> 1297
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagagtc      60
tcctgtgcag cctctggatt tgacttcagt aactatgcca tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcactt atatcctatg atggaaataa taaagtctat      180
gcagactccg tgaagggccg attcaccgtc tccagagaca attccaaaaa cacactttat      240
ctgcaaatga acagcctgag acctgaagac acggctgtga tttactgtgc gaaagatggc      300
tatctggctc ctgacttctg gggccaggga accctgggtca ccgtctcctc a              351

```

```

<210> 1298
<211> 117
<212> PRT
<213> Artificial Sequence

```

```

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
        heavy chain variable region"

```

```

<400> 1298
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1           5           10           15

```

```

Ser Leu Arg Val Ser Cys Ala Ala Ser Gly Phe Asp Phe Ser Asn Tyr
          20           25           30

```

```

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

```

```

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

```

```

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

```

```

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

```

```

Ala Lys Asp Gly Tyr Leu Ala Pro Asp Phe Trp Gly Gln Gly Thr Leu
          100          105          110

```

Val Thr Val Ser Ser
115

<210> 1299
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1299
Phe Asp Phe Ser Asn Tyr Ala Met His
1 5

<210> 1300
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1300
tttgacttca gtaactatgc catgcac

27

<210> 1301
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1301
Leu Ile Ser Tyr Asp Gly Asn Asn Lys Val Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 1302
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1302
 cttatattcct atgatggaaa taataaagtc tatgcagact ccgtgaaggg c 51

<210> 1303
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1303
 Ala Lys Asp Gly Tyr Leu Ala Pro Asp Phe
 1 5 10

<210> 1304
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1304
 gcgaaagatg gctatctggc tcctgacttc 30

<210> 1305
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1305
cagtcagtcc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcatcatc 60
tcctgcactg gaaccagcag tgacgttggt gaatatgact atgtctcctg gtaccaaacac 120
cacccacaca aagcccccaa actcataatt tatgaggtca gtaatcggcc ctcagggggtt 180
tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240
caggctgagg acgaggctga ttattactgc agttcctaca caagcagtag cggccaagcc 300
ttcggaactg ggaccaaggt caccgtccta 330

<210> 1306
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1306
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15
Ser Ile Ile Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Glu Tyr
20 25 30
Asp Tyr Val Ser Trp Tyr Gln His His Pro His Lys Ala Pro Lys Leu
35 40 45
Ile Ile Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Ser
85 90 95

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Ser	Gly	Gln	Ala	Phe	Gly	Thr	Gly	Thr	Lys	Val	Thr	Val	Leu
			100						105				110

<210> 1307

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1307

Thr	Gly	Thr	Ser	Ser	Asp	Val	Gly	Glu	Tyr	Asp	Tyr	Val	Ser
1				5					10				

<210> 1308

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1308

actggaacca gcagtgcagt tggatgaatat gactatgtct cc

42

<210> 1309

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1309

Glu	Val	Ser	Asn	Arg	Pro	Ser
1				5		

<210> 1310

<211> 21

<212> DNA

<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

 <400> 1310
 gaggtcagta atcggcctc a 21

<210> 1311
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

 <400> 1311
 Ser Ser Tyr Thr Ser Ser Ser Gly Gln Ala
 1 5 10

<210> 1312
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

 <400> 1312
 agttcctaca caagcagtag cgggtcaagcc 30

<210> 1313
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

 <400> 1313
 gaggtgcagc tggtggagtc tggaggaggc ttgatccagc ctgggggggtc cctgagactc 60

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tcctgtgcag cctctggggt caccgtcagt agcaagtaca tgagctgggt ccgccaggct	120
ccagggaagg ggctggagtg ggtctcaatt atttatagtg gtggtagcac ataccacgca	180
gactccgtga agggccgatt caccatctcc agagacaact ccaagaacac actgtatctt	240
caaatgaaca gcctgagagc cgaggacacg gccgtgtatt actgtgagag agatgattac	300
gattttttgga gtggcaacgg cccaccggag atggccgtct ggggccaggg gaccacggtc	360
accgtctcct ca	372

<210> 1314
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1314
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

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

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

Ser Ile Ile Tyr Ser Gly Gly Ser Thr Tyr His Ala Asp Ser Val Lys
 50 55 60

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

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

Arg Asp Asp Tyr Asp Phe Trp Ser Gly Asn Gly Pro Pro Glu Met Ala
 100 105 110

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

<210> 1315
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1315
Phe Thr Val Ser Ser Lys Tyr Met Ser
1 5

<210> 1316
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1316
ttcacgtca gtagcaagta catgagc

27

<210> 1317
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1317
Ile Ile Tyr Ser Gly Gly Ser Thr Tyr His Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 1318
<211> 48
<212> DNA
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1318

attattttata gtggtggttag cacataccac gcagactccg tgaagggc

48

<210> 1319

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1319

Ala	Arg	Asp	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Asn	Gly	Pro	Pro	Glu	Met
1				5					10					15	

Ala Val

<210> 1320

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1320

gcgagagatg attacgattt ttggagtggc aacggccac cggagatggc cgtc

54

<210> 1321

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

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<400> 1321
gacatccgga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc aattatttag cctgggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgagacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tataacagtg tccctctgac gttcggccaa 300
gggaccaagg tggaatcaa a 321

<210> 1322
<211> 107
<212> PRT
<213> Artificial Sequence
<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1322
Asp Ile Arg 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 Gly Ile Ser Asn Tyr
20 25 30

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

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

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

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

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

<210> 1323
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1323
 Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu Ala
 1 5 10

<210> 1324
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1324
 cgggcgagtc agggcattag caattattta gcc

33

<210> 1325
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1325
 Ala Ala Ser Thr Leu Gln Ser
 1 5

<210> 1326
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

 <400> 1326
 gctgcatcca ctttgcaatc a 21

<210> 1327
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

 <400> 1327
 Gln Lys Tyr Asn Ser Val Pro Leu Thr
 1 5

<210> 1328
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

 <400> 1328
 caaaagtata acagtgtccc tctgacg 27

<210> 1329
 <211> 369
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

 <400> 1329
 cagggtccagc tgggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
 tcctgtaaga cttctggata cagatttacc aattactgga tcggctgggt gcgccagatg 120

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ccccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga tgccagatac      180
agcccgtcct tccaaggcca ggtcaccttc tcagccgaca agtccatcag caccgcctac      240
ctgcactgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacaagat      300
gacagtggct gggccgactt ctttcctttt gactactggg gccagggaac cctggtcacc      360
gtctcctca                                          369

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<210> 1330
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1330
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15

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

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

Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ala Arg Tyr Ser Pro Ser Phe
 50 55 60

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

Leu His Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

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

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

<210> 1331
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1331
 Tyr Arg Phe Thr Asn Tyr Trp Ile Gly
 1 5

<210> 1332
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1332
 tacagattta ccaattactg gatcggc

27

<210> 1333
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1333
 Ile Ile Tyr Pro Gly Asp Ser Asp Ala Arg Tyr Ser Pro Ser Phe Gln
 1 5 10 15

Gly

<210> 1334
 <211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1334

atcatctatc ctggtgactc tgatgccaga tacagcccg t ccttccaagg c

51

<210> 1335

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1335

Ala Arg Gln Asp Asp Ser Gly Trp Ala Asp Phe Phe Pro Phe Asp Tyr
1 5 10 15

<210> 1336

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1336

gcgagacaag atgacagtgg ctgggccgac ttcttttcct ttgactac

48

<210> 1337

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1337

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gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca cagtttttagc agcacctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctgcatcca acagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgtg tttctgtcag cagtatgata gctcaccgtg gacgttcggc 300
caagggacca agctggagat caaa 324

<210> 1338

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1338

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser His Ser Phe Ser Ser Thr
20 25 30

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

Ile Tyr Ala Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

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

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

Trp Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 1339
 <211> 12
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1339
 Arg Ala Ser His Ser Phe Ser Ser Thr Tyr Leu Ala
 1 5 10

<210> 1340
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1340
 agggccagtc acagtttttag cagcacctac ttagcc

36

<210> 1341
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1341
 Ala Ala Ser Asn Arg Ala Thr
 1 5

<210> 1342
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

light chain variable region CDR L2"

<400> 1342
gctgcatcca acagggccac t 21

<210> 1343
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1343
Gln Gln Tyr Asp Ser Ser Pro Trp Thr
1 5

<210> 1344
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1344
cagcagtatg atagctcacc gtggacg 27

<210> 1345
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1345
caggtccagc tggtacagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60

tcctgcagga cttctggagg caccttcagc agcttttcta tcagctgggt gcgacaggcc 120

cctggacaag gacttgaatg gatgggaggg atcatcccta tctttgggac agcaaaactac 180

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gcaaagaaat tccagggcag agtcacaatt accgcggacg aatccacgga cacagcctat 240
 atggaactga ggagcctgag atctgaggac acggccgtct attactgtgc gagagattcc 300
 cccaaaatat cagcaactga atattacttt gactactggg gccagggaac cctggtcacc 360
 gtctcctca 369

<210> 1346
 <211> 123
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1346
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15

Ser Val Lys Val Ser Cys Arg Thr Ser Gly Gly Thr Phe Ser Ser Phe
 20 25 30

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

Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Lys Lys Phe
 50 55 60

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

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

Ala Arg Asp Ser Pro Lys Ile Ser Ala Thr Glu Tyr Tyr Phe Asp Tyr
 100 105 110

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

<210> 1347
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1347
 Gly Thr Phe Ser Ser Phe Ser Ile Ser
 1 5

<210> 1348
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1348
 ggacacattca gcagcttttc tatcagc

27

<210> 1349
 <211> 17
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1349
 Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Lys Lys Phe Gln
 1 5 10 15

Gly

<210> 1350
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

 <400> 1350
 gggatcatcc ctatctttgg gacagcaaac tacgcaaaga aattccaggg c 51

<210> 1351
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

 <400> 1351
 Ala Arg Asp Ser Pro Lys Ile Ser Ala Thr Glu Tyr Tyr Phe Asp Tyr
 1 5 10 15

<210> 1352
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

 <400> 1352
 gcgagagatt cccccaaat atcagcaact gaatattact ttgactac 48

<210> 1353
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

 <400> 1353
 gacatccagg tgaccagtc tccttcacc ctgtctgcat ctgtaggaga cagagtcacc 60

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atcacttgcc gggccagtca gagtttttact agttggttgg cctggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctataag gcgtctactt tagacagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcaacgg cctgcagcct 240
 gatgattttg caacttacta ctgccaacac tatgatagtt attcggggac cttcggccaa 300
 gggacacgac tggagattaa a 321

<210> 1354
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1354
 Asp Ile Gln Val Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Phe Thr Ser Trp
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

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

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asp Ser Tyr Ser Gly
 85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 100 105

<210> 1355
 <211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1355

Arg	Ala	Ser	Gln	Ser	Phe	Thr	Ser	Trp	Leu	Ala
1				5					10	

<210> 1356

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1356

cgggccagtc agagttttac tagttggttg gcc

33

<210> 1357

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1357

Lys	Ala	Ser	Thr	Leu	Asp	Ser
1				5		

<210> 1358

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1358
aaggcgtcta ctttagacag t 21

<210> 1359
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1359
Gln His Tyr Asp Ser Tyr Ser Gly Thr
1 5

<210> 1360
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1360
caacactatg atagttattc ggggacc 27

<210> 1361
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1361
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tcctgtgcag cctctggatt caccttttagc agctacgcca tgagctgggt ccgccagatt 120
ccagggaagg ggctggagtg ggtctcaaca atcaatatta gtggtggttag tacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaggga cacggtgttt 240

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ctacaaatga atggcctgag agccgaggac acggccctat attactgcgc gaggggatat 300

catatagact ggtttgactt ttggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 1362

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1362

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

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 1363

<211> 9

<212> PRT

<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1363
 Phe Thr Phe Ser Ser Tyr Ala Met Ser
 1 5

<210> 1364
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1364
 ttcaccttta gcagctacgc catgagc

27

<210> 1365
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1365
 Thr Ile Asn Ile Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1366
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

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heavy chain variable region CDR H2"

<400> 1366
acaatcaata ttagtggtgg tagtacatac tacgcagact ccgtgaaggg c 51

<210> 1367
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1367
Ala Arg Gly Tyr His Ile Asp Trp Phe Asp Phe
1 5 10

<210> 1368
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1368
gcgaggggat atcatataga ctggtttgac ttt 33

<210> 1369
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1369
gatattgtgc tgactcagac tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggatattggc agctgggttag cctgggtatca gcagaaacca 120
gggaaagccc ctcaattcct gatctatgct gcatcccaat tgcaaagtgg ggtcccatca 180

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aggttcagcg gcagtggatc tgggacagat ttcactctta ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaaaagtt tacctcggac tttcggcgga 300
gggaccaaag tggatatcaa a 321

<210> 1370
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1370
Asp Ile Val Leu Thr Gln Thr Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15

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

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Gln Phe Leu Ile
35 40 45

Tyr Ala Ala Ser Gln 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 Ala Lys Ser Leu Pro Arg
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
100 105

<210> 1371
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1371
 Arg Ala Ser Gln Asp Ile Gly Ser Trp Leu Ala
 1 5 10

<210> 1372
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1372
 cgggcgagtc aggatattgg cagctgggta gcc

33

<210> 1373
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1373
 Ala Ala Ser Gln Leu Gln Ser
 1 5

<210> 1374
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1374
 gctgcatccc aattgcaaag t

21

<210> 1375
 <211> 9
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1375
 Gln Gln Ala Lys Ser Leu Pro Arg Thr
 1 5

<210> 1376
 <211> 27
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1376
 caacaggcta aaagtttacc tcggact 27

<210> 1377
 <211> 390
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1377
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 tcctgtggag cctctgggtt caccgtcact ggcaactaca tgcattgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcagtt atttatgccg gttctagcac atattacgca 180
 gactccgtga ggggccgatt caccatctcc agagacaagg ccagggaacac gttgtttctt 240
 caaatgaata gactgagagc cgaggacacg gccgtgtatt attgtgagag agcgggggta 300
 gttgggggaag atagaagtgg ctggtacggt cccgattatt tccacgggtt ggacgtctgg 360

ggccaaggga ccacggtcac cgtctcctca

<210> 1378
 <211> 130
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1378
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

Arg Ala Gly Val Val Gly Glu Asp Arg Ser Gly Trp Tyr Gly Pro Asp
 100 105 110

Tyr Phe His Gly Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
 115 120 125

Ser Ser
 130

<210> 1379
 <211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1379

Phe Thr Val Thr Gly Asn Tyr Met His

1

5

<210> 1380

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1380

ttcaccgtca ctggcaacta catgcat

27

<210> 1381

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1381

Val Ile Tyr Ala Gly Ser Ser Thr Tyr Tyr Ala Asp Ser Val Arg Gly

1

5

10

15

<210> 1382

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1382
gttatttatg ccggttctag cacatattac gcagactccg tgaggggc 48

<210> 1383
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1383
Ala Arg Ala Gly Val Val Gly Glu Asp Arg Ser Gly Trp Tyr Gly Pro
1 5 10 15

Asp Tyr Phe His Gly Leu Asp Val
20

<210> 1384
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1384
gcgagagcgg gggtagttgg ggaagataga agtggctggt acggtcccga ttatttcac 60
ggtttggacg tc 72

<210> 1385
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1385
gaaacgacac tcacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

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ctctcctgca gggccagtca gagtattcgc aacaactact tagcctggta ccagcaaaaa 120
cctggccagc ctcccaggct cctcatctat ggtgaatcca gaagggccac tggcatccca 180
ggcaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagcctggag 240
cctgaagatt ttgcagtgtg ttactgtcag cagtatgggtg gctcaccgta cacttttggc 300
caggggacca aggtggatat caaa 324

<210> 1386

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1386

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

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

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

Ile Tyr Gly Glu Ser Arg Arg Ala Thr Gly Ile Pro Gly Arg Phe Ser
50 55 60

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
85 90 95

Tyr Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
100 105

<210> 1387

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1387

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

<210> 1388

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1388

agggccagtc agagtattcg caacaactac ttagcc

36

<210> 1389

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1389

Gly Glu Ser Arg Arg Ala Thr
1 5

<210> 1390

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1390
 ggtgaatcca gaagggccac t 21

<210> 1391
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1391
 Gln Gln Tyr Gly Gly Ser Pro Tyr Thr
 1 5

<210> 1392
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1392
 cagcagtatg gtggctcacc gtacact 27

<210> 1393
 <211> 378
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1393
 caggtccagc ttgtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgagggtc 60
 tcctgcgagg cttctggagg caccttcagc acctatgcta ttagctgggt gcgacaggcc 120
 cctggactag ggcttgagt gatgggaggg atccacccca tctctggtac agcaaactac 180
 gcacagagct tccaggacag actcaccatt accgtggaca agtccacgag cacagcctac 240

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atggacctga gcagcctgag atctgaggac acggccatat attattgtgc gagagttggt 300
 ctgggtcgca cttggattta tgatacaatg gggttaccttg actactgggg ccagggaacc 360
 ctggtcaccg tctcctca 378

<210> 1394
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1394
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15

Ser Val Arg Val Ser Cys Glu Ala Ser Gly Gly Thr Phe Ser Thr Tyr
 20 25 30

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

Gly Gly Ile His Pro Ile Ser Gly Thr Ala Asn Tyr Ala Gln Ser Phe
 50 55 60

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

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

Ala Arg Val Gly Leu Gly Arg Thr Trp Ile Tyr Asp Thr Met Gly Tyr
 100 105 110

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

<210> 1395
 <211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1395

Gly Thr Phe Ser Thr Tyr Ala Ile Ser

1 5

<210> 1396

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1396

ggcaccttca gcacctatgc tattagc

27

<210> 1397

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1397

Gly Ile His Pro Ile Ser Gly Thr Ala Asn Tyr Ala Gln Ser Phe Gln

1 5 10 15

Asp

<210> 1398

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

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<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1398
 gggatccacc ccattctctgg tacagcaaac tacgcacaga gcttccagga c 51

<210> 1399
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1399
 Ala Arg Val Gly Leu Gly Arg Thr Trp Ile Tyr Asp Thr Met Gly Tyr
 1 5 10 15

Leu Asp Tyr

<210> 1400
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1400
 gcgagagttg gtctgggtcg cacttggatt tatgatacaa tgggttacct tgactac 57

<210> 1401
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1401

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gaaattgtat tgacacagtc tccagccacc ctgtctttgt ctccagggga gagagtcacc 60
 ctctcctgca gggccagtca gagggttaac gactacttag cctggtacca aaaaaaacct 120
 ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
 gaagattttg cagtttatta ctgtcagcac cgtaccaact ggccttcctt cactttcggc 300
 ggagggacca aggtggaaat caaa 324

<210> 1402

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1402

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

Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Asn Asp Tyr
 20 25 30

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

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Arg Thr Asn Trp Pro Ser
 85 90 95

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

<210> 1403
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1403
Arg Ala Ser Gln Ser Val Asn Asp Tyr Leu Ala
1 5 10

<210> 1404
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1404
agggccagtc agagtgttaa cgactactta gcc

33

<210> 1405
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1405
Asp Ala Ser Asn Arg Ala Thr
1 5

<210> 1406
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

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light chain variable region CDR L2"

<400> 1406
gatgcatcca acagggccac t 21

<210> 1407
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1407
Gln His Arg Thr Asn Trp Pro Ser Leu Thr
1 5 10

<210> 1408
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1408
cagcaccgta ccaactggcc ttccctcact 30

<210> 1409
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1409
gaggtgcagc tggtggagtc tgggggaggc ctggtcaagc ctggggggtc cctgagactc 60

tcctgtgcag cctcgggatt caccatcagt gggtataaca tggtctgggt ccgccagcct 120

ccggggaagg ggctggagtg ggtctcatcc attactgctg gtagtagtta tttaaactat 180

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gcagactcag tgaagggccg tttcatcgtc tccagagaca acgccaagaa ttcactgtat 240
 ctgcaaatac acagcctgag agccgaggac acggctgttt atttctgtgc gagagcacct 300
 cttttacccg ctatgatgga cctctggggc caagggacca cggtcaccgt ctctca 357

<210> 1410
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1410
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

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

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

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

Lys Gly Arg Phe Ile Val 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 Val Tyr Phe Cys
 85 90 95

Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu Trp Gly Gln Gly
 100 105 110

Thr Thr Val Thr Val Ser Ser
 115

<210> 1411
 <211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1411

Phe Thr Ile Ser Gly Tyr Asn Met Phe

1

5

<210> 1412

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1412

ttcaccatca gtggttataa catgttc

27

<210> 1413

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1413

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

1

5

10

15

Gly

<210> 1414

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

 <400> 1414
 tccattactg ctggtagtag ttatttaaac tatgcagact cagtgaaggg c 51

 <210> 1415
 <211> 12
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

 <400> 1415
 Ala Arg Ala Pro Leu Leu Pro Ala Met Met Asp Leu
 1 5 10

 <210> 1416
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

 <400> 1416
 gcgagagcac ctcttttacc cgctatgatg gacctc 36

 <210> 1417
 <211> 333
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

 <400> 1417
 cagtctgtgg tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
 tcctgcactg ggagcagctc caacatcggg gcaggttatg atgtacactg gtaccagcaa 120

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cttccaggaa cagcccccaa actcctcatc tatactaaca acaatcggcc ctcaggggtc 180
cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
caggctgagg atgaggctga ctattactgc cagtcctatg acagaagcct gaatggttat 300
gtcttcggaa ctgggaccac ggtcaccgtc cta 333

<210> 1418
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1418
Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Arg Ser
85 90 95

Leu Asn Gly Tyr Val Phe Gly Thr Gly Thr Thr Val Thr Val Leu
100 105 110

<210> 1419
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1419
 Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
 1 5 10

<210> 1420
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1420
 actgggagca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 1421
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1421
 Thr Asn Asn Asn Arg Pro Ser
 1 5

<210> 1422
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1422
 actaacaaca atcgccctc a

21

<210> 1423
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1423
 Gln Ser Tyr Asp Arg Ser Leu Asn Gly Tyr Val
 1 5 10

<210> 1424
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1424
 cagtcctatg acagaagcct gaatggttat gtc 33

<210> 1425
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1425
 gaggtgcagc tggtggagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60
 tcctgtgcag cccctggatt caccatcagg agttatacca tgtactgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtcgcattc attagtagta gtagtagtta catacactat 180
 ggagactcag tgaagggccg attcaccatc gccagagaca atgccaagaa ctactgtgat 240
 ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgt gagagatcat 300

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tgtactggtg gaagctgcta cttaaacggt atggacgtct ggggccaagg gaccacggtc 360

accgtctcct ca 372

<210> 1426

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1426

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

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

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

Ala Ser Ile Ser Ser Ser Ser Ser Tyr Ile His Tyr Gly Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ala 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 Val Tyr Tyr Cys
85 90 95

Val Arg Asp His Cys Thr Gly Gly Ser Cys Tyr Leu Asn Gly Met Asp
100 105 110

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

<210> 1427

<211> 9

<212> PRT

<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1427
 Phe Thr Ile Arg Ser Tyr Thr Met Tyr
 1 5

<210> 1428
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1428
 ttcacatca ggagttatac catgtac

27

<210> 1429
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1429
 Ser Ile Ser Ser Ser Ser Tyr Ile His Tyr Gly Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1430
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

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heavy chain variable region CDR H2"

<400> 1430
tccattagta gtagtagtag ttacatacac tatggagact cagtgaaggg c 51

<210> 1431
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1431
Val Arg Asp His Cys Thr Gly Gly Ser Cys Tyr Leu Asn Gly Met Asp
1 5 10 15

Val

<210> 1432
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1432
gtgagagatc attgtactgg tggaagctgc tacttaaacg gtatggacgt c 51

<210> 1433
<211> 333
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1433
cagcctgtgc tgactcagcc accctcagtg tctggggccc cagggcagag ggtcaccatc 60

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tcctgcactg ggaccagctc caacatcggg gcaggttatg atgtacactg gtaccagcag	120
cttccaggaa cagcccccaa actcctcatc tatggtaaca acaatcggcc ctcaggggtc	180
cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc	240
caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gagcggttcg	300
gtattcggcg gagggaccaa gctcaccgtc cta	333

<210> 1434
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1434
 Gln Pro Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
 35 40 45

Leu Ile Tyr Gly Asn Asn Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
 50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
 85 90 95

Leu Ser Gly Ser Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
 100 105 110

<210> 1435
 <211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1435

Thr	Gly	Thr	Ser	Ser	Asn	Ile	Gly	Ala	Gly	Tyr	Asp	Val	His
1				5					10				

<210> 1436

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1436

actgggacca gctccaacat cggggcaggt tatgatgtac ac

42

<210> 1437

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1437

Gly	Asn	Asn	Asn	Arg	Pro	Ser
1			5			

<210> 1438

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1438
ggtaacaaca atcggccctc a 21

<210> 1439
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1439
Gln Ser Tyr Asp Ser Ser Leu Ser Gly Ser Val
1 5 10

<210> 1440
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1440
cagtcctatg acagcagcct gagcggttcg gta 33

<210> 1441
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1441
gaggtgcagc tggaggagtc tggaggagtc ttgatccagc ctggggggtc cctgagactc 60
tcctgtgcag cctctggggt caccgtcagt agcaagtaca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaatt atttatagtg gtggtagcac atactacgca 180
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac actgtatctt 240

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caaatgaaca gcctgagagc cgaggacacg gccgtgtatt actgtgagag agatgattac 300
gattttttgga gtggcaacgg cccaccggag atggccgtct ggggccaggg gaccacggtc 360
accgtctcct ca 372

<210> 1442
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1442
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Asp Asp Tyr Asp Phe Trp Ser Gly Asn Gly Pro Pro Glu Met Ala
100 105 110

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

<210> 1443
<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1443

Phe	Thr	Val	Ser	Ser	Lys	Tyr	Met	Ser
1				5				

<210> 1444

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1444

ttcacgtca gtagcaagta catgagc

27

<210> 1445

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1445

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

<210> 1446

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1446
attatttata gtggtggttag cacatactac gcagactccg tgaagggc 48

<210> 1447
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1447
Ala Arg Asp Asp Tyr Asp Phe Trp Ser Gly Asn Gly Pro Pro Glu Met
1 5 10 15

Ala Val

<210> 1448
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1448
gcgagagatg attacgattt ttggagtggc aacggccac cggagatggc cgtc 54

<210> 1449
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1449
gacatgagac tcaccagtc tccatcctcc ctgtctgcgt ctgtaggaga cagagtcacc 60

atcacttgcc gggcgagtca gggcattagc aattatttag cctggtatca gcagagacca 120

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gggaaagttc ctcagctcct gatctatact gcatccactt tgcaatcagg ggtcccatct 180
 cggttcagtg gcagtggatc tgagacagat ttcactctca ccatcagcag cctgcagcct 240
 gaagatgttg caacttatta ctgtcaaaag tatgacagtg tccctctgac gttcggccaa 300
 gggaccaagg tggaatcaa a 321

<210> 1450
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1450
 Asp Met Arg Leu 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 Gly Ile Ser Asn Tyr
 20 25 30

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

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

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

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

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

<210> 1451
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1451
 Arg Ala Ser Gln Gly Ile Ser Asn Tyr Leu Ala
 1 5 10

<210> 1452
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1452
 cgggcgagtc agggcattag caattattta gcc

33

<210> 1453
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1453
 Thr Ala Ser Thr Leu Gln Ser
 1 5

<210> 1454
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1454
 actgcatcca ctttgcaatc a

21

<210> 1455
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1455
 Gln Lys Tyr Asp Ser Val Pro Leu Thr
 1 5

<210> 1456
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1456
 caaaagtatg acagtgtccc tctgacg 27

<210> 1457
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1457
 gaggtgcagc tgggtggagtc tggctctgcg ctgggtgaaac ccacacagac cctcacactg 60
 acctgcaccg tctcggggggg tgttgagaga atgagtgtga gttgggtccg tcagccccca 120
 gggaaggccc tggagtggct tgcacgcatt gattgggatg atgataaata ctacaacaca 180
 tttctgaaga ccaggctcac catctccaag ggcacctcca aaaacgaggt ggtccttaca 240
 atgaccaaca tggaccctga agacacagca atttattact gtgcacggac gaatcgctat 300

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gataaaagtg gttattacct ttattacctt gactactggg gccagggaac cctggtcact 360

gtctcctca 369

<210> 1458

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1458

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

Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Gly Val Glu Arg Met Ser
20 25 30

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

Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Asn Thr Phe Leu Lys Thr
50 55 60

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

Met Thr Asn Met Asp Pro Glu Asp Thr Ala Ile Tyr Tyr Cys Ala Arg
85 90 95

Thr Asn Arg Tyr Asp Lys Ser Gly Tyr Tyr Leu Tyr Tyr Leu Asp Tyr
100 105 110

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

<210> 1459

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1459

Gly Val Glu Arg Met Ser Val Ser

1 5

<210> 1460

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1460

gggtgttgaga gaatgagtgt gagt

24

<210> 1461

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1461

Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Asn Thr Phe Leu Lys Thr

1 5 10 15

<210> 1462

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1462

cgcatgatt gggatgatga taaatactac aacacatttc tgaagacc

48

<210> 1463
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1463
 Ala Arg Thr Asn Arg Tyr Asp Lys Ser Gly Tyr Tyr Leu Tyr Tyr Leu
 1 5 10 15

Asp Tyr

<210> 1464
 <211> 54
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1464
 gcacggacga atcgctatga taaaagtggt tattaccttt attaccttga ctac 54

<210> 1465
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1465
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga caaagtcacc 60
 atcacttgcc gggcaagtca gaccattgcc agttatgtaa attggtatca gcagcaccca 120
 gggaaagccc ctaagctcct aatctatctt gcatcccgtt tgcaaagtgg tgccccatca 180

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aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcctcaa tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtt cgtttttcac tttcggccct 300
gggaccaagg tggaaatcaa a 321

<210> 1466
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1466
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ala Ser Tyr
20 25 30

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

Tyr Leu Ala Ser Arg Leu Gln Ser Gly Ala Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 1467
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1467
 Arg Ala Ser Gln Thr Ile Ala Ser Tyr Val Asn
 1 5 10

<210> 1468
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1468
 cgggcaagtc agaccattgc cagttatgta aat

33

<210> 1469
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1469
 Leu Ala Ser Arg Leu Gln Ser
 1 5

<210> 1470
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1470
 cttgcatccc gtttgcaaag t

21

<210> 1471
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1471
 Gln Gln Ser Tyr Ser Ser Phe Phe Thr
 1 5

<210> 1472
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1472
 caacagagtt acagttcgtt tttcact 27

<210> 1473
 <211> 372
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1473
 gaggtgcagc tgttggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttcagt gacttttcta tgcactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcactc atctcaaagc atggaagcaa taaatattat 180
 tcagactccc tgaagggttc attcatcatc tccagagaca actccaagaa cacgctctat 240
 ctccaactga acagcctggg agctgaggac acggctctct attactgtgc gagagatgag 300
 gttccccatt atgattacgt ctggggaaac tttgactact ggggccaggg aaccctggtc 360

actgtctcct ca

<210> 1474
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1474
 Glu Val Gln Leu Leu 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 Asp Phe
 20 25 30

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

Ala Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu
 50 55 60

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

Leu Gln Leu Asn Ser Leu Gly Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95

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

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

<210> 1475
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1475

Phe Thr Phe Ser Asp Phe Ser Met His

1 5

<210> 1476

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1476

ttcaccttca gtgacttttc tatgcac

27

<210> 1477

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1477

Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu Lys

1 5 10 15

Gly

<210> 1478

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1478
ctcatctcaa atgatggaag caataaatat tattcagact ccctgaaggg t 51

<210> 1479
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1479
Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
1 5 10 15

Tyr

<210> 1480
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1480
gcgagagatg cggttcccca ttatgattac gtctggggaa actttgacta c 51

<210> 1481
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1481
cagtctgttc tgactcagcc tgcctccgtg tctgcgtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt gggtataatt atgtctcctg gtaccaacag 120

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caccagga aagccccaa actcataatt tatgaggta gtaatcgcc ctcaggggtt 180
tctaatacgt tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240
caggctgacg acgaggctga ttattactgc agctcatata caagtttcac tcccgtggta 300
ttcggcggag ggaccaagct gaccgtccta 330

<210> 1482
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1482
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Ala Ser Pro Gly Gln
1 5 10 15

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

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

Ile Ile Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Thr Pro Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1483
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1483
 Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
 1 5 10

<210> 1484
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1484
 actggaacca gcagtgacgt tgggtggttat aattatgtct cc

42

<210> 1485
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1485
 Glu Val Ser Asn Arg Pro Ser
 1 5

<210> 1486
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1486
 gaggtcagta atcgccctc a

21

<210> 1487
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1487
 Ser Ser Tyr Thr Ser Phe Thr Pro Val Val
 1 5 10

<210> 1488
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1488
 agtcatata caagtttcac tcccgtgta 30

<210> 1489
 <211> 360
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1489
 caggtccagc ttgtacagtc tggggcggag gtgaagaagc ctgggtcctc ggtgaaggtc 60
 tcttgtaagt cttctggagg gaccttcagc aactatatta tcagctgggt gcgacaggcc 120
 cctggacaag ggcttgagtg gatgggaggg atcgtccctc tctctggaac aacagactac 180
 gcacagaagt tccagggccg agtcacgatt accgcggaca aatccacgac tacagcctac 240
 atggagcttc gcaccttgag acctgaggac acggccgtct attattgtgc gagggggagt 300

ggtgtagca atgcctactt cgacccctgg ggccagggaa ccctgggtcac cgtctcctca

360

<210> 1490
 <211> 120
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1490
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15

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

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

Gly Gly Ile Val Pro Leu Ser Gly Thr Thr Asp Tyr Ala Gln Lys Phe
 50 55 60

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 1491
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1491

Gly Thr Phe Ser Asn Tyr Ile Ile Ser

1 5

<210> 1492

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1492

gggaccttca gcaactatat tatcagc

27

<210> 1493

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1493

Gly Ile Val Pro Leu Ser Gly Thr Thr Asp Tyr Ala Gln Lys Phe Gln

1 5 10 15

Gly

<210> 1494

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1494
gggatcgtcc ctctctctgg aacaacagac tacgcacaga agttccaggg c 51

<210> 1495
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1495
Ala Arg Gly Ser Gly Gly Ser Asn Ala Tyr Phe Asp Pro
1 5 10

<210> 1496
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1496
gcgaggggga gtggtggtag caatgcctac ttcgacccc 39

<210> 1497
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1497
cagtctgtgg tgacgcagcc gccctcagtg tcagtggccc caggaaagac ggccaagatt 60
acctgtgggg gaaacaacat tggaagtaag agtgtgtact ggtaccaaca gaagccaggg 120
caggcccctg tgctgggtcat gtattatgat acttaccggc cctcagggat ccctgagcgc 180
ttctctggct ccaactctgg gaactcggcc accctgacca tcagcagagt cgacgccggg 240

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gatgaggccg actattactg tcaggtgtgg gatagtagga gtgatcatcc ttatgtcttc 300

ggaagtggga ccaagctcac cgtccta 327

<210> 1498

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1498

Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

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

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

Tyr Asp Thr Tyr Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ser Arg Ser Asp His
85 90 95

Pro Tyr Val Phe Gly Ser Gly Thr Lys Leu Thr Val Leu
100 105

<210> 1499

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

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light chain variable region CDR L1"

<400> 1499

Gly Gly Asn Asn Ile Gly Ser Lys Ser Val Tyr
1 5 10

<210> 1500

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1500

gggggaaaca acattggaag taagagtgtg tac

33

<210> 1501

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1501

Tyr Asp Thr Tyr Arg Pro Ser
1 5

<210> 1502

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1502

tatgatactt accggcctc a

21

<210> 1503

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1503

Gln	Val	Trp	Asp	Ser	Arg	Ser	Asp	His	Pro	Tyr	Val
1				5					10		

<210> 1504

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1504

caggtgtggg	atagtaggag	tgatcatcct	tatgtc	36
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<210> 1505

<211> 384

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1505

caggtccagc	tggtgcagtc	tggggctgag	gtgaagaggc	ctgggtcgtc	ggtgaaggtc	60
tcctgcaagg	cttctggagg	cacgtccagc	agttatatta	tcagttgggt	gcgacaggcc	120
cctgggcaag	ggcttgagtg	gatgggaggg	atcatcccca	tcctattttc	tggcgacca	180
acctacgcac	agaagttcca	gggcagagca	aactatgcac	agaagttcga	gggcagactc	240
acgattaccg	cggacagact	cacgagcaca	gcctacatgg	agctgagcag	cctgacatct	300
gaggacacgg	ccgtgtatta	ttgtgtaaga	gatgagagga	acgggggcta	ttggggccag	360
ggaaccctgg	tcaccgtctc	ctca				384

<210> 1506
 <211> 128
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1506
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Arg Pro Gly Ser
 1 5 10 15

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

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

Gly Gly Ile Ile Pro Ile Pro Ile Ser Gly Ala Pro Thr Tyr Ala Gln
 50 55 60

Lys Phe Gln Gly Arg Ala Asn Tyr Ala Gln Lys Phe Glu Gly Arg Leu
 65 70 75 80

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

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

Arg Asn Gly Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 1507
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

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heavy chain variable region CDR H1"

<400> 1507
Gly Thr Ser Ser Ser Tyr Ile Ile Ser
1 5

<210> 1508
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1508
ggcacgtcca gcagttatat tatcagt 27

<210> 1509
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1509
Gly Ile Ile Pro Ile Pro Ile Ser Gly Ala Pro Thr Tyr Ala Gln Lys
1 5 10 15

Phe Gln Gly Arg Ala Asn Tyr Ala Gln Lys Phe Glu Gly
20 25

<210> 1510
<211> 87
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1510
gggatcatcc ccattccctat ttctggcgca ccaacctacg cacagaagtt ccagggcaga 60

gcaaactatg cacagaagtt cgagggc

87

<210> 1511

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1511

Val Arg Asp Glu Arg Asn Gly Gly Tyr

1 5

<210> 1512

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1512

gtaagagatg agaggaacgg gggctat

27

<210> 1513

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1513

cagtctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcaa tgacgttggg gcttataatc atgtgtcgtg gtaccaacaa 120

caccagggga aagcccccaa actcatgatac tatgatgtca ctaatcggcc ctgaggggtt 180

tctaatacgtc tctctggctc caagtctggc aacacggcct ccctgaccat ctttgggctc 240

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cagactgacg acgaggctga ttattattgc agctcatata caatcagcag caccttggtg 300

ttcggcggag ggacccagct gaccgtcctc 330

<210> 1514
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1514
Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

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

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

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

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

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

Ser Thr Leu Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu
100 105 110

<210> 1515
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

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light chain variable region CDR L1"

<400> 1515
Thr Gly Thr Ser Asn Asp Val Gly Ala Tyr Asn His Val Ser
1 5 10

<210> 1516
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1516
actggaacca gcaatgacgt tgggtgcttat aatcatgtgt cg 42

<210> 1517
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1517
Asp Val Thr Asn Arg Pro Ser
1 5

<210> 1518
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1518
gatgtcacta atcggccctc a 21

<210> 1519
<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1519

Ser	Ser	Tyr	Thr	Ile	Ser	Ser	Thr	Leu	Val
1				5				10	

<210> 1520

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1520

agctcatata caatcagcag caccttggtg

30

<210> 1521

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1521

gaggtgcagc tgggtggagtc tgggggaggc gtgggtccagc ctgggaggctc cctgaggctc 60

tcctgtgcag cctctggatt caccttcagt tcctatgcaa tgcactgggt ccgccaggct 120

ccaggcaagg gcctggagtg ggtggcagtt atatcatatg atgaaggcaa tgaatactac 180

gcagactccg tgaagggccg attcaccatc tccagagcca attccaagaa cacgatttat 240

ctgcaaataga acagcctgag agctgaggac acggctgtct attactgtgc gagagattac 300

atacatgggg actacggttt ggacgtctgg ggcctaggga ccacggtcac cgtctcctca 360

<210> 1522

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

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1522
 Glu 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

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

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

Lys Gly Arg Phe Thr Ile Ser Arg Ala Asn Ser Lys Asn Thr Ile 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 Asp Tyr Ile His Gly Asp Tyr Gly Leu Asp Val Trp Gly Leu
 100 105 110

Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 1523
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1523
 Phe Thr Phe Ser Ser Tyr Ala Met His
 1 5

<210> 1524
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1524
 ttcaccttca gttcctatgc aatgcac 27

<210> 1525
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1525
 Val Ile Ser Tyr Asp Glu Gly Asn Glu Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1526
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1526
 gttatatcat atgatgaagg caatgaatac tacgcagact cCGTgaaggg c 51

<210> 1527
 <211> 13
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1527
 Ala Arg Asp Tyr Ile His Gly Asp Tyr Gly Leu Asp Val
 1 5 10

<210> 1528
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1528
 gcgagagatt acatacatgg ggactacggt ttggacgtc 39

<210> 1529
 <211> 333
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1529
 gaaatttgtt tgacacagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
 atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
 tacctgcaga agccagggca gtctccacag ctctgatct atttgggttc taatcgggcc 180
 tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
 agcagagtgg aggctgagga tgttgggggt tactactgca tgcaacctct acaacaatc 300
 accttcggcc aaggacacg actggagatt aaa 333

<210> 1530
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1530
 Glu Ile Val Leu Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
 20 25 30

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

Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala 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 Met Gln Pro
 85 90 95

Leu Gln Thr Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 100 105 110

<210> 1531
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1531
 Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp

1 5 10 15

<210> 1532
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1532
aggtctagtc agagcctcct gcatagtaat ggatacaact atttgat 48

<210> 1533
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1533
Leu Gly Ser Asn Arg Ala Ser
1 5

<210> 1534
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1534
ttgggttcta atcgggcctc c 21

<210> 1535
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

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<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1535
 Met Gln Pro Leu Gln Thr Ile Thr
 1 5

<210> 1536
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1536
 atgcaacctc tacaacaat cacc 24

<210> 1537
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1537
 caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
 tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120
 cctggacaag ggcttgagtg ggtgggatgg atcaacccta acagtgggtc cacaaactat 180
 gcacagaagt ttcagggcag ggtcaccgtg accagggaca cgtccatcag cacagcctac 240
 atggacctga gcagactgag atctgacgac acggccgtgt attactgtgc gagcaggagc 300
 tgggaccatg atgcttttga tatctggggc caaggggacaa tggtcactgt ctccctca 357

<210> 1538
 <211> 119
 <212> PRT
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1538

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

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

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

Gly Trp Ile Asn Pro Asn Ser Gly Ser Thr Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

Ala Ser Arg Ser Trp Asp His Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 1539

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1539

Tyr Thr Phe Thr Asp Tyr Tyr Met His
1 5

<210> 1540
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1540
 tacaccttca ccgactacta tatgcac

27

<210> 1541
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1541
 Trp Ile Asn Pro Asn Ser Gly Ser Thr Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1542
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1542
 tggatcaacc ctaacagtgg ttccacaaac tatgcacaga agtttcaggg c

51

<210> 1543
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1543

Ala	Ser	Arg	Ser	Trp	Asp	His	Asp	Ala	Phe	Asp	Ile
1			5					10			

<210> 1544

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1544

gcgagcagga gctgggacca tgatgctttt gatatc

36

<210> 1545

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1545

cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagtagctc caacatcggg gcaggttatg atgtacactg gtaccagcag 120

cttccaggaa gagcccccaa actcctcatc tttggtaaca gcaatcggcc ctgaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

cagcctgagg atgaggctga ttattactgc cactgctatg acagcaggct gagtgtggtc 300

ttcggcggag ggaccaagct caccgtccta 330

<210> 1546

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1546

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

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

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

Leu Ile Phe Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys His Cys Tyr Asp Ser Arg
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1547

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1547

Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1548

<211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1548
 actgggagta gctccaacat cggggcaggt tatgatgtac ac

42

<210> 1549
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1549
 Gly Asn Ser Asn Arg Pro Ser
 1 5

<210> 1550
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1550
 ggtaacagca atcggcctc a

21

<210> 1551
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1551
 His Cys Tyr Asp Ser Arg Leu Ser Val Val
 1 5 10

<210> 1552
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1552
 cactgctatg acagcaggct gagtgtggtc 30

<210> 1553
 <211> 378
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1553
 caggtccagc tggtacagtc tgggactgag gtgaagaagc ctgggtcttc ggtgaaggct 60
 tcctgcaagg cttcgggagg caccttcagt agctatgcta tcagctgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggaggg atccacccta cctctgggtcc agcaaattac 180
 gcacagaagt tccaggatag agtcaccatt accgtggaca agtccacgag cacagtctac 240
 atggacctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagttggt 300
 gtgggtcgca cttggatata tgatacaatg ggttaccttg acttctgggg ccagggaacc 360
 ctggtcaccg tctcttca 378

<210> 1554
 <211> 126
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1554

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

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

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

Gly Gly Ile His Pro Thr Ser Gly Pro Ala Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Asp Arg Val Thr Ile Thr Val Asp Lys Ser Thr Ser Thr Val Tyr
65 70 75 80

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

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

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

<210> 1555

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1555

Gly Thr Phe Ser Ser Tyr Ala Ile Ser
1 5

<210> 1556

<211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1556
 ggcaccttca gtagctatgc tatcagc

27

<210> 1557
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1557
 Gly Ile His Pro Thr Ser Gly Pro Ala Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1558
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1558
 gggatccacc ctacctctgg tccagcaaat tacgcacaga agttccagga t

51

<210> 1559
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1559

Ala Arg Val Gly Val Gly Arg Thr Trp Ile Tyr Asp Thr Met Gly Tyr
1 5 10 15

Leu Asp Phe

<210> 1560

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1560

gcgagagttg gtgtgggtcg cacttggata tatgatacaa tgggttacct tgacttc 57

<210> 1561

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1561

gaaattgtga tgacacagtc tccagccacg ctgtctttgt ctccaggaga aagagccacc 60

ctctcctgca gggccagtca gagtgtagc gactacttag cctggtacca aaaaaaacct 120

ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180

aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcaccag cctagagcct 240

gaagattttg cagtttatta ctgtcagcac cgtagcgact ggcccttcct cactttcggc 300

ggagggacca agctggagat caaa 324

<210> 1562

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

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1562
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Asp Tyr
20 25 30

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

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Arg Ser Asp Trp Pro Ser
85 90 95

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

<210> 1563
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1563
Arg Ala Ser Gln Ser Val Ser Asp Tyr Leu Ala
1 5 10

<210> 1564
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1564
agggccagtc agagtgttag cgactactta gcc

33

<210> 1565
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1565
Asp Ala Ser Asn Arg Ala Thr
1 5

<210> 1566
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1566
gatgcatcca acagggccac t

21

<210> 1567
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

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light chain variable region CDR L3"

<400> 1567

Gln His Arg Ser Asp Trp Pro Ser Leu Thr
1 5 10

<210> 1568

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1568

cagcaccgta gcgactggcc ttccctcact 30

<210> 1569

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1569

gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60

tcctgtgtaa cttcgggatt cggctttgat gactatgcca tgcactgggt ccggcaagcc 120

ccagggaagg gcctggagtg ggtctcaggg attggttgga atagtgggtg cataggctat 180

gcggactctg tgaagggccg attctccatc tccagagaca acgccaagaa ctccttgat 240

ctacaaatga acagtctgag acctgaagac actgccttct attactgtgt aaaagatggg 300

accctatag cagtggctgg atactttgaa tactggggcc aggggaaccct ggtcaccgtc 360

tcctca 366

<210> 1570

<211> 122

<212> PRT

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1570

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

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

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

Val Lys Asp Gly Thr Pro Ile Ala Val Ala Gly Tyr Phe Glu Tyr Trp
100 105 110

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

<210> 1571

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1571

Phe Gly Phe Asp Asp Tyr Ala Met His
1 5

<210> 1572
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1572
 ttcggctttg atgactatgc catgcac

27

<210> 1573
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1573
 Gly Ile Gly Trp Asn Ser Gly Gly Ile Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 1574
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1574
 gggattgggtt ggaatagtgg tggcataggc tatgcggact ctgtgaaggg c

51

<210> 1575
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1575

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

<210> 1576

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1576

gtaaaagatg ggacccttat agcagtggct ggatactttg aatac

45

<210> 1577

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1577

tcctatgagc tgacacagcc gccctcagcg tctggtaccc ccgggcagag ggtcaccatc 60

tcttgttctg gaggcaggtc caacatcgga aataattatg tatactggta ccagcagctc 120

ccaggaacgg cccccaaact cctcatctat aggcatgatc agcggccctc aggggtccct 180

gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcaa tgggctccgg 240

tccgaggatg aggctgacta tttttgcgca gtatgggatg acagcctgag ttgttatgtc 300

ttcggagctg ggaccaagct caccgtccta 330

<210> 1578

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1578

Ser Tyr Glu Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Ser Gly Gly Arg Ser Asn Ile Gly Asn Asn
20 25 30

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

Ile Tyr Arg His Asp Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Ser Cys Tyr Val Phe Gly Ala Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1579

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1579

Ser Gly Gly Arg Ser Asn Ile Gly Asn Asn Tyr Val Tyr
1 5 10

<210> 1580

<211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L1"

<400> 1580
 tctggaggca ggtccaacat cggaaataat tatgtatac

39

<210> 1581
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1581
 Arg His Asp Gln Arg Pro Ser
 1 5

<210> 1582
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1582
 aggcatgatc agcggccctc a

21

<210> 1583
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1583

Ala Val Trp Asp Asp Ser Leu Ser Cys Tyr Val
 1 5 10

<210> 1584

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1584

gcagtatggg atgacagcct gagttgttat gtc 33

<210> 1585

<211> 369

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1585

caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
 tcctgcaagg cctctggagg caccttcagc acctatggta tcagctgggt gcgacaggcc 120
 cctggacaag gtcttgagtg gatgggaagg gtcatcccta tgtttggaac agcaacctac 180
 gcacagaagt tccaggacag agtcacgatt accgcggaca aagccacgag cacggcgtac 240
 atggagctga acagcctgag atctgacgac acggccgtat attactgtgc gagatgtcct 300
 ccttttgagg gagttcgtcc gccctggttc gaccctggg gccagggaac cctggtcacc 360
 gtctcttca 369

<210> 1586

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region"

<400> 1586

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

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

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

Gly Arg Val Ile Pro Met Phe Gly Thr Ala Thr Tyr Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Cys Pro Pro Phe Glu Gly Val Arg Pro Pro Trp Phe Asp Pro
100 105 110

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

<210> 1587

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1587

Gly Thr Phe Ser Thr Tyr Gly Ile Ser
1 5

<210> 1588

<211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1588
 ggcaccttca gcacctatgg tatcagc

27

<210> 1589
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1589
 Arg Val Ile Pro Met Phe Gly Thr Ala Thr Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Asp

<210> 1590
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1590
 agggatcatcc ctatgttttg aacagcaacc tacgcacaga agttccagga c

51

<210> 1591
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1591

Ala	Arg	Cys	Pro	Pro	Phe	Glu	Gly	Val	Arg	Pro	Pro	Trp	Phe	Asp	Pro
1				5					10					15	

<210> 1592

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1592

gcgagatgtc	ctccttttga	gggagttcgt	ccgccctggt	tcgacccc	48
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<210> 1593

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1593

tcctatgagc	tgactcagcc	accctcggtg	tcagtggccc	caggacggac	ggccaagatt	60
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acctgtgggg	gataacaat	tggaaataaa	cgtgtgcact	ggtaccggca	gaggccaggc	120
------------	-----------	------------	------------	------------	------------	-----

caggccccag	tgctgatcgt	ctatgataat	gccgaccggc	cctcagggat	ccctgagcga	180
------------	------------	------------	------------	------------	------------	-----

ttctctggct	ccaactctgg	gaacacggcc	accctgacca	tcagcaacgt	cgcagccggg	240
------------	------------	------------	------------	------------	------------	-----

gatgaggccg	actatcactg	tcaggtgtgg	gaaactagta	gtgatcatcc	ggtattcggc	300
------------	------------	------------	------------	------------	------------	-----

ggagggacca	agctcaccgt	ccta				324
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<210> 1594

<211> 108

<212> PRT

<213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1594

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

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

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

Asp Asn Ala Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

Asp Glu Ala Asp Tyr His Cys Gln Val Trp Glu Thr Ser Ser Asp His
85 90 95

Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105

<210> 1595

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1595

Gly Gly Tyr Asn Ile Gly Asn Lys Arg Val His
1 5 10

<210> 1596

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1596

gggggataca acattggaaa taaacgtgtg cac

33

<210> 1597

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1597

Asp Asn Ala Asp Arg Pro Ser

1 5

<210> 1598

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1598

gataatgccg accggccctc a

21

<210> 1599

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1599

Gln Val Trp Glu Thr Ser Ser Asp His Pro Val

<210> 1600
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1600
 caggtgtggg aaactagtag tgatcatccg gta 33

<210> 1601
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1601
 gaggtgcagc tggtgcagtc tggaacagag gtgaaaaagc ccggggaatc tctgaagatc 60
 tcttgtaagg cttctggata cagctctttc cccaattgga tcggctgggt gcgccagatg 120
 cccgggaaag gcctggagta catgggggtcc atctttcctg atgactctaa taccagatat 180
 agtccgtcct tccgaggcct ggtcgccatc tcagccgaca agtccctgag aaccgcctat 240
 ctgcagtgga gcagcctgaa ggcctcggac agcgccatat attactgtgc gagagggccc 300
 ttcccgact actttgactc ctgggggtcag ggaaccctgg tcaccgtctc ctca 354

<210> 1602
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1602

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Ser Ala Ile Tyr Tyr Cys
85 90 95

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

Leu Val Thr Val Ser Ser
115

<210> 1603
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1603
Tyr Ser Ser Phe Pro Asn Trp Ile Gly
1 5

<210> 1604
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1604

tacagctctt tccccaattg gatcggc

27

<210> 1605

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1605

Ser	Ile	Phe	Pro	Asp	Asp	Ser	Asn	Thr	Arg	Tyr	Ser	Pro	Ser	Phe	Arg
1				5					10					15	

Gly

<210> 1606

<211> 51

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1606

tccatctttc ctgatgactc taataccaga tatagtccgt ccttccgagg c

51

<210> 1607

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1607

Ala Arg Gly Pro Phe Pro His Tyr Phe Asp Ser
 1 5 10

<210> 1608

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1608

gcgagagggc ccttcccgca ctactttgac tcc 33

<210> 1609

<211> 333

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1609

aattttatgc tgactcagcc ccactctgtg tcggagtctc cggggaagac ggtcaccatc 60
 tcctgcaccc gcagcagtgg cagtattgcc cgcaactatg tgcagtggta ccagcagcgc 120
 ccgggcagtt cccccaccac tgtgatctat gaggatgacc aaagaccccc tggggtcctt 180
 gatcggttct ctggctccat cgacagctcc tccaactctg cctccctcac catctctgga 240
 ctgcagactg aggacgaggc tgactactac tgtcagtctt atgatccac caatcaaat 300
 gtcttcggaa ctgggaccaa gtcaccgtc cta 333

<210> 1610

<211> 111

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

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<400> 1610

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 Arg Asn
20 25 30

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

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

Thr Asn Gln Asn Val Phe Gly Thr Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1611

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1611

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

<210> 1612

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1612

accgcagca gtggcagtat tgcccgcaac tatgtgcag

39

<210> 1613

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1613

Glu Asp Asp Gln Arg Pro Pro

1 5

<210> 1614

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1614

gaggatgacc aaagaccccc t

21

<210> 1615

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1615

Gln Ser Tyr Asp Pro Thr Asn Gln Asn Val

1 5 10

<210> 1616

<211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1616
 cagtcttatg atcccaccaa tcaaaatgtc 30

<210> 1617
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1617
 gaggtgcagc tgggtggagtc tggggggaggc gtgggtccagc ctgggagggtc cctgagactc 60
 tcctgtgaag cctctggatt caacttccat aattatgata tacaatgggt ccgccaggcc 120
 ccaggcaagg ggctggagtg ggtggcacta gtattatttg atggaagcaa aaaatattat 180
 ccacactctg tgaagggccg attcgccatc tccagagaca actccaaaaa aactctattt 240
 ctgcaaatga acagcctgag acctgaggac acggctgtgt attactgtgc gagagcccca 300
 gtgactggcg cctcgtatta ccttgactat tggggccagg gaaccctggt caccgtctcc 360
 tca 363

<210> 1618
 <211> 121
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region"

<400> 1618
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

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Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Asn Phe His Asn Tyr
20 25 30

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

Ala Leu Val Leu Phe Asp Gly Ser Lys Lys Tyr Tyr Pro His Ser Val
50 55 60

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1619
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1619
Phe Asn Phe His Asn Tyr Asp Ile Gln
1 5

<210> 1620
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H1"

<400> 1620
ttcaacttcc ataattatga tatacaa

27

<210> 1621
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1621
Leu Val Leu Phe Asp Gly Ser Lys Lys Tyr Tyr Pro His Ser Val Lys
1 5 10 15

Gly

<210> 1622
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H2"

<400> 1622
ctagtattat ttgatggaag caaaaaatat tatccacact ctgtgaaggg c

51

<210> 1623
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1623
Ala Arg Ala Pro Val Thr Gly Ala Ser Tyr Tyr Leu Asp Tyr

<210> 1624
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1624
 gcgagagccc cagtgactgg cgcctcgtat taccttgact at 42

<210> 1625
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1625
 tcctatgtgc tgacacagcc accctcggtg tcagtggccc caggacagac ggccagaatt 60
 acctgtgggg caaacaacat tggaaataaa ggtgtgcact ggtaccaaca gaagccaggc 120
 caggcccctg tgctggctgt ctatgatgat gacgaccagc cctcagggat ccctgagcga 180
 ttctctggct ccaactctgg gaacacggcc accctgacca tcagcagggt cgaagccggg 240
 gatgaggccg actattactg tcaggtgtgg gatagtacta gtgatcatct ggtattcggc 300
 ggagggaccc agctgaccgt ccta 324

<210> 1626
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1626

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

Thr Ala Arg Ile Thr Cys Gly Ala Asn Asn Ile Gly Asn Lys Gly Val
20 25 30

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

Asp Asp Asp Asp Gln Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

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

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ser Thr Ser Asp His
85 90 95

Leu Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu
100 105

<210> 1627
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1627
Gly Ala Asn Asn Ile Gly Asn Lys Gly Val His
1 5 10

<210> 1628
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1628
ggggcaaaca acattggaaa taaaggtgtg cac 33

<210> 1629
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1629
Asp Asp Asp Asp Gln Pro Ser
1 5

<210> 1630
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L2"

<400> 1630
gatgatgacg accagccctc a 21

<210> 1631
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1631
Gln Val Trp Asp Ser Thr Ser Asp His Leu Val
1 5 10

<210> 1632
<211> 33
<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1632

caggtgtggg atagtactag tgatcatctg gta

33

<210> 1633

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1633

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60

acctgcactg tctctggtgg ctccgtcagc agaggagatt actactggac ctggatccgg 120

cagccccag ggaagggact ggagtggatt ggctatatct attacagtgg gagcaccaac 180

tacaaccct ccctcaagag tcgagtcacc atatcagtag acacgtcaa gaaccagttc 240

tccctgaagc tgagctctgt gaccgctgcg gacacggccg tttattactg tgcgagagat 300

ataggggaag ataagtatgg tacttactac ggtatggacg tctggggcca agggaccacg 360

gtcaccgtct cttca 375

<210> 1634

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1634

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

1

5

10

15

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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Arg Gly
20 25 30

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Asp Ile Gly Glu Asp Lys Tyr Gly Thr Tyr Tyr Gly Met
100 105 110

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

<210> 1635
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1635
Gly Ser Val Ser Arg Gly Ser Tyr Tyr Trp Thr
1 5 10

<210> 1636
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1636
ggctccgtca gcagagggag ttactactgg acc 33

<210> 1637
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1637
Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 1638
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H2"

<400> 1638
tatatctatt acagtgggag caccaactac aaccctctcc tcaagagt 48

<210> 1639
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1639
Ala Arg Asp Ile Gly Glu Asp Lys Tyr Gly Thr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 1640
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1640
 gcgagagata taggggaaga taagtatggt acttactacg gtagggacgt c 51

<210> 1641
 <211> 324
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1641
 gaaattgtga tgacacagtc tccagccacc ctgtctttgt ctccaggaga aagagccacc 60
 ctctcctgca gggccagtca gagtgttagc agctccttag cctggtacca acagaaacct 120
 ggccaggctc ccaggctcct catctatggt gcatccaaca gggccactgg catcccagcc 180
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagtag cctagagcct 240
 gaggattttg cagtttatta ctgtcagcag cgtaccaact ggcccccggt cactttcggc 300
 cctgggacca aggtggaaat caaa 324

<210> 1642
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region"

<400> 1642
 Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Thr Asn Trp Pro Pro
85 90 95

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

<210> 1643
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1643
Arg Ala Ser Gln Ser Val Ser Ser Ser Leu Ala
1 5 10

<210> 1644
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1644

agggccagtc agagtgttag cagctcctta gcc

33

<210> 1645
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1645
 Gly Ala Ser Asn Arg Ala Thr
 1 5

<210> 1646
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1646
 ggtgcatcca acagggccac t

21

<210> 1647
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1647
 Gln Gln Arg Thr Asn Trp Pro Pro Val Thr
 1 5 10

<210> 1648
 <211> 30
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1648

cagcagcgta ccaactggcc cccggtcact

30

<210> 1649

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1649

caggtccagc tggtacagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60

tcttgtgcag cctctggatt caccttcagt agctatacca tgaactgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcatcc attactgggtg gtagtagttt cacaaactac 180

gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcaactttt 240

ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300

ccgggggacga tttttggagt ggtccaggac tactggggcc agggaaccct ggtcaccgtc 360

tcctca 366

<210> 1650

<211> 122

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1650

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys 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

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

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

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

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

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

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

<210> 1651
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1651
Phe Thr Phe Ser Ser Tyr Thr Met Asn
1 5

<210> 1652
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1652

ttcaccttca gtagctatac catgaac

27

<210> 1653
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1653
 Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu Glu
 1 5 10 15

Gly

<210> 1654
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1654
 tccattactg gtggtagtag tttcacaac tacgcagact cactggaggg c

51

<210> 1655
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1655
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1656

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<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1656
gcgagagatc agccggggac gattttttgga gtggtccagg actac 45

<210> 1657
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1657
cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
tcctgcactg ggggcagctc caacatcggg gcaggttatg atgtgcactg gtaccagcag 120
cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180
cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
caggctgagg atgaggctga ttattactgc cagtcctatg acagccgcct gagtgtggta 300
ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1658
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1658
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Arg
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1659
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1659
Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1660
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1660
actgggggca gctccaacat cggggcaggt tatgatgtgc ac

<210> 1661
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1661
 Gly Asn Ser Asn Arg Pro Ser
 1 5

<210> 1662
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1662
 ggtaacagca atcggcctc a

21

<210> 1663
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1663
 Gln Ser Tyr Asp Ser Arg Leu Ser Val Val
 1 5 10

<210> 1664
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1664
cagtcctatg acagccgcct gagtgtggta 30

<210> 1665
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1665
gaggtgcagc tgggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc 120
cctggacaag gacttgagtg gatgggaggg accatcccta tttttggtac aatcaactac 180
gcacagaagt tccagggcag actcacgatt aacgcggacg catcaacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt atttctgtgc gagagaccgg 300
actacagctg tgaggtacta cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcttca 366

<210> 1666
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1666
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

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

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

Gly Gly Thr Ile Pro Ile Phe Gly Thr Ile Asn Tyr Ala Gln Lys Phe
50 55 60

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

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

Ala Arg Asp Arg Thr Thr Ala Val Arg Tyr Tyr Ala Met Asp Val Trp
100 105 110

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

<210> 1667
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1667
Gly Thr Phe Ser Ser Tyr Ala Ile Ser
1 5

<210> 1668
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1668
ggcaccttca gcagctatgc tatcagc

<210> 1669
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1669
 Gly Thr Ile Pro Ile Phe Gly Thr Ile Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1670
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1670
 gggaccatcc ctatTTTTtgG tacaatcaac tacgcacaga agttccaggg c 51

<210> 1671
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1671
 Ala Arg Asp Arg Thr Thr Ala Val Arg Tyr Tyr Ala Met Asp Val
 1 5 10 15

<210> 1672
 <211> 45
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1672

gcgagagacc ggactacagc tgtgaggtac tacgctatgg acgtc

45

<210> 1673

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1673

gaaattgtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgtttagc agctacttag cctggtacca acagaaacct 120

ggccaggctc ccaggctcct catctatgat acatccaaca gggccactga catcccagcc 180

aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240

gaagattttg cagtttatta ctgtcagcac cgtgccaaact ggcccccgct cactttcggc 300

ggagggacca aggtggaaat caaa 324

<210> 1674

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1674

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30

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

Tyr Asp Thr Ser Asn Arg Ala Thr Asp Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Arg Ala Asn Trp Pro Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1675
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1675
Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
1 5 10

<210> 1676
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1676
agggccagtc agagtgttag cagctactta gcc

33

<210> 1677

<211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1677
 Asp Thr Ser Asn Arg Ala Thr
 1 5

<210> 1678
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1678
 gatacatcca acagggccac t

21

<210> 1679
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1679
 Gln His Arg Ala Asn Trp Pro Pro Leu Thr
 1 5 10

<210> 1680
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1680
cagcaccgtg ccaactggcc cccgctcact 30

<210> 1681
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1681
caggtccagc ttgtgcagtc tgggcctgag gtgaagaggc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggaga caccttcaac aactacgcca tcagctgggt gcgacaggcc 120
cctggacaag gacttgagtg gatgggaggg atccacccta ccactgctac accaaactac 180
gcacagaagt tccagggcag agtcgtcatt agcgcggaca agtccacgag tacagcctac 240
ttggacctga gtcggctgag atctgaggac acggccatgt attactgtgc gagagttggt 300
gtgggacgca cttgggtcta tgatattatg ggttacctag actactgggg ccaggaacc 360
ctggtcaccg tctcctca 378

<210> 1682
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1682
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Val Lys Arg Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Asp Thr Phe Asn Asn Tyr
20 25 30

Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

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Gly Gly Ile His Pro Thr Thr Ala Thr Pro Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Val Ile Ser Ala Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Leu Asp Leu Ser Arg Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg Val Gly Val Gly Arg Thr Trp Val Tyr Asp Ile Met Gly Tyr
100 105 110

Leu Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 1683
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1683
Asp Thr Phe Asn Asn Tyr Ala Ile Ser
1 5

<210> 1684
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1684
gacac ttca aca actac gc catc agc

27

<210> 1685

<211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1685
 Gly Ile His Pro Thr Thr Ala Thr Pro Asn Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 1686
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1686
 gggatccacc ctaccactgc tacaccaaac tacgcacaga agttccaggg c 51

<210> 1687
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1687
 Ala Arg Val Gly Val Gly Arg Thr Trp Val Tyr Asp Ile Met Gly Tyr
 1 5 10 15

Leu Asp Tyr

<210> 1688

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<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H3"

<400> 1688
gcgagagttg gtgtgggacg cacttgggtc tatgatatta tgggttacct agactac 57

<210> 1689
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1689
gaaattgtat tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgtttagc gactacttgg cctggtacca acaaagacct 120
ggccaggctc ccaggctcct catctatgat gcgtccacca gggccactgg catcccagac 180
aggttcagtg gcggtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcaacac cgtaacaact ggccttcct cactttcggc 300
ggagggacca aggtggaaat caaa 324

<210> 1690
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region"

<400> 1690
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Asp Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
50 55 60

Gly Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Arg Asn Asn Trp Pro Ser
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 1691
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1691
Arg Ala Ser Gln Ser Val Ser Asp Tyr Leu Ala
1 5 10

<210> 1692
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1692
agggccagtc agagtgttag cgactacttg gcc

<210> 1693
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1693
 Asp Ala Ser Thr Arg Ala Thr
 1 5

<210> 1694
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1694
 gatgcgtcca ccagggccac t

21

<210> 1695
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1695
 Gln His Arg Asn Asn Trp Pro Ser Leu Thr
 1 5 10

<210> 1696
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1696
caacaccgta acaactggcc ttccctcact 30

<210> 1697
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1697
caggtgcagc tacagcagtg gggcgcagga ctgctgaagc cttcggagac cctgtccctc 60
acctgcggtg tctctgatgg gtccttcagt gcctactact ggaactggat ccgccagtcc 120
ccagggaagg ggctggagtg gattggggaa accaatccaa gtgaaaacac caactacagc 180
ccgtccctca agaatcgagt caccatatcg gcagacaggt ccgcgaatca gttctccctg 240
agactgaggt ctgtgaccgc cgcggacacg ggtgtttatt actgtgagag aggccgcggt 300
tattatggtt cgacgactga ttatcggggg ctccactggt tcgaccctg gggccaggga 360
accctggtca ccgtctcctc a 381

<210> 1698
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1698
Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Gly Val Ser Asp Gly Ser Phe Ser Ala Tyr
20 25 30

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Tyr Trp Asn Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Glu Thr Asn Pro Ser Glu Asn Thr Asn Tyr Ser Pro Ser Leu Lys
50 55 60

Asn Arg Val Thr Ile Ser Ala Asp Arg Ser Ala Asn Gln Phe Ser Leu
65 70 75 80

Arg Leu Arg Ser Val Thr Ala Ala Asp Thr Gly Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Arg Gly Tyr Tyr Gly Ser Thr Thr Asp Tyr Arg Gly Leu His
100 105 110

Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 1699
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1699
Gly Ser Phe Ser Ala Tyr Tyr Trp Asn
1 5

<210> 1700
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region CDR H1"

<400> 1700
gggtccttca gtcctacta ctggaac

<210> 1701
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1701
 Glu Thr Asn Pro Ser Glu Asn Thr Asn Tyr Ser Pro Ser Leu Lys Asn
 1 5 10 15

<210> 1702
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1702
 gaaaccaatc caagtgaata caccaactac agcccgtccc tcaagaat 48

<210> 1703
 <211> 21
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1703
 Ala Arg Gly Arg Gly Tyr Tyr Gly Ser Thr Thr Asp Tyr Arg Gly Leu
 1 5 10 15

His Trp Phe Asp Pro
 20

<210> 1704
 <211> 63
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1704

gcgagaggcc gcggttatta tggttcgacg actgattatc gggggctcca ctggttcgac 60

ccc 63

<210> 1705

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1705

gaaacgacac tcacgcagtc tccagtcacc ctgtctgtgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgttagc ttcaacttag cctggtacca gcagaaacct 120

ggccaggctc ccaggctcct catctatggt gcatccacca gggtcactaa tctcccactc 180

aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240

gaagattttg cagtttatta ctgtcagcag tataataact ggcctcggac ttttggccag 300

gggaccaagc tggagatcaa a 321

<210> 1706

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1706

Glu Thr Thr Leu Thr Gln Ser Pro Val Thr Leu Ser Val Ser Pro Gly

1

5

10

15

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Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Phe Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr Arg Val Thr Asn Leu Pro Leu Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Arg
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 1707
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1707
Arg Ala Ser Gln Ser Val Ser Phe Asn Leu Ala
1 5 10

<210> 1708
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1708
agggccagtc agagtgttag cttcaactta gcc

<210> 1709
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1709
 Gly Ala Ser Thr Arg Val Thr
 1 5

<210> 1710
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1710
 ggtgcatcca ccagggtcac t

21

<210> 1711
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1711
 Gln Gln Tyr Asn Asn Trp Pro Arg Thr
 1 5

<210> 1712
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

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<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L3"

<400> 1712

cagcagtata ataactggcc tcggact

27

<210> 1713

<211> 378

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1713

gaggtgcagc tggtggagtc tgggggaggc ttggttcagc cggggggggtc cctgagactc 60

tcctgtgcag cctctggatt cacttttcagc gactttttcca tgagctgggt ccgccaggct 120

ccagggaagg ggctggaatg ggtctcactt attaaaagta gcggttatgc atactatgca 180

gactccgtga ggggccggtt caccatctcc agagacaatt ccaagaacac cctgtatctg 240

caaatgaaca gcctgagagc cgaggacacg gccatatatt attgtgcgaa agacgccgat 300

ttttggagtg gtgccgccta caatggagga tacaactttg actcctgggg ccagggaacc 360

ctggtcaccg tctcctca 378

<210> 1714

<211> 126

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
heavy chain variable region"

<400> 1714

Glu Val Gln Leu Val 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 Asp Phe
20 25 30

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Ser Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Leu Ile Lys Ser Ser Gly Tyr Ala Tyr Tyr Ala Asp Ser Val Arg
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys Ala
 85 90 95

Lys Asp Ala Asp Phe Trp Ser Gly Ala Ala Tyr Asn Gly Gly Tyr Asn
 100 105 110

Phe Asp Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 1715
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1715
 Phe Thr Phe Ser Asp Phe Ser Met Ser
 1 5

<210> 1716
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H1"

<400> 1716
 ttcactttca gcgacttttc catgagc

<210> 1717
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1717
 Leu Ile Lys Ser Ser Gly Tyr Ala Tyr Tyr Ala Asp Ser Val Arg Gly
 1 5 10 15

<210> 1718
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H2"

<400> 1718
 cttattaaaa gtagcggtta tgcatactat gcagactccg tgaggggc 48

<210> 1719
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 heavy chain variable region CDR H3"

<400> 1719
 Ala Lys Asp Ala Asp Phe Trp Ser Gly Ala Ala Tyr Asn Gly Gly Tyr
 1 5 10 15

Asn Phe Asp Ser
 20

<210> 1720
 <211> 60
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic heavy chain variable region CDR H3"

<400> 1720

gcgaaagacg ccgatttttg gagtggtgcc gcctacaatg gaggatacaa ctttgactcc 60

<210> 1721

<211> 324

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1721

gacatccaga tgaccagtc tccagccacc ctgtctgtat ttccagggga cagagccacc 60

ctctcctgca gggccagtca gagtgttggc agcaacttgg cctggtacca gcagaaacct 120

ggccaggctc ccaggctcct catctttggt gcctcaacca gggccactgg tatcccagcc 180

aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240

gaagattttg cagtttatta ctgtcagcag tatcataact ggctccgct cactttcggc 300

ggagggacca aagtggatat caaa 324

<210> 1722

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic light chain variable region"

<400> 1722

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ala	Thr	Leu	Ser	Val	Phe	Pro	Gly
1				5				10						15	

Asp	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Ser	Val	Gly	Ser	Asn
		20						25					30		

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Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Phe Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr His Asn Trp Pro Pro
85 90 95

Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
100 105

<210> 1723
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1723
Arg Ala Ser Gln Ser Val Gly Ser Asn Leu Ala
1 5 10

<210> 1724
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
light chain variable region CDR L1"

<400> 1724
agggccagtc agagtgttgg cagcaacttg gcc

33

<210> 1725

<211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1725
 Gly Ala Ser Thr Arg Ala Thr
 1 5

<210> 1726
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L2"

<400> 1726
 ggtgcctcaa ccagggccac t

21

<210> 1727
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1727
 Gln Gln Tyr His Asn Trp Pro Pro Leu Thr
 1 5 10

<210> 1728
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 light chain variable region CDR L3"

<400> 1728
cagcagtatc ataactggcc tccgctcact 30

<210> 1729
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1729
caggtccagc ttgtacagtc tggggctgaa gtgaagaggc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctttggga tcaactgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg ctcaatccta tctttggtac accatctaac 180
gcacagaagt tccagggcag agtcacgatt accgcggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtct attactgtgc ctcattacga 300
tattttgact ggcaacctgg ggggtcctac tggttcgacc cctggggcca gggaaccctg 360
gtcaccgtct cctca 375

<210> 1730
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1730
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Arg Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Phe
20 25 30

Gly Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

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Gly Gly Leu Asn Pro Ile Phe Gly Thr Pro Ser Asn Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ser Leu Arg Tyr Phe Asp Trp Gln Pro Gly Gly Ser Tyr Trp Phe
100 105 110

Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 1731
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1731
Gly Thr Phe Ser Ser Phe Gly Ile Asn
1 5

<210> 1732
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1732
Gly Leu Asn Pro Ile Phe Gly Thr Pro Ser Asn Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 1733
 <211> 18
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

 <400> 1733
 Ala Ser Leu Arg Tyr Phe Asp Trp Gln Pro Gly Gly Ser Tyr Trp Phe
 1 5 10 15

Asp Pro

<210> 1734
 <211> 330
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

 <400> 1734
 cagcctgggc tgactcagcc accctcagtgc tcagtggccc caggaaagac ggccaggatt 60
 gcctgtgggg gagacaacat tggaactaaa ggagtgcact ggtaccagca gaagccaggc 120
 caggcccctg tgctgggtcat ctattatgat agcgaccggc cctcagggat ccctgagcga 180
 ttctctgggtt ccaactctgg gaacacggcc accctgacca tcagcgggggt cgaagccggg 240
 gatgaggccg actactactg tcaggtttgg gatactattg atgattataa ggatggacta 300
 ttcggcggag ggaccaagct caccgtccta 330

 <210> 1735
 <211> 110
 <212> PRT
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') amino acid sequence"

<400> 1735

Gln Pro Gly Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Arg Ile Ala Cys Gly Gly Asp Asn Ile Gly Thr Lys Gly Val
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr
35 40 45

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Val Glu Ala Gly
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Thr Ile Asp Asp Tyr
85 90 95

Lys Asp Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1736

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1736

Gly Gly Asp Asn Ile Gly Thr Lys Gly Val His
1 5 10

<210> 1737

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1737

Tyr Asp Ser Asp Arg Pro Ser

1 5

<210> 1738

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1738

Gln Val Trp Asp Thr Ile Asp Asp Tyr Lys Asp Gly Leu

1 5 10

<210> 1739

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1739

caggtccagc ttgtacagtc tggggctgaa gtgaagaggc ctgggtcctc ggtgaaggtc 60

tcctgcaagg cttctggagg caccttcagc agctttgcta tccagtgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggaggg ctcatcccta tctttggtac accagagaac 180

gcacagaagt tccagggcag agtcacgatt accgcggacg aatccacgag cacagcctac 240

atggagctga gcagcctgag atctgaggac acggccgtct attactgtgc ctcatcagca 300

tatcttgact ggcaacctgg ggggtcctac tggttcgacc cctggggcca gggaaccctg 360

gtcaccgtct cctca 375

<210> 1740
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1740
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Arg Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Phe
20 25 30

Ala Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Gly Leu Ile Pro Ile Phe Gly Thr Pro Glu Asn Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Ser Leu Arg Tyr Phe Asp Trp Gln Pro Gly Gly Ser Tyr Trp Phe
100 105 110

Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 1741
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

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Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1741

Gly Thr Phe Ser Ser Phe Ala Ile Gln

1 5

<210> 1742

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1742

Gly Leu Ile Pro Ile Phe Gly Thr Pro Glu Asn Ala Gln Lys Phe Gln

1 5 10 15

Gly

<210> 1743

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1743

Ala Ser Leu Arg Tyr Phe Asp Trp Gln Pro Gly Gly Ser Tyr Trp Phe

1 5 10 15

Asp Pro

<210> 1744

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region('LC') nucleic acid sequence"

<400> 1744
cagcctgggc tgactcagcc accctcagtgc tcagtggccc caggaaagac ggccaggatt 60
gcctgtgggg gagacaacat tggaactaaa ggagtgcact ggtaccagca gaagccaggc 120
cagggccctg tgctgggtcat ctattatgat agcgaccggc cctcagggat ccctgagcga 180
ttctctgggt ccaactctgg gaacacggcc accctgacca tcagcgggggt cgaagccggg 240
gatgaggccg actactactg tcaggtttgg gatactattg atgatcataa ggatggacta 300
ttcggcggag ggaccaagct caccgtccta 330

<210> 1745

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') amino acid sequence"

<400> 1745

Gln Pro Gly Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Arg Ile Ala Cys Gly Gly Asp Asn Ile Gly Thr Lys Gly Val
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr
35 40 45

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Val Glu Ala Gly
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Thr Ile Asp Asp His
85 90 95

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Lys Asp Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
 100 105 110

<210> 1746
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1746
 Gly Gly Asp Asn Ile Gly Thr Lys Gly Val His
 1 5 10

<210> 1747
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1747
 Tyr Asp Ser Asp Arg Pro Ser
 1 5

<210> 1748
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1748
 Gln Val Trp Asp Thr Ile Asp Asp His Lys Asp Gly Leu
 1 5 10

<210> 1749
 <211> 372
 <212> DNA

<221> source

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<223> /note="Description of Artificial Sequence: Synthetic  
Heavy chain variable region ('HC') nucleic acid sequence"
```

gaggtgcagc	tgttgagtc	tgggggaggc	gtggtccagc	ctgggaggtc	cctgagactc	60
tcctgtgcag	cctctggatt	caccttcagt	gacttttcta	tgcactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcactc	atctcaaata	atggaagcaa	taaataattat	180
tcagactccc	tgaagggttc	attcatcatc	tccagagaca	actccaagaa	cacgctctat	240
ctccaactga	acagcctggg	agctgaggac	acggctctct	attactgtgc	gagagatgcg	300
gttccccatt	atgattacgt	ctgggggaaac	tttgactact	ggggccaggg	aaccctggtc	360
actgtctcct	ca					372

$\langle 211 \rangle$ 124

<212> PRT

<213> Artificial Sequence

<221> source

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<22> /note="Description of Artificial Sequence: Synthetic  
Heavy chain variable region ('HC') amino acid sequence"
```

Glu Val Gln Leu Leu 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 Asp Phe
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu
50 55 60

Lys Gly Ser Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

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Leu Gln Leu Asn Ser Leu Gly Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1751
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1751
Phe Thr Phe Ser Asp Phe Ser Met His
1 5

<210> 1752
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1752
Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu Lys
1 5 10 15

Gly

<210> 1753
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1753

Ala	Arg	Asp	Ala	Val	Pro	His	Tyr	Asp	Tyr	Val	Trp	Gly	Asn	Phe	Asp
1				5				10						15	

Tyr

<210> 1754

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') nucleic acid sequence"

<400> 1754

gaggtgcagc	tggttgagtc	tgggggaggc	gtggtccagc	ctgggagggtc	cctgagactc	60
tcctgtgcag	cctctggatt	caccttcagt	gacttttcta	tgcaactgggt	ccgccaggct	120
ccaggcaagg	ggctggagtg	ggtggcactc	atctcaaagc	atggaagcaa	taaataattat	180
tcagactccc	tgaagggttc	attcatcatc	tccagagaca	actccaagaa	cacgctctat	240
ctccaactga	acagcctggg	agctgaggac	acggctctct	attactgtgc	gagagatgcg	300
gttccccatt	atgattacgt	ctgggggaaac	tttgactact	ggggccagggt	aaccctgggtc	360
actgtctcct	ca					372

<210> 1755

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') amino acid sequence"

<400> 1755

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Glu Val Gln Leu Leu 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 Asp Phe
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu
50 55 60

Lys Gly Ser Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Leu Asn Ser Leu Gly Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1756

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1756

Thr Gly Thr Ala Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 1757

<211> 7

<212> PRT

<213> Artificial Sequence

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<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1757
 Glu Val Ser Asn Arg Pro Ser
 1 5

<210> 1758
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1758
 Ser Ser Tyr Thr Ser Phe Thr Pro Val Val
 1 5 10

<210> 1759
 <211> 372
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1759
 gaggtgcagc tgttggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttcagt gacttttcta tgcaactgggt ccgccaggct 120
 ccaggcaagg ggctggagtg ggtggcactc atctcaaagc atggaagcaa taaatattat 180
 tcagactccc tgaagggttc attcatcatc tccagagaca actccaagaa cacgctctat 240
 ctccaactga acagcctggg agctgaggac acggctctct attactgtgc gagagatgcg 300
 gttccccatt atgattacgt ctggggaaac tttgactact ggggccaggg aaccctggtc 360
 actgtctcct ca 372

<210> 1760

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<211> 124
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1760

Glu Val Gln Leu Leu 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 Asp Phe
20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu
50 55 60

Lys Gly Ser Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Leu Asn Ser Leu Gly Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1761

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1761
Phe Thr Phe Ser Asp Phe Ser Met His
1 5

<210> 1762
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1762
Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu Lys
1 5 10 15

Gly

<210> 1763
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1763
Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
1 5 10 15

Tyr

<210> 1764
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region('LC') nucleic acid sequence"

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```
<400> 1764
cagtctgttc tgactcagcc tgcctccgtg tctgcgtctc ctggacagtc gatcaccatc      60
tcctgcactg gaaccgcgag tgacgttggt ggttataatt atgtctcctg gtaccaacag      120
caccagggca aagcccccaa actcataatt tatgagggtca gtaatcggcc ctgaggggtt      180
tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc      240
caggctgacg acgaggctga ttattactgc agctcatata cagctttcac tcccgtggta      300
ttcggcggag ggaccaagct gaccgtccta      330
```

```
<210> 1765
<211> 110
<212> PRT
<213> Artificial Sequence
```

```
<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      Light chain variable region ('LC') amino acid sequence"
```

```
<400> 1765
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Ala Ser Pro Gly Gln
1           5           10           15
```

```
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ala Ser Asp Val Gly Gly Tyr
          20           25           30
```

```
Asn Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
          35           40           45
```

```
Ile Ile Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
          50           55           60
```

```
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65           70           75           80
```

```
Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ala Phe
          85           90           95
```

```
Thr Pro Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
          100          105          110
```


<210> 1766
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1766
 Thr Gly Thr Ala Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
 1 5 10

<210> 1767
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1767
 Glu Val Ser Asn Arg Pro Ser
 1 5

<210> 1768
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1768
 Ser Ser Tyr Thr Ala Phe Thr Pro Val Val
 1 5 10

<210> 1769
 <211> 372
 <212> DNA
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1769

```

gaggtgcagc tgttggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc      60
tcctgtgcag cctctggatt caccttcagt gacttttcta tgcactgggt ccgccaggct      120
ccaggcaagg ggctggagtg ggtggcactc atctcaaagc atggaagcaa taaatattat      180
tcagactccc tgaagggttc attcatcatc tccagagaca actccaagaa cacgctctat      240
ctccaactga acagcctggg agctgaggac acggctctct attactgtgc gagagatgcg      300
gttccccatt atgattacgt ctggggaaac ttgactact ggggccaggg aaccctggtc      360
actgtctcct ca                                                              372

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<210> 1770

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1770

```

Glu Val Gln Leu Leu 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 Asp Phe
          20          25          30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35          40          45

Ala Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu
          50          55          60

Lys Gly Ser Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65          70          75          80

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Leu Gln Leu Asn Ser Leu Gly Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95

Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1771
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1771
Phe Thr Phe Ser Asp Phe Ser Met His
1 5

<210> 1772
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1772
Leu Ile Ser Asn Asp Gly Ser Asn Lys Tyr Tyr Ser Asp Ser Leu Lys
1 5 10 15

Gly

<210> 1773
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

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<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1773
 Ala Arg Asp Ala Val Pro His Tyr Asp Tyr Val Trp Gly Asn Phe Asp
 1 5 10 15

Tyr

<210> 1774
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1774
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 tcctgcactg gaaccgagag tgacgttggt gggtataatt atgtctcctg gtaccaacag 120
 caccagggca aagcccccaa actcataatt tatgagaaga gtaatcggcc ctgaggggtt 180
 tctaatacgt tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240
 caggctgacg acgaggctga ttattactgc agctcatata caagtttcac tcccgtggta 300
 ttcggcggag ggaccaagct gaccgtccta 330

<210> 1775
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region ('LC') amino acid sequence"

<400> 1775
 Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Ala Ser Pro Gly Gln
 1 5 10 15

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Ser Ile Thr Ile Ser Cys Thr Gly Thr Ala Ser Asp Val Gly Gly Tyr
20 25 30

Asn Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
35 40 45

Ile Ile Tyr Glu Lys Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Phe
85 90 95

Thr Pro Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 1776

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1776

Thr Gly Thr Ala Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 1777

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1777

Glu Lys Ser Asn Arg Pro Ser
1 5

<210> 1778
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1778
 Ser Ser Tyr Thr Ser Phe Thr Pro Val Val
 1 5 10

<210> 1779
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1779
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 ccagggaagg ggctggagtg ggtctcatcc attactgggt gtagtagttt caciaactac 180
 gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctacttttt 240
 ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
 ccggggacga tttttggagt ggtccaggac tactggggcc agggaaccct ggtcaccgtc 360
 tcctca 366

<210> 1780
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') amino acid sequence"

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<400> 1780

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys 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

Thr Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1781

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1781

Phe Thr Phe Ser Ser Tyr Thr Met Asn
1 5

<210> 1782

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1782

Ser	Ile	Thr	Gly	Gly	Ser	Ser	Phe	Thr	Asn	Tyr	Ala	Asp	Ser	Leu	Glu
1			5					10					15		

Gly

<210> 1783

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1783

Ala	Arg	Asp	Gln	Pro	Gly	Thr	Ile	Phe	Gly	Val	Val	Gln	Asp	Tyr
1			5					10					15	

<210> 1784

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region('LC') nucleic acid sequence"

<400> 1784

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tcctgcactg	ggggcagctc	caacatcggg	gcaggttatg	atgtgcactg	gtaccagcag	120
cttcaggaa	cagcccctaa	actcctcatc	tatggtaaca	gcaatcgggg	gtcaggggtc	180
cctgaccgat	tctctggctc	caagtctggc	acctcagcct	ccctggccat	cactgggctc	240
caggctgagg	atgaggctga	ttattactgc	cagtcctatg	acagccgcct	gcagggtgta	300

ttcggcggag ggaccaaggt gaccgtccta

<210> 1785
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region ('LC') amino acid sequence"

<400> 1785
 Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly
 20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
 35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Gly Ser Gly Val Pro Asp Arg Phe
 50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Arg
 85 90 95

Leu Gln Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
 100 105 110

<210> 1786
 <211> 14
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L1 ('L1') amino acid sequence"

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<400> 1786
 Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
 1 5 10

<210> 1787
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1787
 Gly Asn Ser Asn Arg Gly Ser
 1 5

<210> 1788
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1788
 Gln Ser Tyr Asp Ser Arg Leu Gln Val Val
 1 5 10

<210> 1789
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1789
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 tcttgtgcag cctctggatt caccttcagt agctatacca tgaactgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcatcc attactggtg gtagtagttt cacaaactac 180

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gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcacttttt 240
 ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
 ccggggacga tttttggagt ggtccaggac tactggggcc aggggaaccct ggtcaccgtc 360
 tcctca 366

<210> 1790
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') amino acid sequence"

<400> 1790
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys 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

Thr Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu
 50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
 100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

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<210> 1791
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1791
 Phe Thr Phe Ser Ser Tyr Thr Met Asn
 1 5

<210> 1792
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1792
 Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu Glu
 1 5 10 15

Gly

<210> 1793
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1793
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1794
 <211> 330
 <212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region('LC') nucleic acid sequence"

<400> 1794

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cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc      60
tcctgcactg ggggcagctc caacatcggg aagggttatg atgtgcactg gtaccagcag      120
cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc cgggggggtc      180
cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc      240
caggctgagg atgaggctga ttattactgc cagtcctatg acagcgggct gagtgtggta      300
ttcggcggag ggaccaaggt gaccgtccta      330

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<210> 1795

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') amino acid sequence"

<400> 1795

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Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1           5           10          15

```

```

Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Lys Gly
          20          25          30

```

```

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
          35          40          45

```

```

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Gly Gly Val Pro Asp Arg Phe
          50          55          60

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```

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65          70          75          80

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Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1796
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1796
Thr Gly Gly Ser Ser Asn Ile Gly Lys Gly Tyr Asp Val His
1 5 10

<210> 1797
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1797
Gly Asn Ser Asn Arg Pro Gly
1 5

<210> 1798
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1798
Gln Ser Tyr Asp Ser Gly Leu Ser Val Val
1 5 10

<210> 1799
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1799
 caggtccagc tggtagagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60
 tcttgtgcag cctctggatt caagttcagt agctatacca tgaactgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcatcc attactgggtg gtagtagttt caciaactac 180
 gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctactttttt 240
 ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
 ccggggacga tttttggagt ggtccaggac tactggggcc aggggaaccct ggtcaccgtc 360
 tcctca 366

<210> 1800
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') amino acid sequence"

<400> 1800
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Ser Tyr
 20 25 30

Thr Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu
 50 55 60

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Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1801
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1801
Phe Lys Phe Ser Ser Tyr Thr Met Asn
1 5

<210> 1802
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1802
Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu Glu
1 5 10 15

Gly

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<210> 1803
 <211> 15
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1803
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1804
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1804
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 tcctgcactg ggggcagctc caacatcggg gcaggttatg atgtgcactg gtaccagcag 120
 cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc ctccaggggtc 180
 cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
 caggctgagg atgaggctga ttattactgc cagtcctatg acagccgcct gagtgtggtg 300
 ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1805
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region ('LC') amino acid sequence"

<400> 1805
 Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

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Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly
20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Arg
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1806
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1806
Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1807
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1807

Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 1808
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1808
Gln Ser Tyr Asp Ser Arg Leu Ser Val Val
1 5 10

<210> 1809
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1809
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tcttgtgcag cctctggatt cagcttcagt agctatagca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcatcc attactggtg gtagtagttt cgtaaactac 180
gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcaactttt 240
ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
ccggggacga tttttggagt ggtccaggac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 1810
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<221> source

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<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1810

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Val Asn Tyr Ala Asp Ser Leu
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1811

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1811

Phe Ser Phe Ser Ser Tyr Ser Met Asn
1 5

<210> 1812

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<211> 17
 <212> PRT
 <213> Artificial Sequence
 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1812
 Ser Ile Thr Gly Gly Ser Ser Phe Val Asn Tyr Ala Asp Ser Leu Glu
 1 5 10 15

Gly

<210> 1813
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1813
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1814
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1814
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 cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc ctgagggtc 180
 cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

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caggctgagg atgaggctga ttattactgc cagtcctatg acagccgcct gagtgtggta 300

ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1815

<211> 110

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') amino acid sequence"

<400> 1815

Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly
20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Arg
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1816

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

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Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1816

Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1817

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1817

Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 1818

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1818

Gln Ser Tyr Asp Ser Arg Leu Ser Val Val
1 5 10

<210> 1819

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1819

caggtccagc tggtacagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60

tcttgtgcag cctctggatt caagttcagt agctatacca tgaactgggt ccgccaggct 120

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ccaggaagg ggctggagtg ggtctcatcc attactgggtg gtagtagttt cacaaactac 180
gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcacttttt 240
ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
ccggggacga tttttggagt ggtccaggac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 1820
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1820
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Ser Tyr
20 25 30

Thr Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1821
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1821
 Phe Lys Phe Ser Ser Tyr Thr Met Asn
 1 5

<210> 1822
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1822
 Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu Glu
 1 5 10 15

Gly

<210> 1823
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1823
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1824

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<211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1824
 cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
 tcctgcactg ggggcagctc caacatcggg gcaggttatg atgtgcactg gtaccagcag 120
 cttccaggaa cagcccctaa actcctcatc tatggtaaca gcaatcgggg gtcagggggtc 180
 cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
 caggctgagg atgaggctga ttattactgc cagtcctatg acagccgcct gcagggtggtta 300
 ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1825
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region ('LC') amino acid sequence"

<400> 1825
 Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15
 Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly
 20 25 30
 Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
 35 40 45
 Leu Ile Tyr Gly Asn Ser Asn Arg Gly Ser Gly Val Pro Asp Arg Phe
 50 55 60
 Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
 65 70 75 80

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Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Arg
85 90 95

Leu Gln Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1826
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1826
Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1827
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1827
Gly Asn Ser Asn Arg Gly Ser
1 5

<210> 1828
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1828
Gln Ser Tyr Asp Ser Arg Leu Gln Val Val

1

5

10

<210> 1829
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1829
 caggtccagc tggtacagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60
 tcttgtgcag cctctggatt caagttcagt agctatacca tgaactgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcatcc attactggtg gtagtagttt cacaaactac 180
 gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcacttttt 240
 ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
 ccggggacga tttttggagt ggtccaggac tactggggcc aggggaaccct ggtcaccgtc 360
 tcctca 366

<210> 1830
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') amino acid sequence"

<400> 1830
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Lys Phe Ser Ser Tyr
 20 25 30

Thr Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

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Ser Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1831
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1831
Phe Lys Phe Ser Ser Tyr Thr Met Asn
1 5

<210> 1832
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1832
Ser Ile Thr Gly Gly Ser Ser Phe Thr Asn Tyr Ala Asp Ser Leu Glu
1 5 10 15

Gly

<210> 1833
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1833
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1834
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1834
 cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
 tcctgcactg ggggcagctc caacatcggg aagggttatg atgtgcactg gtaccagcag 120
 cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc cggggggggtc 180
 cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
 caggctgagg atgaggctga ttattactgc cagtcctatg acagcgggct gagtgtggtg 300
 ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1835
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region ('LC') amino acid sequence"

<400> 1835

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Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Lys Gly
20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Gly Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1836
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1836
Thr Gly Gly Ser Ser Asn Ile Gly Lys Gly Tyr Asp Val His
1 5 10

<210> 1837
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1837
 Gly Asn Ser Asn Arg Pro Gly
 1 5

<210> 1838
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1838
 Gln Ser Tyr Asp Ser Gly Leu Ser Val Val
 1 5 10

<210> 1839
 <211> 366
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1839
 cagggtccagc tggtacagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc 60
 tcttgtgcag cctctggatt cagcttcagt agctatagca tgaactgggt ccgccaggct 120
 ccagggaagg ggctggagt ggtctcatcc attactggtg gtagtagttt cgtaactac 180
 gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcaactttt 240
 ctgcaaatga acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag 300
 ccggggacga tttttggagt ggtccaggac tactggggcc aggggaaccct ggtcaccgtc 360
 tcctca 366

<210> 1840
 <211> 122
 <212> PRT
 <213> Artificial Sequence

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<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') amino acid sequence"

<400> 1840

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Val Asn Tyr Ala Asp Ser Leu
50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1841

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1841

Phe Ser Phe Ser Ser Tyr Ser Met Asn
1 5

<210> 1842
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1842
 Ser Ile Thr Gly Gly Ser Ser Phe Val Asn Tyr Ala Asp Ser Leu Glu
 1 5 10 15

Gly

<210> 1843
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1843
 Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
 1 5 10 15

<210> 1844
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1844
 cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
 tcctgcactg ggggcagctc caacatcggg gcaggttatg atgtgcactg gtaccagcag 120
 aatccaggaa cagcccctaa actcctcatc tatggtaaca gcaatcgggg gtcaggggtc 180

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cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
caggctgagg atgaggctga ttattactgc cagtcctatg acagccgcct gcaggtggta 300
ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1845
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region ('LC') amino acid sequence"

<400> 1845
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly
20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Asn Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Gly Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Arg
85 90 95

Leu Gln Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1846
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1846

Thr Gly Gly Ser Ser Asn Ile Gly Ala Gly Tyr Asp Val His
1 5 10

<210> 1847

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1847

Gly Asn Ser Asn Arg Gly Ser
1 5

<210> 1848

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

<400> 1848

Gln Ser Tyr Asp Ser Arg Leu Gln Val Val
1 5 10

<210> 1849

<211> 366

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region ('HC') nucleic acid sequence"

<400> 1849

caggtccagc tggtacagtc tgggggaggc ctggtcaagc ctgggggggtc cctgagactc

60

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tcttgtgcag cctctggatt cagcttcagt agctatagca tgaactgggt ccgccaggct	120
ccaggggaagg ggctgggagtg ggtctcatcc attactgggtg gtagtagttt cgtaaactac	180
gcagactcac tggagggccg attcaccatc tccagagata acgccaagag ctcacttttt	240
ctgcaaata acagcctgag agtcgaggac acggctgtat attactgtgc gagagatcag	300
ccggggacga tttttggagt ggtccaggac tactggggcc aggggaaccct ggtcaccgtc	360
tcctca	366

<210> 1850
 <211> 122
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Heavy chain variable region ('HC') amino acid sequence"

<400> 1850
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30

Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ser Ile Thr Gly Gly Ser Ser Phe Val Asn Tyr Ala Asp Ser Leu
 50 55 60

Glu Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser Ser Leu Phe
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr Trp
 100 105 110

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Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1851
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H1 ('H1') amino acid sequence"

<400> 1851
Phe Ser Phe Ser Ser Tyr Ser Met Asn
1 5

<210> 1852
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H2 ('H2') amino acid sequence"

<400> 1852
Ser Ile Thr Gly Gly Ser Ser Phe Val Asn Tyr Ala Asp Ser Leu Glu
1 5 10 15

Gly

<210> 1853
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Heavy chain variable region CDR H3 ('H3') amino acid sequence"

<400> 1853
Ala Arg Asp Gln Pro Gly Thr Ile Phe Gly Val Val Gln Asp Tyr
1 5 10 15

<210> 1854
 <211> 330
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region('LC') nucleic acid sequence"

<400> 1854
 cagtctgtct tgacgcagcc gccctcagtg tctggggccc cagggcagag ggtcaccatc 60
 tcctgcactg ggggcagctc caacatcggg aagggttatg atgtgcactg gtaccagcag 120
 cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc cggggggggtc 180
 cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240
 caggctgagg atgaggctga ttattactgc cagtcctatg acagcgggct gagtgtggtg 300
 ttcggcggag ggaccaaggt gaccgtccta 330

<210> 1855
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 Light chain variable region ('LC') amino acid sequence"

<400> 1855
 Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
 1 5 10 15

Arg Val Thr Ile Ser Cys Thr Gly Gly Ser Ser Asn Ile Gly Lys Gly
 20 25 30

Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
 35 40 45

Leu Ile Tyr Gly Asn Ser Asn Arg Pro Gly Gly Val Pro Asp Arg Phe
 50 55 60

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Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly
85 90 95

Leu Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
100 105 110

<210> 1856
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L1 ('L1') amino acid sequence"

<400> 1856
Thr Gly Gly Ser Ser Asn Ile Gly Lys Gly Tyr Asp Val His
1 5 10

<210> 1857
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L2 ('L2') amino acid sequence"

<400> 1857
Gly Asn Ser Asn Arg Pro Gly
1 5

<210> 1858
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
Light chain variable region CDR L3 ('L3') amino acid sequence"

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<400> 1858

Gln Ser Tyr Asp Ser Gly Leu Ser Val Val
1 5 10