SEQUENCE LISTING

<110> Duffy, Karen
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<120> ST2L antagonists and methods of use

<130> JBI5003WOPCT

<150> US 61/640,407
<151> 2012-04-30

<150> US 61/640,238
<151> 2012-04-30

<150> US 13/798,204
<151> 2013-03-13

<150> US 13/798,226
<151> 2013-03-13

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<170> PatentIn version 3.5

<210> 1
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<212> PRT
<213> Homo sapiens

<400> 1

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Met Gly Phe Trp Ile Leu Ala Ile Leu Thr Ile Leu Met Tyr Ser Thr
1               5                  10                  15


Ala Ala Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu
            20                  25                  30


Ile Val Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp
        35                  40                  45


Tyr Tyr Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg
    50                  55                  60


Val Phe Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Ala Val Ala
65                  70                  75                  80


Asp Ser Gly Ile Tyr Thr Cys Ile Val Arg Ser Pro Thr Phe Asn Arg
```

```
                85                  90                  95

Thr Gly Tyr Ala Asn Val Thr Ile Tyr Lys Lys Gln Ser Asp Cys Asn
            100                 105                 110

Val Pro Asp Tyr Leu Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn
        115                 120                 125

Ser Lys Ile Tyr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro
    130                 135                 140

Leu Glu Trp Phe Lys Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Arg
145                 150                 155                 160

Ala His Lys Ser Phe Leu Val Ile Asp Asn Val Met Thr Glu Asp Ala
                165                 170                 175

Gly Asp Tyr Thr Cys Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr
            180                 185                 190

Ser Val Thr Ala Thr Arg Ser Phe Thr Val Lys Asp Glu Gln Gly Phe
        195                 200                 205

Ser Leu Phe Pro Val Ile Gly Ala Pro Ala Gln Asn Glu Ile Lys Glu
    210                 215                 220

Val Glu Ile Gly Lys Asn Ala Asn Leu Thr Cys Ser Ala Cys Phe Gly
225                 230                 235                 240

Lys Gly Thr Gln Phe Leu Ala Ala Val Leu Trp Gln Leu Asn Gly Thr
                245                 250                 255

Lys Ile Thr Asp Phe Gly Glu Pro Arg Ile Gln Gln Glu Glu Gly Gln
            260                 265                 270

Asn Gln Ser Phe Ser Asn Gly Leu Ala Cys Leu Asp Met Val Leu Arg
        275                 280                 285

Ile Ala Asp Val Lys Glu Glu Asp Leu Leu Leu Gln Tyr Asp Cys Leu
    290                 295                 300

Ala Leu Asn Leu His Gly Leu Arg Arg His Thr Val Arg Leu Ser Arg
305                 310                 315                 320

Lys Asn Pro Ile Asp His His Ser Ile Tyr Cys Ile Ile Ala Val Cys
                325                 330                 335
```

```
Ser Val Phe Leu Met Leu Ile Asn Val Leu Val Ile Ile Leu Lys Met
            340                 345                 350

Phe Trp Ile Glu Ala Thr Leu Leu Trp Arg Asp Ile Ala Lys Pro Tyr
        355                 360                 365

Lys Thr Arg Asn Asp Gly Lys Leu Tyr Asp Ala Tyr Val Val Tyr Pro
    370                 375                 380

Arg Asn Tyr Lys Ser Ser Thr Asp Gly Ala Ser Arg Val Glu His Phe
385                 390                 395                 400

Val His Gln Ile Leu Pro Asp Val Leu Glu Asn Lys Cys Gly Tyr Thr
                405                 410                 415

Leu Cys Ile Tyr Gly Arg Asp Met Leu Pro Gly Glu Asp Val Val Thr
            420                 425                 430

Ala Val Glu Thr Asn Ile Arg Lys Ser Arg Arg His Ile Phe Ile Leu
        435                 440                 445

Thr Pro Gln Ile Thr His Asn Lys Glu Phe Ala Tyr Glu Gln Glu Val
    450                 455                 460

Ala Leu His Cys Ala Leu Ile Gln Asn Asp Ala Lys Val Ile Leu Ile
465                 470                 475                 480

Glu Met Glu Ala Leu Ser Glu Leu Asp Met Leu Gln Ala Glu Ala Leu
                485                 490                 495

Gln Asp Ser Leu Gln His Leu Met Lys Val Gln Gly Thr Ile Lys Trp
            500                 505                 510

Arg Glu Asp His Ile Ala Asn Lys Arg Ser Leu Asn Ser Lys Phe Trp
        515                 520                 525

Lys His Val Arg Tyr Gln Met Pro Val Pro Ser Lys Ile Pro Arg Lys
    530                 535                 540

Ala Ser Ser Leu Thr Pro Leu Ala Ala Gln Lys Gln
545                 550                 555
```

<210> 2
<211> 556
<212> PRT
<213> Macaca fascicularis

<400> 2

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Met Gly Leu Trp Ile Leu Ala Ile Leu Thr Ile Leu Val Tyr Ser Thr
1               5                  10                  15

Ala Ala Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu
            20                  25                  30

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

Tyr Tyr Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg
    50                  55                  60

Val Phe Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Glu Val Ala
65                  70                  75                  80

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

Thr Gly Tyr Ala Asn Val Thr Ile Tyr Lys Lys Gln Pro Asp Cys Asn
            100                 105                 110

Val Pro Asp Tyr Leu Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn
        115                 120                 125

Ser Lys Ile Tyr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro
    130                 135                 140

Leu Glu Trp Phe Lys Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Lys
145                 150                 155                 160

Ala His Lys Ser Phe Leu Val Ile Asp Asn Val Met Thr Asp Asp Ala
                165                 170                 175

Gly Asp Tyr Thr Cys Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr
            180                 185                 190

Ser Val Thr Ala Thr Arg Ser Phe Thr Val Lys Asp Glu Gln Gly Phe
        195                 200                 205

Ser Leu Phe Pro Val Ile Arg Ala Pro Ala His Asn Glu Thr Lys Glu
    210                 215                 220

Val Glu Ile Gly Glu Asn Thr Asn Leu Thr Cys Ser Ala Cys Phe Gly
225                 230                 235                 240

Lys Gly Ala Gln Phe Leu Ala Thr Val Gln Trp Gln Leu Asn Gly Asn
                245                 250                 255
```

```
Lys Ile Thr Asp Phe Ser Glu Pro Arg Ile Gln Gln Glu Glu Gly Gln
            260                 265                 270

Asn Gln Ser Phe Ser Asn Gly Leu Ala Cys Val Asn Thr Val Leu Arg
        275                 280                 285

Ile Ala Asp Val Lys Glu Glu Asp Leu Leu Leu Arg Tyr Asp Cys Leu
    290                 295                 300

Ala Leu Asn Leu His Gly Leu Arg Arg His Thr Ile Arg Leu Ser Arg
305                 310                 315                 320

Lys Asn Pro Ile Asp His Gln Ser Thr Tyr Cys Ile Ile Ala Val Cys
                325                 330                 335

Ser Val Leu Leu Met Leu Ile Asn Val Leu Val Ile Ile Leu Lys Thr
            340                 345                 350

Phe Trp Ile Glu Ala Thr Leu Leu Trp Arg Asp Ile Ala Lys Pro Tyr
        355                 360                 365

Lys Thr Arg Asn Asp Gly Lys Leu Tyr Asp Ala Tyr Val Ile Tyr Pro
    370                 375                 380

Arg Asn Tyr Thr Ser Ser Thr Asp Gly Ala Ser Arg Val Glu Tyr Phe
385                 390                 395                 400

Val His Gln Ile Leu Pro Asp Val Leu Glu Asn Lys Cys Gly Tyr Thr
                405                 410                 415

Leu Cys Ile Tyr Gly Arg Asp Met Leu Pro Gly Glu Asp Val Val Thr
            420                 425                 430

Ala Val Glu Thr Asn Ile Arg Lys Ser Arg Arg His Ile Phe Ile Leu
        435                 440                 445

Thr Pro Gln Ile Thr His Asn Glu Glu Phe Ala Tyr Glu Gln Glu Val
    450                 455                 460

Ala Leu His Ser Ala Leu Ile Gln Asn Asp Ser Lys Val Ile Leu Ile
465                 470                 475                 480

Glu Met Glu Ala Leu Ser Glu Leu Asp Met Leu Gln Ala Glu Ala Leu
                485                 490                 495

Gln Asp Ser Leu Arg His Leu Met Glu Val Gln Gly Thr Ile Lys Trp
            500                 505                 510
```

```
Arg Glu Asp His Val Ala Asn Lys Arg Ser Leu Asn Ser Lys Phe Trp
        515                 520                 525

Lys His Val Arg Tyr Gln Met Pro Val Pro Ser Lys Met Pro Arg Lys
    530                 535                 540

Ala Ser Ser Leu Thr Ser Leu Ala Ala Gln Lys Gln
545                 550                 555


<210>  3
<211>  270
<212>  PRT
<213>  Homo sapiens

<400>  3

Met Lys Pro Lys Met Lys Tyr Ser Thr Asn Lys Ile Ser Thr Ala Lys
1               5                   10                  15

Trp Lys Asn Thr Ala Ser Lys Ala Leu Cys Phe Lys Leu Gly Lys Ser
            20                  25                  30

Gln Gln Lys Ala Lys Glu Val Cys Pro Met Tyr Phe Met Lys Leu Arg
        35                  40                  45

Ser Gly Leu Met Ile Lys Lys Glu Ala Cys Tyr Phe Arg Arg Glu Thr
    50                  55                  60

Thr Lys Arg Pro Ser Leu Lys Thr Gly Arg Lys His Lys Arg His Leu
65                  70                  75                  80

Val Leu Ala Ala Cys Gln Gln Gln Ser Thr Val Glu Cys Phe Ala Phe
                85                  90                  95

Gly Ile Ser Gly Val Gln Lys Tyr Thr Arg Ala Leu His Asp Ser Ser
            100                 105                 110

Ile Thr Gly Ile Ser Pro Ile Thr Glu Tyr Leu Ala Ser Leu Ser Thr
        115                 120                 125

Tyr Asn Asp Gln Ser Ile Thr Phe Ala Leu Glu Asp Glu Ser Tyr Glu
    130                 135                 140

Ile Tyr Val Glu Asp Leu Lys Lys Asp Glu Lys Lys Asp Lys Val Leu
145                 150                 155                 160

Leu Ser Tyr Tyr Glu Ser Gln His Pro Ser Asn Glu Ser Gly Asp Gly
                165                 170                 175
```

```
Val Asp Gly Lys Met Leu Met Val Thr Leu Ser Pro Thr Lys Asp Phe
            180                 185                 190

Trp Leu His Ala Asn Asn Lys Glu His Ser Val Glu Leu His Lys Cys
        195                 200                 205

Glu Lys Pro Leu Pro Asp Gln Ala Phe Phe Val Leu His Asn Met His
    210                 215                 220

Ser Asn Cys Val Ser Phe Glu Cys Lys Thr Asp Pro Gly Val Phe Ile
225                 230                 235                 240

Gly Val Lys Asp Asn His Leu Ala Leu Ile Lys Val Asp Ser Ser Glu
                245                 250                 255

Asn Leu Cys Thr Glu Asn Ile Leu Phe Lys Leu Ser Glu Thr
            260                 265                 270
```

<210> 4
<211> 269
<212> PRT
<213> Macaca fascicularis

<400> 4

```
Met Lys Pro Lys Met Lys Tyr Ser Thr Asn Lys Ile Ser Thr Ala Lys
1               5                   10                  15

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

Gln Gln Lys Ala Lys Glu Val Cys His Val Tyr Phe Met Lys Leu Arg
        35                  40                  45

Ser Gly Leu Met Ile Lys Lys Glu Ala Cys Tyr Phe Arg Arg Glu Thr
    50                  55                  60

Thr Lys Arg Pro Ser Leu Lys Thr Gly Gly Lys His Lys Gly His Leu
65                  70                  75                  80

Val Leu Ala Ala Cys Gln Gln Gln Ser Thr Val Glu Cys Phe Ala Phe
                85                  90                  95

Gly Ile Ser Gly Val Pro Lys Tyr Thr Arg Ala Leu His Asp Ser Ser
            100                 105                 110

Ile Thr Gly Ile Ser Pro Ile Thr Glu Ser Leu Ala Ser Leu Ser Thr
        115                 120                 125
```

```
Tyr Asn Asp Gln Ser Ile Thr Phe Ala Leu Glu Asp Glu Ser Tyr Glu
    130                 135                 140

Ile Tyr Val Glu Asp Leu Lys Lys Asp Lys Lys Lys Asp Lys Val Leu
145                 150                 155                 160

Leu Ser Tyr Tyr Glu Ser Gln His Pro Ser Ser Glu Ser Gly Asp Gly
                165                 170                 175

Val Asp Gly Lys Met Leu Met Val Thr Leu Ser Pro Thr Lys Asp Phe
            180                 185                 190

Trp Leu Gln Ala Asn Asn Lys Glu His Ser Val Glu Leu His Lys Cys
        195                 200                 205

Glu Lys Pro Leu Pro Asp Gln Ala Phe Phe Val Leu His Asn Arg Ser
    210                 215                 220

Phe Asn Cys Val Ser Phe Glu Cys Lys Thr Asp Pro Gly Val Phe Ile
225                 230                 235                 240

Gly Val Lys Asp Asn His Leu Ala Leu Ile Lys Val Asp Tyr Ser Glu
                245                 250                 255

Asn Leu Gly Ser Glu Asn Ile Leu Phe Lys Leu Ser Glu
            260                 265
```

<210> 5
<211> 567
<212> PRT
<213> Mus musculus

<400> 5

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Met Ile Asp Arg Gln Arg Met Gly Leu Trp Ala Leu Ala Ile Leu Thr
1               5                   10                  15

Leu Pro Met Tyr Leu Thr Val Thr Glu Gly Ser Lys Ser Ser Trp Gly
            20                  25                  30

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

Thr Tyr Pro Val Glu Trp Tyr Tyr Ser Asp Thr Asn Glu Ser Ile Pro
    50                  55                  60

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

```
Leu Pro Ala Arg Val Glu Asp Ser Gly Ile Tyr Ala Cys Val Ile Arg
                85                  90                  95

Ser Pro Asn Leu Asn Lys Thr Gly Tyr Leu Asn Val Thr Ile His Lys
            100                 105                 110

Lys Pro Pro Ser Cys Asn Ile Pro Asp Tyr Leu Met Tyr Ser Thr Val
        115                 120                 125

Arg Gly Ser Asp Lys Asn Phe Lys Ile Thr Cys Pro Thr Ile Asp Leu
    130                 135                 140

Tyr Asn Trp Thr Ala Pro Val Gln Trp Phe Lys Asn Cys Lys Ala Leu
145                 150                 155                 160

Gln Glu Pro Arg Phe Arg Ala His Arg Ser Tyr Leu Phe Ile Asp Asn
                165                 170                 175

Val Thr His Asp Asp Glu Gly Asp Tyr Thr Cys Gln Phe Thr His Ala
            180                 185                 190

Glu Asn Gly Thr Asn Tyr Ile Val Thr Ala Thr Arg Ser Phe Thr Val
        195                 200                 205

Glu Glu Lys Gly Phe Ser Met Phe Pro Val Ile Thr Asn Pro Pro Tyr
    210                 215                 220

Asn His Thr Met Glu Val Glu Ile Gly Lys Pro Ala Ser Ile Ala Cys
225                 230                 235                 240

Ser Ala Cys Phe Gly Lys Gly Ser His Phe Leu Ala Asp Val Leu Trp
                245                 250                 255

Gln Ile Asn Lys Thr Val Val Gly Asn Phe Gly Glu Ala Arg Ile Gln
            260                 265                 270

Glu Glu Glu Gly Arg Asn Glu Ser Ser Ser Asn Asp Met Asp Cys Leu
        275                 280                 285

Thr Ser Val Leu Arg Ile Thr Gly Val Thr Glu Lys Asp Leu Ser Leu
    290                 295                 300

Glu Tyr Asp Cys Leu Ala Leu Asn Leu His Gly Met Ile Arg His Thr
305                 310                 315                 320

Ile Arg Leu Arg Arg Lys Gln Pro Ile Asp His Arg Ser Ile Tyr Tyr
```

325 330 335

Ile Val Ala Gly Cys Ser Leu Leu Leu Met Phe Ile Asn Val Leu Val
340 345 350

Ile Val Leu Lys Val Phe Trp Ile Glu Val Ala Leu Phe Trp Arg Asp
355 360 365

Ile Val Thr Pro Tyr Lys Thr Arg Asn Asp Gly Lys Leu Tyr Asp Ala
370 375 380

Tyr Ile Ile Tyr Pro Arg Val Phe Arg Gly Ser Ala Ala Gly Thr His
385 390 395 400

Ser Val Glu Tyr Phe Val His His Thr Leu Pro Asp Val Leu Glu Asn
405 410 415

Lys Cys Gly Tyr Lys Leu Cys Ile Tyr Gly Arg Asp Leu Leu Pro Gly
420 425 430

Gln Asp Ala Ala Thr Val Val Glu Ser Ser Ile Gln Asn Ser Arg Arg
435 440 445

Gln Val Phe Val Leu Ala Pro His Met Met His Ser Lys Glu Phe Ala
450 455 460

Tyr Glu Gln Glu Ile Ala Leu His Ser Ala Leu Ile Gln Asn Asn Ser
465 470 475 480

Lys Val Ile Leu Ile Glu Met Glu Pro Leu Gly Glu Ala Ser Arg Leu
485 490 495

Gln Val Gly Asp Leu Gln Asp Ser Leu Gln His Leu Val Lys Ile Gln
500 505 510

Gly Thr Ile Lys Trp Arg Glu Asp His Val Ala Asp Lys Gln Ser Leu
515 520 525

Ser Ser Lys Phe Trp Lys His Val Arg Tyr Gln Met Pro Val Pro Glu
530 535 540

Arg Ala Ser Lys Thr Ala Ser Val Ala Ala Pro Leu Ser Gly Lys Ala
545 550 555 560

Cys Leu Asp Leu Lys His Phe
565

<210> 6
<211> 300
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L human mouse chimera HHM

<400> 6

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Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu Ile Val
1               5                  10                  15

Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp Tyr Tyr
            20                  25                  30

Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg Val Phe
        35                  40                  45

Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Ala Val Ala Asp Ser
    50                  55                  60

Gly Ile Tyr Thr Cys Ile Val Arg Ser Pro Thr Phe Asn Arg Thr Gly
65                  70                  75                  80

Tyr Ala Asn Val Thr Ile Tyr Lys Lys Gln Ser Asp Cys Asn Val Pro
                85                  90                  95

Asp Tyr Leu Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn Ser Lys
            100                 105                 110

Ile Tyr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro Leu Glu
        115                 120                 125

Trp Phe Lys Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Arg Ala His
    130                 135                 140

Lys Ser Phe Leu Val Ile Asp Asn Val Met Thr Glu Asp Ala Gly Asp
145                 150                 155                 160

Tyr Thr Cys Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr Ser Val
                165                 170                 175

Thr Ala Thr Arg Ser Phe Thr Val Glu Glu Lys Gly Phe Ser Met Phe
            180                 185                 190

Pro Val Ile Thr Asn Pro Pro Tyr Asn His Thr Met Glu Val Glu Ile
        195                 200                 205

Gly Lys Pro Ala Ser Ile Ala Cys Ser Ala Cys Phe Gly Lys Gly Ser
```

210 215 220

His Phe Leu Ala Asp Val Leu Trp Gln Ile Asn Lys Thr Val Val Gly
225 230 235 240

Asn Phe Gly Glu Ala Arg Ile Gln Glu Glu Glu Gly Arg Asn Glu Ser
245 250 255

Ser Ser Asn Asp Met Asp Cys Leu Thr Ser Val Leu Arg Ile Thr Gly
260 265 270

Val Thr Glu Lys Asp Leu Ser Leu Glu Tyr Asp Cys Leu Ala Leu Asn
275 280 285

Leu His Gly Met Ile Arg His Thr Ile Arg Leu Arg
290 295 300

<210> 7
<211> 297
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L human-mouse chimera MHM

<400> 7

Lys Ser Ser Trp Gly Leu Glu Asn Glu Ala Leu Ile Val Arg Cys Pro
1 5 10 15

Gln Arg Gly Arg Ser Thr Tyr Pro Val Glu Trp Tyr Tyr Ser Asp Thr
20 25 30

Asn Glu Ser Ile Pro Thr Gln Lys Arg Asn Arg Ile Phe Val Ser Arg
35 40 45

Asp Arg Leu Lys Phe Leu Pro Ala Arg Val Glu Asp Ser Gly Ile Tyr
50 55 60

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

Val Thr Ile His Lys Lys Pro Pro Ser Cys Asn Ile Pro Asp Tyr Leu
85 90 95

Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn Ser Lys Ile Tyr Cys
100 105 110

Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro Leu Glu Trp Phe Lys
115 120 125

```
Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Arg Ala His Lys Ser Phe
    130                 135                 140

Leu Val Ile Asp Asn Val Met Thr Glu Asp Ala Gly Asp Tyr Thr Cys
145                 150                 155                 160

Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr Ser Val Thr Ala Thr
                165                 170                 175

Arg Ser Phe Thr Val Glu Glu Lys Gly Phe Ser Met Phe Pro Val Ile
            180                 185                 190

Thr Asn Pro Pro Tyr Asn His Thr Met Glu Val Glu Ile Gly Lys Pro
        195                 200                 205

Ala Ser Ile Ala Cys Ser Ala Cys Phe Gly Lys Gly Ser His Phe Leu
    210                 215                 220

Ala Asp Val Leu Trp Gln Ile Asn Lys Thr Val Val Gly Asn Phe Gly
225                 230                 235                 240

Glu Ala Arg Ile Gln Glu Glu Glu Gly Arg Asn Glu Ser Ser Ser Asn
                245                 250                 255

Asp Met Asp Cys Leu Thr Ser Val Leu Arg Ile Thr Gly Val Thr Glu
            260                 265                 270

Lys Asp Leu Ser Leu Glu Tyr Asp Cys Leu Ala Leu Asn Leu His Gly
        275                 280                 285

Met Ile Arg His Thr Ile Arg Leu Arg
    290                 295
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<210> 8
<211> 303
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L human-mouse chimera HMH

<400> 8

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Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu Ile Val
1               5                   10                  15

Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp Tyr Tyr
            20                  25                  30
```

```
Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg Val Phe
        35                  40                  45

Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Ala Val Ala Asp Ser
    50                  55                  60

Gly Ile Tyr Thr Cys Ile Val Arg Ser Pro Thr Phe Asn Arg Thr Gly
65                  70                  75                  80

Tyr Ala Asn Val Thr Ile Tyr Lys Lys Gln Ser Asp Cys Asn Val Pro
                85                  90                  95

Asp Tyr Leu Met Tyr Ser Thr Val Arg Gly Ser Asp Lys Asn Phe Lys
            100                 105                 110

Ile Thr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro Val Gln
        115                 120                 125

Trp Phe Lys Asn Cys Lys Ala Leu Gln Glu Pro Arg Phe Arg Ala His
    130                 135                 140

Arg Ser Tyr Leu Phe Ile Asp Asn Val Thr His Asp Asp Glu Gly Asp
145                 150                 155                 160

Tyr Thr Cys Gln Phe Thr His Ala Glu Asn Gly Thr Asn Tyr Ile Val
                165                 170                 175

Thr Ala Thr Arg Ser Phe Thr Val Lys Asp Glu Gln Gly Phe Ser Leu
            180                 185                 190

Phe Pro Val Ile Gly Ala Pro Ala Gln Asn Glu Ile Lys Glu Val Glu
        195                 200                 205

Ile Gly Lys Asn Ala Asn Leu Thr Cys Ser Ala Cys Phe Gly Lys Gly
    210                 215                 220

Thr Gln Phe Leu Ala Ala Val Leu Trp Gln Leu Asn Gly Thr Lys Ile
225                 230                 235                 240

Thr Asp Phe Gly Glu Pro Arg Ile Gln Gln Glu Glu Gly Gln Asn Gln
                245                 250                 255

Ser Phe Ser Asn Gly Leu Ala Cys Leu Asp Met Val Leu Arg Ile Ala
            260                 265                 270

Asp Val Lys Glu Glu Asp Leu Leu Leu Gln Tyr Asp Cys Leu Ala Leu
        275                 280                 285
```

```
Asn Leu His Gly Leu Arg Arg His Thr Val Arg Leu Ser Arg Lys
    290                 295                 300


<210>  9
<211>  104
<212>  PRT
<213>  Homo sapiens

<400>  9

Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu Ile Val
1               5                   10                  15


Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp Tyr Tyr
            20                  25                  30


Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg Val Phe
        35                  40                  45


Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Ala Val Ala Asp Ser
    50                  55                  60


Gly Ile Tyr Thr Cys Ile Val Arg Ser Pro Thr Phe Asn Arg Thr Gly
65                  70                  75                  80


Tyr Ala Asn Val Thr Ile Tyr Lys Lys Gln Ser Asp Cys Asn Val Pro
                85                  90                  95


Asp Tyr Leu Met Tyr Ser Thr Val
            100


<210>  10
<211>  80
<212>  PRT
<213>  Homo sapiens

<400>  10

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


Tyr Asn Trp Thr Ala Pro Leu Glu Trp Phe Lys Asn Cys Gln Ala Leu
            20                  25                  30


Gln Gly Ser Arg Tyr Arg Ala His Lys Ser Phe Leu Val Ile Asp Asn
        35                  40                  45


Val Met Thr Glu Asp Ala Gly Asp Tyr Thr Cys Lys Phe Ile His Asn
    50                  55                  60
```

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


<210>  11
<211>  116
<212>  PRT
<213>  Homo sapiens

<400>  11

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


Val Glu Ile Gly Lys Asn Ala Asn Leu Thr Cys Ser Ala Cys Phe Gly
            20                  25                  30


Lys Gly Thr Gln Phe Leu Ala Ala Val Leu Trp Gln Leu Asn Gly Thr
        35                  40                  45


Lys Ile Thr Asp Phe Gly Glu Pro Arg Ile Gln Gln Glu Glu Gly Gln
    50                  55                  60


Asn Gln Ser Phe Ser Asn Gly Leu Ala Cys Leu Asp Met Val Leu Arg
65                  70                  75                  80


Ile Ala Asp Val Lys Glu Glu Asp Leu Leu Leu Gln Tyr Asp Cys Leu
                85                  90                  95


Ala Leu Asn Leu His Gly Leu Arg Arg His Thr Val Arg Leu Ser Arg
            100                 105                 110


Lys Asn Pro Ile
        115


<210>  12
<211>  101
<212>  PRT
<213>  Homo sapiens

<400>  12

Lys Ser Ser Trp Gly Leu Glu Asn Glu Ala Leu Ile Val Arg Cys Pro
1               5                   10                  15


Gln Arg Gly Arg Ser Thr Tyr Pro Val Glu Trp Tyr Tyr Ser Asp Thr
            20                  25                  30


Asn Glu Ser Ile Pro Thr Gln Lys Arg Asn Arg Ile Phe Val Ser Arg
        35                  40                  45
```

Asp Arg Leu Lys Phe Leu Pro Ala Arg Val Glu Asp Ser Gly Ile Tyr
50 55 60

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

Val Thr Ile His Lys Lys Pro Pro Ser Cys Asn Ile Pro Asp Tyr Leu
85 90 95

Met Tyr Ser Thr Val
100

<210> 13
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<212> PRT
<213> Mus musculus

<400> 13

His Tyr Gly Met Ala
1 5

<210> 14
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<212> PRT
<213> Mus musculus

<400> 14

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

Gly

<210> 15
<211> 8
<212> PRT
<213> Mus musculus

<400> 15

Gln Ser Asp Asp Tyr Phe Asp Tyr
1 5

<210> 16
<211> 16
<212> PRT
<213> Mus musculus

<400> 16

Lys Ser Ser Gln Ser Leu Glu Tyr Ser Asp Gly Asp Ser Tyr Leu Glu
1 5 10 15

<210> 17
<211> 7
<212> PRT
<213> Mus musculus

<400> 17

Gly Val Ser Asn Arg Phe Ser
1 5

<210> 18
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<400> 18

Phe Gln Ala Thr His Asp Pro Phe Thr
1 5

<210> 19
<211> 117
<212> PRT
<213> Mus musculus

<400> 19

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

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

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

Ser Ser Ile Ile Thr Asp Gly Thr Ser Thr Tyr Tyr Arg Asp Ser Val
50 55 60

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

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

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

Val Thr Val Ser Ser
115

<210> 20

<211> 112
<212> PRT
<213> Mus musculus

<400> 20

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

Asp Gln Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Glu Tyr Ser
20 25 30

Asp Gly Asp Ser Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

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

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

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

Thr His Asp Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 21
<211> 5
<212> PRT
<213> Mus musculus

<400> 21

Asp Tyr Asn Met Asn
1 5

<210> 22
<211> 5
<212> PRT
<213> Mus musculus

<400> 22

Thr Tyr Trp Met Asn
1 5

<210> 23
<211> 6
<212> PRT
<213> Mus musculus

<400> 23

Ser Asp Tyr Ala Trp Asn
1 5

<210> 24
<211> 5
<212> PRT
<213> Mus musculus

<400> 24

Asp Asp Tyr Met His
1 5

<210> 25
<211> 17
<212> PRT
<213> Mus musculus

<400> 25

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

Gly

<210> 26
<211> 17
<212> PRT
<213> Mus musculus

<400> 26

Gln Ile Phe Pro Ala Ser Gly Ser Thr Tyr Tyr Asn Glu Met Phe Lys
1 5 10 15

Asp

<210> 27
<211> 16
<212> PRT
<213> Mus musculus

<400> 27

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

<210> 28
<211> 17
<212> PRT
<213> Mus musculus

<400> 28

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

Asp

<210> 29
<211> 11
<212> PRT
<213> Mus musculus

<400> 29

Glu Gly Asp Thr Tyr Leu Ala Trp Phe Ala Tyr
1 5 10

<210> 30
<211> 15
<212> PRT
<213> Mus musculus

<400> 30

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

<210> 31
<211> 8
<212> PRT
<213> Mus musculus

<400> 31

Tyr Asp Gly Tyr Ser Phe Asp Tyr
1 5

<210> 32
<211> 8
<212> PRT
<213> Mus musculus

<400> 32

Gly Asp Phe Tyr Ala Met Asp Tyr
1 5

<210> 33
<211> 16
<212> PRT
<213> Mus musculus

<400> 33

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

<210> 34
<211> 11
<212> PRT
<213> Mus musculus

<400> 34

Arg Ala Ser Gln Asn Ile Gly Thr Arg Met His
1 5 10

<210> 35
<211> 15
<212> PRT
<213> Mus musculus

<400> 35

Arg Ala Ser Lys Ser Val Ser Thr Ser Gly Ser Ser Tyr Met Phe
1 5 10 15

<210> 36
<211> 11
<212> PRT
<213> Mus musculus

<400> 36

Ile Thr Asn Thr Asp Ile Asp Asp Val Ile His
1 5 10

<210> 37
<211> 7
<212> PRT
<213> Mus musculus

<400> 37

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 38
<211> 7
<212> PRT
<213> Mus musculus

<400> 38

Tyr Ala Ser Glu Ser Ile Ser
1 5

<210> 39
<211> 7
<212> PRT
<213> Mus musculus

<400> 39

Leu Ala Ser Asn Leu Glu Ser

1 5

<210> 40
<211> 7
<212> PRT
<213> Mus musculus

<400> 40

Glu Gly Asn Thr Leu Arg Pro
1 5

<210> 41
<211> 9
<212> PRT
<213> Mus musculus

<400> 41

Phe Gln Gly Ser His Val Pro Pro Thr
1 5

<210> 42
<211> 9
<212> PRT
<213> Mus musculus

<400> 42

Gln Gln Ser Asn Thr Trp Pro Phe Thr
1 5

<210> 43
<211> 9
<212> PRT
<213> Mus musculus

<400> 43

Gln His Ser Arg Glu Ile Pro Tyr Thr
1 5

<210> 44
<211> 8
<212> PRT
<213> Mus musculus

<400> 44

Leu Gln Ser Asp Asn Met Leu Thr
1 5

<210> 45
<211> 120
<212> PRT
<213> Artificial sequence

<220>
<223> C2519A VH

<400> 45

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

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

Asn Met Asn Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
35 40 45

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ala
115 120

<210> 46
<211> 124
<212> PRT
<213> Artificial sequence

<220>
<223> C2521A VH

<400> 46

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

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

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

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

Lys Asp Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Ser Glu Asn Ile Tyr Tyr Ile Asn Phe Gln Tyr Tyr Phe Ala
100 105 110

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

<210> 47
<211> 117
<212> PRT
<213> Artificial sequence

<220>
<223> C2244/ STLM15 VH

<400> 47

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

Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Phe Ser Ile Thr Ser Asp
20 25 30

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

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

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

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

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

Leu Thr Val Ser Ser
115

<210> 48
<211> 117
<212> PRT
<213> Artificial sequence

<220>
<223> C2494A/ STLM62 VH

<400> 48

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

Ser Val Lys Leu Ser Cys Thr Ala Ser Ala Phe Asn Ile Lys Asp Asp
20 25 30

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 49
<211> 112
<212> PRT
<213> Artificial sequence

<220>
<223> C2519A VL

<400> 49

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

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

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe 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 Leu Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

Ser His Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 50
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> C2521A VL

<400> 50

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

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

His Trp Tyr Gln Gln Arg Thr Asn Gly Ser Pro Arg Leu Leu Ile Lys
35 40 45

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

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

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

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

<210> 51
<211> 111
<212> PRT
<213> Artificial sequence

<220>
<223> C2244/ STLM15 VL

<400> 51

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

```
Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Lys Ser Val Ser Thr Ser
            20                  25                  30

Gly Ser Ser Tyr Met Phe Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
        35                  40                  45

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

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

Pro Val Glu Glu Glu Asp Ala Ala Ala Tyr Tyr Cys Gln His Ser Arg
                85                  90                  95

Glu Ile Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110


<210>  52
<211>  106
<212>  PRT
<213>  Artificial sequence

<220>
<223>  C2494A/ STLM62 VL

<400>  52

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

Glu Lys Val Thr Ile Arg Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
            20                  25                  30

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

Ser Glu Gly Asn Thr Leu Arg Pro Gly Val Pro Ser Arg Phe Ser Ser
    50                  55                  60

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

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

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
            100                 105
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<210> 53
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48, STLM49, STLM50 HCDR1

<400> 53

Thr Ser Tyr Trp Ile Gly
1 5

<210> 54
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> STLM51 HCDR1

<400> 54

Ser Ser Tyr Ala Ile Ser
1 5

<210> 55
<211> 18
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48, STLM49, STLM50 HCDR2

<400> 55

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

Gln Gly

<210> 56
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> STLM51 HCDR2

<400> 56

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

Gly

<210> 57
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48, STLM50 HCDR3

<400> 57

Leu Ser Gly Arg Phe Asp Tyr
1 5

<210> 58
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> STLM49 HCDR3

<400> 58

Ile Gly Gly Met Phe Asp Tyr
1 5

<210> 59
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> STLM51 HCDR3

<400> 59

Asp Thr Pro Gln Leu Asp Tyr
1 5

<210> 60
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48 LCDR1

<400> 60

Arg Ala Ser Gln Ser Val Arg Asp Ala Leu Ala
1 5 10

<210> 61
<211> 11
<212> PRT
<213> Artificial sequence

<220>

<223> STLM49 LCDR1

<400> 61

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

<210> 62
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> STLM50 LCDR1

<400> 62

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

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

<220>
<223> STLM51 LCDR1

<400> 63

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

<210> 64
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48, STLM50 LCDR2

<400> 64

Phe Ala Ser Asn Arg Ala Thr
1 5

<210> 65
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> STLM49 LCDR2

<400> 65

Lys Ala Ser Asn Arg Ala Thr
1 5

<210> 66
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> STLM51 LCDR2

<400> 66

Tyr Ala Ser Ser Leu Gln Ser
1 5

<210> 67
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48 LCDR3

<400> 67

Gln Gln Phe Asn Thr Trp Pro Ile Thr
1 5

<210> 68
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> STLM49 LCDR3

<400> 68

Gln Gln Tyr Tyr Gly Trp Pro Ile Thr
1 5

<210> 69
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> STLM50 LCDR3

<400> 69

Gln Gln Phe Phe Asn Trp Pro Ile Thr
1 5

<210> 70
<211> 9
<212> PRT
<213> Artificial sequence

<220>

<223> STLM51 LCDR3

<400> 70

Gln Gln Ser Tyr Ser Thr Pro Leu Thr
1 5

<210> 71
<211> 116
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48, STLM50 VH

<400> 71

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

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

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

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

Thr Val Ser Ser
115

<210> 72
<211> 116
<212> PRT
<213> Artificial sequence

<220>
<223> STLM49 VH

<400> 72

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

```
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
            20                  25                  30

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

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

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

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85                  90                  95

Ala Arg Ile Gly Gly Met Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115


<210>  73
<211>  116
<212>  PRT
<213>  Artificial sequence

<220>
<223>  STLM51 VH

<400>  73

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

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

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

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

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
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Ala Arg Asp Thr Pro Gln Leu Asp Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 74
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> STLM48 VL

<400> 74

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 Arg Asp Ala
20 25 30

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

Tyr Phe 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 Phe Asn Thr Trp Pro Ile
85 90 95

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

<210> 75
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> STLM49 VL

<400> 75

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 Asn Ala
20 25 30

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

Tyr Lys 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 Tyr Tyr Gly Trp Pro Ile
                85                  90                  95

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

<210> 76
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> STLM50 VL

<400> 76

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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 Asp Asp Trp
            20                  25                  30

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

Tyr Lys 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 Tyr Asn Arg Ala Pro Trp
                85                  90                  95

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

<210> 77
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> STLM51 VL

<400> 77

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

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

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

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

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

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

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

<210> 78
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F6 HCDR1

<400> 78

Ser Tyr Ala Met Ser
1 5

<210> 79
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F4 HCDR1

<400> 79

Ser Tyr Trp Met His
1 5

<210> 80

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

<220>
<223> ST2F1 HCDR1

<400> 80

Ser Tyr Trp Ile Gly
1 5

<210> 81
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F6 HCDR2

<400> 81

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

Gly

<210> 82
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F4 HCDR2

<400> 82

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

Gly

<210> 83
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F1 HCDR2

<400> 83

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

Gly

<210> 84
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F6 HCDR3

<400> 84

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

<210> 85
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F4 HCDR3

<400> 85

Asp Gly Trp Gly Thr Val Tyr Phe Pro Phe Asp Tyr
1 5 10

<210> 86
<211> 12
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F1 HCDR3

<400> 86

Asp Thr Ala Asp Phe Arg Arg Trp Asp Phe Asp Tyr
1 5 10

<210> 87
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F6 LCDR1

<400> 87

Arg Ala Ser Gln Ser Val Asp Asp Ala Leu Ala
1 5 10

<210> 88
<211> 11
<212> PRT

<213> Artificial sequence

<220>
<223> ST2F4 LCDR1

<400> 88

Arg Ala Ser Gln Ser Val Arg Asp Asp Leu Ala
1 5 10

<210> 89
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F1 LCDR1

<400> 89

Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 90
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F6, ST2F4 LCDR2

<400> 90

Asp Ala Ser Asn Arg Ala Thr
1 5

<210> 91
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F1 LCDR2

<400> 91

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 92
<211> 9
<212> PRT
<213> Artificial sequence

<220>

<223> ST2F6 LCDR3

<400> 92

Gln Gln Phe Tyr Asn Trp Pro Leu Thr
1 5

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

<220>
<223> ST2F4 LCDR3

<400> 93

Gln Gln Tyr Ile His Ala Pro Leu Thr
1 5

<210> 94
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> ST2F1 LCDR3

<400> 94

Gln Gln Ser Asn Thr Tyr Pro Phe Thr
1 5

<210> 95
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H112, ST2H137 HCDR1

<400> 95

Phe Tyr Asp Met Phe
1 5

<210> 96
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H52 HCDR1

<400> 96

Asp Tyr Ala Met Phe
1 5

<210> 97
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H50, ST2H232, ST2H257, ST2H231 HCDR1

<400> 97

Ile Tyr Asp Met Ile
1 5

<210> 98
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H228 HCDR1

<400> 98

Ser Tyr Asp Met Ile
1 5

<210> 99
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H318 HCDR1

<400> 99

Asp Asp Ala Met Ile
1 5

<210> 100
<211> 5
<212> PRT
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<220>
<223> ST2H316 HCDR1

<400> 100

Gly Tyr Ala Met Ile
1 5

<210> 101
<211> 5
<212> PRT
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<220>

<223> ST2H314 HCDR1

<400> 101

Val Tyr Asp Met Ile
1 5

<210> 102
<211> 5
<212> PRT
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<220>
<223> ST2H202 HCDR1

<400> 102

Phe Tyr Asp Met Ile
1 5

<210> 103
<211> 5
<212> PRT
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<220>
<223> ST2H179, ST2H172, ST2H173 HCDR1

<400> 103

Ser Tyr Asp Met Phe
1 5

<210> 104
<211> 5
<212> PRT
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<220>
<223> ST2H163 HCDR1

<400> 104

Val Tyr Asp Met Phe
1 5

<210> 105
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H162 HCDR1

<400> 105

Val Asp Ser Met Phe
1 5

<210> 106
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H139 HCDR1

<400> 106

Gly Tyr Asp Met Phe
1 5

<210> 107
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H136 HCDR1

<400> 107

Ile Tyr Asp Met Phe
1 5

<210> 108
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H129 HCDR1

<400> 108

Ile Tyr Ser Met Phe
1 5

<210> 109
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H112 HCDR3

<400> 109

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

Gly

<210> 110
<211> 17

<212> PRT
<213> Artificial sequence

<220>
<223> ST2H52 HCDR3

<400> 110

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

Gly

<210> 111
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H50 HCDR3

<400> 111

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

Gly

<210> 112
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H232 HCDR3

<400> 112

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

Gly

<210> 113
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H228 HCDR3

<400> 113

Thr Ile Arg Gly Glu Gly Gly Thr Thr Ala Tyr Ala Asp Ser Val Lys

1 5 10 15

Gly

<210> 114
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H257 HCDR3

<400> 114

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

Gly

<210> 115
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H231 HCDR3

<400> 115

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

Gly

<210> 116
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H318 HCDR3

<400> 116

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

Gly

<210> 117
<211> 17

<212> PRT
<213> Artificial sequence

<220>
<223> ST2H316 HCDR3

<400> 117

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

Gly

<210> 118
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H314 HCDR3

<400> 118

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

Gly

<210> 119
<211> 311
<212> PRT
<213> Homo sapiens

<400> 119

Ala Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu Ile
1 5 10 15

Val Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp Tyr
20 25 30

Tyr Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg Val
35 40 45

Phe Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Glu Val Ala Asp
50 55 60

Ser Gly Ile Tyr Thr Cys Ile Val Arg Ser Pro Thr Phe Asn Arg Thr
65 70 75 80

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

```
Pro Asp Tyr Leu Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn Ser
            100                 105                 110

Lys Ile Tyr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro Leu
        115                 120                 125

Glu Trp Phe Lys Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Arg Ala
    130                 135                 140

His Lys Ser Phe Leu Val Ile Asp Asn Val Met Thr Glu Asp Ala Gly
145                 150                 155                 160

Asp Tyr Thr Cys Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr Ser
                165                 170                 175

Val Thr Ala Thr Arg Ser Phe Thr Val Lys Asp Glu Gln Gly Phe Ser
            180                 185                 190

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

Glu Ile Gly Lys Asn Ala Asn Leu Thr Cys Ser Ala Cys Phe Gly Lys
    210                 215                 220

Gly Thr Gln Phe Leu Ala Ala Val Leu Trp Gln Leu Asn Gly Thr Lys
225                 230                 235                 240

Ile Thr Asp Phe Gly Glu Pro Arg Ile Gln Gln Glu Glu Gly Gln Asn
                245                 250                 255

Gln Ser Phe Ser Asn Gly Leu Ala Cys Leu Asp Met Val Leu Arg Ile
            260                 265                 270

Ala Asp Val Lys Glu Glu Asp Leu Leu Leu Gln Tyr Asp Cys Leu Ala
        275                 280                 285

Leu Asn Leu His Gly Leu Arg Arg His Thr Val Arg Leu Ser Arg Lys
    290                 295                 300

Asn Pro Ser Lys Glu Cys Phe
305                 310
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<210> 120
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H202 HCDR3

<400> 120

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

Gly

<210> 121
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H179 HCDR3

<400> 121

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

Gly

<210> 122
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H172 HCDR3

<400> 122

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

Gly

<210> 123
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H173 HCDR3

<400> 123

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

Gly

<210> 124
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H163 HCDR3

<400> 124

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

Gly

<210> 125
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H162 HCDR3

<400> 125

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

Gly

<210> 126
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H139 HCDR3

<400> 126

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

Gly

<210> 127
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H137 HCDR3

<400> 127

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

Gly

<210> 128
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H136 HCDR3

<400> 128

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

Gly

<210> 129
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> ST2H129 HCDR3

<400> 129

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

Gly

<210> 130
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L32 LCDR1

<400> 130

Arg Ala Ser Gln Ser Val Asp Asp Asp Leu Ala
1 5 10

<210> 131
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L32 LCDR3

<400> 131

Gln Gln Tyr Ile Gly Ala Pro Ile Thr
1 5

<210> 132
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L35 LCDR3

<400> 132

Gln Gln Tyr Ile Asp Ala Pro Leu Thr
1 5

<210> 133
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L49 LCDR3

<400> 133

Gln Gln Tyr Asn Asp Ala Ile Thr
1 5

<210> 134
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> ST2L59 LCDR3

<400> 134

Gln Gln Tyr Ile Thr Ala Pro Leu Thr
1 5

<210> 135
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> VL2494-IGKV1-33*01 O18

<400> 135

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

Asp Arg Val Thr Ile Thr Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
20 25 30

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

Tyr Glu Gly Asn Thr Leu Arg Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser 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 Leu Gln Ser Asp Asn Met Leu Thr
85 90 95

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

<210> 136
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> VL2494-IGKV1-27*01 A20

<400> 136

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

Asp Arg Val Thr Ile Thr Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
20 25 30

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

Tyr Glu Gly Asn Thr Leu Arg Pro Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 137
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> VL2494-IGKV1-39*01012

<400> 137

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

Asp Arg Val Thr Ile Thr Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
20 25 30

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

Tyr Glu Gly Asn Thr Leu Arg Pro 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 Ser Asp Asn Met Leu Thr
85 90 95

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

<210> 138
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> VL2494-IGKV1-12*01 L5

<400> 138

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

Asp Arg Val Thr Ile Thr Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
20 25 30

Ile His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile

```
        35                  40                  45

Tyr Glu Gly Asn Thr Leu Arg Pro 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 Ser Asp Asn Met Leu Thr
                85                  90                  95

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


<210>  139
<211>  106
<212>  PRT
<213>  Artificial sequence

<220>
<223>  VL2494-IGKV1-5*01 L12

<400>  139

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

Asp Arg Val Thr Ile Thr Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
            20                  25                  30

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

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

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


<210>  140
<211>  106
<212>  PRT
<213>  Artificial sequence

<220>
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<223> VL2494-IGKV1-9*01 L8

<400> 140

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 Ile Thr Asn Thr Asp Ile Asp Asp Val
20 25 30

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

Tyr Glu Gly Asn Thr Leu Arg Pro 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 Leu Gln Ser Asp Asn Met Leu Thr
85 90 95

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

<210> 141
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> VL2494-IGKV3-15*01 L2

<400> 141

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

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

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

Tyr Glu Gly Asn Thr Leu Arg Pro 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 Leu Gln Ser Asp Asn Met Leu Thr

85 90 95

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

<210> 142
<211> 106
<212> PRT
<213> Artificial sequence

<220>
<223> VL2494-IGKV1-39*01 O12b

<400> 142

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

Asp Arg Val Thr Ile Thr Cys Ile Thr Asn Thr Asp Ile Asp Asp Val
20 25 30

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

Tyr Glu Gly Asn Thr Leu Arg Pro 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 Ser Asp Asn Leu Leu Thr
85 90 95

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

<210> 143
<211> 117
<212> PRT
<213> Artificial sequence

<220>
<223> VH2494-IGHV1-f*01

<400> 143

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 144
<211> 117
<212> PRT
<213> Artificial sequence

<220>
<223> VH2494-IGHV1-24*01

<400> 144

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

Ser Val Lys Val Ser Cys Lys Val Ser Ala Phe Asn Ile Lys Asp Asp
20 25 30

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

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

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

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

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

Val Thr Val Ser Ser

115

<210> 145
<211> 117
<212> PRT
<213> Artificial sequence

<220>
<223> VH STLH201

<400> 145

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 146
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> HCDR3 of STLM226-STLM232

<400> 146

Gly Asp Phe Tyr Ala Met Ala Tyr
1 5

<210> 147
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> STLM266 VL

<400> 147

Leu Gln Ser Asp Asn Leu Leu Thr
1 5

<210> 148
<211> 109
<212> PRT
<213> Artificial

<220>
<223> IGHV1-24*01 framework

<400> 148

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

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

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

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

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

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

Ala Thr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105

<210> 149
<211> 109
<212> PRT
<213> Artificial

<220>
<223> IGHV1-f*01 framework

<400> 149

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

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

20 25 30

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

Gly Leu Val Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Glu Lys Phe
50 55 60

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

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

Ala Thr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105

<210> 150
<211> 106
<212> PRT
<213> Artificial

<220>
<223> IGKV3-15*01 L2 framework

<400> 150

Glu Ile Val Met 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 Val Ser 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 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 Asn Trp Pro Thr
85 90 95

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

<210> 151
<211> 106

<212> PRT
<213> Artificial

<220>
<223> IGKV1-9*01 L8 framework

<400> 151

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

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 Tyr Pro Thr
85 90 95

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

<210> 152
<211> 106
<212> PRT
<213> Artificial

<220>
<223> IGKV1-5*01 L12

<400> 152

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

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

<210> 153
<211> 106
<212> PRT
<213> Artificial

<220>
<223> IGKV1-12*01 L5

<400> 153

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

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

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

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

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

<210> 154
<211> 106
<212> PRT
<213> Artificial

<220>
<223> IGKV1-39*01 O12

<400> 154

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

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

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

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

<210> 155
<211> 106
<212> PRT
<213> Artificial

<220>
<223> IGKV1-27*01 A20

<400> 155

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

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

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

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

<210> 156

<211> 106
<212> PRT
<213> Artificial

<220>
<223> IGKV1-33*01 O18

<400> 156

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

Asp Arg Val Thr Ile Thr Cys 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

Ser 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 Thr
85 90 95

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

<210> 157
<211> 328
<212> PRT
<213> homo sapiens

<400> 157

Met Gly Phe Trp Ile Leu Ala Ile Leu Thr Ile Leu Met Tyr Ser Thr
1 5 10 15

Ala Ala Lys Phe Ser Lys Gln Ser Trp Gly Leu Glu Asn Glu Ala Leu
20 25 30

Ile Val Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp
35 40 45

Tyr Tyr Ser Gln Thr Asn Lys Ser Ile Pro Thr Gln Glu Arg Asn Arg
50 55 60

Val Phe Ala Ser Gly Gln Leu Leu Lys Phe Leu Pro Ala Glu Val Ala
65 70 75 80

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

Thr Gly Tyr Ala Asn Val Thr Ile Tyr Lys Lys Gln Ser Asp Cys Asn
            100                 105                 110

Val Pro Asp Tyr Leu Met Tyr Ser Thr Val Ser Gly Ser Glu Lys Asn
        115                 120                 125

Ser Lys Ile Tyr Cys Pro Thr Ile Asp Leu Tyr Asn Trp Thr Ala Pro
    130                 135                 140

Leu Glu Trp Phe Lys Asn Cys Gln Ala Leu Gln Gly Ser Arg Tyr Arg
145                 150                 155                 160

Ala His Lys Ser Phe Leu Val Ile Asp Asn Val Met Thr Glu Asp Ala
                165                 170                 175

Gly Asp Tyr Thr Cys Lys Phe Ile His Asn Glu Asn Gly Ala Asn Tyr
            180                 185                 190

Ser Val Thr Ala Thr Arg Ser Phe Thr Val Lys Asp Glu Gln Gly Phe
        195                 200                 205

Ser Leu Phe Pro Val Ile Gly Ala Pro Ala Gln Asn Glu Ile Lys Glu
    210                 215                 220

Val Glu Ile Gly Lys Asn Ala Asn Leu Thr Cys Ser Ala Cys Phe Gly
225                 230                 235                 240

Lys Gly Thr Gln Phe Leu Ala Ala Val Leu Trp Gln Leu Asn Gly Thr
                245                 250                 255

Lys Ile Thr Asp Phe Gly Glu Pro Arg Ile Gln Gln Glu Glu Gly Gln
            260                 265                 270

Asn Gln Ser Phe Ser Asn Gly Leu Ala Cys Leu Asp Met Val Leu Arg
        275                 280                 285

Ile Ala Asp Val Lys Glu Glu Asp Leu Leu Leu Gln Tyr Asp Cys Leu
    290                 295                 300

Ala Leu Asn Leu His Gly Leu Arg Arg His Thr Val Arg Leu Ser Arg
305                 310                 315                 320

Lys Asn Pro Ser Lys Glu Cys Phe
                325
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<210> 158
<211> 109
<212> PRT
<213> Artificial

<220>
<223> VH 3-23 framework

<400> 158

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 Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn 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 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105

<210> 159
<211> 106
<212> PRT
<213> Artificial

<220>
<223> Vk L6 framework (IGKV3-11)

<400> 159

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

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 Ser Asn Trp Pro Thr
85 90 95

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

<210> 160
<211> 5
<212> PRT
<213> Artificial

<220>
<223> HCDR1 consensus

<220>
<221> Xaa1
<222> (1)..(1)
<223> Xaa1 is S, F, D, I, G or V

<220>
<221> Xaa2
<222> (2)..(2)
<223> Xaa2 is Y or D

<220>
<221> Xaa3
<222> (3)..(3)
<223> Xaa3 is A, D or S

<220>
<221> Xaa4
<222> (5)..(5)
<223> Xaa4 is S, F or I

<400> 160

Xaa Xaa Xaa Met Xaa
1 5

<210> 161
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HCDR2 consensus

<220>
<221> Xaa1
<222> (1)..(1)
<223> Xaa1 is A, S, T, Y or D

<220>
<221> Xaa2
<222> (3)..(3)
<223> Xaa2 is S, R, E, K, G or A

<220>
<221> Xaa3
<222> (5)..(5)
<223> Xaa3 is S, E or N

<220>
<221> Xaa4
<222> (8)..(8)
<223> Xaa4 is S, R, E, G, T, D or A

<220>
<221> Xaa5
<222> (10)..(10)
<223> Xaa5 is Y, D, N, A or S

<400> 161

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

Gly

<210> 162
<211> 14
<212> PRT
<213> Artificial

<220>
<223> HCDR3 consensus

<220>
<221> Xaa1
<222> (1)..(1)
<223> Xaa1 is D, A, R, N, Q, P, E, I, H, S, T or Y

<220>
<221> Xaa2
<222> (2)..(2)
<223> Xaa2 is P, A, H, Y, E, Q, L, S, N, T, V or I

<400> 162

Xaa Xaa Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 163
<211> 11
<212> PRT
<213> Artificial

<220>
<223> LCDR1 consensus

<220>
<221> Xaa1
<222> (9)..(9)
<223> Xaa1 is A or D

<400> 163

Arg Ala Ser Gln Ser Val Asp Asp Xaa Leu Ala
1 5 10

<210> 164
<211> 9
<212> PRT
<213> Artificial

<220>
<223> LCDR3 consensus

<220>
<221> Xaa1
<222> (3)..(3)
<223> Xaa1 is F or Y

<220>
<221> Xaa2
<222> (4)..(4)
<223> Xaa2 is Y, I or N

<220>
<221> Xaa3
<222> (5)..(5)
<223> Xaa3 is N, G, D or T

<220>
<221> Xaa4
<222> (6)..(6)
<223> Xaa4 is W or A

<220>
<221> Xaa5
<222> (7)..(7)
<223> Xaa5 is P or deleted

<220>
<221> Xaa6
<222> (8)..(8)
<223> Xaa6 is L or I

<400> 164

Gln Gln Xaa Xaa Xaa Xaa Xaa Xaa Thr
1 5

<210> 165
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH255 HCDR3

<400> 165

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

<210> 166
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH256 HCDR3

<400> 166

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

<210> 167
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH257 HCDR3

<400> 167

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

<210> 168
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH258 HCDR3

<400> 168

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

<210> 169
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH259 HCDR3

<400> 169

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

<210> 170
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH260 HCDR3

<400> 170

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

<210> 171
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH261 HCDR3

<400> 171

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

<210> 172
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH262 HCDR3

<400> 172

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

<210> 173
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH263 HCDR3

<400> 173

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

<210> 174
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH264 HCDR3

<400> 174

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

<210> 175
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH265 HCDR3

<400> 175

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

<210> 176
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH266 HCDR3

<400> 176

Asp His Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 177
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH267 HCDR3

<400> 177

Asp Tyr Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 178
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH268 HCDR3

<400> 178

Asp Glu Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 179
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH269 HCDR3

<400> 179

Asp Gln Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 180
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH270 HCDR3

<400> 180

Asp Leu Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 181
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH271 HCDR3

<400> 181

Asp Ser Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 182
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH272 HCDR3

<400> 182

Asp Asn Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 183
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH273 HCDR3

<400> 183

Asp Thr Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 184
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH274 HCDR3

<400> 184

Asp Val Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 185
<211> 14
<212> PRT
<213> Artificial

<220>
<223> STLH275 HCDR3

<400> 185

Asp Ile Trp Ser Thr Glu Gly Ser Phe Phe Val Leu Asp Tyr
1 5 10

<210> 186
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H52

<400> 186

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 Asp Tyr
20 25 30

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

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

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

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

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

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

<210> 187
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H50

<400> 187

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 Ile Tyr
20 25 30

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

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

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

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

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

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

<210> 188
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H318

<400> 188

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 Asp Asp
20 25 30

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

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

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

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

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

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

<210> 189
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H316

<400> 189

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 Gly Tyr
20 25 30

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

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

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

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

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

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

<210> 190
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H314

<400> 190

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 Val Tyr
20 25 30

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

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

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

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

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

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

<210> 191
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H257

<400> 191

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 Ile Tyr
20 25 30

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

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

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

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

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

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

<210> 192
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H232

<400> 192

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 Ile Tyr
20 25 30

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

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

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

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

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

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

<210> 193
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H231

<400> 193

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 Ile Tyr
20 25 30

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

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

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

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

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

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

<210> 194
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H228

<400> 194

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

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

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

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

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

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

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

<210> 195
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H202

<400> 195

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 Phe Tyr
20 25 30

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

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

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

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

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

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

<210> 196
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H179

<400> 196

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

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

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

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

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

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

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

<210> 197
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H173

<400> 197

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

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

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

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

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

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

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

<210> 198
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H172

<400> 198

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

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

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

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

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

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

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

<210> 199
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H163

<400> 199

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 Val Tyr
20 25 30

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

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

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

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

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

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

<210> 200
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H162

<400> 200

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 Val Asp
20 25 30

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

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

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

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

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

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

<210> 201
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H139

<400> 201

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 Gly Tyr
20 25 30

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

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

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

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

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

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

<210> 202
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H137

<400> 202

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 Phe Tyr
20 25 30

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

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

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

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

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

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

<210> 203
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H136

<400> 203

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 Ile Tyr
20 25 30

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

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

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

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

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

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

<210> 204
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H129

<400> 204

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 Ile Tyr
20 25 30

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

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

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

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

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

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

<210> 205
<211> 123
<212> PRT
<213> Artificial

<220>
<223> ST2H112

<400> 205

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 Phe Tyr
20 25 30

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

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

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

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

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

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

<210> 206
<211> 107
<212> PRT
<213> Artificial

<220>
<223> ST2L32

<400> 206

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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 Asp Asp Asp
            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 Tyr Ile Gly Ala Pro Ile
                85                  90                  95

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

<210> 207
<211> 107
<212> PRT
<213> Artificial

<220>
<223> ST2L35

<400> 207

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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 Asp Asp Asp
            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 Tyr Ile Asp Ala Pro Leu
                85                  90                  95

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

<210> 208
<211> 106
<212> PRT
<213> Artificial

<220>
<223> ST2L49

<400> 208

```
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 Asp Asp Asp
            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 Tyr Asn Asp Ala Ile Thr
                85                  90                  95

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

<210> 209
<211> 107
<212> PRT
<213> Artificial

<220>
<223> ST2L59

<400> 209

```
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 Asp Asp Asp
            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 Tyr Ile Thr Ala Pro Leu
85 90 95

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

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

<220>
<223> ST2L epitope

<400> 210

Arg Cys Pro Arg Gln Gly Lys Pro Ser Tyr Thr Val Asp Trp
1 5 10

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

<220>
<223> VH cDNA for STLM208

<400> 211
gaggtgcagc tgctggagag cggcggcggc ctggtgcagc ccggcggcag cctgcgcctg 60

agctgcgccg ccagcggctt caccttcagc atctacgaca tgatctgggt gcgccaggcc 120

cccggcaagg gcctggagtg ggtcagcagc atccgcggcg agggcggcgg cacctactac 180

gccgacagcg tgaagggccg cttcaccatc agccgcgaca acagcaagaa caccctgtac 240

ctgcagatga acagcctgcg cgccgaggac accgccgtgt actactgcgc ccgcgacccc 300

tggagcaccg agggcagctt cttcgtgctg gactactggg gccagggcac cctggtgacc 360

gtgagcagc 369

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

<220>
<223> VL cDNA for STLM208

<400> 212
gagatcgtgc tgacccagag ccccgccacc ctgagcctga gccccggcga gcgcgccacc 60

ctgagctgcc gcgccagcca gagcgtggac gacgacctgg cctggtacca gcagaagccc 120

ggccaggccc cccgcctgct gatctacgac gccagcaacc gcgccaccgg catccccgcc 180

cgcttcagcg gcagcggcag cggcaccgac ttcaccctga ccatcagcag cctggagccc 240

gaggacttcg ccgtgtacta ctgccagcag tacatcaccg ccccccctgac cttcggccag 300

ggcaccaagg tggagatcaa g 321

<210> 213
<211> 351
<212> DNA
<213> Artificial

<220>
<223> VH cDNA for c2244

<400> 213
gaggtgcagc ttcaggagtc aggacctggc ctggtgaaac cttctcagtc tctgtccctc 60

acctgcactg tcactggctt ctcaatcacc agtgattatg cctggaactg gatccggcag 120

tttccaggaa gcaagctaga gtggatgggc ttcataagct acagtggtga cactagcttc 180

aacccatctc tcaaaagtcg aatctctgtc actcgagaca catccaagaa ccagttcttc 240

ctgcagttga attctgtgac tactgaggac acagccacat attactgtgc aagttatgat 300

ggttactcat ttgactactg gggccaaggc actactctca cagtctcctc a 351

<210> 214
<211> 333
<212> DNA
<213> Artificial

<220>
<223> VL cDNA for c2244

<400> 214
gacattgtgc tgacccaatc tccagcttcc ttagctatat ctctggggca gagggccacc 60

atctcatgca gggccagcaa aagtgtcagt acatctggct ctagttatat gttctggtac 120

caacagaaac caggacagcc acccaaactc ctcatctatc ttgcatccaa cctagaatct 180

ggggtccctg ccaggttcag tggcagtggg tctgggacag acttcaccct caacatacat 240

cctgtggagg aggaggatgc tgcagcctat tactgtcaac acagtaggga gattccgtac 300

acgttcggag gggggaccaa gctggaaata aaa 333

<210> 215

<211> 266
<212> PRT
<213> Mus musculus

<400> 215

Met Arg Pro Arg Met Lys Tyr Ser Asn Ser Lys Ile Ser Pro Ala Lys
1 5 10 15

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

Arg Ser Gln Gln Lys Thr Lys Glu Phe Cys His Val Tyr Cys Met Arg
35 40 45

Leu Arg Ser Gly Leu Thr Ile Arg Lys Glu Thr Ser Tyr Phe Arg Lys
50 55 60

Glu Pro Thr Lys Arg Tyr Ser Leu Lys Ser Gly Thr Lys His Glu Glu
65 70 75 80

Asn Phe Ser Ala Tyr Pro Arg Asp Ser Arg Lys Arg Ser Leu Leu Gly
85 90 95

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

Thr Ser Leu Leu Thr Gln Ser Pro Ala Ser Leu Ser Thr Tyr Asn Asp
115 120 125

Gln Ser Val Ser Phe Val Leu Glu Asn Gly Cys Tyr Val Ile Asn Val
130 135 140

Asp Asp Ser Gly Lys Asp Gln Glu Gln Asp Gln Val Leu Leu Arg Tyr
145 150 155 160

Tyr Glu Ser Pro Cys Pro Ala Ser Gln Ser Gly Asp Gly Val Asp Gly
165 170 175

Lys Lys Leu Met Val Asn Met Ser Pro Ile Lys Asp Thr Asp Ile Trp
180 185 190

Leu His Ala Asn Asp Lys Asp Tyr Ser Val Glu Leu Gln Arg Gly Asp
195 200 205

Val Ser Pro Pro Glu Gln Ala Phe Phe Val Leu His Lys Lys Ser Ser
210 215 220

Asp Phe Val Ser Phe Glu Cys Lys Asn Leu Pro Gly Thr Tyr Ile Gly

225 230 235 240

Val Lys Asp Asn Gln Leu Ala Leu Val Glu Glu Lys Asp Glu Ser Cys
245 250 255

Asn Asn Ile Met Phe Lys Leu Ser Lys Ile
260 265