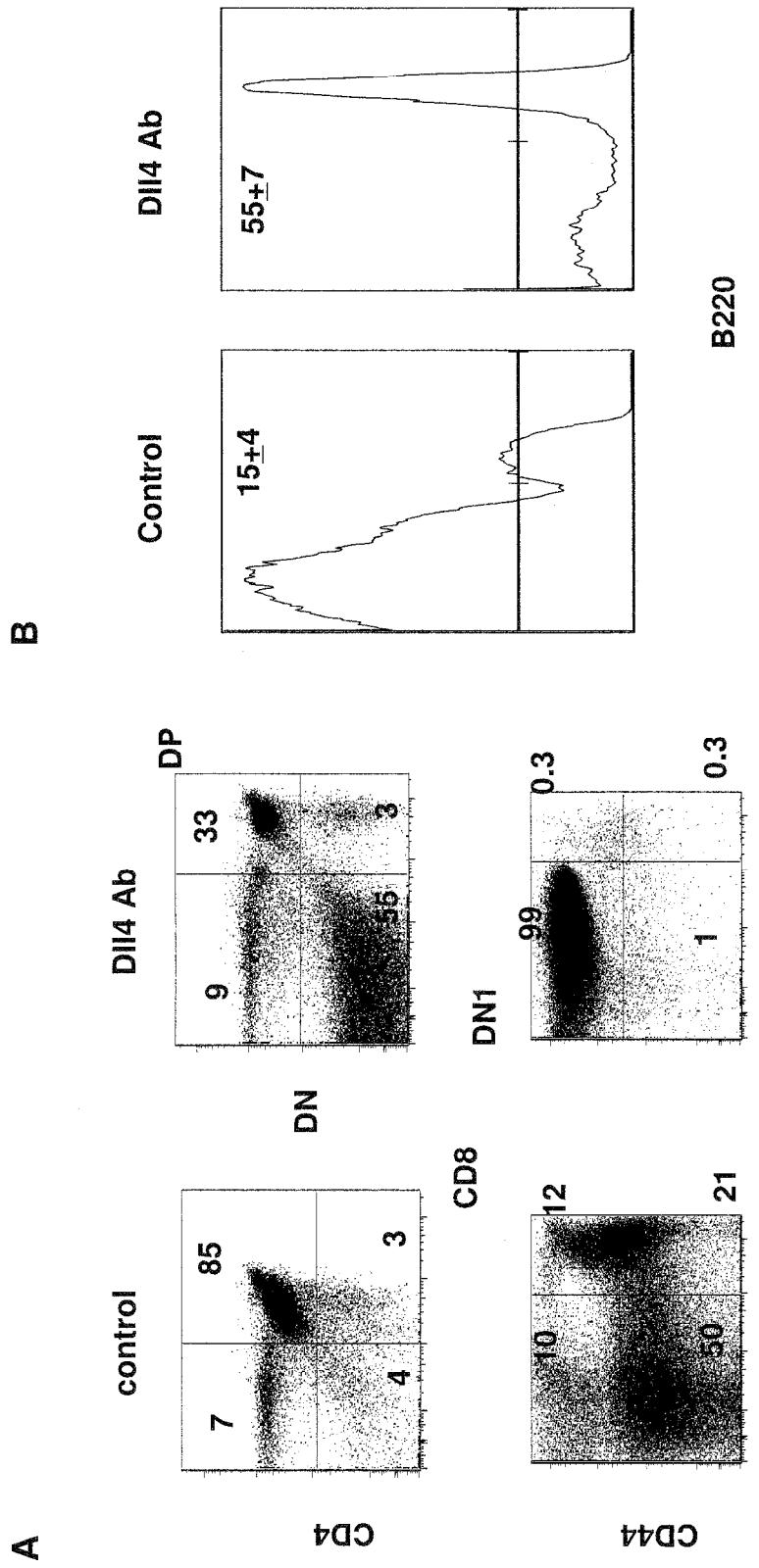

A
control
85
7
4
3
CD4
CD8
Dll4 Ab
DP
33
9
35
3
DN
DN1
0.3
99
1
0.3
CD44
CD25
12
10
50
21
B
Control
15±4
Dll4 Ab
55±7
B220

Fig. 1A-B

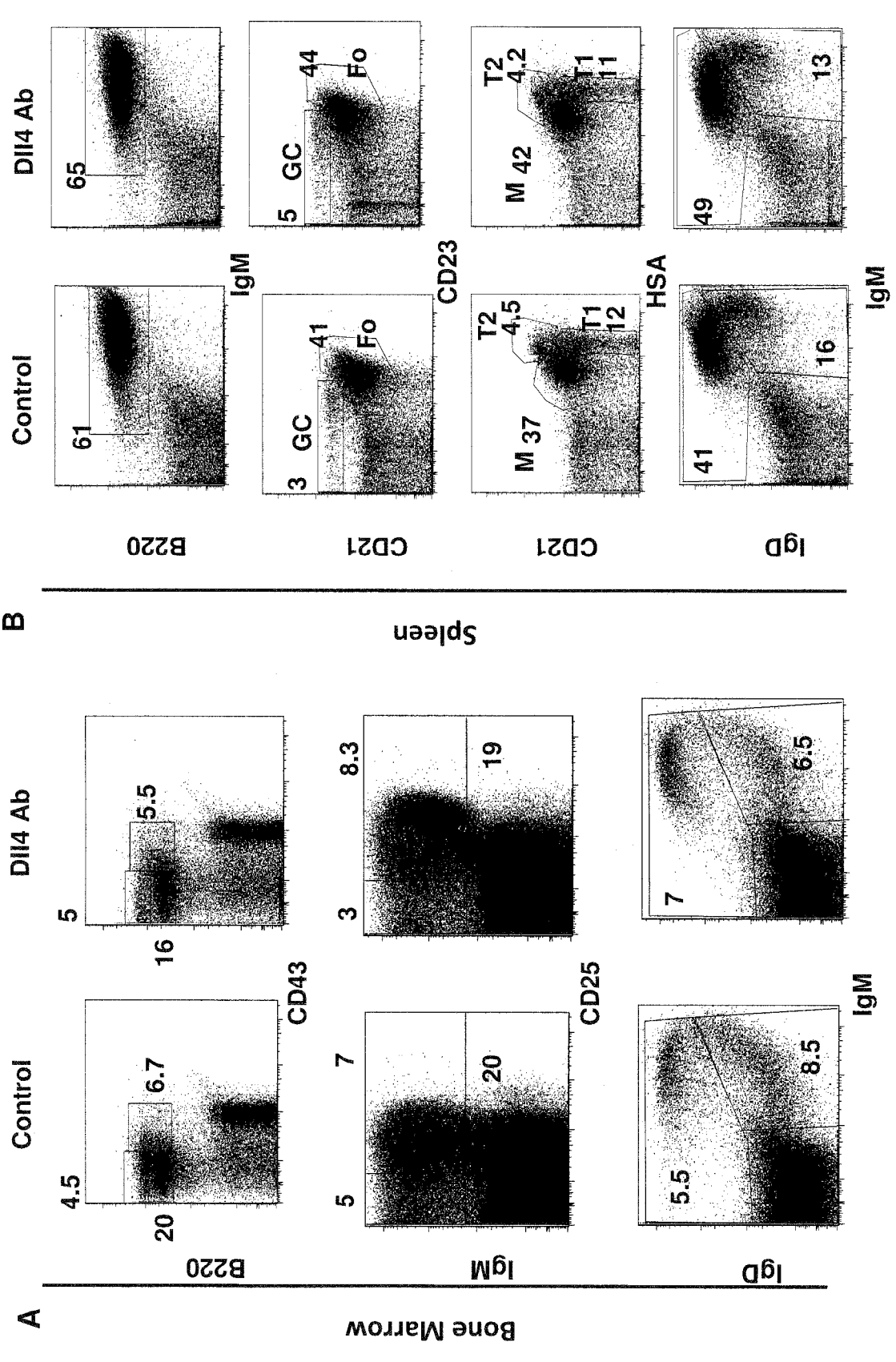

A
Bone Marrow
B220
IgM
IgD
Control
Dll4 Ab
CD43
CD25
IgM
4.5
6.7
20
5
16
5.5
5
7
20
3
8.3
19
5.5
8.5
7
6.5
B
Spleen
B220
CD21
CD21
IgD
Control
Dll4 Ab
IgM
CD23
HSA
IgM
61
65
3 GC
41
Fo
5 GC
44
Fo
M 37
T2
4,5
T1
12
M 42
T2
4.2
T1
11
41
16
49
13

Fig. 2A-B

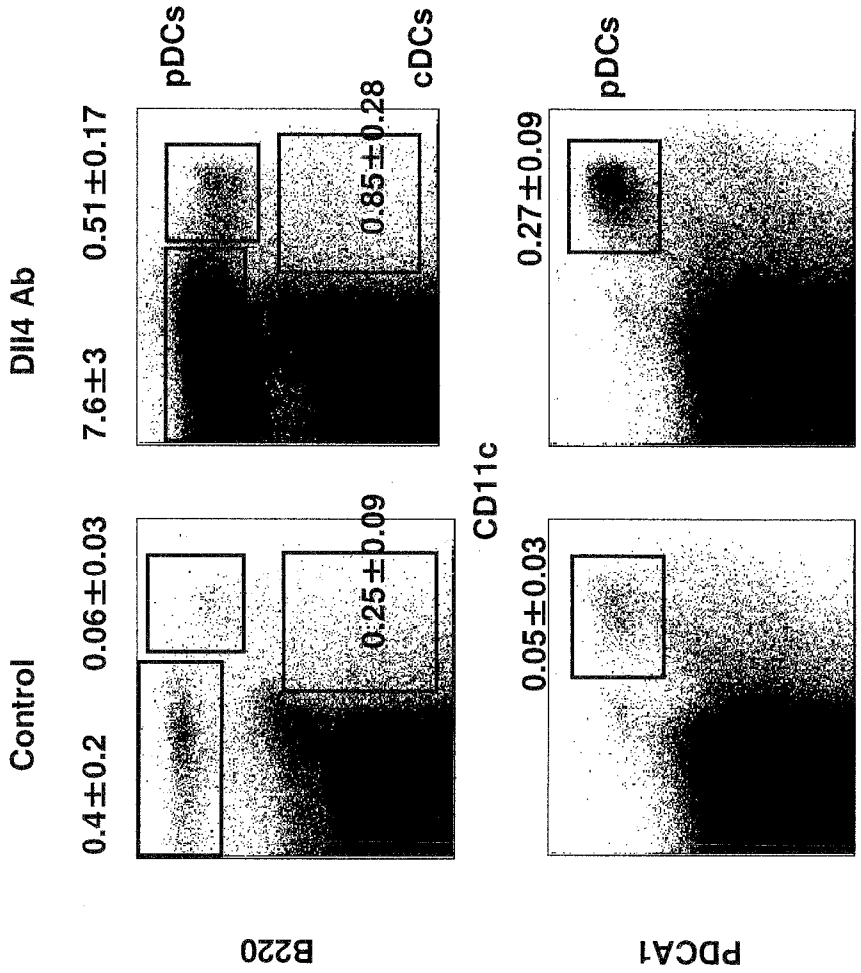

Control
Dll4 Ab
0.4±0.2
0.06±0.03
0.25±0.09
7.6±3
0.51±0.17
0.85±0.28
pDCs
cDCs
B220
CD11c
0.05±0.03
0.27±0.09
pDCs
PDCA1
CD11c

Fig. 3A

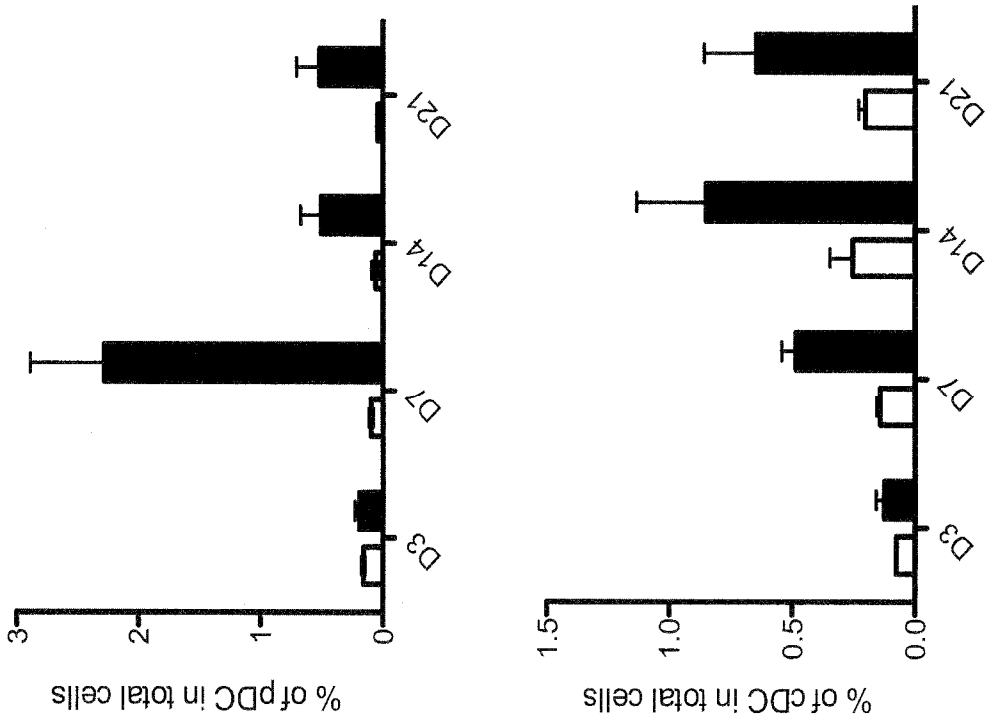

% of pDC in total cells
0
1
2
3
D3
D7
D14
D21
% of cDC in total cells
0.0
0.5
1.0
1.5
D3
D7
D14
D21

Fig. 3B

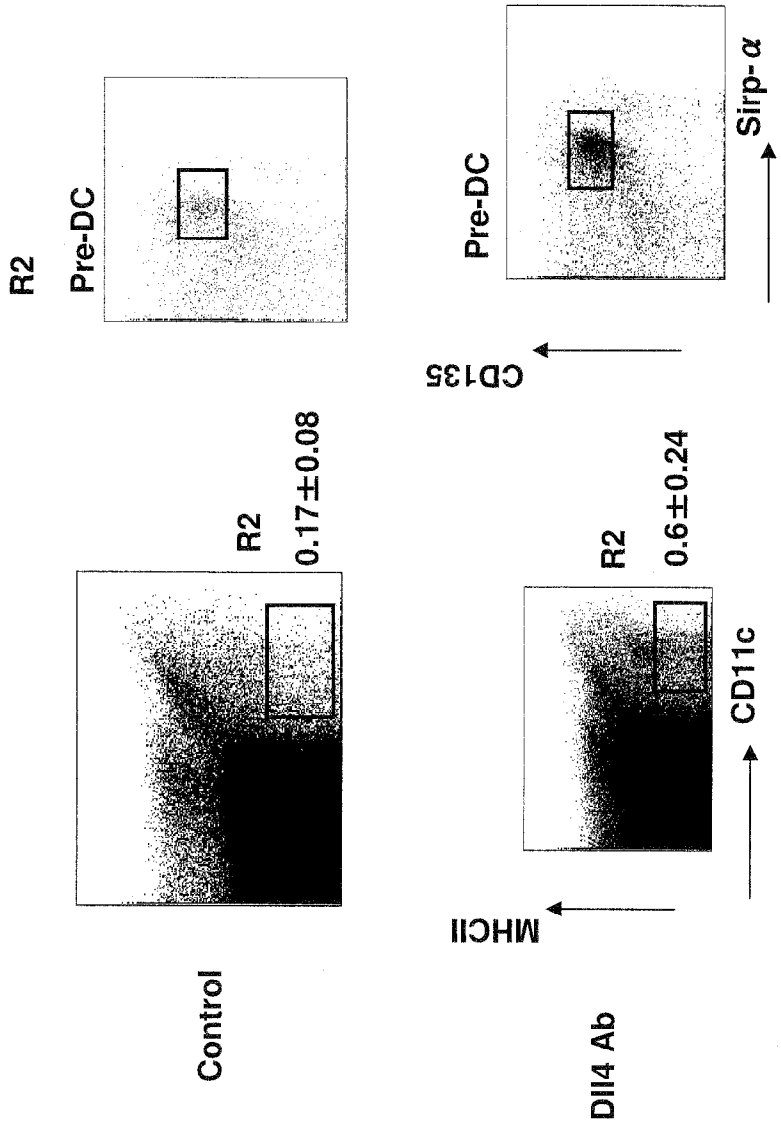

R2
Pre-DC
Sirp-α
CD135
R2
0.17±0.08
Control
R2
0.6±0.24
CD11c
MHCII
Dll4 Ab

Fig. 3C

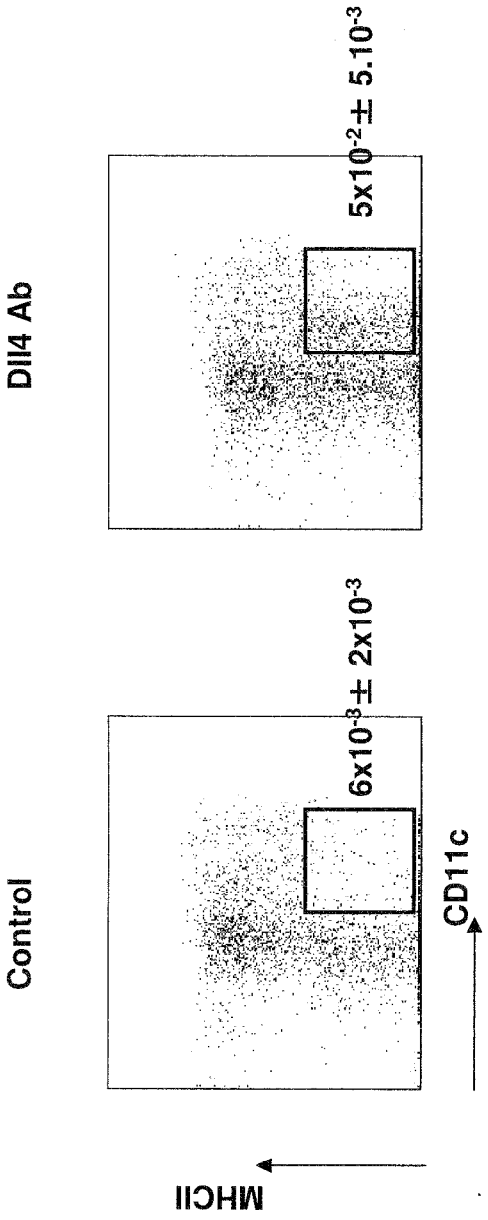


Fig. 3D

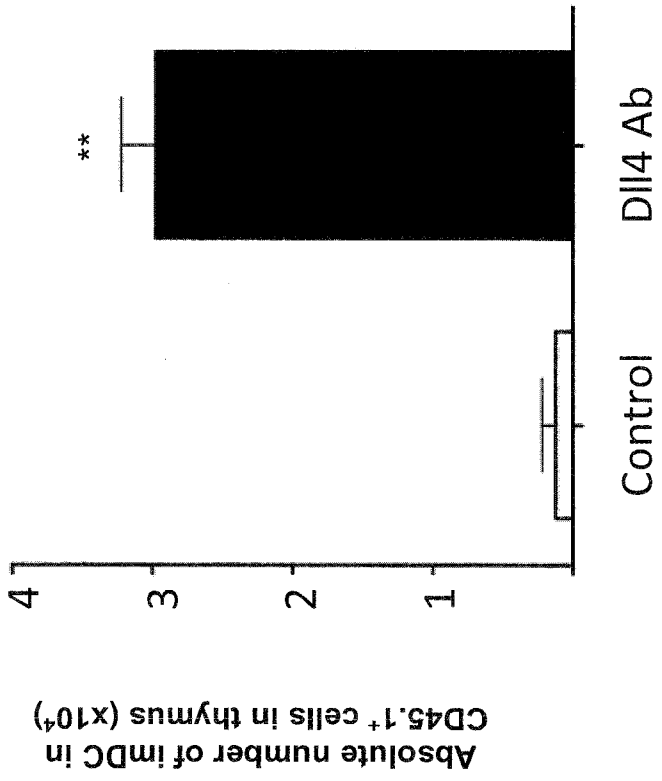

Absolute number of imDC in
CD45.1+ cells in thymus (x10⁴)
4
3
2
1
**
Control
Dll4 Ab

Fig. 4

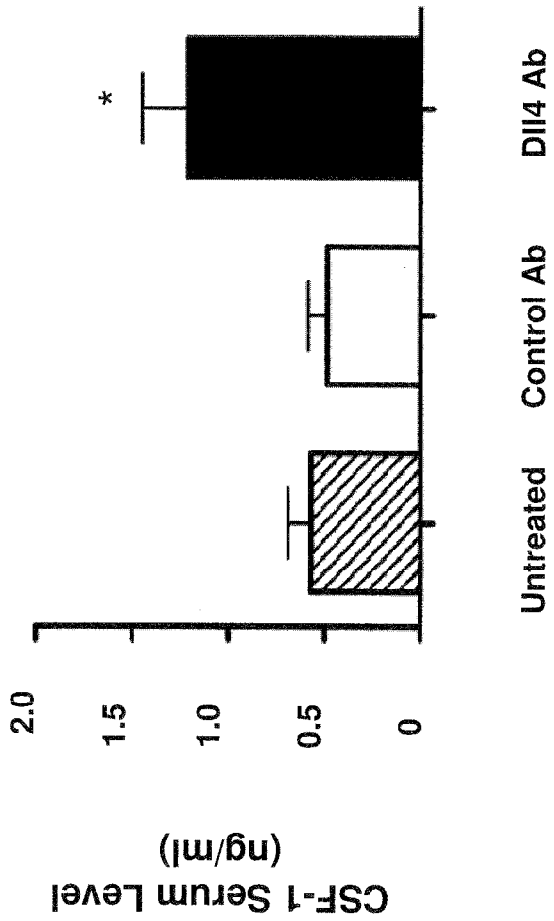

CSF-1 Serum Level
(ng/ml)
2.0
1.5
1.0
0.5
0
*
Untreated
Control Ab
Dll4 Ab

Fig. 5

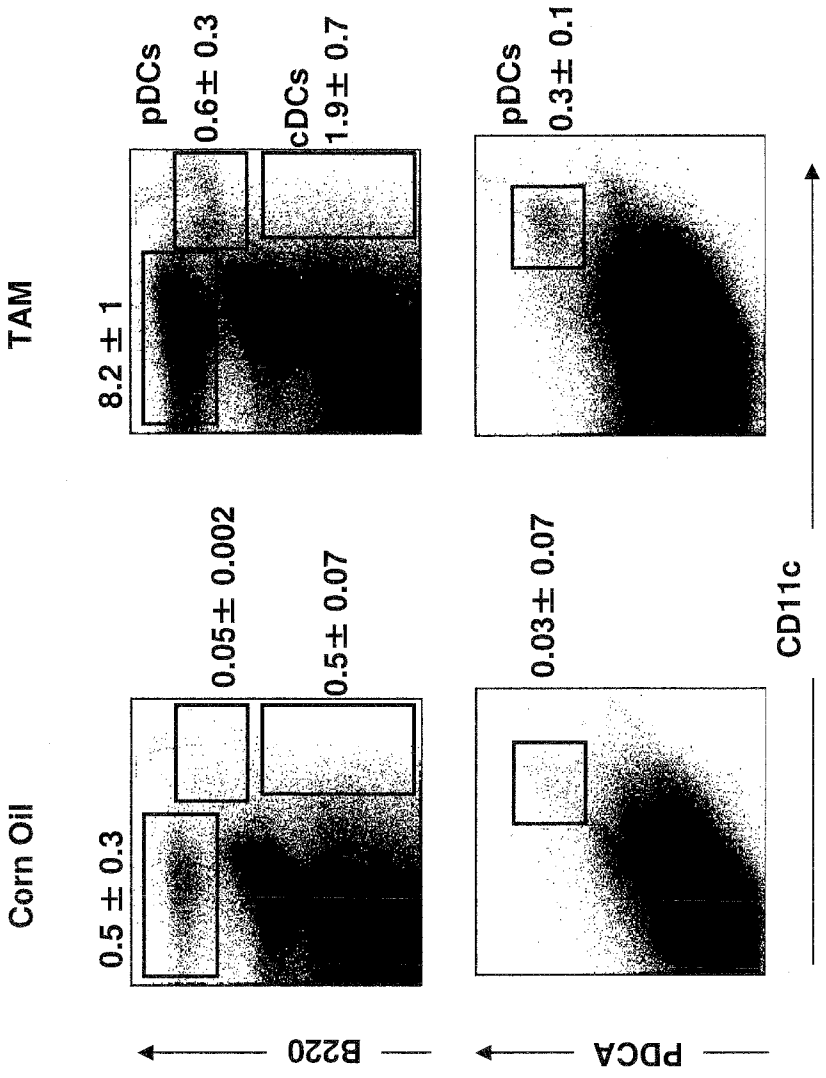

TAM
Corn Oil
pDCs
0.6± 0.3
cDCs
1.9± 0.7
8.2 ± 1
pDCs
0.3± 0.1
0.05± 0.002
0.5± 0.07
0.5 ± 0.3
0.03± 0.07
B220
PDCA
CD11c

Fig. 6

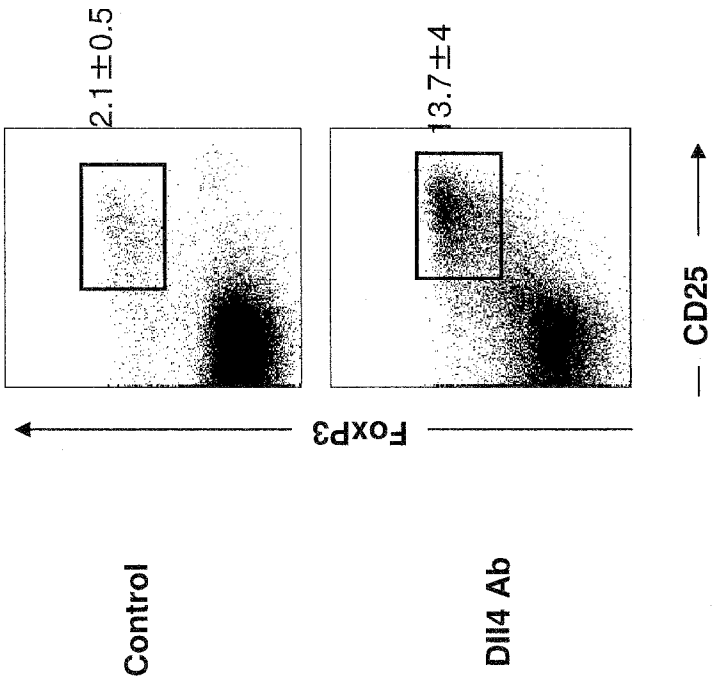


Fig. 7A

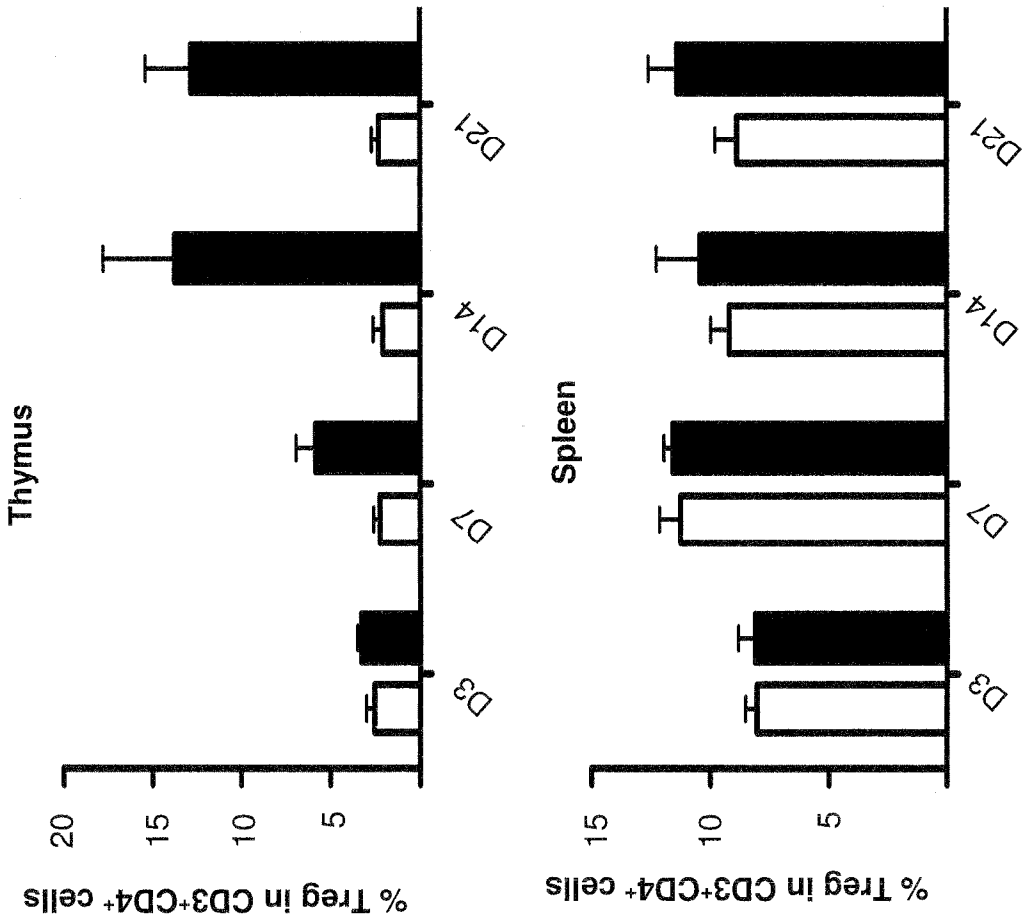

Thymus
% Treg in CD3+CD4+ cells
20
15
10
5
D3
D7
D14
D21
Spleen
% Treg in CD3+CD4+ cells
15
10
5
D3
D7
D14
D21

Fig. 7B

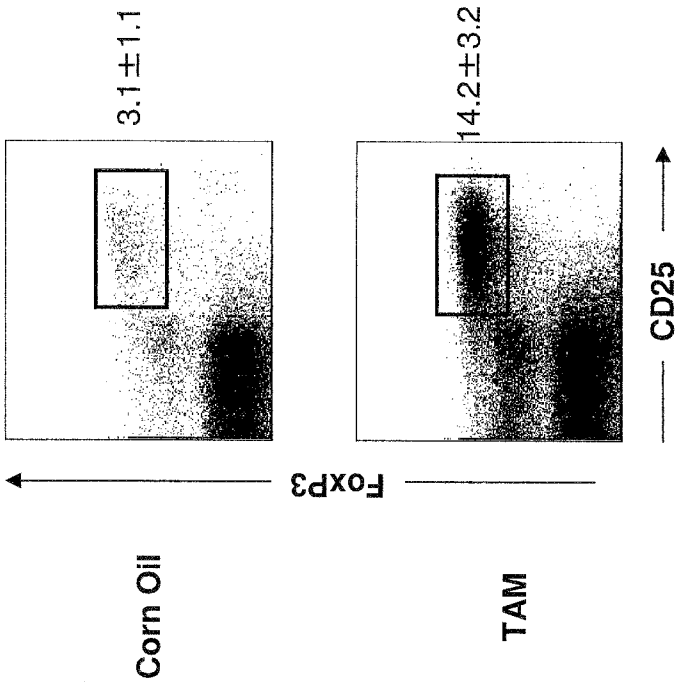


Fig. 7C

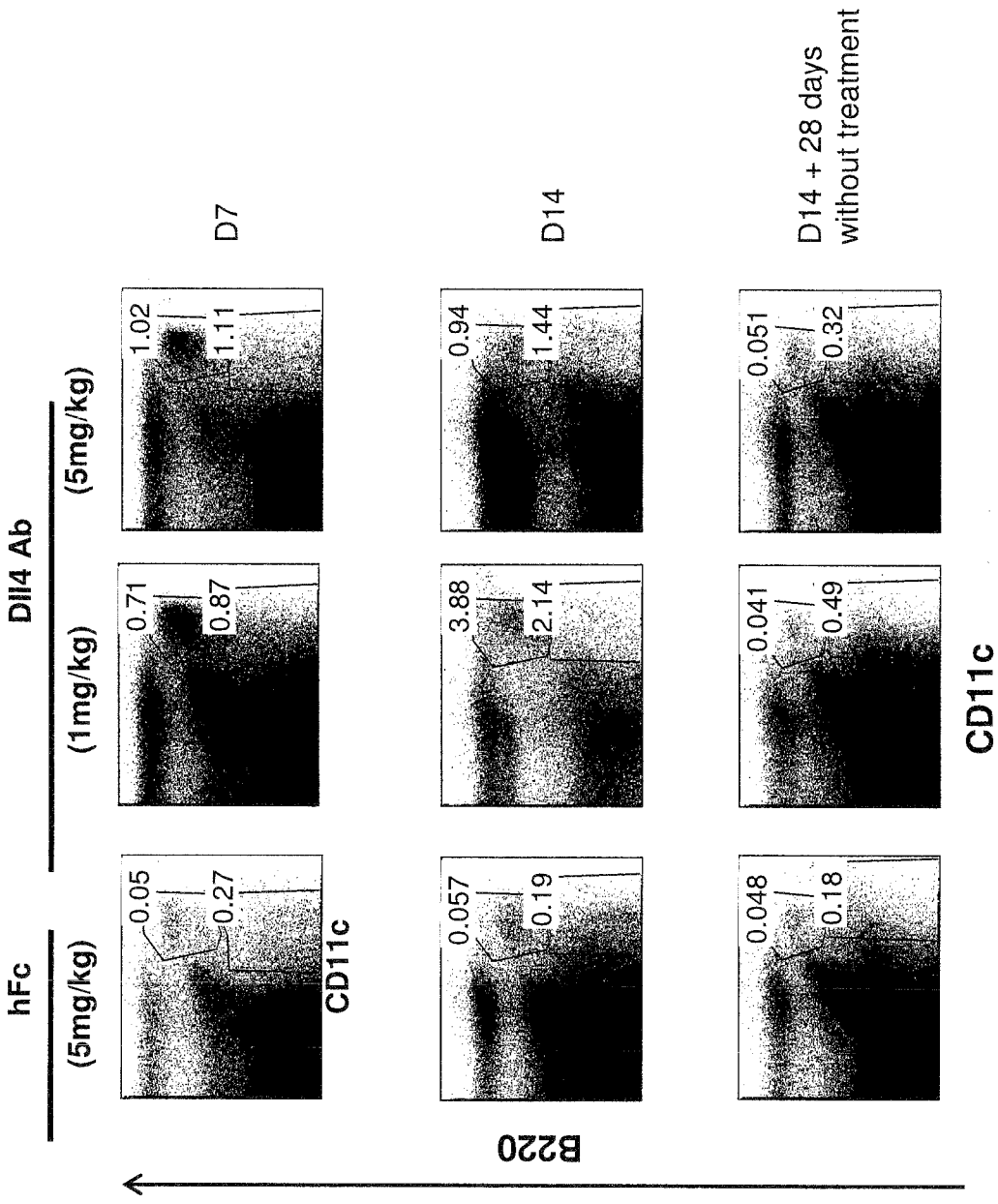

hFc
(5mg/kg)
Dll4 Ab
(1mg/kg)
(5mg/kg)
D7
D14
D14 + 28 days
without treatment
0.05
0.27
0.71
0.87
1.02
1.11
0.057
0.19
3.88
2.14
0.94
1.44
0.048
0.18
0.041
0.49
0.051
0.32
CD11c
B220
CD11c

Fig. 8A

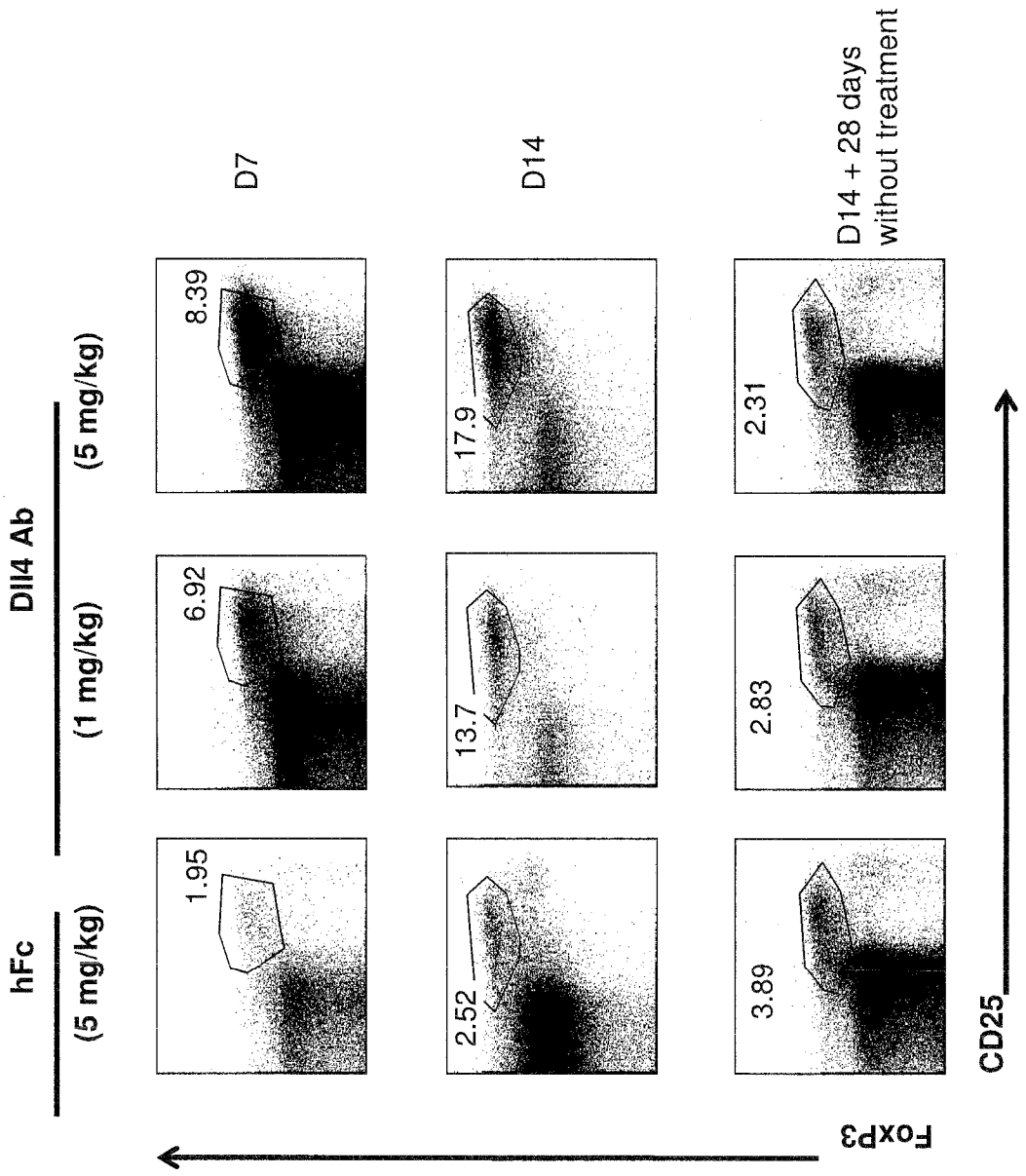

hFc
(5 mg/kg)
Dll4 Ab
(1 mg/kg)
(5 mg/kg)
D7
D14
D14 + 28 days
without treatment
1.95
6.92
8.39
2.52
13.7
17.9
3.89
2.83
2.31
FoxP3
CD25

Fig. 8B

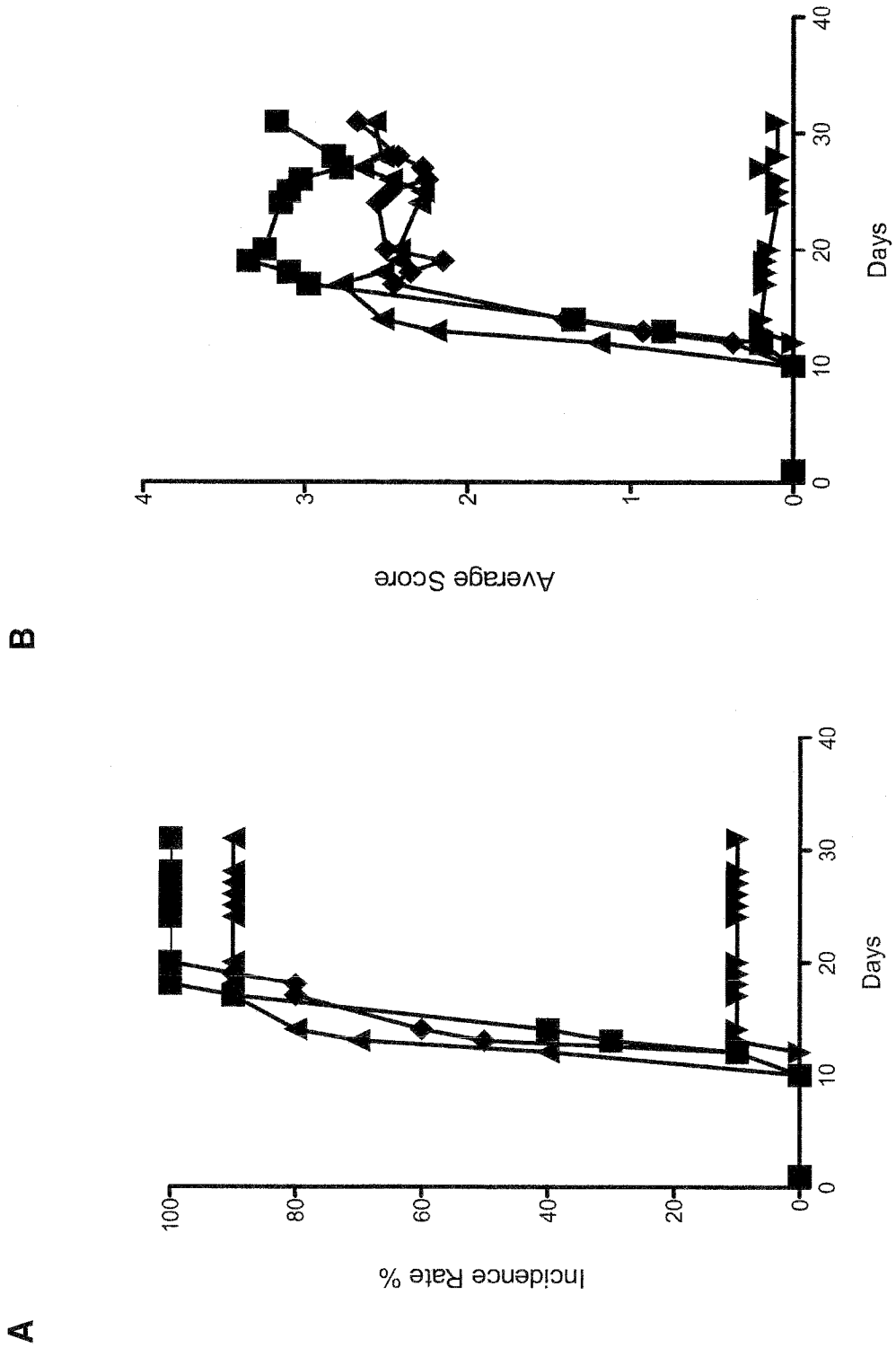

A
Incidence Rate %
100
80
60
40
20
0
0
10
20
30
40
Days
B
Average Score
4
3
2
1
0
0
10
20
30
40
Days

Fig. 9A-B

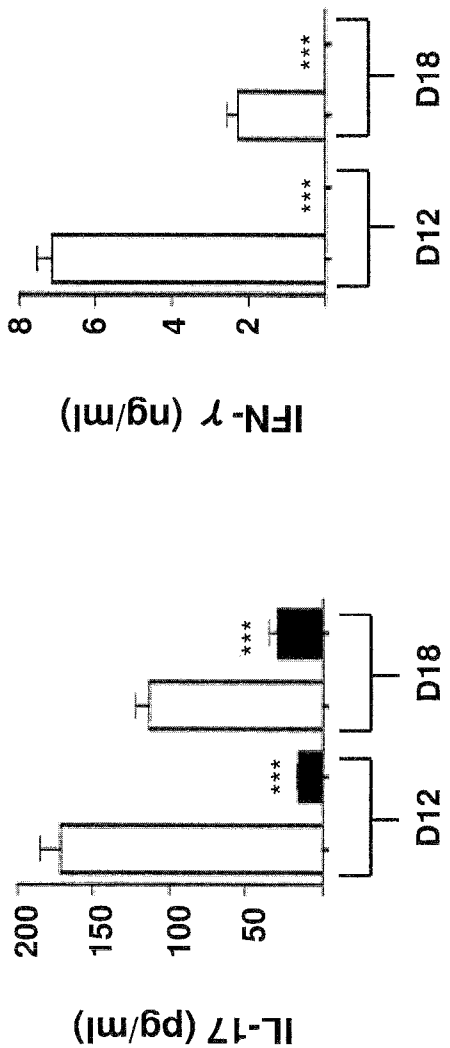


Fig. 10

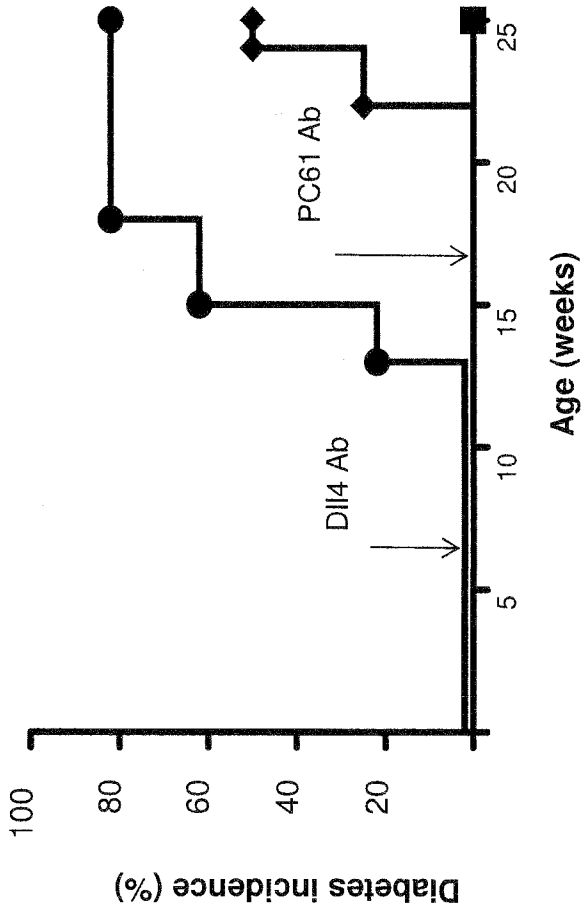

Diabetes incidence (%)
100
80
60
40
20
5
10
15
20
25
Age (weeks)
Dll4 Ab
PC61 Ab

Fig. 11A

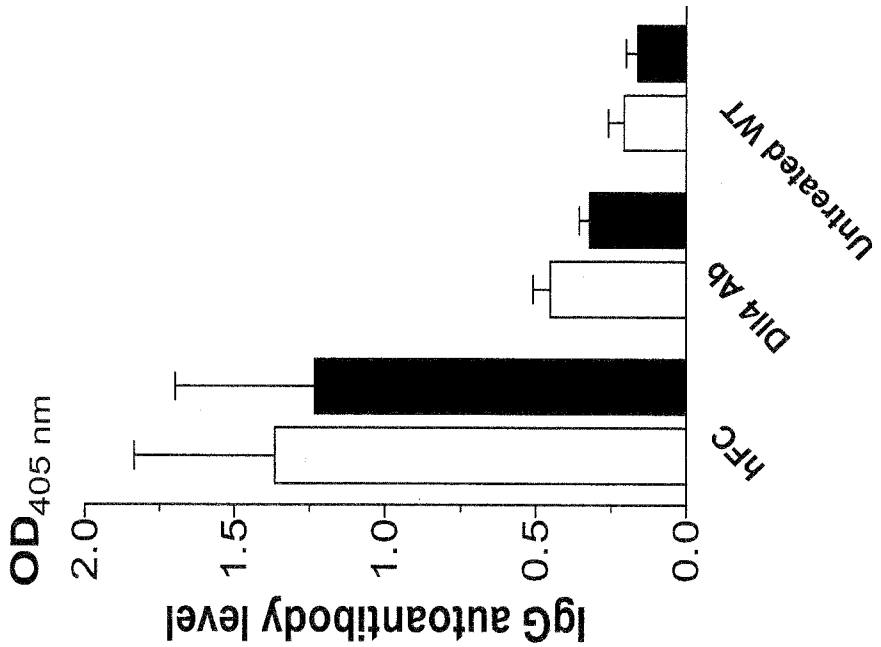

IgG autoantibody level
OD405 nm
2.0
1.5
1.0
0.5
0.0
hFC
Dll4 Ab
Untreated WT

Fig. 11B

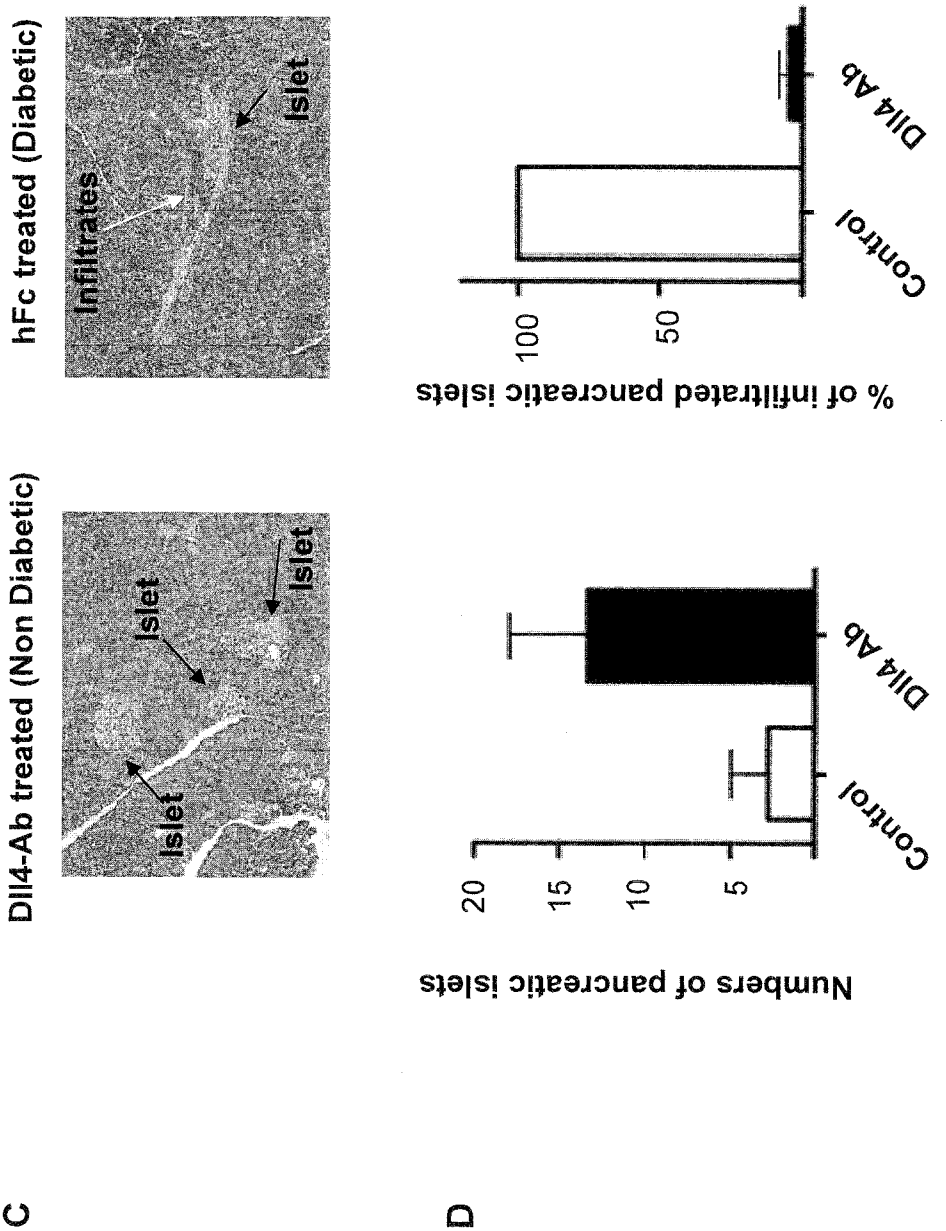

C
hFc treated (Diabetic)
Infiltrates
Islet
Dll4-Ab treated (Non Diabetic)
Islet
Islet
Islet
D
% of infiltrated pancreatic islets
100
50
Control
Dll4 Ab
Numbers of pancreatic islets
20
15
10
5
Control
Dll4 Ab

Fig. 11C-D

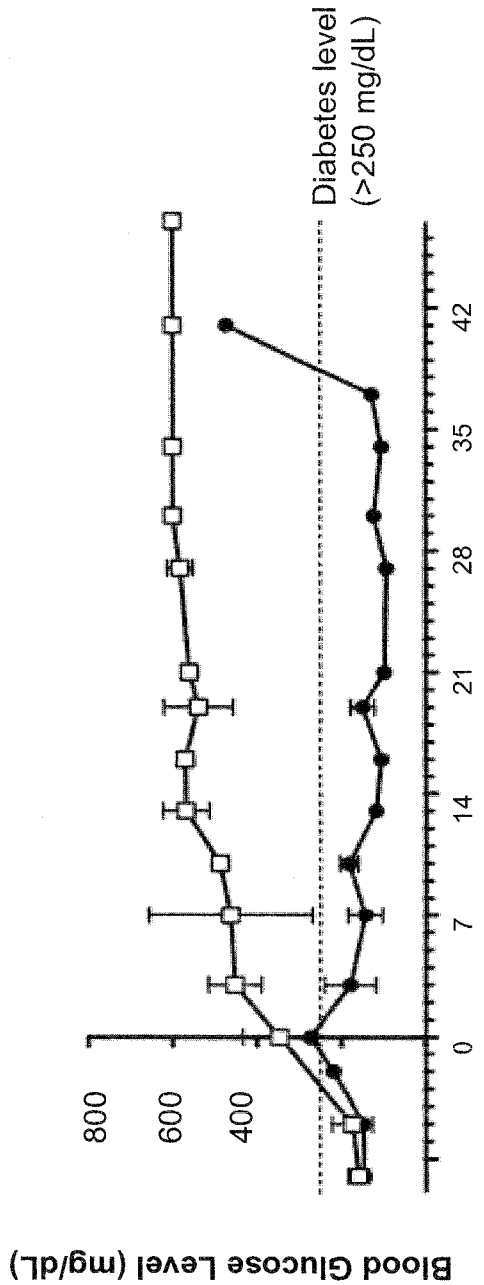

Blood Glucose Level (mg/dL)
800
600
400
0
7
14
21
28
35
42
Days
Diabetes level
(>250 mg/dL)

Fig. 11E

SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> Methods of Treating Autoimmune Diseases with Dll4 Antagonists

<130> 6050A-WO

<140> To be assigned
<141> Filed herewith

<150> 61/299,801
<151> 2010-01-29

<150> 61/361,687
<151> 2010-07-06

<150> 61/388,697
<151> 2010-10-01

<160> 118

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tgccttaagc acttccaggc ggtcgtctcg cccggaccct gcaccttcgg gaccgtctcc 240
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aaggcgccac tgcggttaca cagtgaaaag ccagagtgtc ggatatcagc gatatgctcc 1980
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            20                  25                  30
Gln Leu Gln Glu Phe Ile Asn Glu Arg Gly Val Leu Ala Ser Gly Arg
        35                  40                  45
Pro Cys Glu Pro Gly Cys Arg Thr Phe Phe Arg Val Cys Leu Lys His
    50                  55                  60
Phe Gln Ala Val Val Ser Pro Gly Pro Cys Thr Phe Gly Thr Val Ser
65                  70                  75                  80
Thr Pro Val Leu Gly Thr Asn Ser Phe Ala Val Arg Asp Asp Ser Ser
                85                  90                  95
Gly Gly Gly Arg Asn Pro Leu Gln Leu Pro Phe Asn Phe Thr Trp Pro
            100                 105                 110
Gly Thr Phe Ser Leu Ile Ile Glu Ala Trp His Ala Pro Gly Asp Asp
        115                 120                 125
Leu Arg Pro Glu Ala Leu Pro Pro Asp Ala Leu Ile Ser Lys Ile Ala
    130                 135                 140
Ile Gln Gly Ser Leu Ala Val Gly Gln Asn Trp Leu Leu Asp Glu Gln
145                 150                 155                 160
Thr Ser Thr Leu Thr Arg Leu Arg Tyr Ser Tyr Arg Val Ile Cys Ser
                165                 170                 175
Asp Asn Tyr Tyr Gly Asp Asn Cys Ser Arg Leu Cys Lys Lys Arg Asn
            180                 185                 190
Asp His Phe Gly His Tyr Val Cys Gln Pro Asp Gly Asn Leu Ser Cys
        195                 200                 205
Leu Pro Gly Trp Thr Gly Glu Tyr Cys Gln Gln Pro Ile Cys Leu Ser
    210                 215                 220
Gly Cys His Glu Gln Asn Gly Tyr Cys Ser Lys Pro Ala Glu Cys Leu
225                 230                 235                 240
Cys Arg Pro Gly Trp Gln Gly Arg Leu Cys Asn Glu Cys Ile Pro His
                245                 250                 255
Asn Gly Cys Arg His Gly Thr Cys Ser Thr Pro Trp Gln Cys Thr Cys
            260                 265                 270
Asp Glu Gly Trp Gly Gly Leu Phe Cys Asp Gln Asp Leu Asn Tyr Cys
        275                 280                 285
Thr His His Ser Pro Cys Lys Asn Gly Ala Thr Cys Ser Asn Ser Gly
    290                 295                 300
Gln Arg Ser Tyr Thr Cys Thr Cys Arg Pro Gly Tyr Thr Gly Val Asp
305                 310                 315                 320
Cys Glu Leu Glu Leu Ser Glu Cys Asp Ser Asn Pro Cys Arg Asn Gly
                325                 330                 335
Gly Ser Cys Lys Asp Gln Glu Asp Gly Tyr His Cys Leu Cys Pro Pro
            340                 345                 350
Gly Tyr Tyr Gly Leu His Cys Glu His Ser Thr Leu Ser Cys Ala Asp
        355                 360                 365
Ser Pro Cys Phe Asn Gly Gly Ser Cys Arg Glu Arg Asn Gln Gly Ala
    370                 375                 380
Asn Tyr Ala Cys Glu Cys Pro Pro Asn Phe Thr Gly Ser Asn Cys Glu
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385                 390                 395                 400
Lys Lys Val Asp Arg Cys Thr Ser Asn Pro Cys Ala Asn Gly Gly Gln
                405                 410                 415
Cys Leu Asn Arg Gly Pro Ser Arg Met Cys Arg Cys Arg Pro Gly Phe
            420                 425                 430
Thr Gly Thr Tyr Cys Glu Leu His Val Ser Asp Cys Ala Arg Asn Pro
        435                 440                 445
Cys Ala His Gly Gly Thr Cys His Asp Leu Glu Asn Gly Leu Met Cys
    450                 455                 460
Thr Cys Pro Ala Gly Phe Ser Gly Arg Arg Cys Glu Val Arg Thr Ser
465                 470                 475                 480
Ile Asp Ala Cys Ala Ser Ser Pro Cys Phe Asn Arg Ala Thr Cys Tyr
                485                 490                 495
Thr Asp Leu Ser Thr Asp Thr Phe Val Cys Asn Cys Pro Tyr Gly Phe
            500                 505                 510
Val Gly Ser Arg Cys Glu Phe Pro Val Gly Leu Pro Pro Ser Phe Pro
        515                 520                 525
Trp Val Ala Val Ser Leu Gly Val Gly Leu Ala Val Leu Leu Val Leu
    530                 535                 540
Leu Gly Met Val Ala Val Ala Val Arg Gln Leu Arg Leu Arg Arg Pro
545                 550                 555                 560
Asp Asp Gly Ser Arg Glu Ala Met Asn Asn Leu Ser Asp Phe Gln Lys
                565                 570                 575
Asp Asn Leu Ile Pro Ala Ala Gln Leu Lys Asn Thr Asn Gln Lys Lys
            580                 585                 590
Glu Leu Glu Val Asp Cys Gly Leu Asp Lys Ser Asn Cys Gly Lys Gln
        595                 600                 605
Gln Asn His Thr Leu Asp Tyr Asn Leu Ala Pro Gly Pro Leu Gly Arg
    610                 615                 620
Gly Thr Met Pro Gly Lys Phe Pro His Ser Asp Lys Ser Leu Gly Glu
625                 630                 635                 640
Lys Ala Pro Leu Arg Leu His Ser Glu Lys Pro Glu Cys Arg Ile Ser
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<213> Artificial Sequence

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cagtccccat cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtggtat 180
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            20   25   30
Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
        35   40   45
Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn Asp Tyr Ala
    50   55   60
Val Ser Val Lys Ser Arg Ile Thr Phe Asn Pro Asp Thr Ser Lys Asn
65   70   75   80
His Ile Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Ile
                85   90   95
Tyr Tyr Cys Ala Arg Glu Gly Asp Asn Trp Asn Tyr Gly Trp Leu Asp
            100   105   110
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<212> DNA
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<220>
<223> Synthetic

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<210> 6
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6
Gly Asp Ser Val Ser Ser Asp Ser Ala Ala
 1   5   10

<210> 7
<211> 27
<212> DNA
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<220>
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<400> 7
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<210> 8
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tccggggtcc ctgacaggtt cagtggcagt ggatccggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga ttttggaatt tattattgta tgcaagctct acaaactccg 300
tacacttttg gccgggggac caaggtggaa atcaaa   336

<210> 12
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 12
Asp Ile Gln Leu Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Leu Ser

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            20                  25                  30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Leu Val Ser Ser Arg Ala Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Phe Gly Ile Tyr Tyr Cys Met Gln Ala
                85                  90                  95
Leu Gln Thr Pro Tyr Thr Phe Gly Arg Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
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<210> 13
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 13
cagagcctcc ttcttagtaa tggatacaac tat 33

<210> 14
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 14
Gln Ser Leu Leu Leu Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 15
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 15
ttggtttct 9

<210> 16
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 16
Leu Val Ser
 1

<210> 17
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 17
atgcaagctc tacaaactcc gtacact 27

<210> 18
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 18
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1   5

<210> 19
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 19
gaggtgcagc tggtgcagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtgtcattt ttatggtatg atggaactaa taaaaactat 180
gtagagtccg tgaagggccg attcaccatc tcaagagaca attccaagaa tatgctgtat 240
ctggaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcac 300
gattttagga gtggttatga ggggtggttc gacccctggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 20
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

```
                85                  90                  95
Ala Arg Asp His Asp Phe Arg Ser Gly Tyr Glu Gly Trp Phe Asp Pro
            100                 105                 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 21
ggattcacct tcagtagtta tggc                                          24

<210> 22
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 22
Gly Phe Thr Phe Ser Ser Tyr Gly
 1               5


<210> 23
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 23
ttatggtatg atggaactaa taaa                                          24

<210> 24
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 24
Leu Trp Tyr Asp Gly Thr Asn Lys
 1               5


<210> 25
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<223> Synthetic

<400> 25
gcgagagatc acgattttag gagtggttat gaggggtggt tcgacccc 48

<210> 26
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 26
Ala Arg Asp His Asp Phe Arg Ser Gly Tyr Glu Gly Trp Phe Asp Pro
 1   5   10   15

<210> 27
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 27
gaaatagtga tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agctacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcaacac cgtagcaact ggcctcccac tttcggcgga 300
gggaccaagg tggaaatcaa a 321

<210> 28
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 28
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Arg Ser Asn Trp Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 29
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 29
cagagtgtta gcagctac 18

<210> 30
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 30
Gln Ser Val Ser Ser Tyr
1 5

<210> 31
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 31
gatgcatcc 9

<210> 32
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 32
Asp Ala Ser
1

<210> 33
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 33
caacaccgta gcaactggcc tcccact 27

<210> 34
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 34
Gln His Arg Ser Asn Trp Pro Pro Thr
 1   5

<210> 35
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 35
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctgatgg ctccatcaac agtgttgaat cctactggac ctggatccgc 120
cagcacccag ggaagggcct ggagtggatt ggatacatca aatacactgg gggcatccac 180
tataacccgt ccctcaagag tcgacttgcc atatcagtgg acacgtcaaa gaaccagttc 240
tccctgaaaa tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagca 300
cgtggaagtc atacttttga tgtctggggc caggggacaa tggtcaccgt ctcttca   357

<210> 36
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 36
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Asp Gly Ser Ile Asn Ser Val
            20   25   30
Glu Ser Tyr Trp Thr Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Tyr Ile Lys Tyr Thr Gly Gly Ile His Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Leu Ala Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Met Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Ala Arg Gly Ser His Thr Phe Asp Val Trp Gly Gln Gly
            100   105   110
Thr Met Val Thr Val Ser Ser
        115

<210> 37
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 37

gatggctcca tcaacagtgt tgaatcctac 30

<210> 38
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 38
Asp Gly Ser Ile Asn Ser Val Glu Ser Tyr
1 5 10

<210> 39
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 39
atcaaataca ctgggggcat c 21

<210> 40
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 40
Ile Lys Tyr Thr Gly Gly Ile
1 5

<210> 41
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 41
gcgagagcac gtggaagtca tacttttgat gtc 33

<210> 42
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 42
Ala Arg Ala Arg Gly Ser His Thr Phe Asp Val
1 5 10

<210> 43
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 43
gaaattgtgc tgactcagtc tccaggcacc ctgtcttggt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtattagc agtaactact tagcctggta ccagcagaaa 120
cctggccagg ctcccagact cctcatttat ggtgcatcca gcagggtcac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcactgta ttattgtcag cagtatagta ggtcaccgat caccttcggc 300
caagggacca aagtggatat caaa 324

<210> 44
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 44
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Trp Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser Asn
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Val Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Ser Arg Ser Pro
                85   90   95
Ile Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
            100   105

<210> 45
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 45
cagagtatta gcagtaacta c 21

<210> 46
<211> 7
<212> PRT
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<220>
<223> Synthetic

<400> 46
Gln Ser Ile Ser Ser Asn Tyr
 1   5

<210> 47
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 47
ggtgcatcc   9

<210> 48
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 48
Gly Ala Ser
 1

<210> 49
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 49
cagcagtata gtaggtcacc gatcacc   27

<210> 50
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 50
Gln Gln Tyr Ser Arg Ser Pro Ile Thr
 1   5

<210> 51
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 51
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcaac agtgttactt actactggac ctggatccgc 120
cagcacccag ggaggggcct agagtggatt gggtacatca aattcagtgg gagcacctac 180
tacaacccgt ccctcaaggg tcgagtcacc atatcagtgg acacgtctaa gaaccaattc 240
tcccttaaaa ttaactctgt gactgccgcg gacacggccg tgttttactg tgcgagagct 300
tctggaagtc atacttttga tatctggggc caagggacaa tggtcaccgt ctcctca 357

<210> 52
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 52
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Asn Ser Val
            20   25   30
Thr Tyr Tyr Trp Thr Trp Ile Arg Gln His Pro Gly Arg Gly Leu Glu
        35   40   45
Trp Ile Gly Tyr Ile Lys Phe Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Gly Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Ile Asn Ser Val Thr Ala Ala Asp Thr Ala Val Phe Tyr
                85   90   95
Cys Ala Arg Ala Ser Gly Ser His Thr Phe Asp Ile Trp Gly Gln Gly
            100   105   110
Thr Met Val Thr Val Ser Ser
        115

<210> 53
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 53
ggtggctcca tcaacagtgt tacttactac 30

<210> 54
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 54
Gly Gly Ser Ile Asn Ser Val Thr Tyr Tyr
 1   5   10

<210> 55

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

<220>
<223> Synthetic

<400> 55
atcaaattca gtgggagcac c 21

<210> 56
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 56
Ile Lys Phe Ser Gly Ser Thr
1 5

<210> 57
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 57
gcgagagctt ctggaagtca tacttttgat atc 33

<210> 58
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 58
Ala Arg Ala Ser Gly Ser His Thr Phe Asp Ile
1 5 10

<210> 59
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 59
gaaacgacac tcacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc aacagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctct ggtgcgtcca gcagggtcac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttggaatgta ttactgtcag cagtatagta ggtcaccgat caccttcggc 300

caagggacca agctggagat caaa 324

<210> 60
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 61
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 61
cagagtgtta gcaacagcta c 21

<210> 62
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 62
Gln Ser Val Ser Asn Ser Tyr
 1   5

<210> 63
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 63
ggtgcgtcc 9

<210> 64
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 64
Gly Ala Ser
 1

<210> 65
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 65
cagcagtata gtaggtcacc gatcacc 27

<210> 66
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 66
Gln Gln Tyr Ser Arg Ser Pro Ile Thr
 1   5

<210> 67
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 67
gaagtgcagc tggtgcagtc tgggggagcc ttggtacaac ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaac aactttgcca tgacctgggt ccgccaggct 120
ccagggaagg gcctggagtg ggtctcaact attagtggta gtggcgttga cacatactgc 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgttc gaaagatggc 300
gccttctata gtggctacga acactactgg ggccagggaa ccacggtcac cgtctcctca 360

<210> 68
<211> 120
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 68
Glu Val Gln Leu Val Gln Ser Gly Gly Ala Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asn Phe
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Thr Ile Ser Gly Ser Gly Val Asp Thr Tyr Cys 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
Ser Lys Asp Gly Ala Phe Tyr Ser Gly Tyr Glu His Tyr Trp Gly Gln
            100   105   110
Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 69
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 69
ggattcacct ttaacaactt tgcc   24

<210> 70
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 70
Gly Phe Thr Phe Asn Asn Phe Ala
 1   5

<210> 71
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 71
attagtggta gtggcgttga caca   24

<210> 72
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 72
Ile Ser Gly Ser Gly Val Asp Thr
 1   5

<210> 73
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 73
tcgaaagatg gcgccttcta tagtggctac gaacactac   39

<210> 74
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 74
Ser Lys Asp Gly Ala Phe Tyr Ser Gly Tyr Glu His Tyr
 1   5   10

<210> 75
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 75
gaaacgacac tcacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatcca acagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
tctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcacctcg gacgttcggc 300
caagggacca aggtggagat caaa   324

<210> 76
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 76
Glu Thr Thr Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30

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


<210> 77
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 77
cagagtgtta gcagcagcta c                                              21

<210> 78
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 78
Gln Ser Val Ser Ser Ser Tyr
 1               5


<210> 79
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 79
ggtacatcc                                                            9

<210> 80
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 80
Gly Thr Ser
 1


<210> 81
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<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 81
cagcagtatg gtagctcacc tcggacg 27

<210> 82
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 82
Gln Gln Tyr Gly Ser Ser Pro Arg Thr
1 5

<210> 83
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 83
gaagtgcagc tggtgcagtc tggacctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggtta cacctttacc tactatggta tcagttggat acgacagacc 120
cctggacaag ggcttgagtg gatgggatgg atcagcgctt acgatggtaa cacagactat 180
gcacagaagt tccaagacag aatcaccatg accacagaca catcctcgac cacagcctac 240
atggaactga ggagcctgag atctgacgac acggccgtct attactgtgc gaggtatagt 300
tggaacaagc actggttcga cccctggggc cagggaacca tggtcaccgt ctcttca 357

<210> 84
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 84
Glu Val Gln Leu Val Gln Ser Gly Pro Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr Tyr
20 25 30
Gly Ile Ser Trp Ile Arg Gln Thr Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Ala Tyr Asp Gly Asn Thr Asp Tyr Ala Gln Lys Phe
50 55 60
Gln Asp Arg Ile Thr Met Thr Thr Asp Thr Ser Ser Thr Thr Ala Tyr
65 70 75 80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Tyr Ser Trp Asn Lys His Trp Phe Asp Pro Trp Gly Gln Gly

100 105 110
Thr Met Val Thr Val Ser Ser
115

<210> 85
<211> 24
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<220>
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<400> 85
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<210> 86
<211> 8
<212> PRT
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<220>
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<400> 86
Gly Tyr Thr Phe Thr Tyr Tyr Gly
1 5

<210> 87
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<220>
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<400> 87
atcagcgctt acgatggtaa caca 24

<210> 88
<211> 8
<212> PRT
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<220>
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<400> 88
Ile Ser Ala Tyr Asp Gly Asn Thr
1 5

<210> 89
<211> 36
<212> DNA
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<220>
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<400> 89
gcgaggtata gttggaacaa gcactggttc gacccc 36

<210> 90
<211> 12
<212> PRT
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<220>
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<400> 90
Ala Arg Tyr Ser Trp Asn Lys His Trp Phe Asp Pro
 1   5   10

<210> 91
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<400> 91
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ctctcctgca gggccagtca gagtgttacc ggcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccagact cctcatctat ggtgcatcca acagggccac tggcatccca 180
gacaggttca ctggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta tttctgtcaa cagtctgctt tctcaccgtg gacgttcggc 300
caggggacca aggtggaaat caaa 324

<210> 92
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 92
Glu Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Gly Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Thr
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Ser Ala Phe Ser Pro
                85   90   95
Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 93
<211> 21
<212> DNA
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<220>
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<400> 93
cagagtgtta ccggcagcta c 21

<210> 94
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<212> PRT
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<220>
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<400> 94
Gln Ser Val Thr Gly Ser Tyr
1 5

<210> 95
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<220>
<223> Synthetic

<400> 95
ggtgcatcc 9

<210> 96
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 96
Gly Ala Ser
1

<210> 97
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 97
caacagtctg ctttctcacc gtggacg 27

<210> 98
<211> 9
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<223> Synthetic

<400> 98
Gln Gln Ser Ala Phe Ser Pro Trp Thr
 1   5

<210> 99
<211> 363
<212> DNA
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<220>
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<400> 99
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtggtt actactggag ttggatccgc 120
cagcacccag ggaagggcct ggagtggatt gggtacatcc attatagtgg gaacacccac 180
tacaatccga ccctcaagag tcgaattacc atatcagtag acacgtctaa gaaccagttc 240
tcccttgagg tgaactctgt gactgccgcg gacacggccg tatactactg tgcgaggaat 300
atggttcggg gagttcactg gttcgacccc tggggccagg gaaccacggt caccgtctcc 360
tca   363

<210> 100
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 101
<211> 30
<212> DNA
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<220>
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<400> 101
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<210> 102
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<220>
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<400> 102
Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr
 1   5   10

<210> 103
<211> 21
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<220>
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<400> 103
atccattata gtgggaacac c   21

<210> 104
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<212> PRT
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<400> 104
Ile His Tyr Ser Gly Asn Thr
 1   5

<210> 105
<211> 39
<212> DNA
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<400> 105
gcgaggaata tggttcgggg agttcactgg ttcgacccc   39

<210> 106
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 106
Ala Arg Asn Met Val Arg Gly Val His Trp Phe Asp Pro
 1   5   10

<210> 107
<211> 324
<212> DNA
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<220>
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<400> 107
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ctcttctgtt gggccagtcg gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctct ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtata tttctgtcaa cagtatagta gttcaccgct cactttcggc 300
ggagggacca agctggagat caaa 324

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

<220>
<223> Synthetic

<400> 108
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Phe Cys Trp Ala Ser Arg Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Ser Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Ser Ser Ser Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 109
<211> 21
<212> DNA
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<220>
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<400> 109
cggagtgtta gcagcagcta c 21

<210> 110
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 110
Arg Ser Val Ser Ser Ser Tyr
 1   5

<210> 111
<211> 9
<212> DNA
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<220>
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<400> 111
ggtgcatcc   9

<210> 112
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<220>
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<400> 112
Gly Ala Ser
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<210> 113
<211> 27
<212> DNA
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<220>
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<400> 113
caacagtata gtagttcacc gctcact   27

<210> 114
<211> 9
<212> PRT
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<220>
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<400> 114
Gln Gln Tyr Ser Ser Ser Pro Leu Thr
 1   5

<210> 115
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 115
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtgtcattt ttatggtatg atggaactaa taaaaactat 180
gtagagtccg tgaagggccg attcaccatc tcaagagaca attccaagaa tatgctgtat 240
ctggaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcac 300
gattttagga gtggttatga ggggtggttc gacccctggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 116
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 116
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Phe Leu Trp Tyr Asp Gly Thr Asn Lys Asn Tyr Val Glu Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Met Leu Tyr
65   70   75   80
Leu Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp His Asp Phe Arg Ser Gly Tyr Glu Gly Trp Phe Asp Pro
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 117
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 117
gaaatagtgt tgacacagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agctacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcaacac cgtagcaact ggcctcccac tttcggcgga 300
gggaccaagg tggaaatcaa a 321

<210> 118
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 118

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