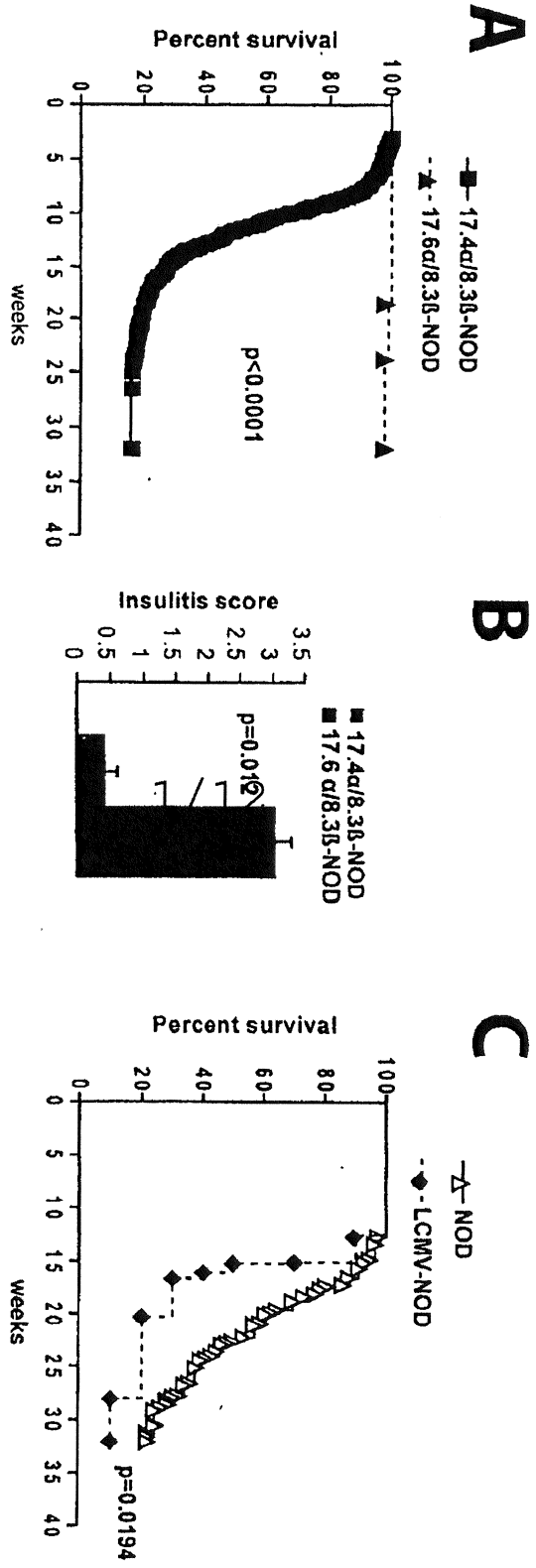
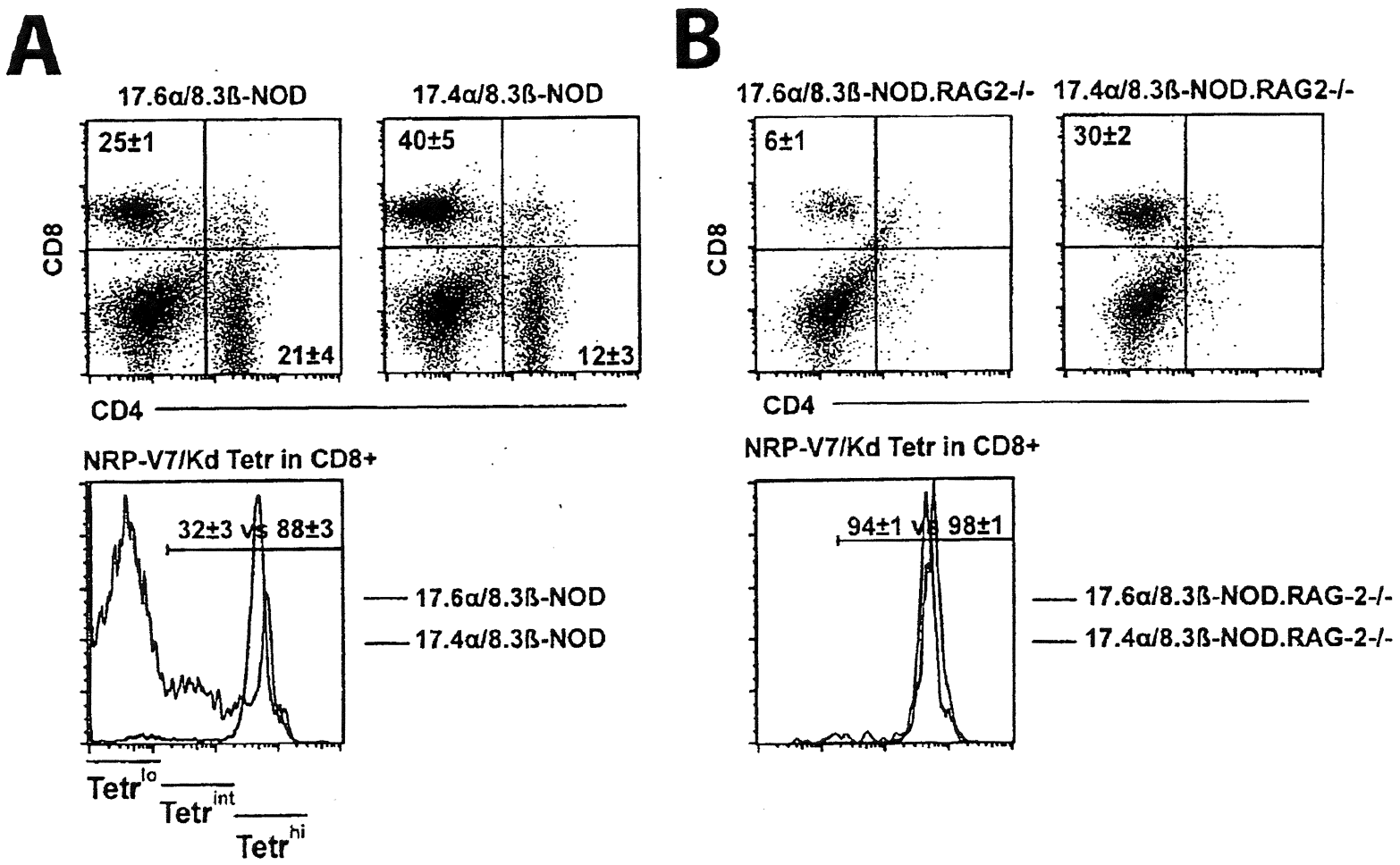

A
Percent survival
17.4α/8.3β-NOD
17.6α/8.3β-NOD
p<0.0001
weeks
B
Insulitis score
p=0.012
17.4α/8.3β-NOD
17.6 α/8.3β-NOD
C
Percent survival
NOD
LCMV-NOD
p=0.0194
weeks

FIGS 1A - 1C


A
17.6α/8.3ß-NOD
17.4α/8.3ß-NOD
25±1
21±4
40±5
12±3
CD8
CD4
NRP-V7/Kd Tetr in CD8+
32±3 vs 88±3
17.6α/8.3ß-NOD
17.4α/8.3ß-NOD
Tetr lo
Tetr int
Tetr hi
B
17.6α/8.3ß-NOD.RAG2-/-
17.4α/8.3ß-NOD.RAG2-/-
6±1
30±2
CD8
CD4
NRP-V7/Kd Tetr in CD8+
94±1 vs 98±1
17.6α/8.3ß-NOD.RAG-2-/-
17.4α/8.3ß-NOD.RAG-2-/-

FIGS 2A – 2B

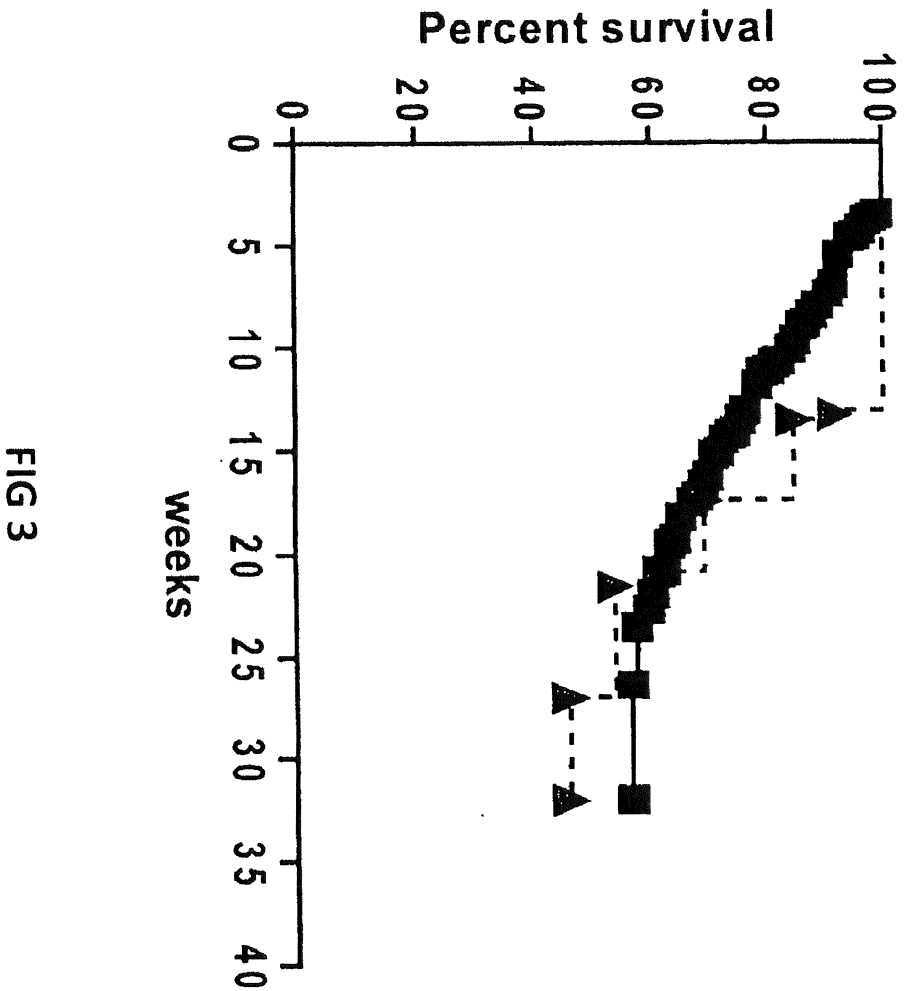
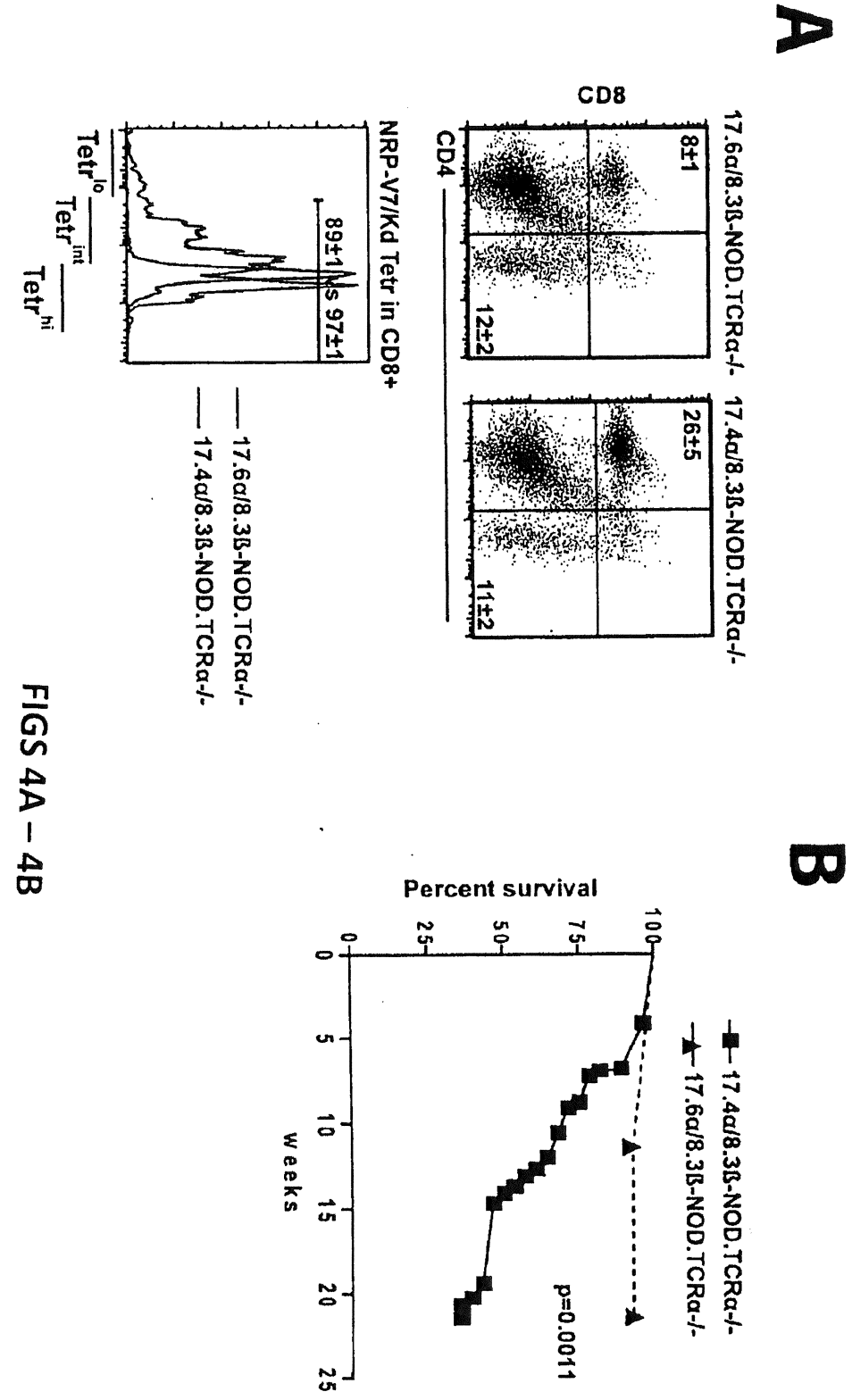
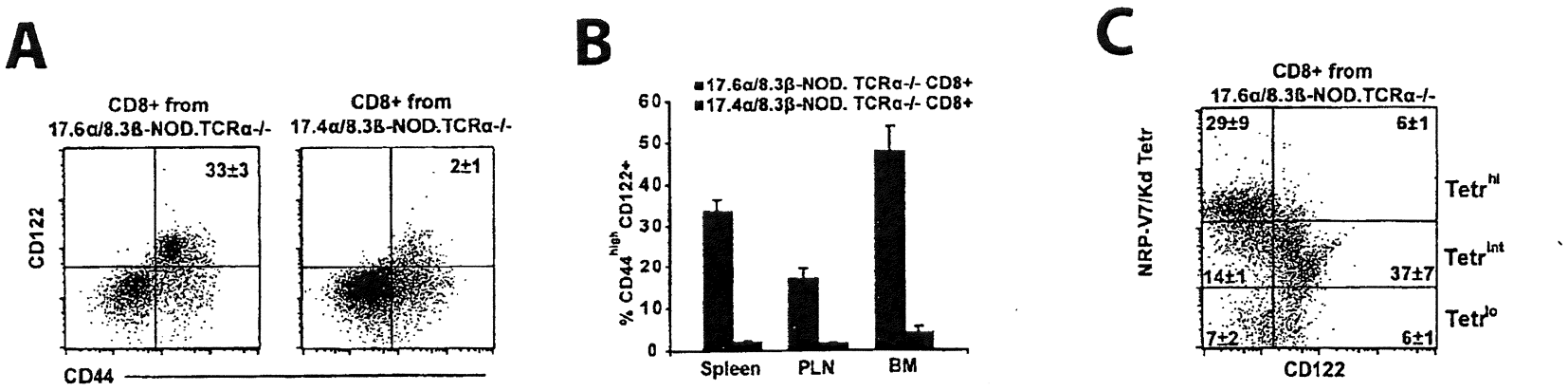

Percent survival
0
20
40
60
80
100
0
5
10
15
20
25
30
35
40
weeks
17.4α/8.3β-NOD.RAG2-/-
17.6α/8.3β-NOD.RAG2-/-

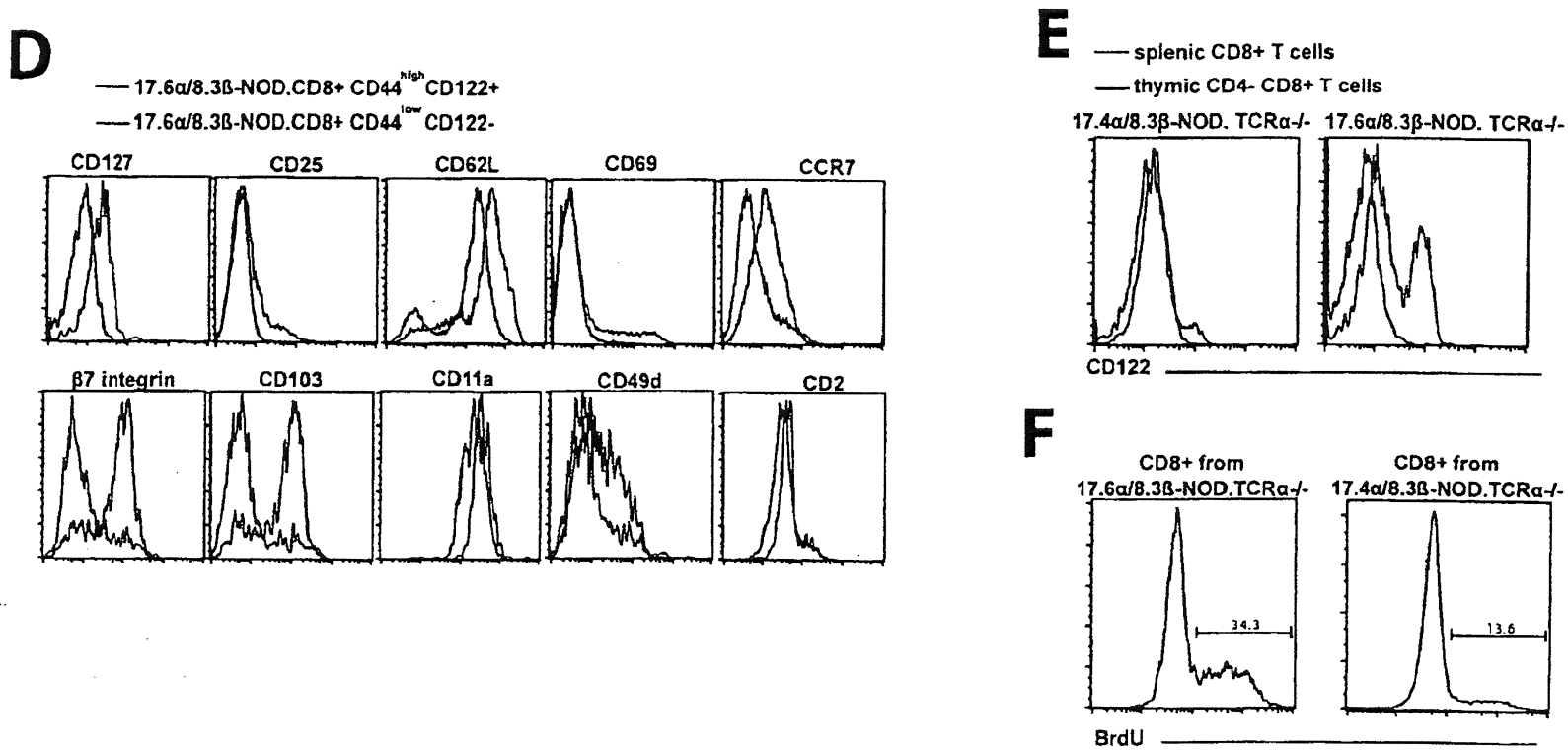
FIG 3


A
17.6α/8.3ß-NOD.TCRα-/-
17.4α/8.3ß-NOD.TCRα-/-
CD8
CD4
8±1
12±2
26±5
11±2
NRP-V7/Kd Tetr in CD8+
89±1
s 97±1
Tetr lo
Tetr int
Tetr hi
17.6α/8.3ß-NOD.TCRα-/-
17.4α/8.3ß-NOD.TCRα-/-
B
17.4α/8.3ß-NOD.TCRα-/-
17.6α/8.3ß-NOD.TCRα-/-
Percent survival
0
25
50
75
100
0
5
10
15
20
25
weeks
p=0.0011

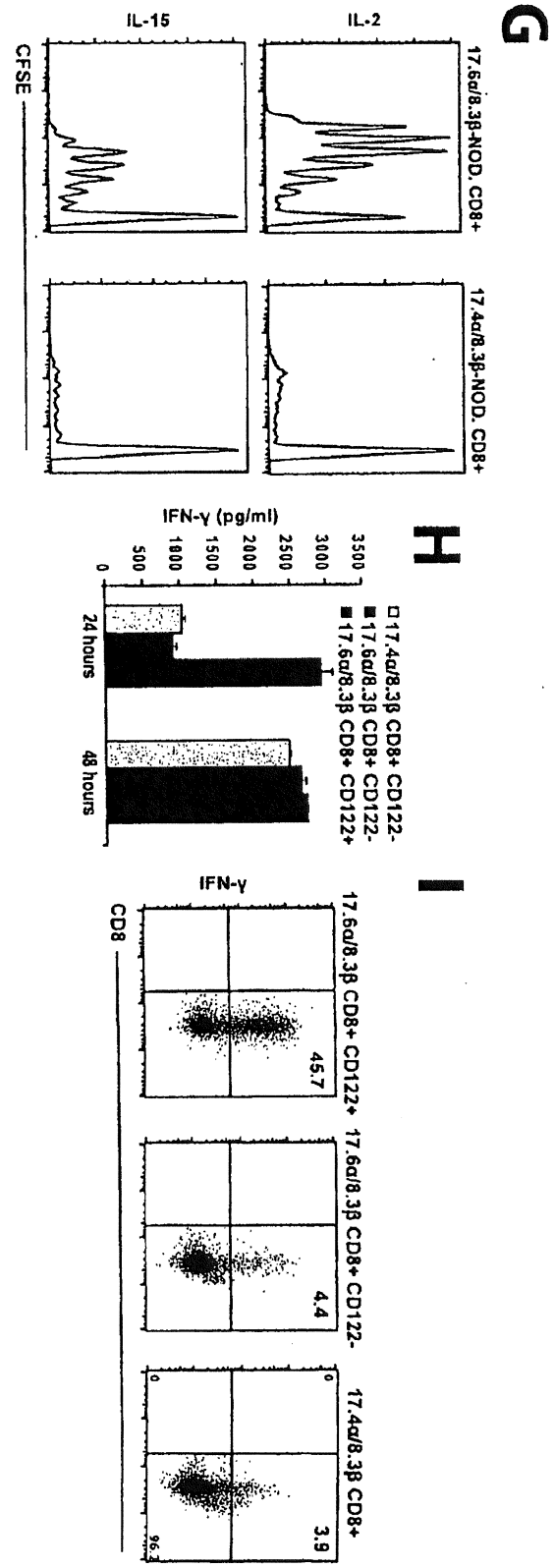
FIGS 4A – 4B


A
CD8+ from
17.6α/8.3ß-NOD.TCRα-/-
33±3
CD8+ from
17.4α/8.3ß-NOD.TCRα-/-
2±1
CD122
CD44
B
17.6α/8.3β-NOD. TCRα-/- CD8+
17.4α/8.3β-NOD. TCRα-/- CD8+
% CD44high CD122+
60
50
40
30
20
10
0
Spleen
PLN
BM
C
CD8+ from
17.6α/8.3ß-NOD.TCRα-/-
NRP-V7/Kd Tetr
29±9
6±1
Tetrhi
Tetrint
14±1
37±7
Tetrlo
7±2
6±1
CD122

FIGS 5A – 5C


D
17.6α/8.3ß-NOD.CD8+ CD44high CD122+
17.6α/8.3ß-NOD.CD8+ CD44low CD122-
CD127
CD25
CD62L
CD69
CCR7
β7 integrin
CD103
CD11a
CD49d
CD2
E
splenic CD8+ T cells
thymic CD4- CD8+ T cells
17.4α/8.3β-NOD. TCRα-/-
17.6α/8.3β-NOD. TCRα-/-
CD122
F
CD8+ from 17.6α/8.3ß-NOD.TCRα-/-
CD8+ from 17.4α/8.3ß-NOD.TCRα-/-
34.3
13.6
BrdU

FIGS 5D – 5F


G
IL-15
IL-2
CFSE
17.6α/8.3β-NOD. CD8+
17.4α/8.3β-NOD. CD8+
H
IFN-γ (pg/ml)
0
500
1000
1500
2000
2500
3000
3500
24 hours
48 hours
17.4α/8.3β CD8+ CD122-
17.6α/8.3β CD8+ CD122-
17.6α/8.3β CD8+ CD122+
I
IFN-γ
CD8
17.6α/8.3β CD8+ CD122+
45.7
17.6α/8.3β CD8+ CD122-
4.4
17.4α/8.3β CD8+
3.9
96.2

FIGS 5G – 5I

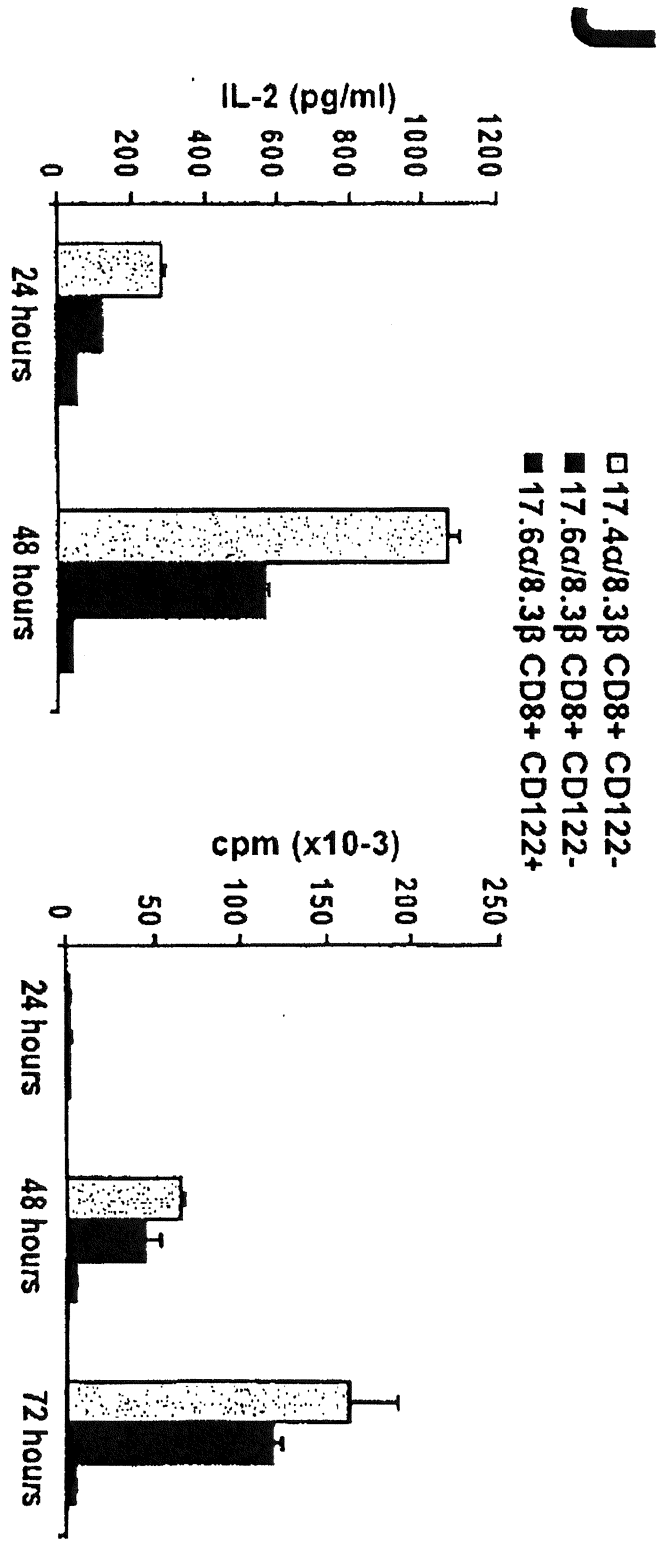
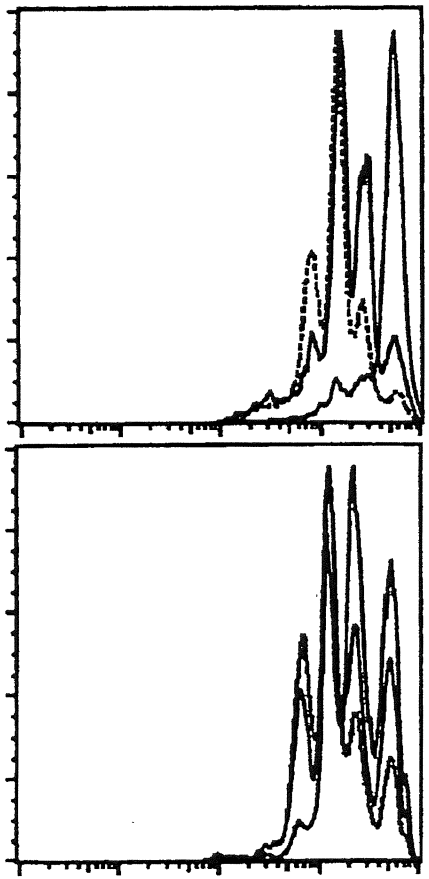

IL-2 (pg/ml)
0
200
400
600
800
1000
1200
24 hours
48 hours
17.4α/8.3β CD8+ CD122-
17.6α/8.3β CD8+ CD122-
17.6α/8.3β CD8+ CD122+
cpm (x10-3)
0
50
100
150
200
250
24 hours
48 hours
72 hours

FIG 5J

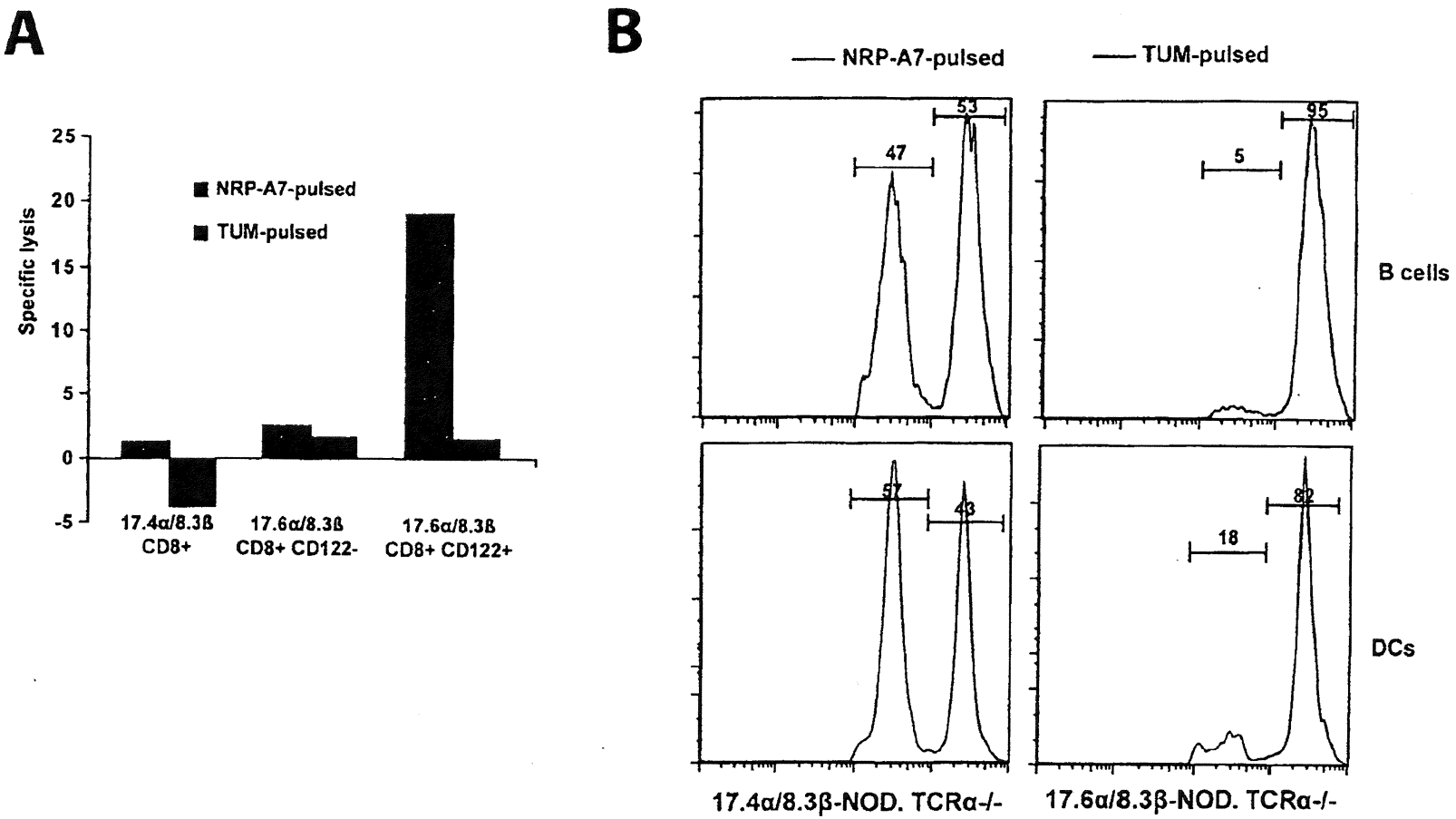


------ 17.4α/8.3β CD8+ alone
——17.4α/8.3β CD8+ with 17.6α/8.3β CD8+ CD122+
——17.4α/8.3β CD8+ with 17.6α/8.3β CD8+ CD122-

------ 17.4α/8.3β CD8+ alone
—— 17.4α/8.3β CD8+ with 17.4α/8.3β CD8+
—— 17.4α/8.3β CD8+ with LCMV TCR-tg CD8+

CFSE

FIG 6


A
Specific lysis
25
20
15
10
5
0
-5
NRP-A7-pulsed
TUM-pulsed
17.4α/8.3ß CD8+
17.6α/8.3ß CD8+ CD122-
17.6α/8.3ß CD8+ CD122+
B
NRP-A7-pulsed
TUM-pulsed
53
47
95
5
B cells
57
43
82
18
DCs
17.4α/8.3β-NOD. TCRα-/-
17.6α/8.3β-NOD. TCRα-/-

FIGS 7A – 7B

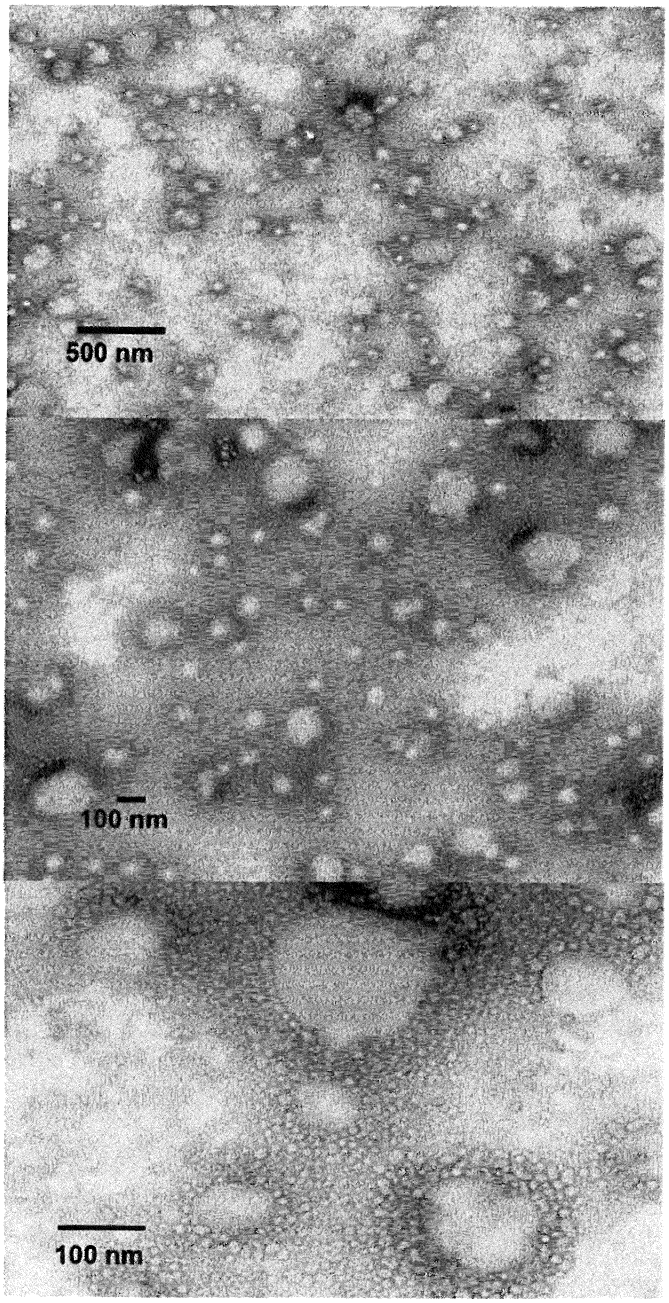



Fig. 8

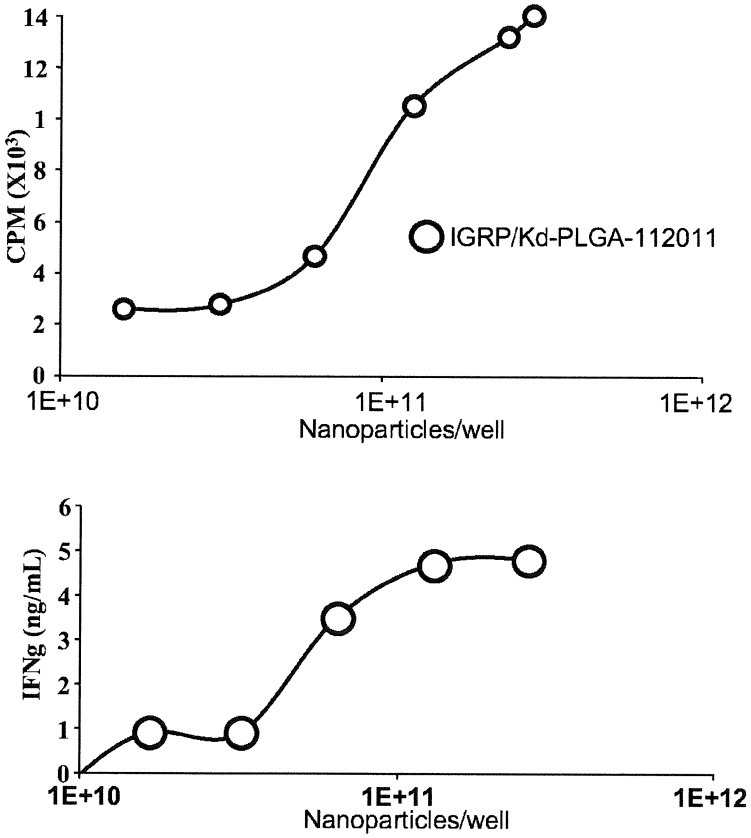

14
12
1
8
6
4
2
0
CPM (X10³)
IGRP/Kd-PLGA-112011
1E+10
1E+11
1E+12
Nanoparticles/well
6
5
4
3
2
1
0
IFNg (ng/mL)
1E+10
1E+11
1E+12
Nanoparticles/well

**Fig. 9**

SEQUENCE LISTING

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1 5

<210> 2
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<220>
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<400> 2
Leu Asn Ile Asp Leu Leu Trp Ser Val
1 5

<210> 3
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<220>
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Val Leu Phe Gly Leu Gly Phe Ala Ile
1 5

<210> 4
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peptide

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1 5

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1 5

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Lys Tyr Asn Lys Ala Asn Ala Phe Leu
1 5

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1 5

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<400> 8
Lys Tyr Asn Lys Ala Asn Val Phe Leu
1 5

<210> 9
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Phe Gln Asp Glu Asn Tyr Leu Tyr Leu
1 5

<210> 10
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<400> 10
Leu Tyr Leu Val Cys Gly Glu Arg Gly
1 5

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1 5

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Lys Tyr Gln Ala Val Thr Thr Thr Leu
1 5

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1 5

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<400> 14
Val Met Asn Ile Leu Leu Gln Tyr Val Val
1 5 10

<210> 15
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Arg Met Met Glu Tyr Gly Thr Thr Met Val
1 5 10

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<400> 16
Asn Leu Ala Gln Thr Asp Leu Ala Thr Val
1 5 10

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<400> 17
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1 5

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1 5

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Ser Leu Ala Ala Gly Val Lys Leu Leu
1 5

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1 5

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Lys Leu Gln Val Phe Leu Ile Val Leu
1 5

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1 5

<210> 23
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1 5

<210> 24
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<400> 24
Asn Leu Phe Leu Phe Leu Phe Ala Val
1 5

<210> 25
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1 5

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1 5

<210> 27
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1 5

<210> 28
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1 5

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Leu Trp Met Arg Leu Leu Pro Leu Leu
1 5

<210> 30
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<400> 30
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1 5

<210> 31
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<400> 31
His Leu Cys Gly Ser His Leu Val Glu Ala
1 5 10

<210> 32
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<400> 32
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1 5

<210> 33
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1 5 10

<210> 34

<211> 9
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<400> 34
Leu Val Cys Gly Glu Arg Gly Phe Phe
1 5

<210> 35
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<400> 35
Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr
1 5 10

<210> 36
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1 5

<210> 37
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<400> 37
Glu Arg Gly Phe Phe Tyr Thr Pro Lys
1 5

<210> 38
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<400> 38
Phe Tyr Thr Pro Lys Thr Arg Arg Glu
1 5

<210> 39
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<400> 39
Thr Pro Lys Thr Arg Arg Glu Ala Glu Asp Leu
1 5 10

<210> 40
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<400> 40
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1 5

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Ala Leu Glu Gly Ser Leu Gln Lys Arg
1 5

<210> 42
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Ser Leu Gln Lys Arg Gly Ile Val Glu Gln
1 5 10

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1 5 10

<210> 44
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1 5

<210> 45
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<400> 45
Ser Leu Tyr Gln Leu Glu Asn Tyr Cys
1 5

<210> 46
<211> 9
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<220>
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<400> 46
Ser Leu Leu Leu Glu Leu Glu Glu Val
1 5

<210> 47
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

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1 5

<210> 48
<211> 9
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 48
Val Leu Phe Ser Ser Asp Phe Arg Ile
1 5

<210> 49
<211> 9
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<400> 49
Ser Leu Ser Arg Phe Ser Trp Gly Ala
1 5

<210> 50
<211> 9
<212> PRT
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<400> 50
Lys Val Glu Asp Pro Phe Tyr Trp Val
1 5

<210> 51
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<400> 51
Arg Thr Phe Asp Pro His Phe Leu Arg Val
1 5 10

<210> 52
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<220>
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<400> 52
Phe Leu Arg Val Pro Cys Trp Lys Ile
1 5

<210> 53
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<400> 53
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1 5 10

<210> 54
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<220>
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<400> 54
Val Leu Gly Pro Leu Val Ala Leu Ile
1 5

<210> 55
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 55
Thr Leu Phe Val Ile Val Pro Val Leu
1 5

<210> 56
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 56
Arg Leu Ala Gly Gln Phe Leu Glu Glu Leu
1 5 10

<210> 57
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 57
Phe Leu Tyr Gly Ala Leu Leu Leu Ala
1 5

<210> 58
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 58

Val Tyr Leu Ala Thr Asn Val Ala Leu
1 5

<210> 59
<211> 11
<212> PRT
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1 5

<210> 60
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<212> PRT
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<220>
<223> Description of Artificial Sequence: Synthetic peptide

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Thr Ala Ala Leu Ser Tyr Thr Ile Ser Arg Met Glu Glu Ser Ser Val Thr Leu
1 5 10 15

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

<210> 62
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 62
His Thr Pro Gly Val His Met Ala Ser Leu Ser Val Tyr Leu Lys Thr Asn Val Phe Leu
1 5 10 15 20

<210> 63
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 63
Ser His Leu Val Glu Ala Leu Tyr Leu Val Ala Gly Glu Arg Gly
1 5 10 15

<210> 64
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 64
Leu Ser Ile Ala Leu His Val Gly Phe Asp His
1 5 10

<210> 65
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

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Arg His Gly Leu Asp Asn Tyr Arg Gly
1 5

<210> 66
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 66
Ala Met Lys Arg His Gly Leu Asp Asn Tyr Arg Gly Tyr Ser Leu
1 5 10 15