FIG. 1A

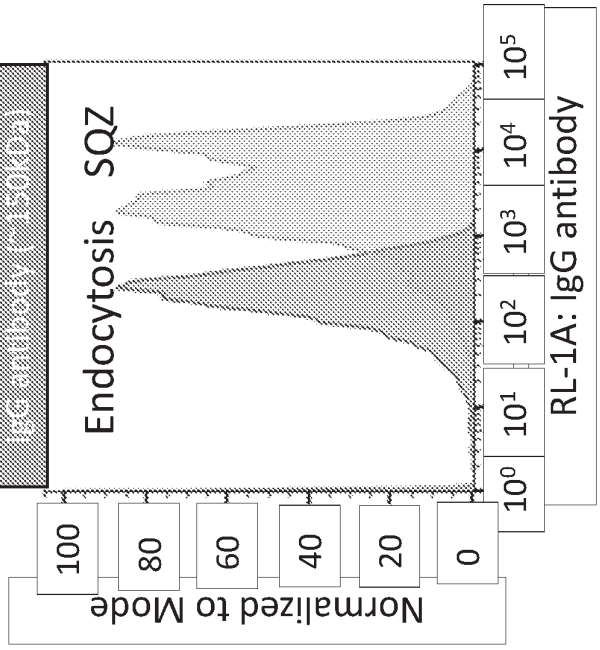

IgG antibody (~150 kDa)
Endocytosis
SQZ
Normalized to Mode
100
80
60
40
20
0
10^0
10^1
10^2
10^3
10^4
10^5
RL-1A: IgG antibody

FIG. 1B

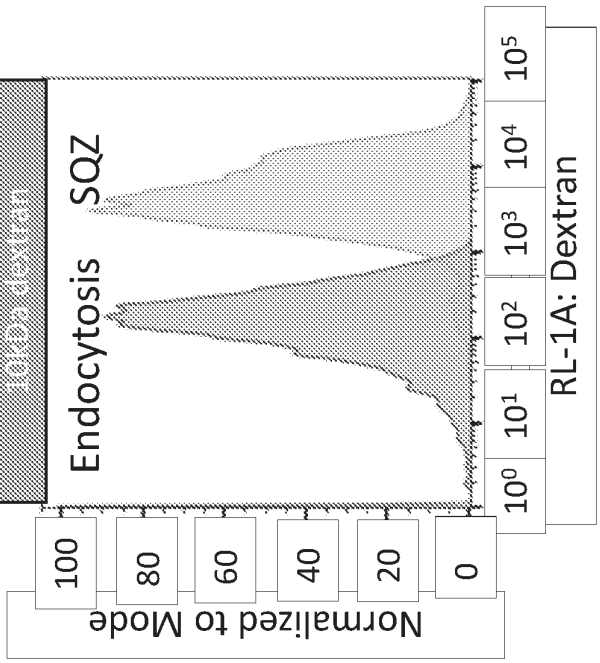

10 kDa dextran
Endocytosis
SQZ
Normalized to Mode
100
80
60
40
20
0
10^0
10^1
10^2
10^3
10^4
10^5
RL-1A: Dextran

FIG. 2A

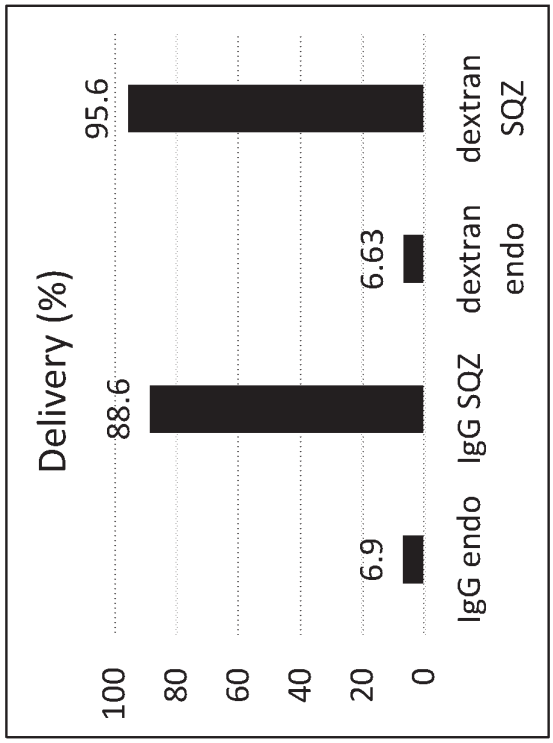
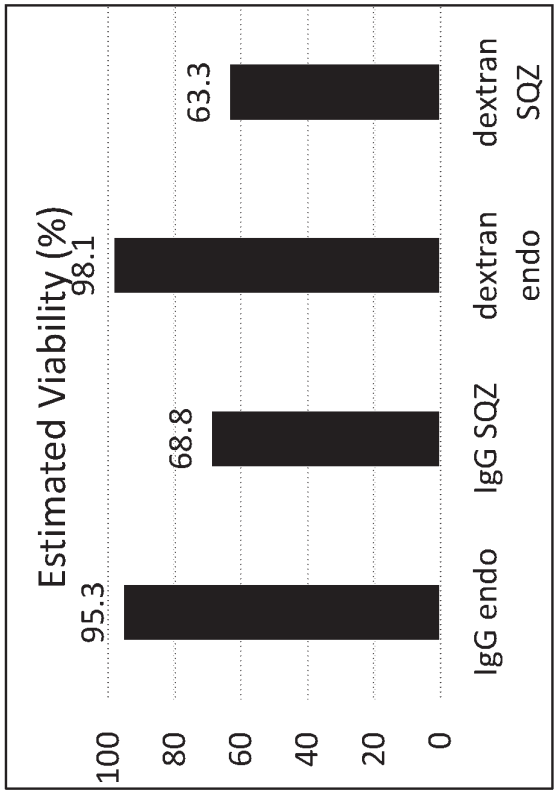

Delivery (%)
100
80
60
40
20
0
6.9
88.6
6.63
95.6
IgG endo
IgG SQZ
dextran endo
dextran SQZ

FIG. 2B


Estimated Viability (%)
100
80
60
40
20
0
95.3
68.8
98.1
63.3
IgG endo
IgG SQZ
dextran endo
dextran SQZ

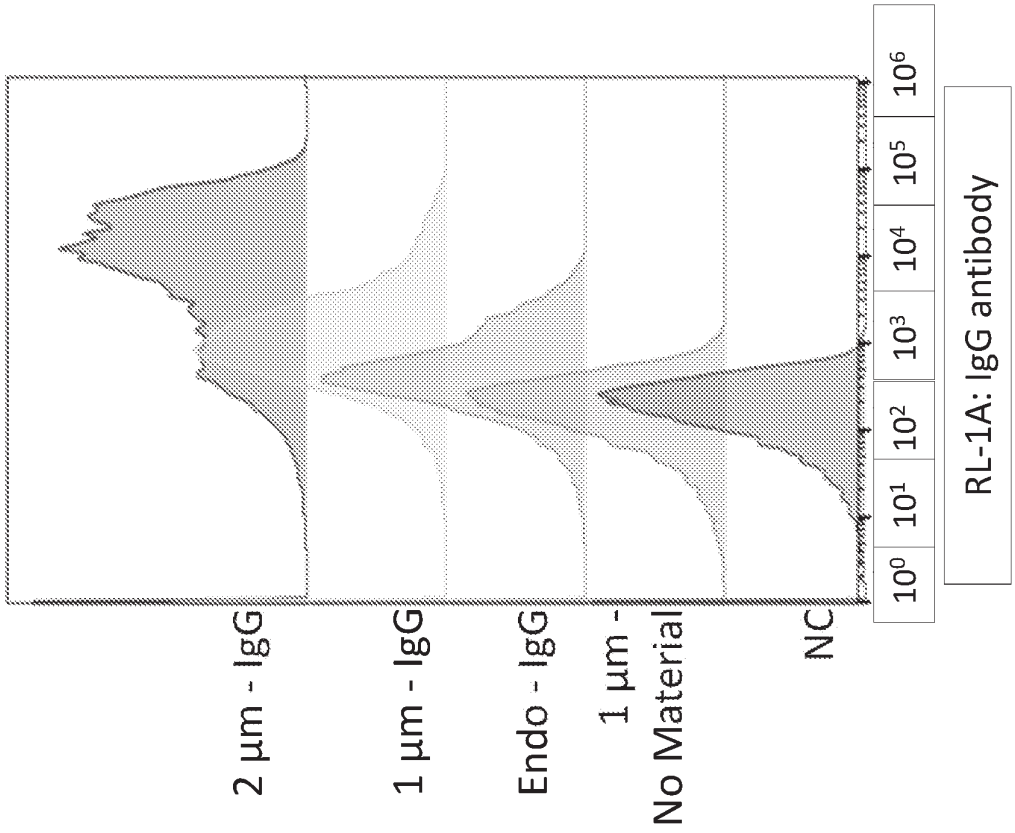

2 µm - IgG
1 µm - IgG
Endo - IgG
1 µm - No Material
NC
10^0
10^1
10^2
10^3
10^4
10^5
10^6
RL-1A: IgG antibody

FIG. 3A

FIG. 3C

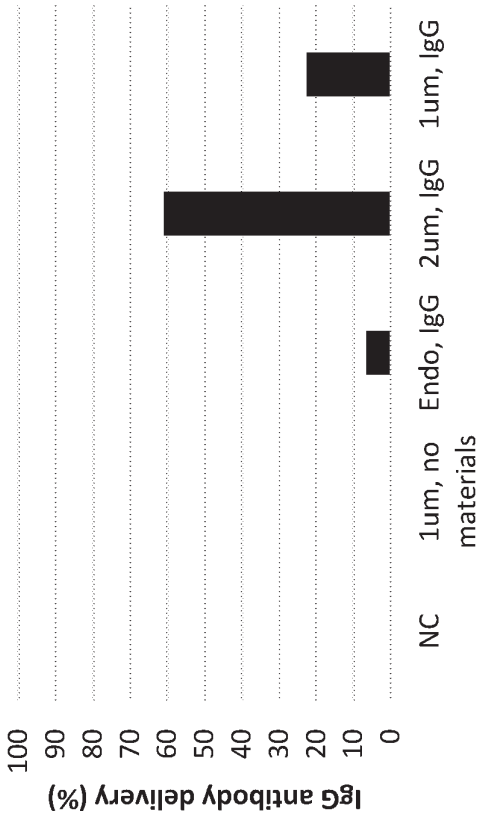

IgG antibody delivery (%)
100
90
80
70
60
50
40
30
20
10
0
NC
1um, no materials
Endo, IgG
2um, IgG
1um, IgG

FIG. 3B

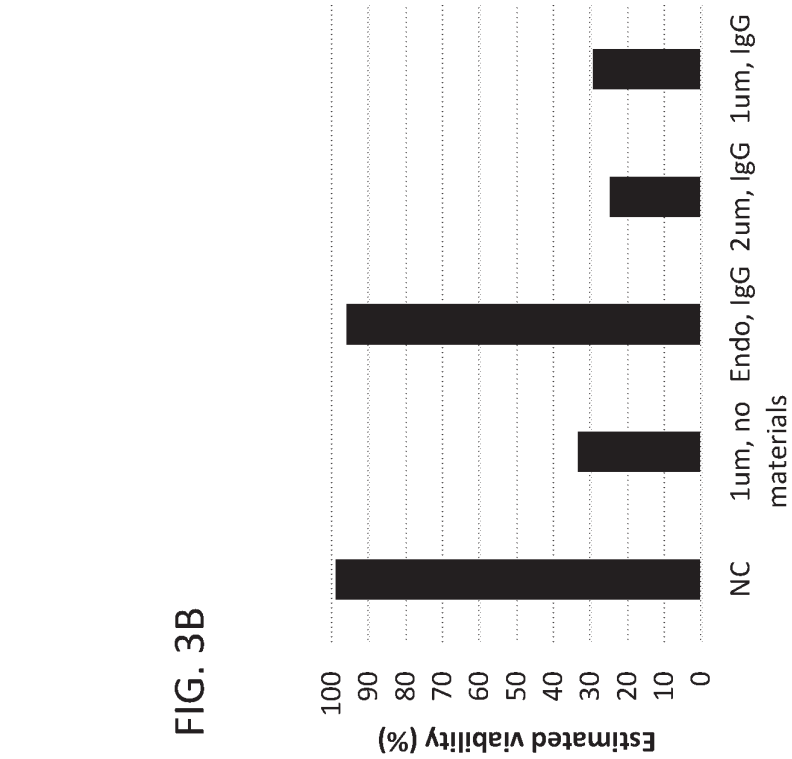

Estimated viability (%)
100
90
80
70
60
50
40
30
20
10
0
NC
1um, no materials
Endo, IgG
2um, IgG
1um, IgG

FIG. 4A

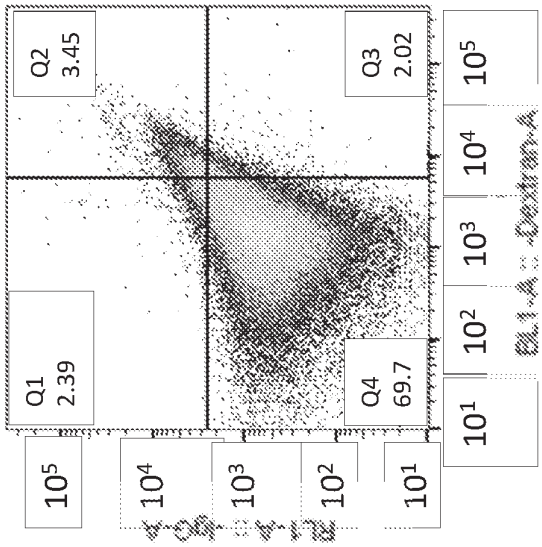


FIG. 4B

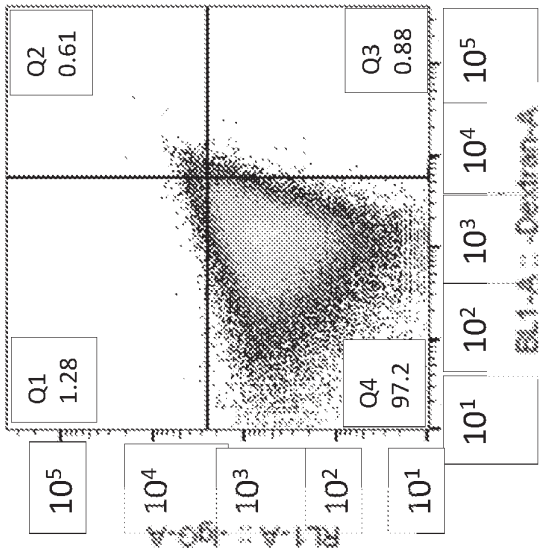


FIG. 4C

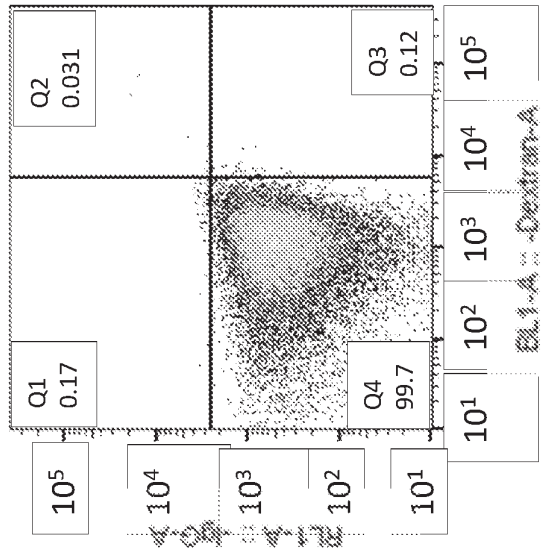
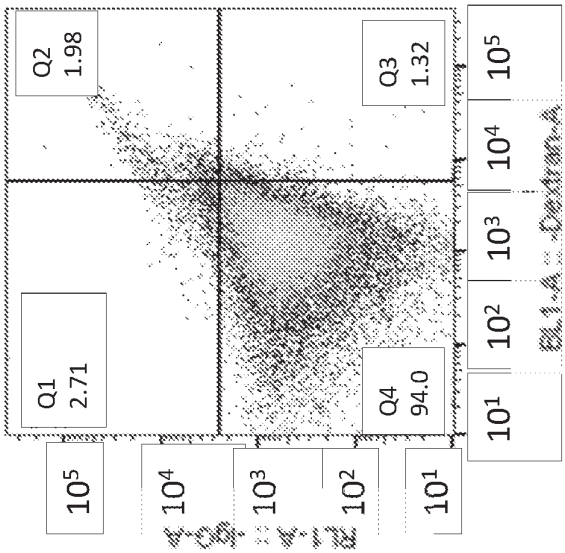
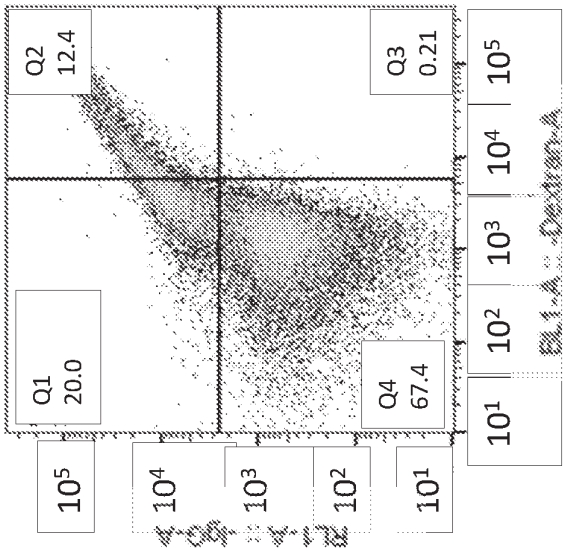


FIG. 4D



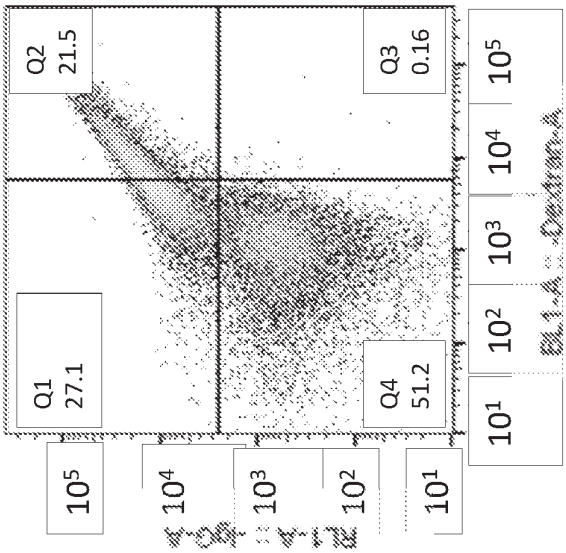
SQZ – 2 psi

FIG. 4E



SQZ – 4 psi

FIG. 4F



SQZ – 6 psi

FIG. 4G

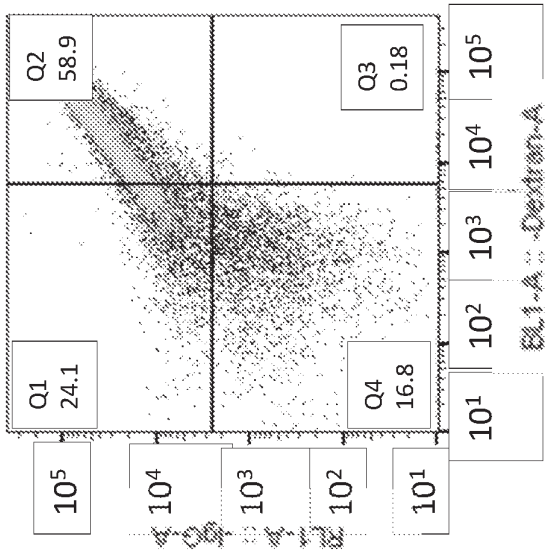


FIG. 4H

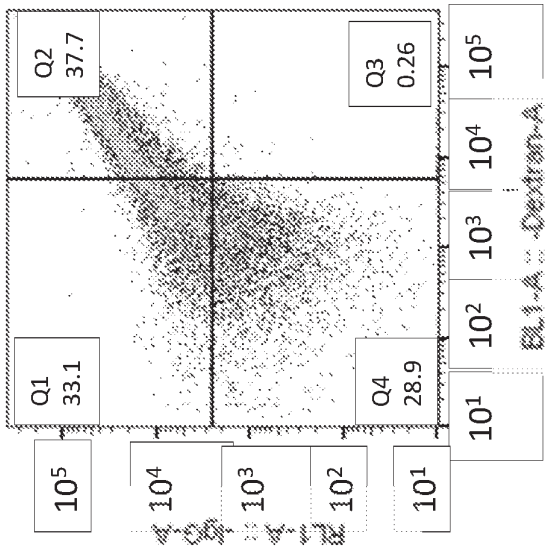
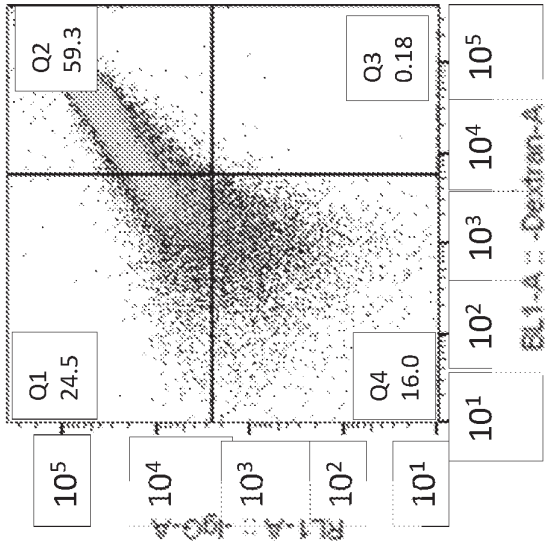


FIG. 4I



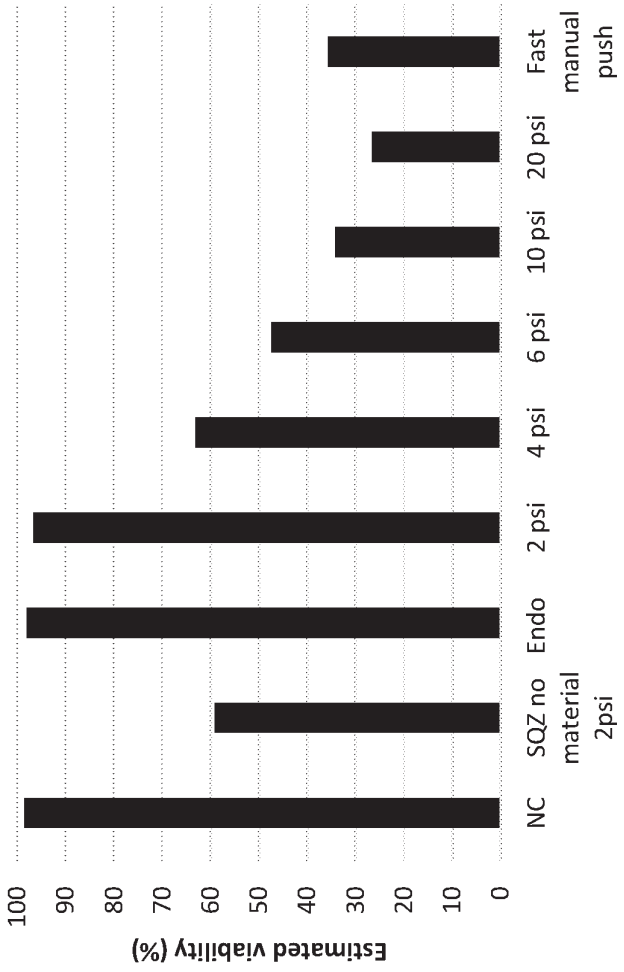

Estimated viability (%)
100
90
80
70
60
50
40
30
20
10
0
NC
SQZ no material 2psi
Endo
2 psi
4 psi
6 psi
10 psi
20 psi
Fast manual push

FIG. 5A

FIG. 5B

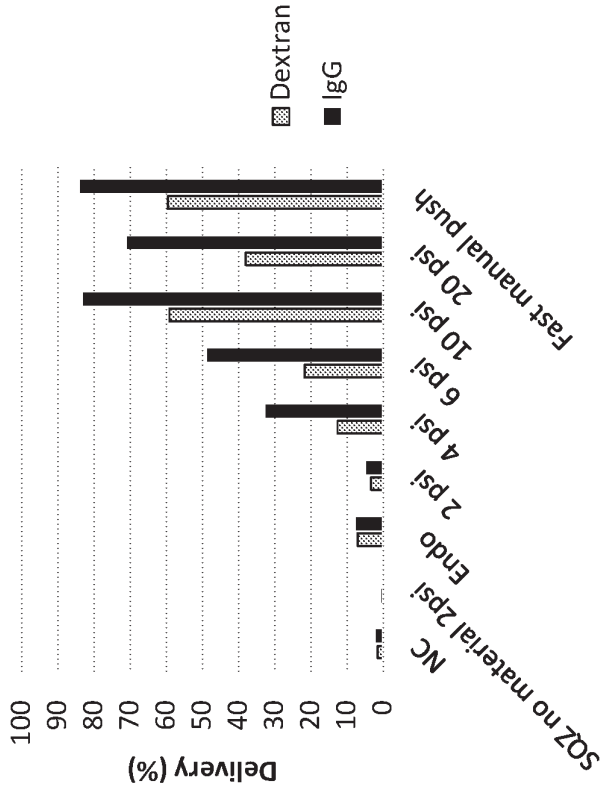

Dextran
IgG
Delivery (%)
0
10
20
30
40
50
60
70
80
90
100
NC
SOZ no material 2psi
Endo
2 psi
4 psi
6 psi
10 psi
20 psi
Fast manual push

FIG. 5C

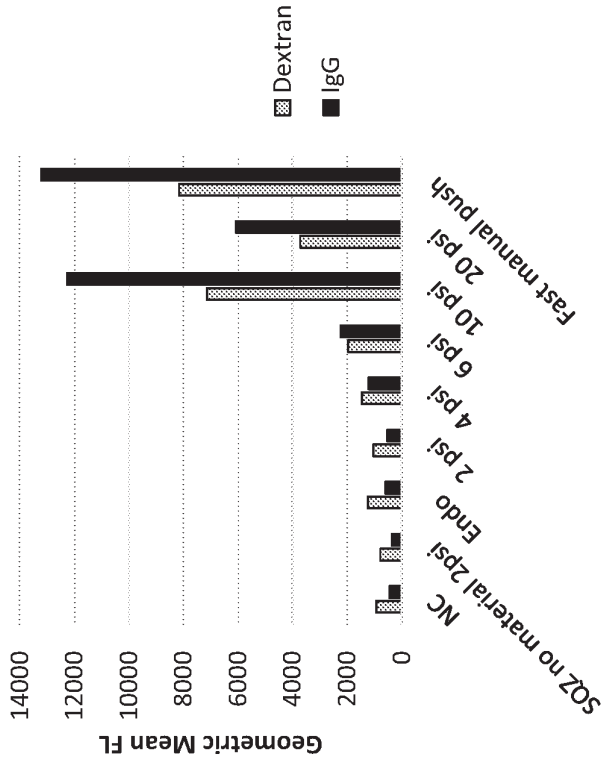

Dextran
IgG
Geometric Mean FL
0
2000
4000
6000
8000
10000
12000
14000
NC
SOZ no material 2psi
Endo
2 psi
4 psi
6 psi
10 psi
20 psi
Fast manual push

FIG. 6A

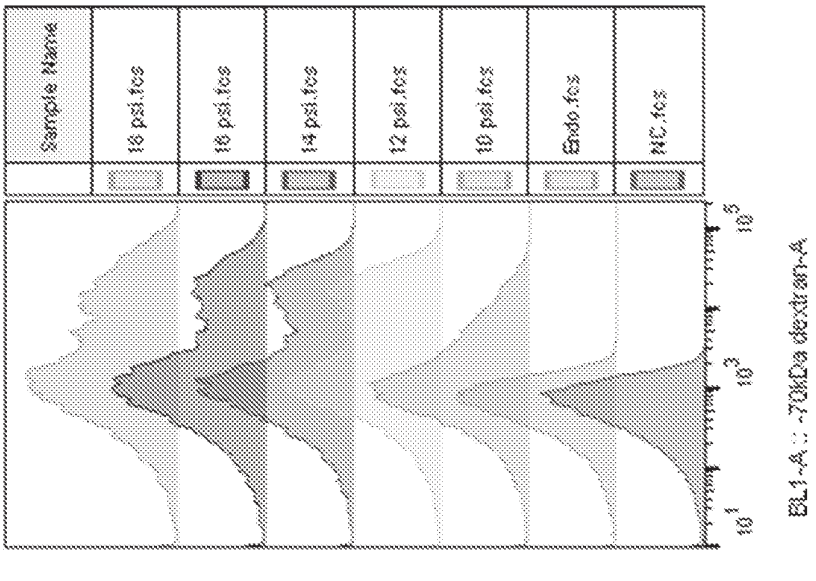

Sample Name
16 psi.fcs
18 psi.fcs
14 psi.fcs
12 psi.fcs
10 psi.fcs
Endo.fcs
NC.fcs
BL1-A :: 70kDa dextran-A

FIG. 6B

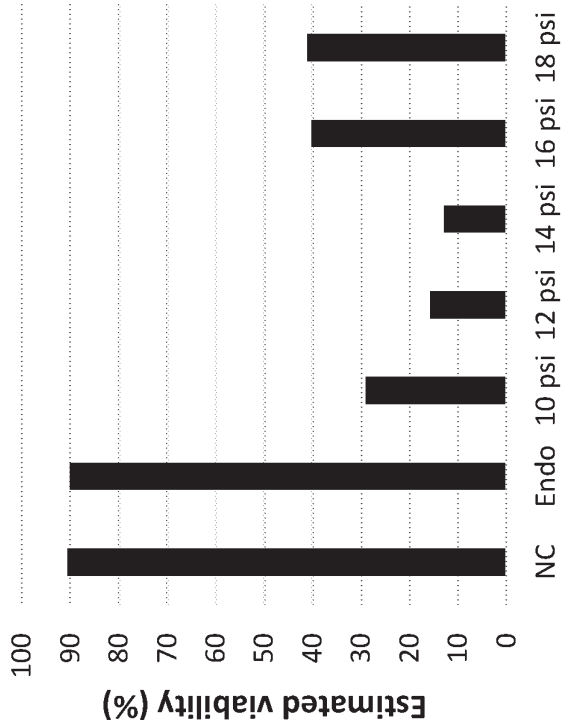

Estimated viability (%)
0
10
20
30
40
50
60
70
80
90
100
NC
Endo
10 psi
12 psi
14 psi
16 psi
18 psi

FIG. 6C

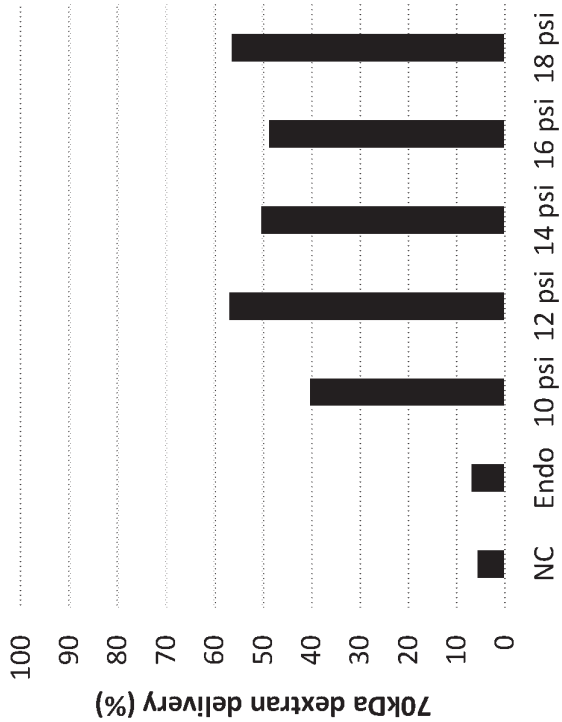

70kDa dextran delivery (%)
100
90
80
70
60
50
40
30
20
10
0
NC
Endo
10 psi
12 psi
14 psi
16 psi
18 psi

FIG. 6D

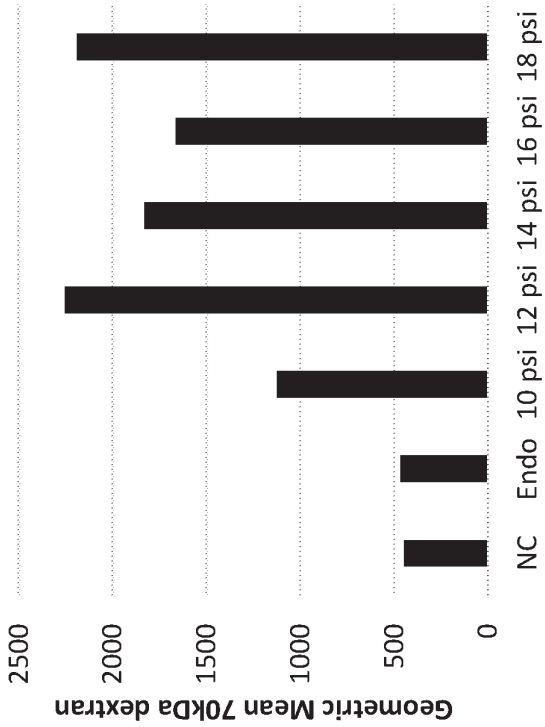

Geometric Mean 70kDa dextran
2500
2000
1500
1000
500
0
NC
Endo
10 psi
12 psi
14 psi
16 psi
18 psi

FIG. 7

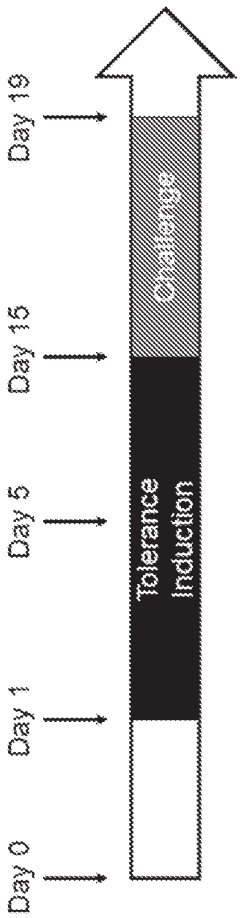

Day 0
Day 1
Day 5
Day 15
Day 19
Tolerance Induction
Challenge

FIG. 8

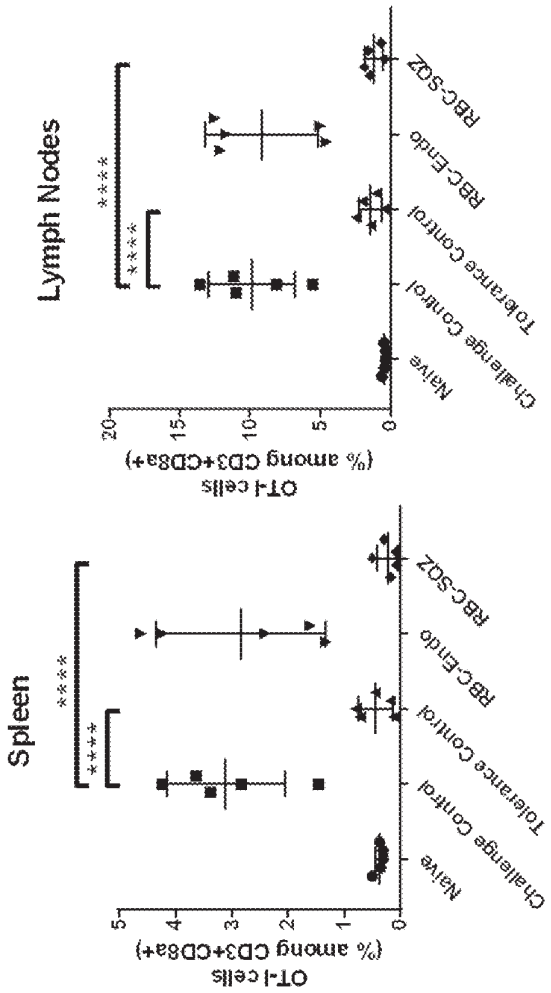

Spleen
Lymph Nodes
OT-I cells (% among CD3+CD8a+)
****
Naive
Challenge Control
Tolerance Control
RBC-Endo
RBC-SOZ

FIG. 9

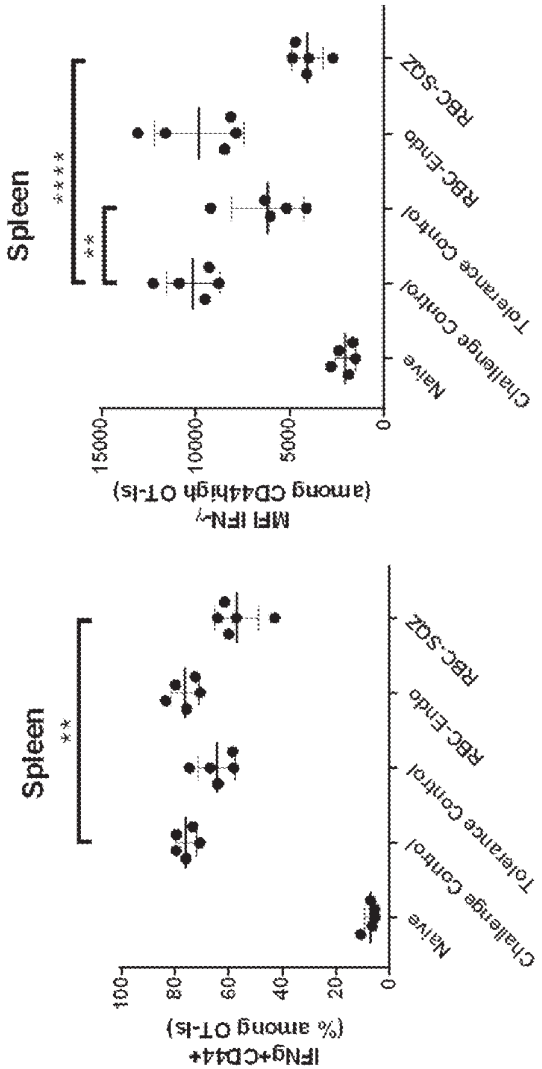

Spleen
**
IFNg+CD44+
(% among OT-Is)
100
80
60
40
20
0
Naive
Challenge Control
Tolerance Control
RBC-Endo
RBC-SQZ
Spleen
**
****
MFI IFN-γ
(among CD44hiigh OT-Is)
15000
10000
5000
0
Naive
Challenge Control
Tolerance Control
RBC-Endo
RBC-SQZ

FIG. 10

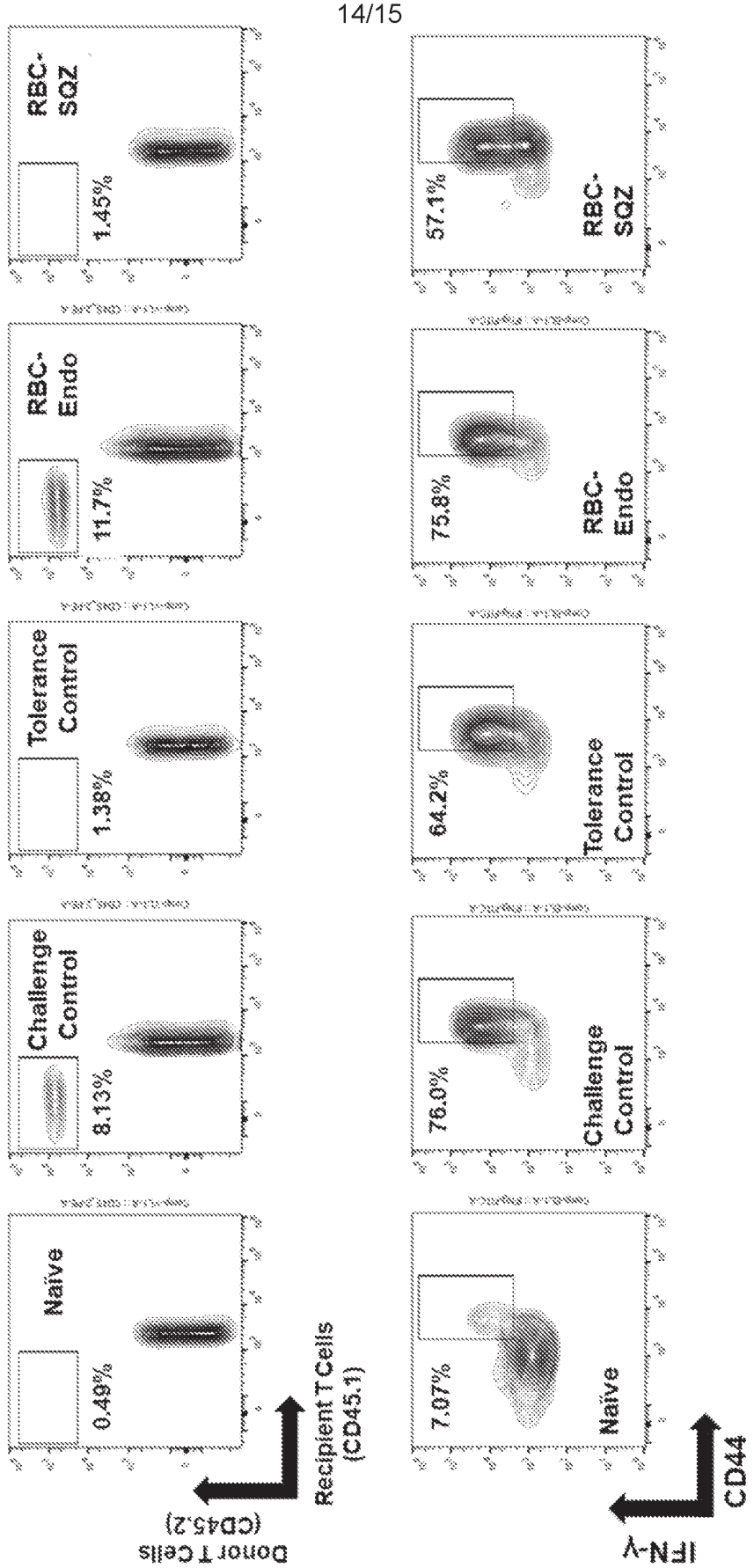

Naïve
0.49%
Challenge Control
8.13%
Tolerance Control
1.38%
RBC-Endo
11.7%
RBC-SQZ
1.45%
7.07%
76.0%
64.2%
75.8%
57.1%
Donor T cells (CD45.2)
Recipient T Cells (CD45.1)
IFN-γ
CD44

FIG. 11A

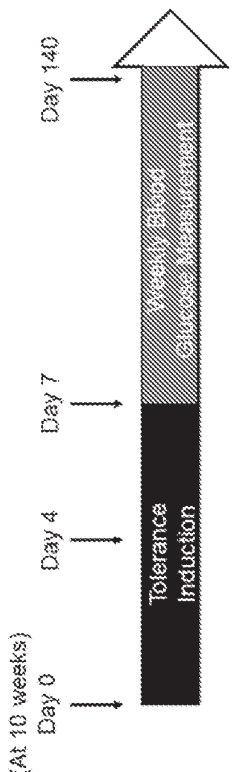


FIG. 11B

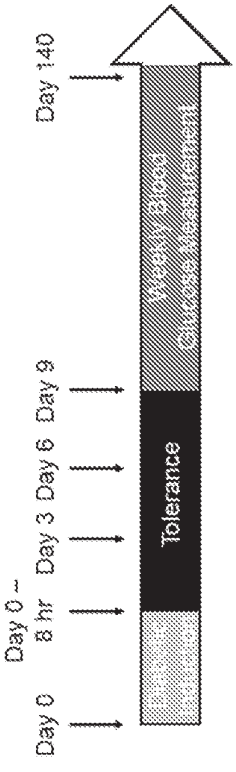


FIG. 12A

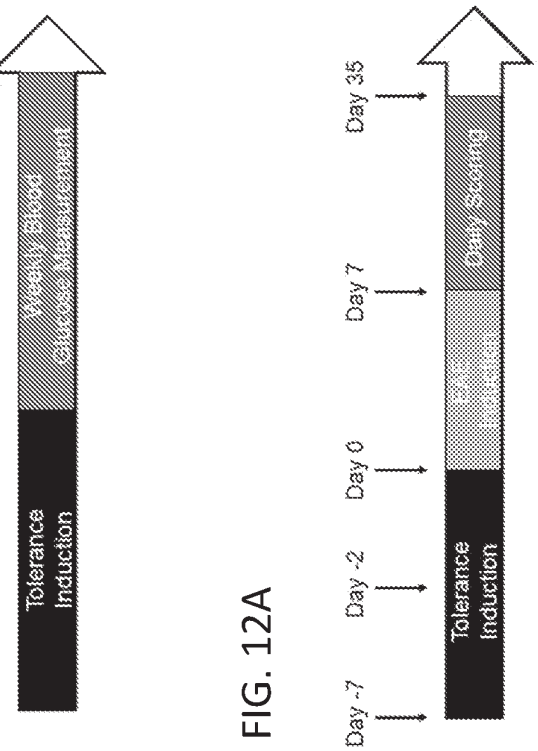


FIG. 12B

