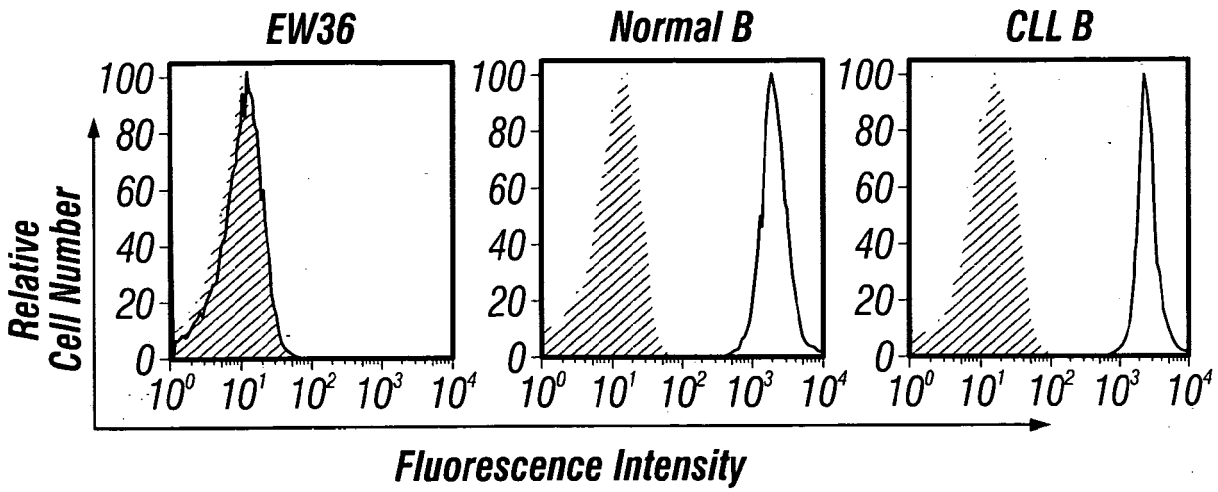

EW36
Normal B
CLL B
Relative Cell Number
100
80
60
40
20
0
$10^0$ $10^1$ $10^2$ $10^3$ $10^4$
Fluorescence Intensity

FIG. 1A

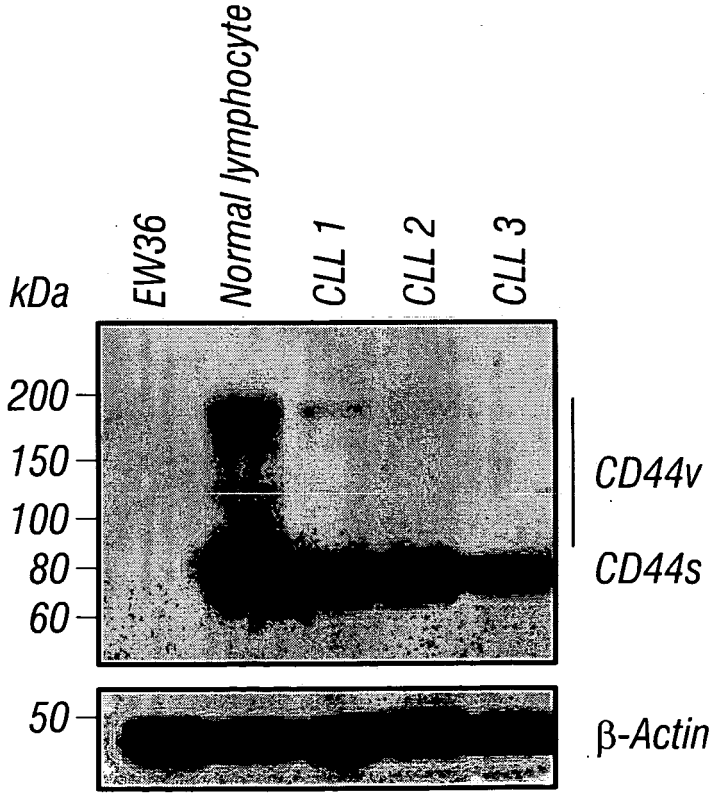

kDa
EW36
Normal lymphocyte
CLL 1
CLL 2
CLL 3
200
150
100
80
60
50
CD44v
CD44s
β-Actin

FIG. 1B

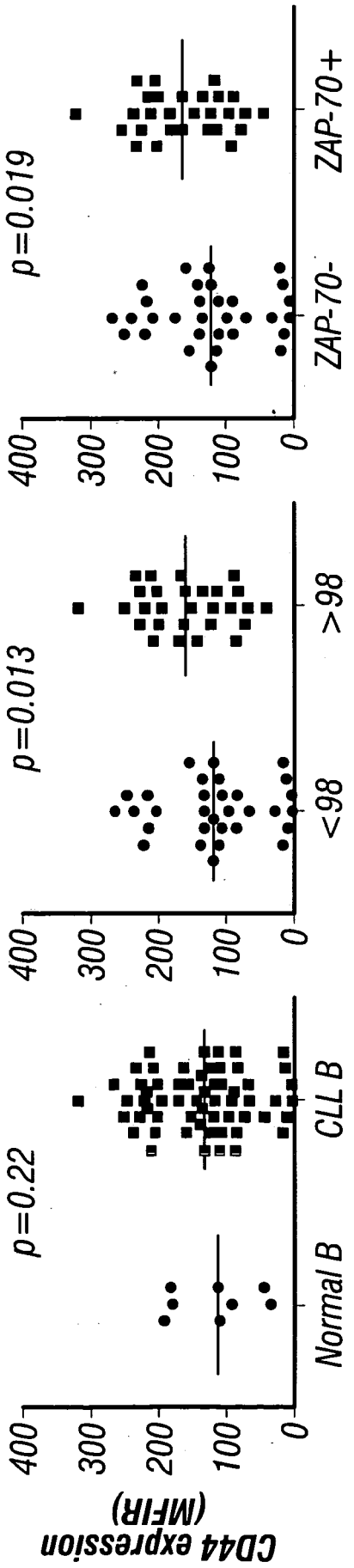

CD44 expression (MFIR)
400
300
200
100
0
p=0.22
Normal B
CLL B
p=0.013
<98
>98
Homology to Germ-line IgV$_H$(%)
p=0.019
ZAP-70-
ZAP-70+

FIG. 1C

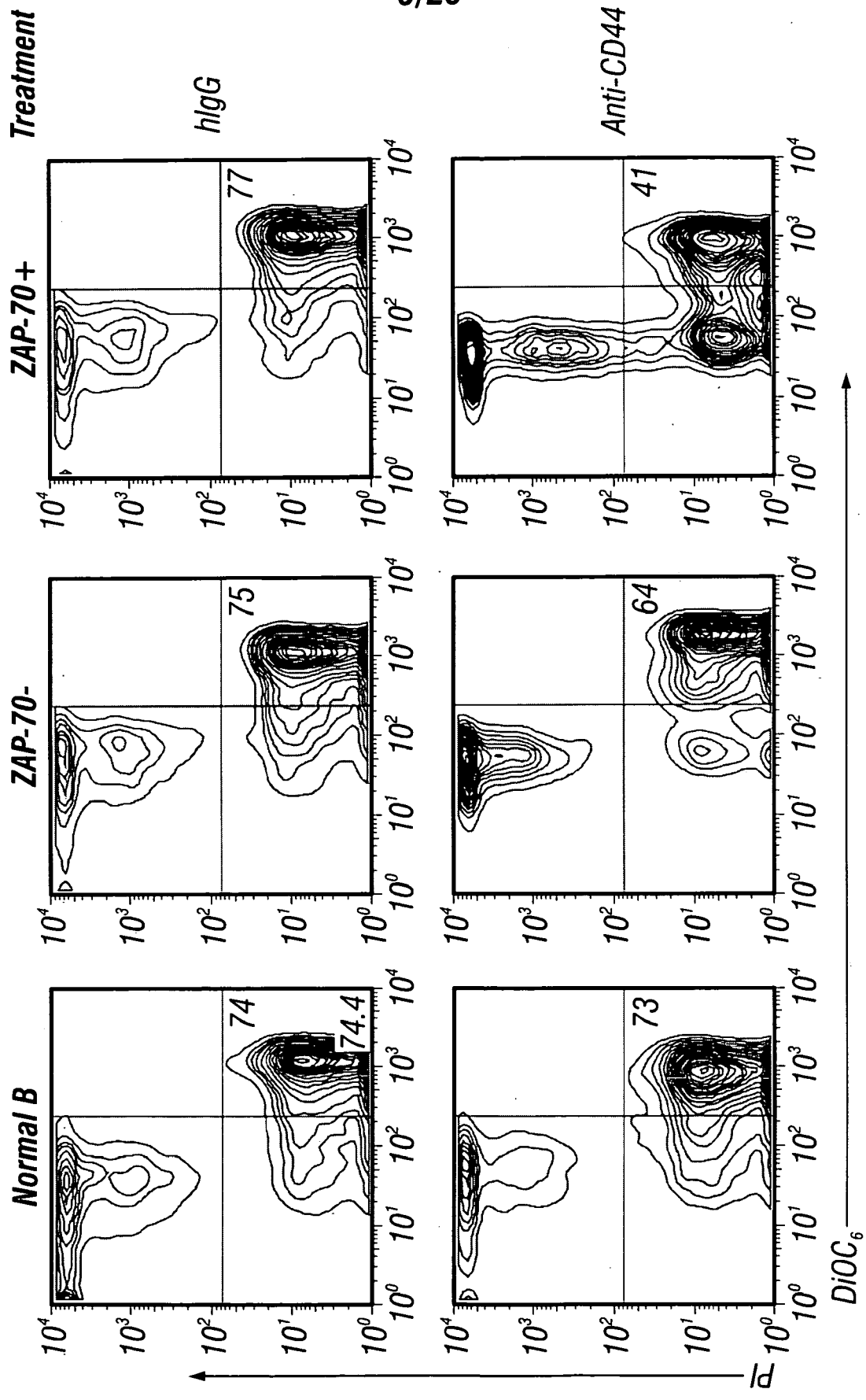

Treatment
hIgG
Anti-CD44
ZAP-70+
ZAP-70-
Normal B
77
41
75
64
74
74.4
73
PI
DiOC6

FIG. 2A

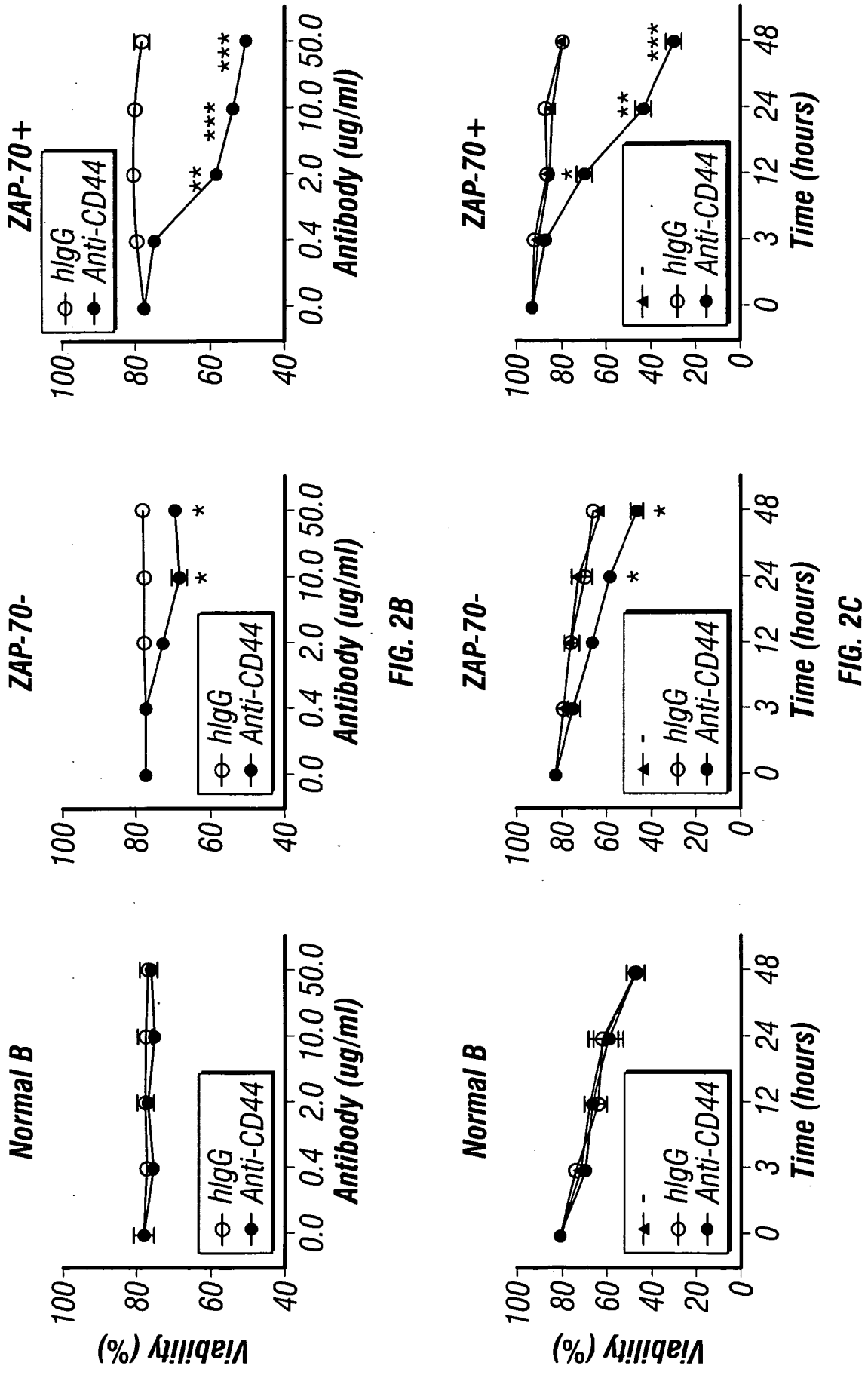

Normal B
ZAP-70-
ZAP-70+
Viability (%)
Antibody (ug/ml)
Time (hours)
hIgG
Anti-CD44
-
0.0 0.4 2.0 10.0 50.0
0 3 12 24 48
40 60 80 100
0 20 40 60 80 100
*
**
***

FIG. 2B

FIG. 2C

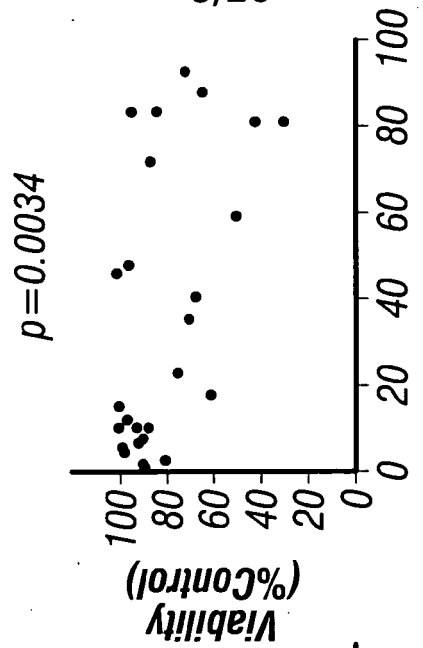



FIG. 2F

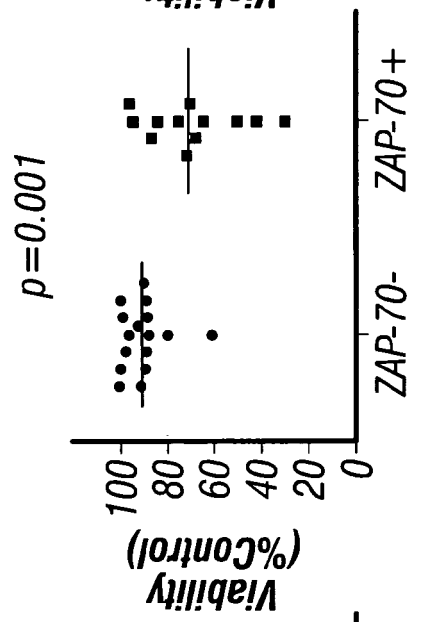



FIG. 2E

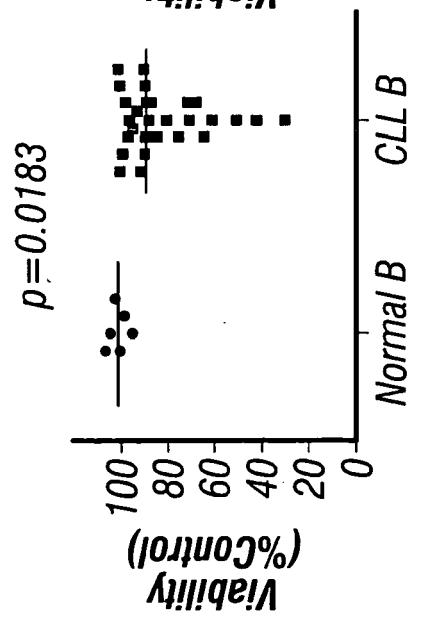



FIG. 2D

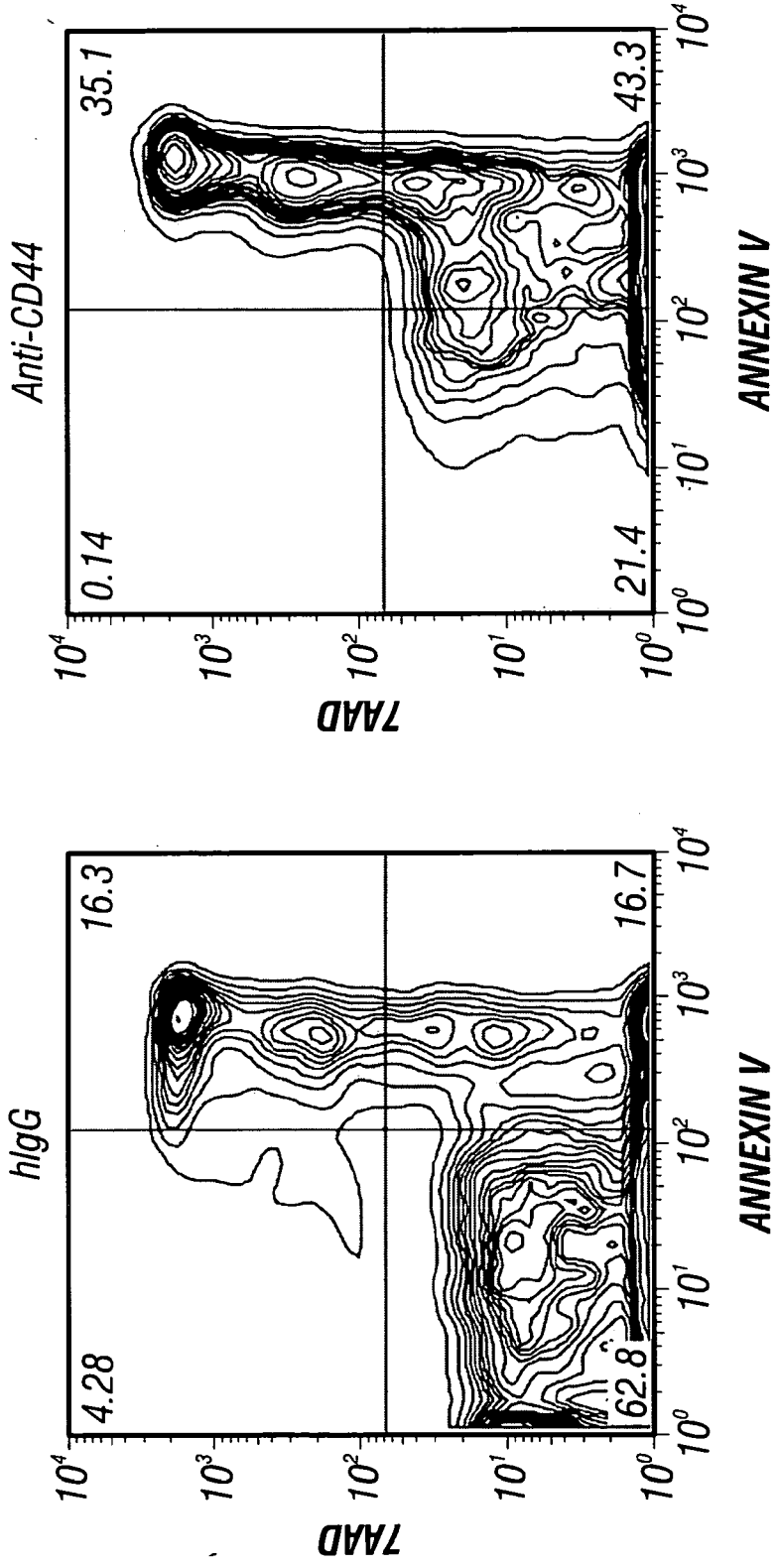

Anti-CD44
35.1
43.3
0.14
21.4
7AAD
ANNEXIN V
hIgG
16.3
16.7
4.28
62.8
7AAD
ANNEXIN V

FIG. 3A

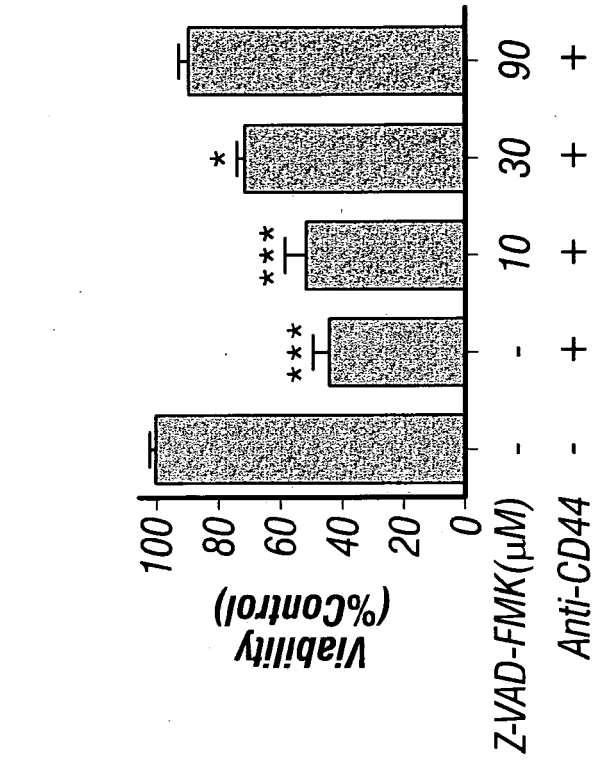

Viability (%Control)
100
80
60
40
20
0
***
***
*
Z-VAD-FMK(μM) - - 10 30 90
Anti-CD44 - + + + +

FIG. 3C

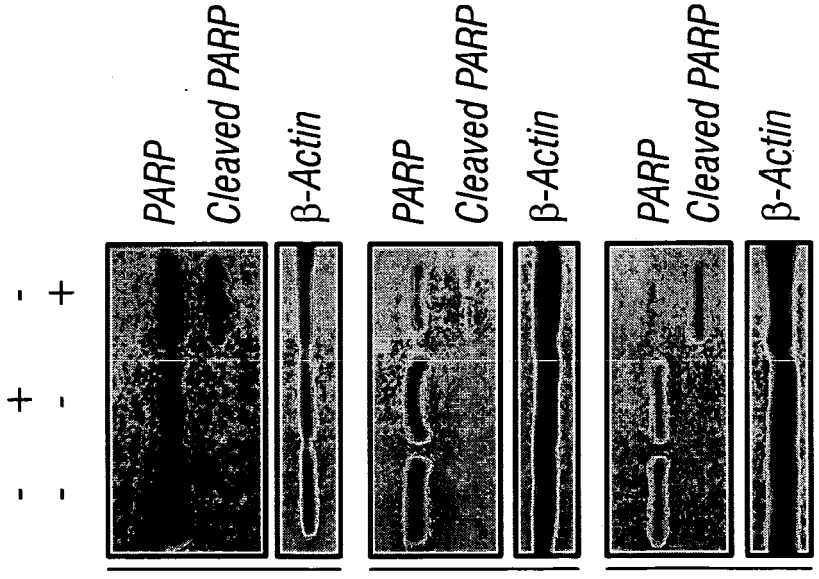

hIgG - + - -
Anti-CD44 - - - +
CLL1
CLL2
CLL3
PARP
Cleaved PARP
β-Actin

FIG. 3B

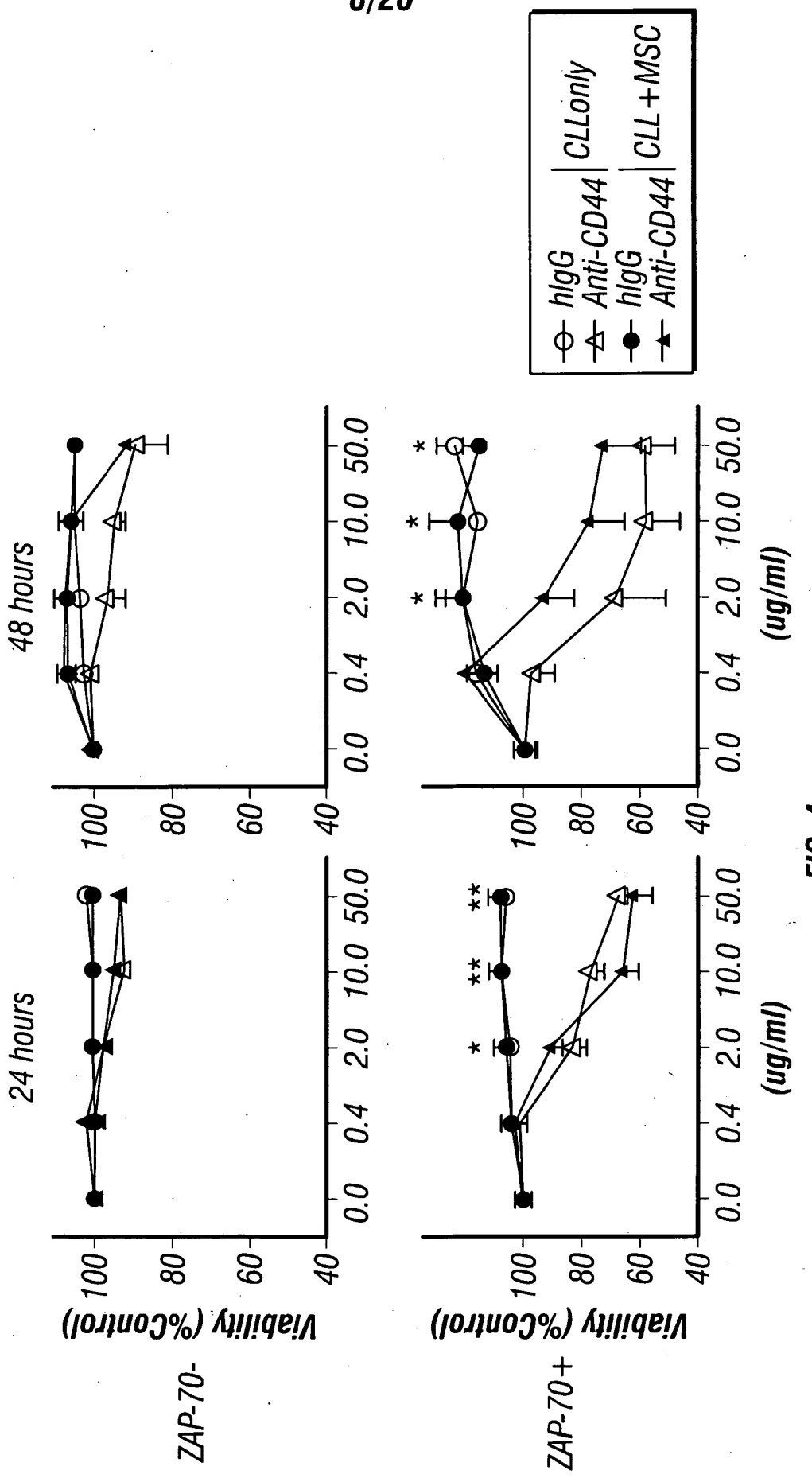

hIgG
Anti-CD44
CLLonly
hIgG
Anti-CD44
CLL+MSC
ZAP-70-
ZAP-70+
24 hours
48 hours
Viability (%Control)
(ug/ml)
0.0
0.4
2.0
10.0
50.0
40
60
80
100
*
**

FIG. 4

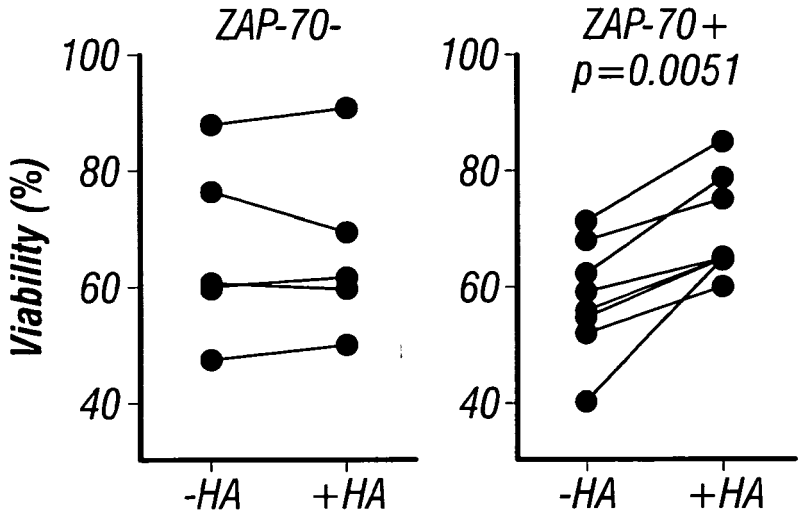

ZAP-70-
ZAP-70+
p=0.0051
Viability (%)
100
80
60
40
-HA
+HA

FIG. 5A

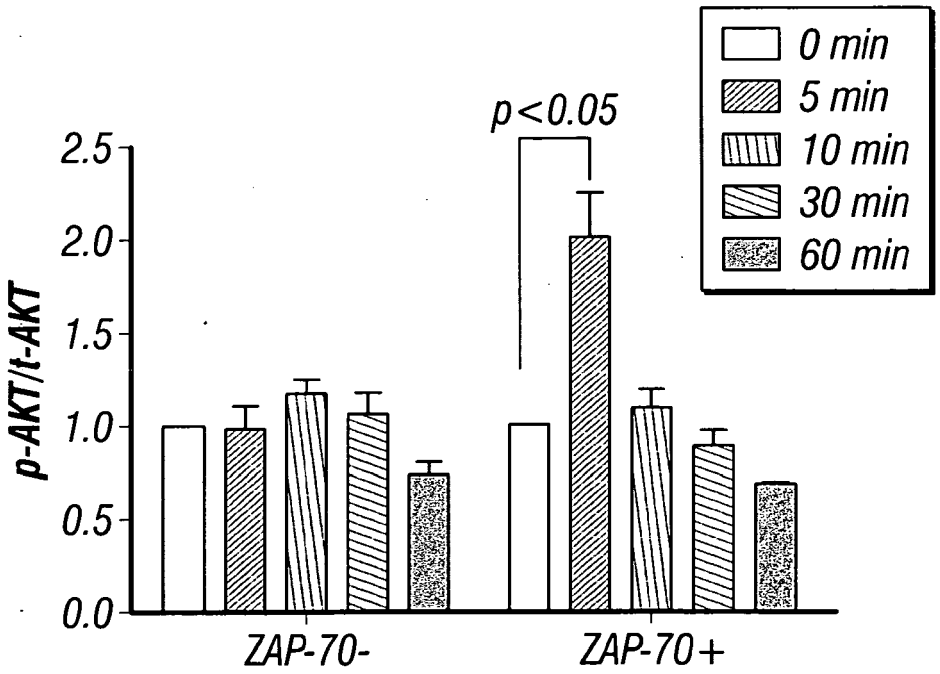

0 min
5 min
10 min
30 min
60 min
p<0.05
p-AKT/t-AKT
2.5
2.0
1.5
1.0
0.5
0.0
ZAP-70-
ZAP-70+

FIG. 5B

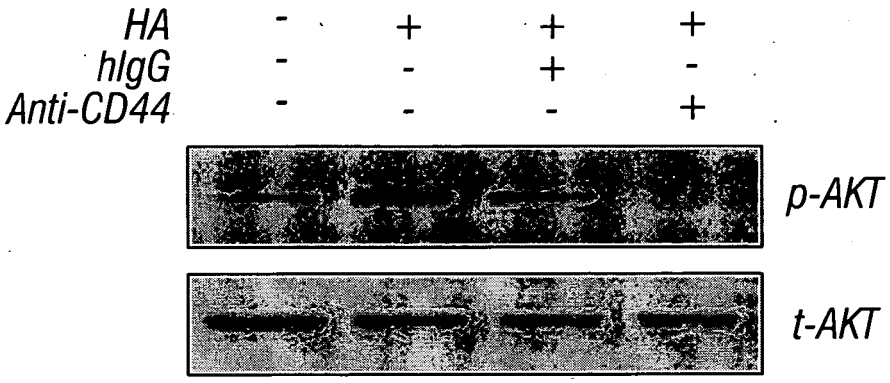

HA - + + +
hIgG - - + -
Anti-CD44 - - - +
p-AKT
t-AKT

FIG. 5C

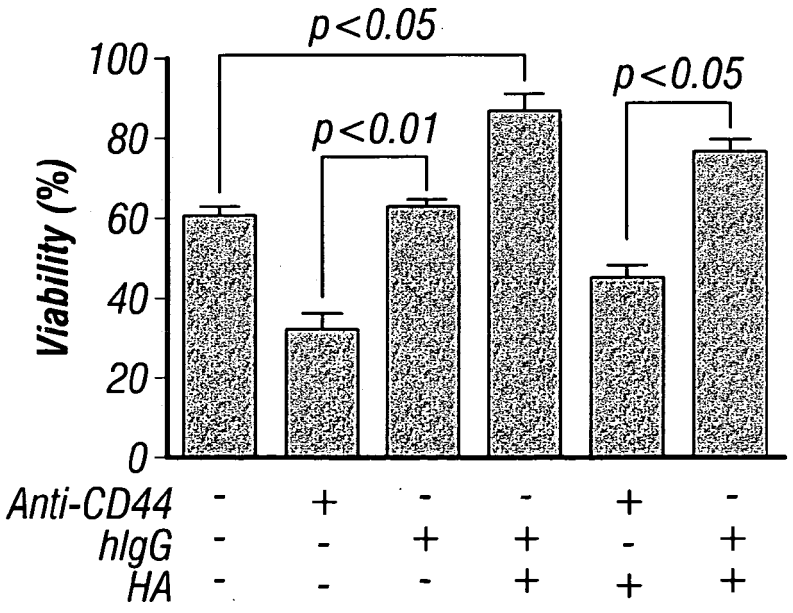

p<0.05
p<0.01
p<0.05
Viability (%)
100
80
60
40
20
0
Anti-CD44 - + - - + -
hIgG - - + + - +
HA - - - + + +

FIG. 5D

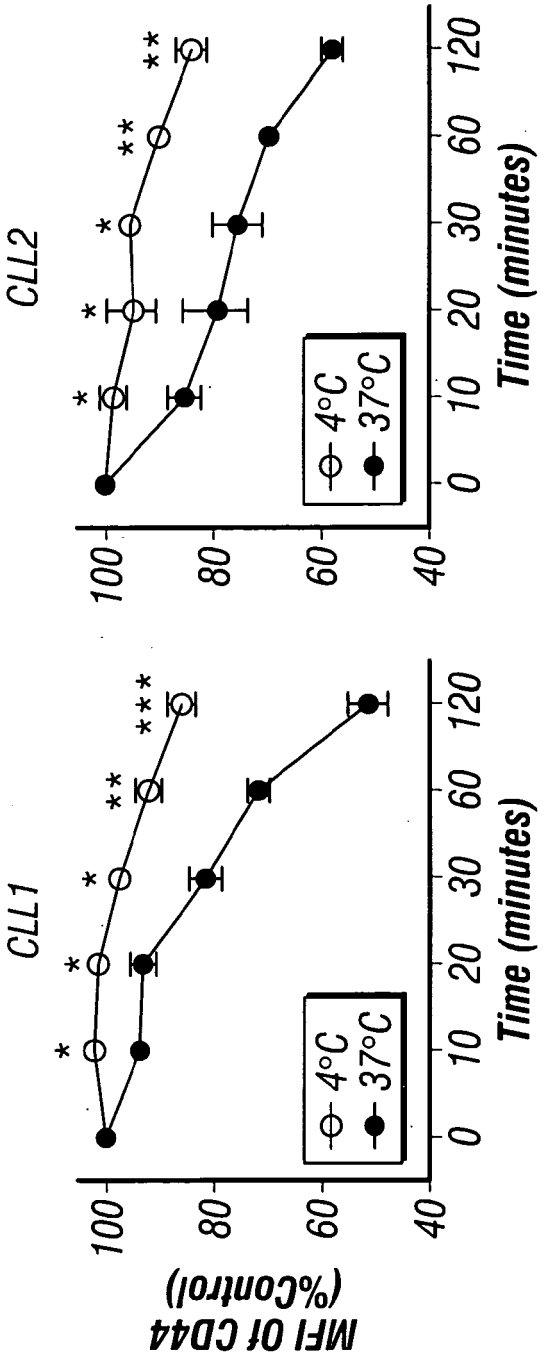

CLL2
CLL1
MFI of CD44
(%Control)
Time (minutes)
4°C
37°C
100
80
60
40
0
10
20
30
60
120
*
**
***

FIG. 6A

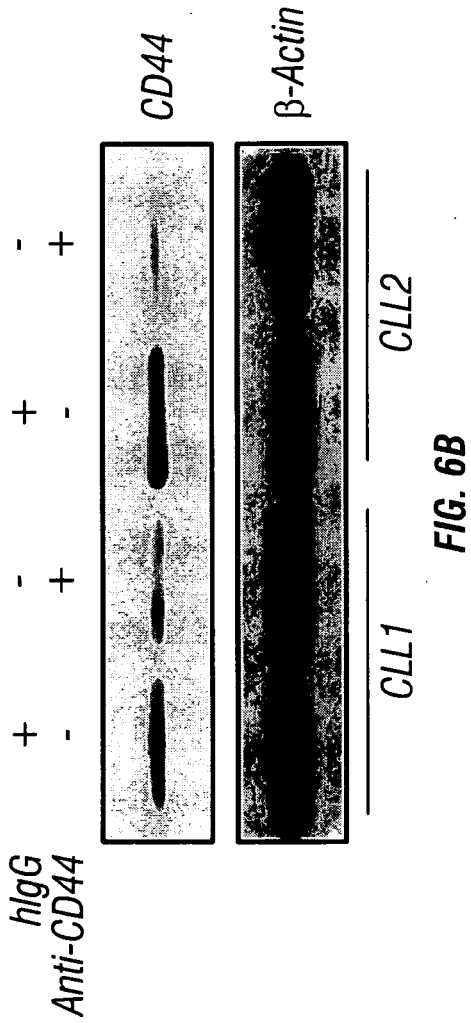

hIgG
Anti-CD44
CD44
β-Actin
CLL1
CLL2

FIG. 6B

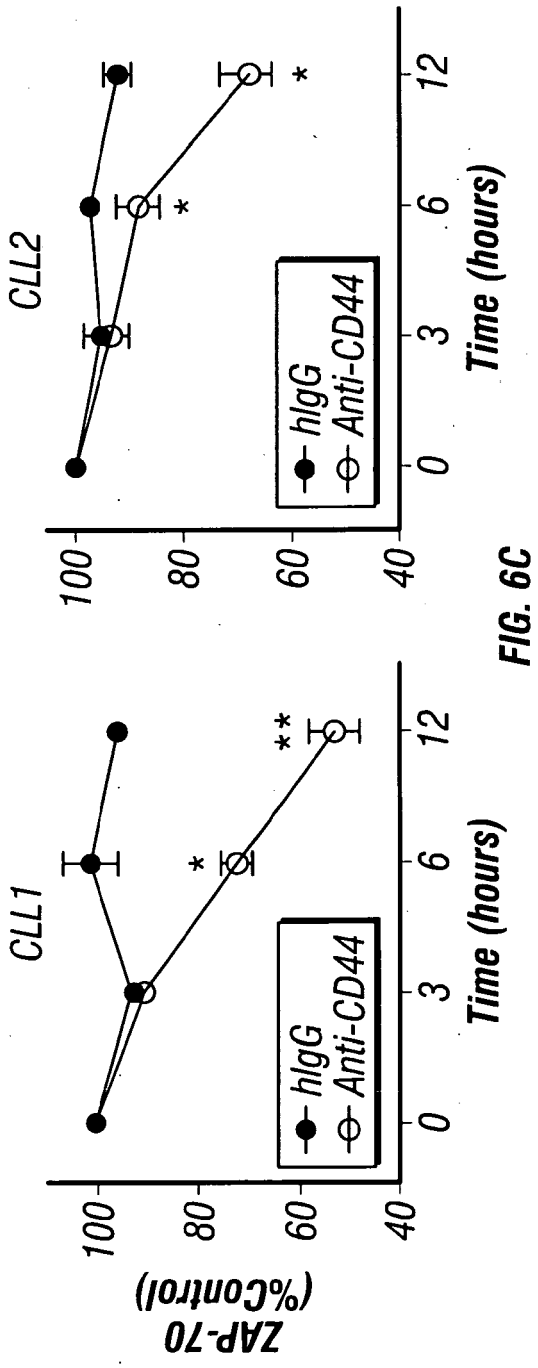

CLL2
CLL1
ZAP-70 (%Control)
Time (hours)
hIgG
Anti-CD44
*
**

FIG. 6C

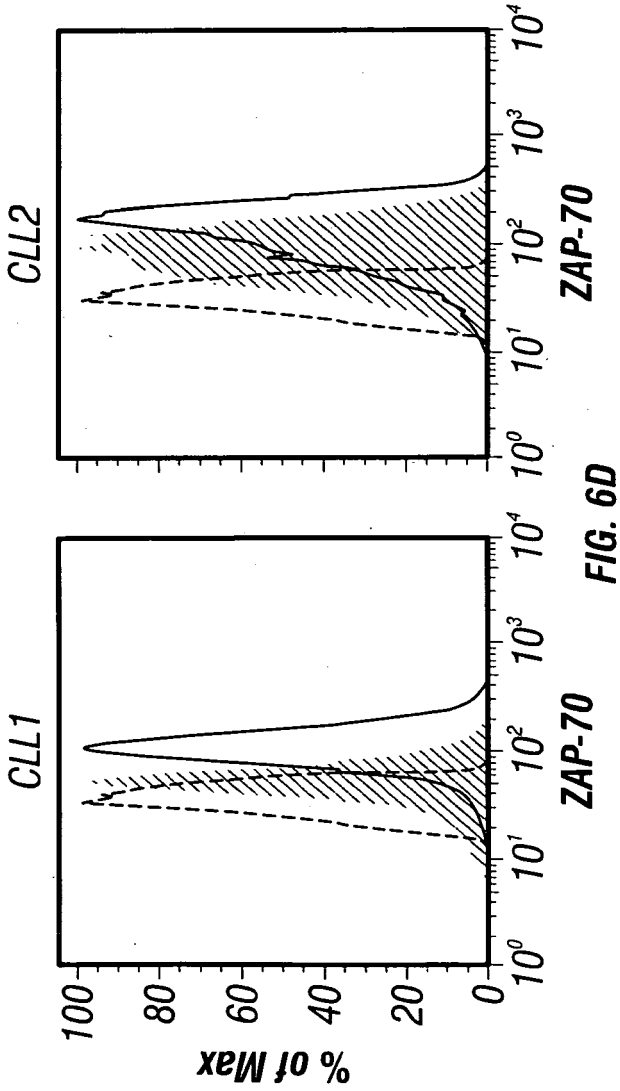

CLL2
CLL1
% of Max
ZAP-70

FIG. 6D

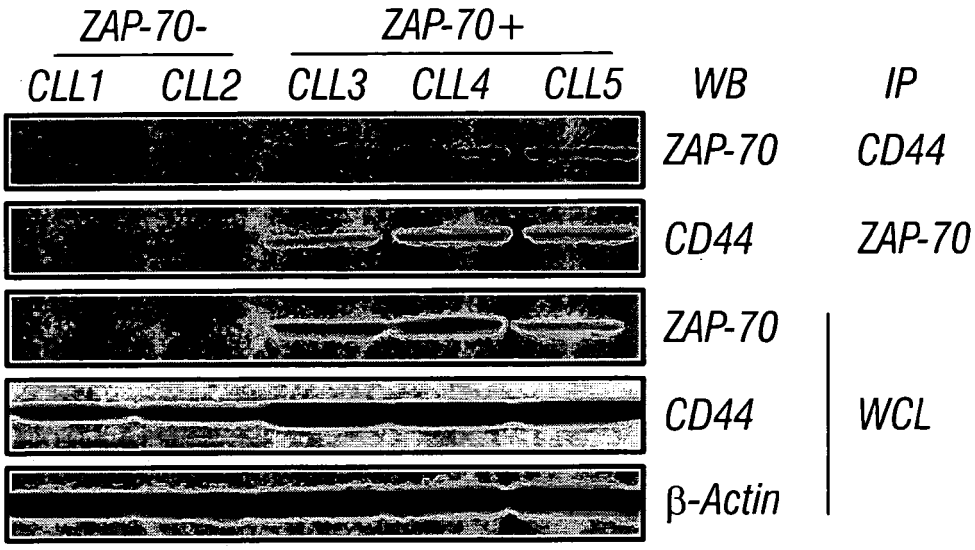

ZAP-70-
ZAP-70+
CLL1
CLL2
CLL3
CLL4
CLL5
WB
IP
ZAP-70
CD44
CD44
ZAP-70
ZAP-70
CD44
WCL
β-Actin

FIG. 6E

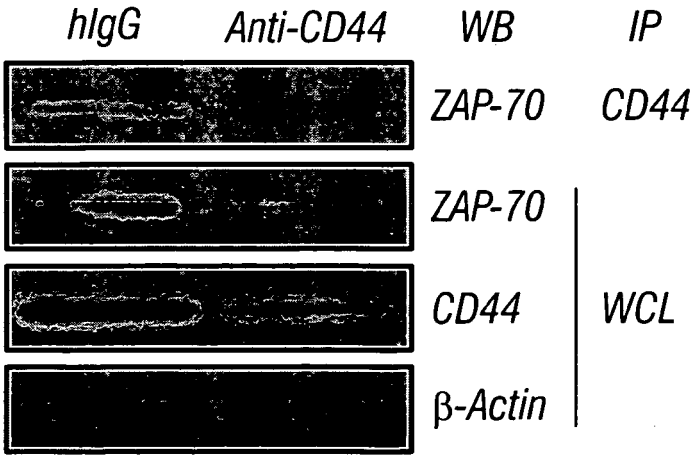

hIgG
Anti-CD44
WB
IP
ZAP-70
CD44
ZAP-70
CD44
WCL
β-Actin

FIG. 6F

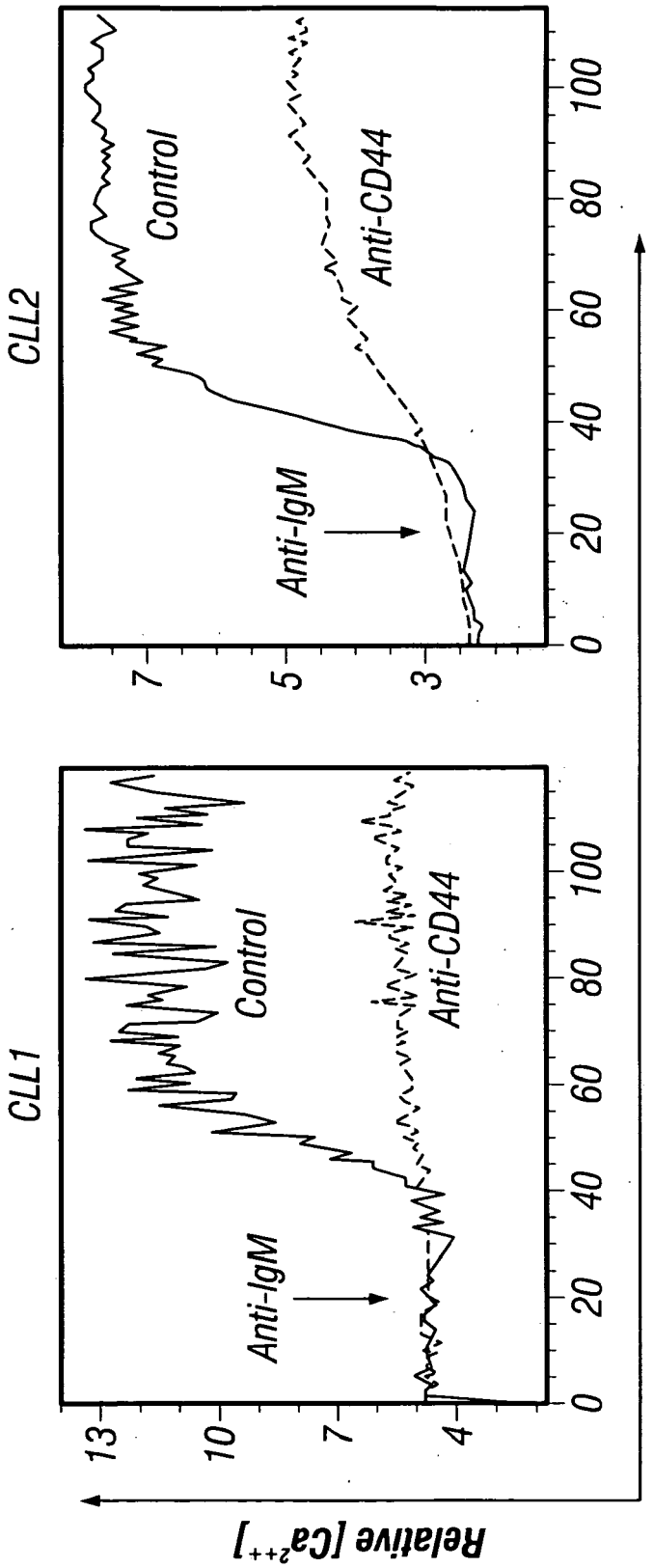

CLL1
CLL2
Control
Anti-CD44
Anti-IgM
Relative [Ca2++]
Time (seconds)
13
10
7
4
5
3
0
20
40
60
80
100

FIG. 6G

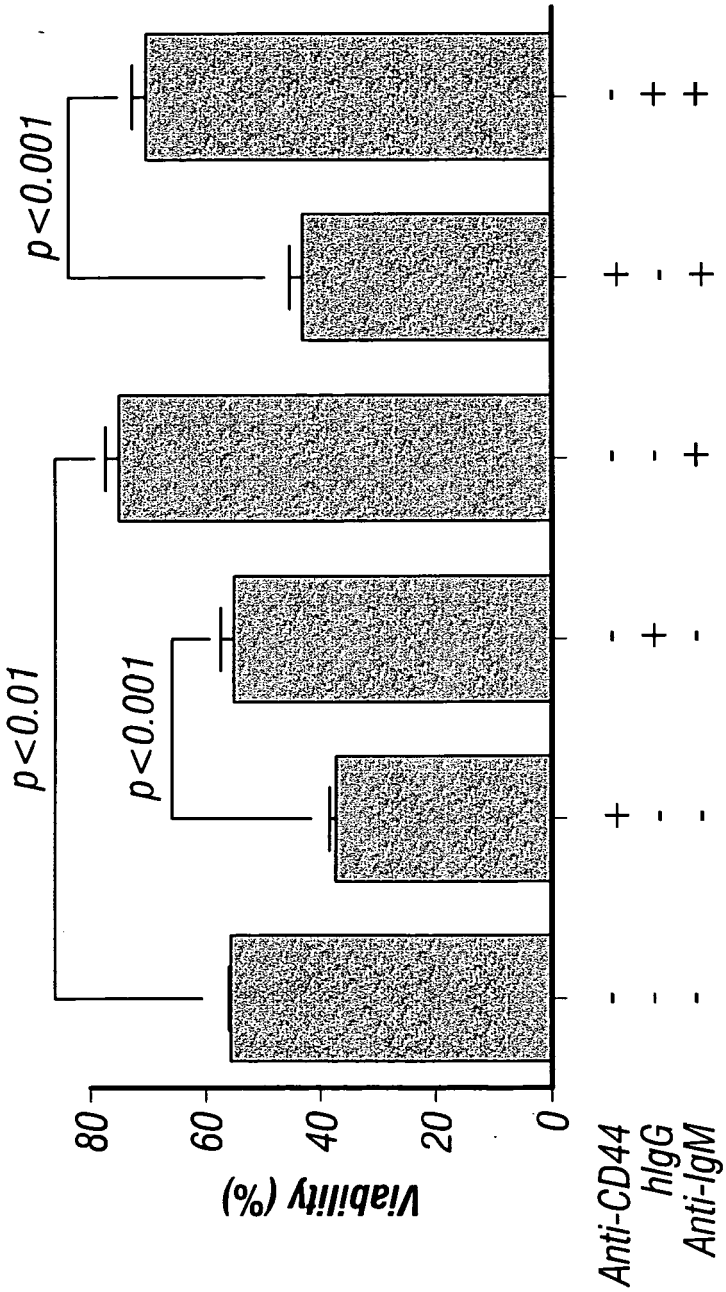

Viability (%)
0
20
40
60
80
Anti-CD44
hIgG
Anti-IgM
- - -
+ - -
- + -
- - +
+ - +
- + +
p<0.01
p<0.001
p<0.001

FIG. 6H

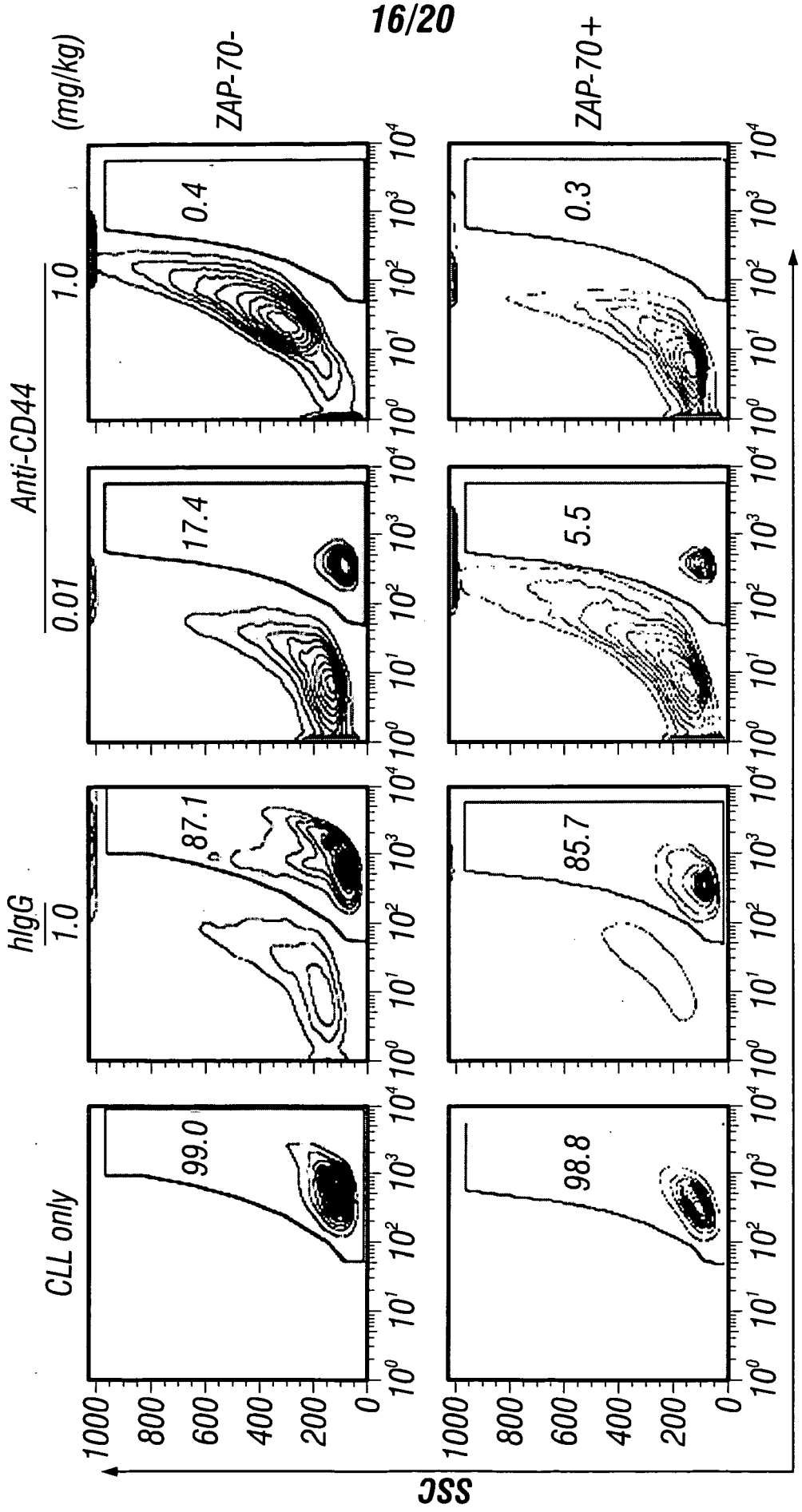

CLL only
hIgG
1.0
Anti-CD44
0.01
1.0
(mg/kg)
ZAP-70-
ZAP-70+
99.0
87.1
17.4
0.4
98.8
85.7
5.5
0.3
SSC
CD45

FIG. 7A

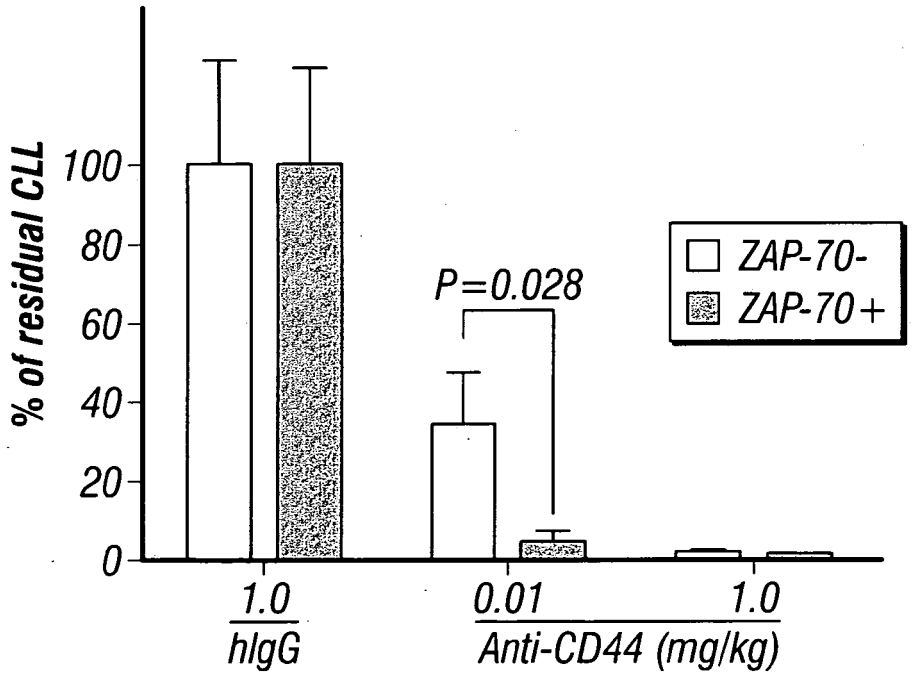

% of residual CLL
100
80
60
40
20
0
P=0.028
ZAP-70-
ZAP-70+
1.0
hIgG
0.01
1.0
Anti-CD44 (mg/kg)

FIG. 7B

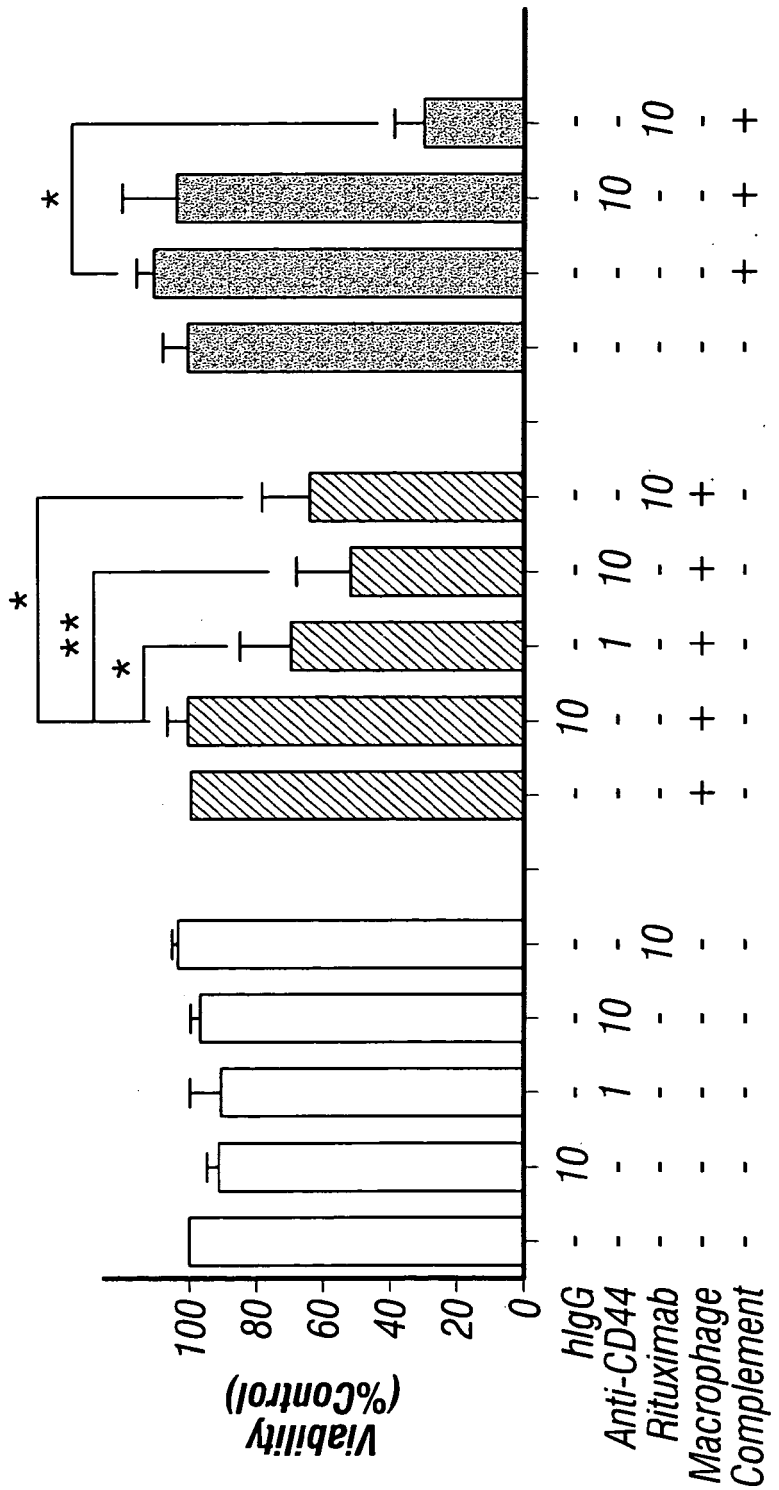

Viability (%Control)
100
80
60
40
20
0
hIgG
Anti-CD44
Rituximab
Macrophage
Complement
(ug/ml)
*
**
*
*

FIG. 8

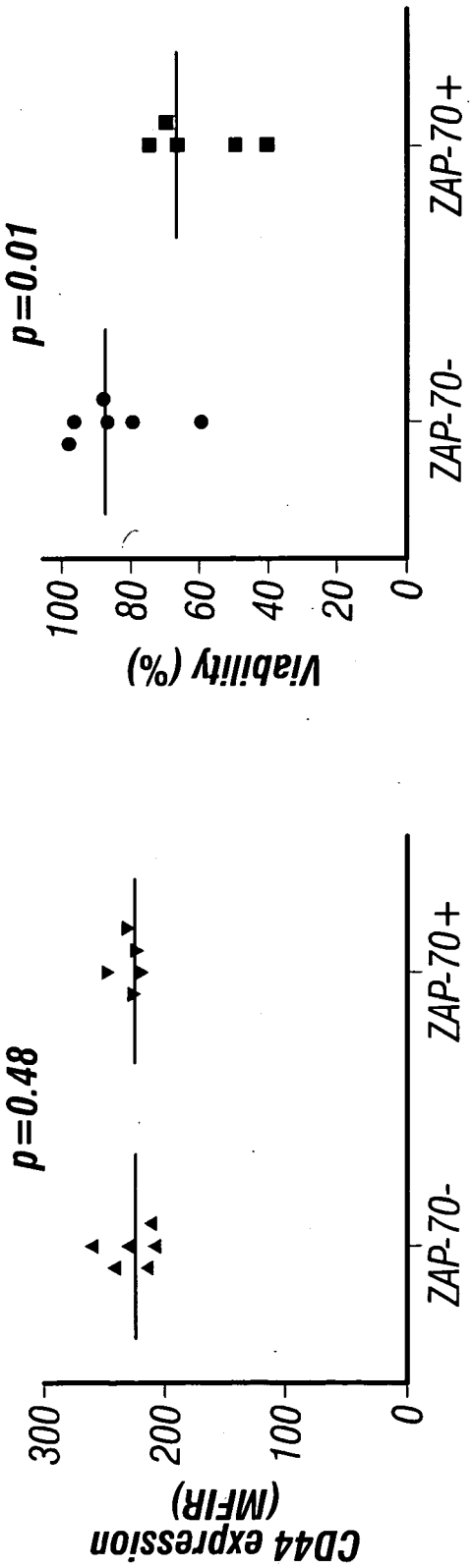

p=0.01
Viability (%)
100
80
60
40
20
0
ZAP-70-
ZAP-70+
p=0.48
CD44 expression (MFIR)
300
200
100
0
ZAP-70-
ZAP-70+

FIG. 9

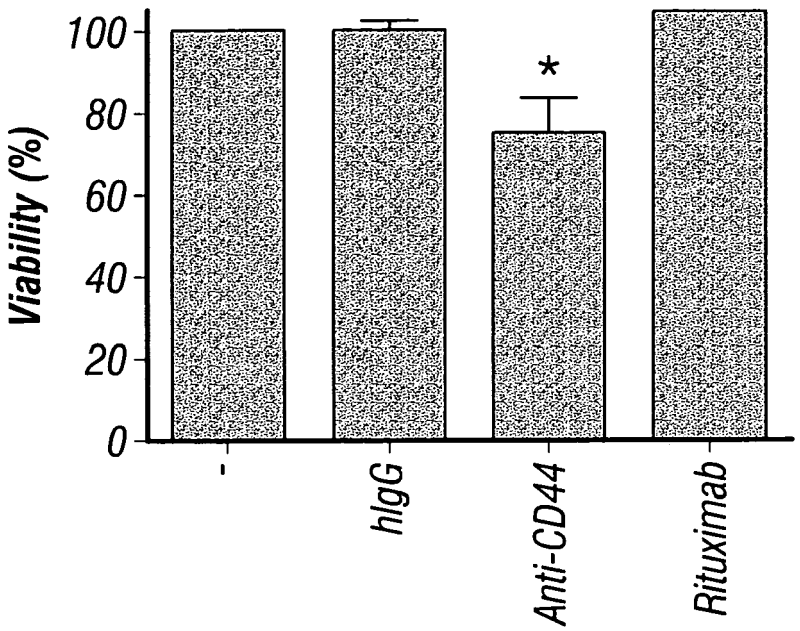



FIG. 10A

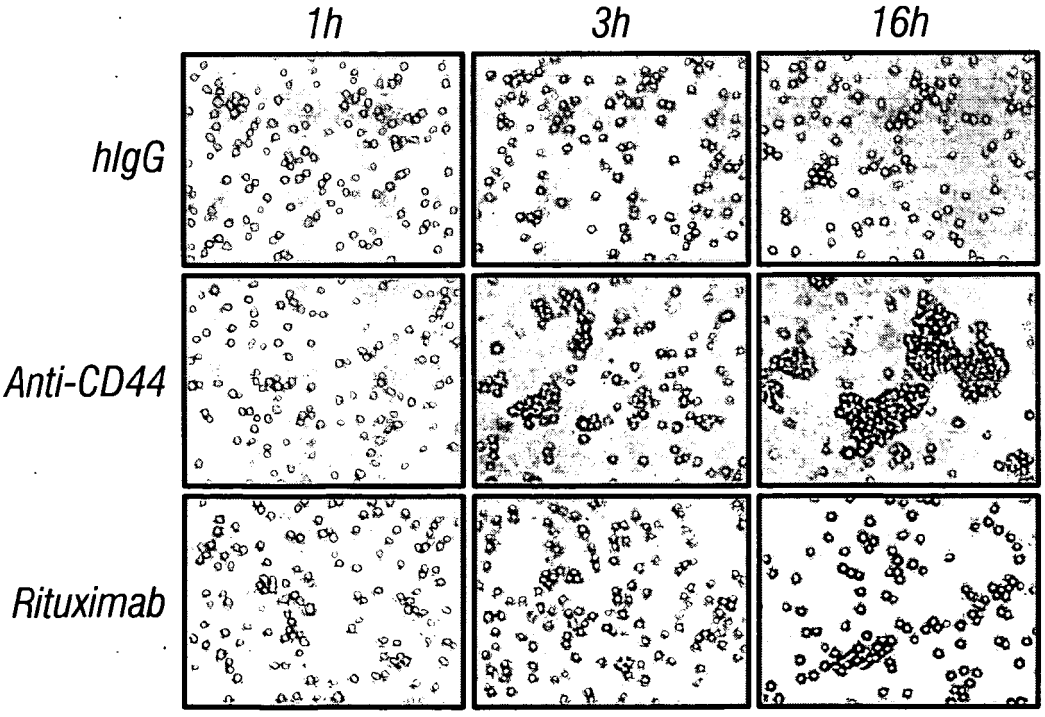



FIG. 10B