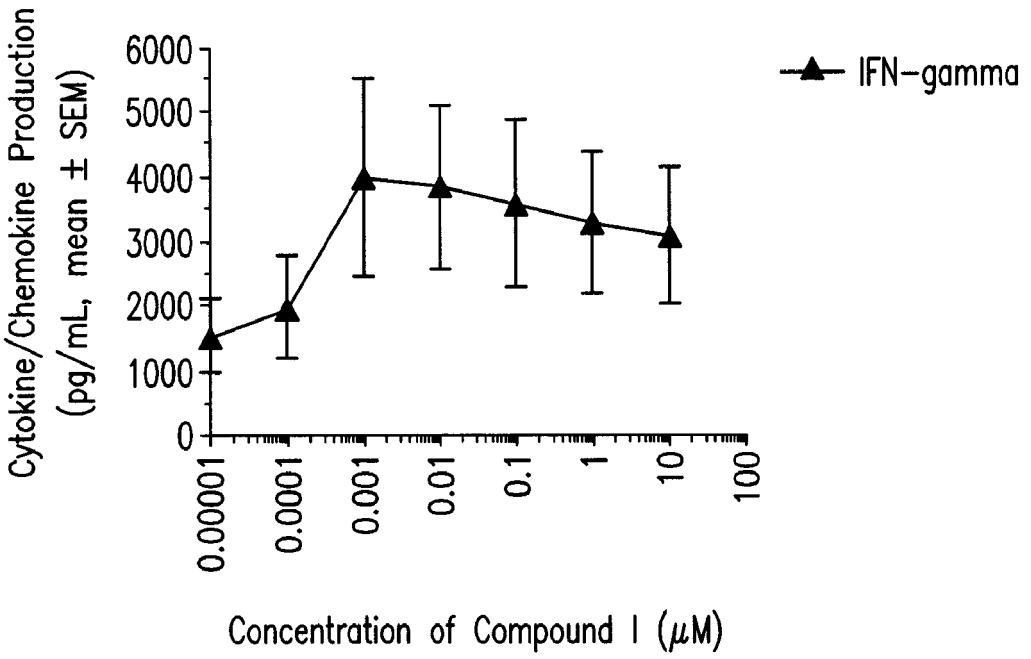
Effect on Compound I on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Absolute Amount Produced



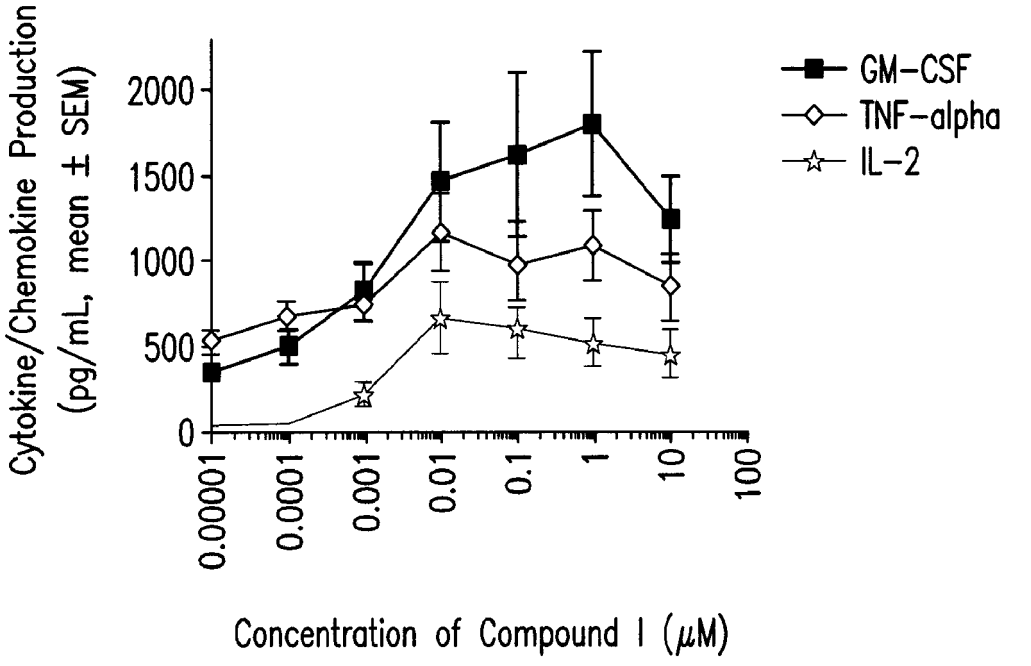
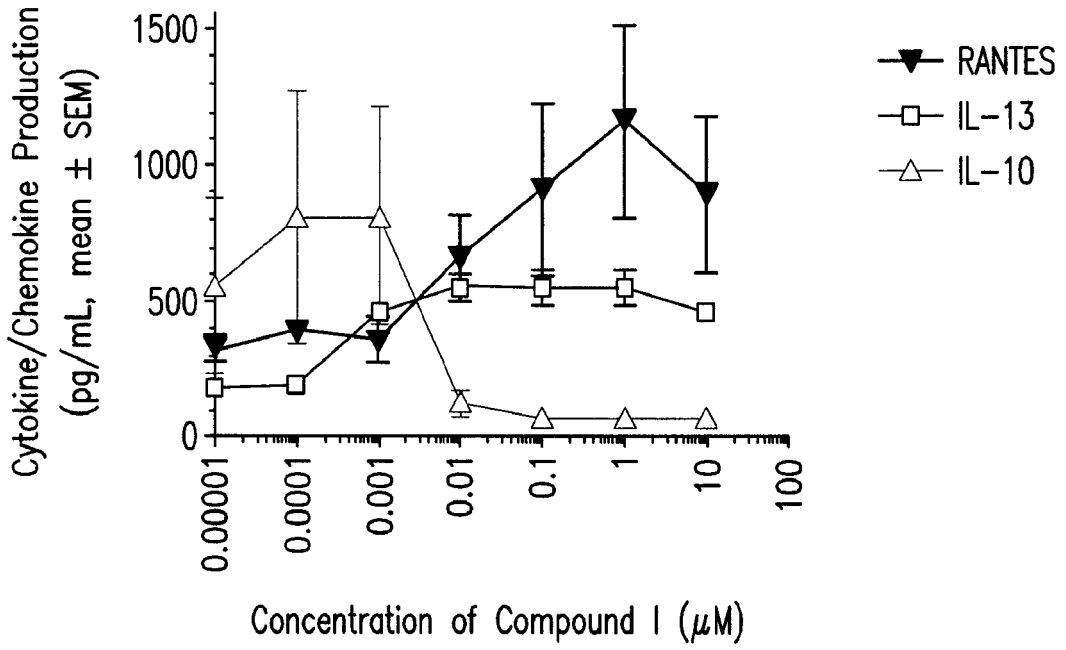


FIG. 1

Effect on Compound I on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Absolute Amount Produced



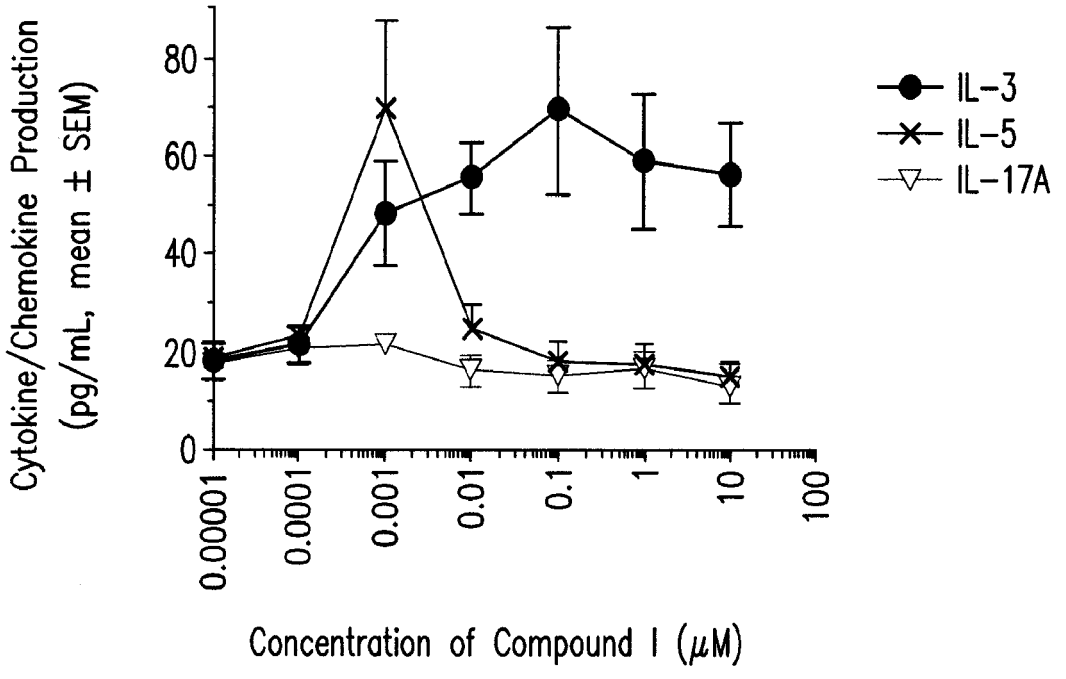
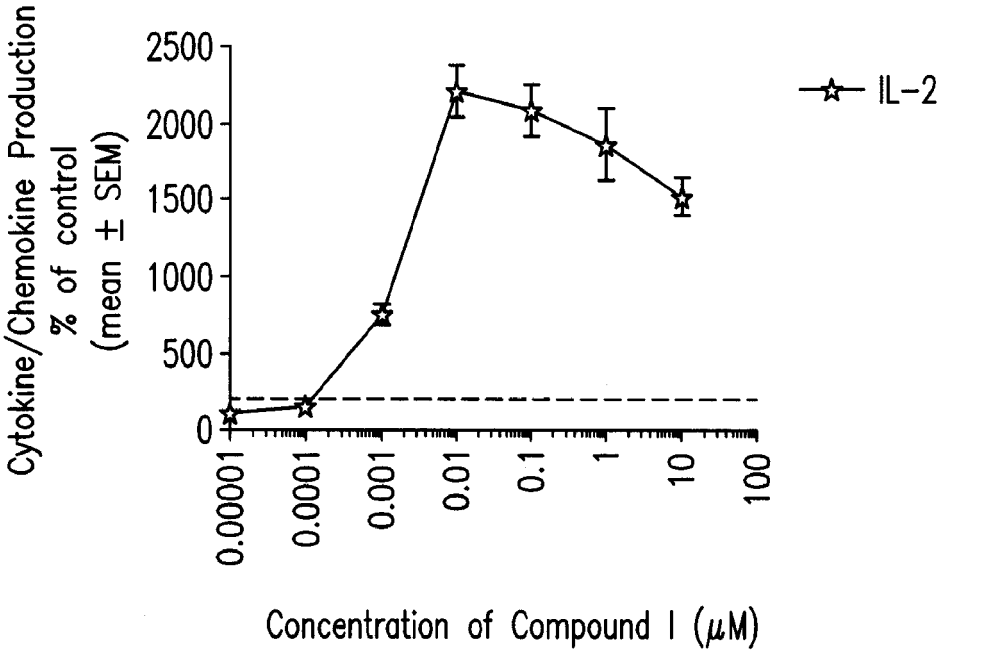


FIG. 1 (Cont'd)

Effect on Compound I on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Percentage of Control



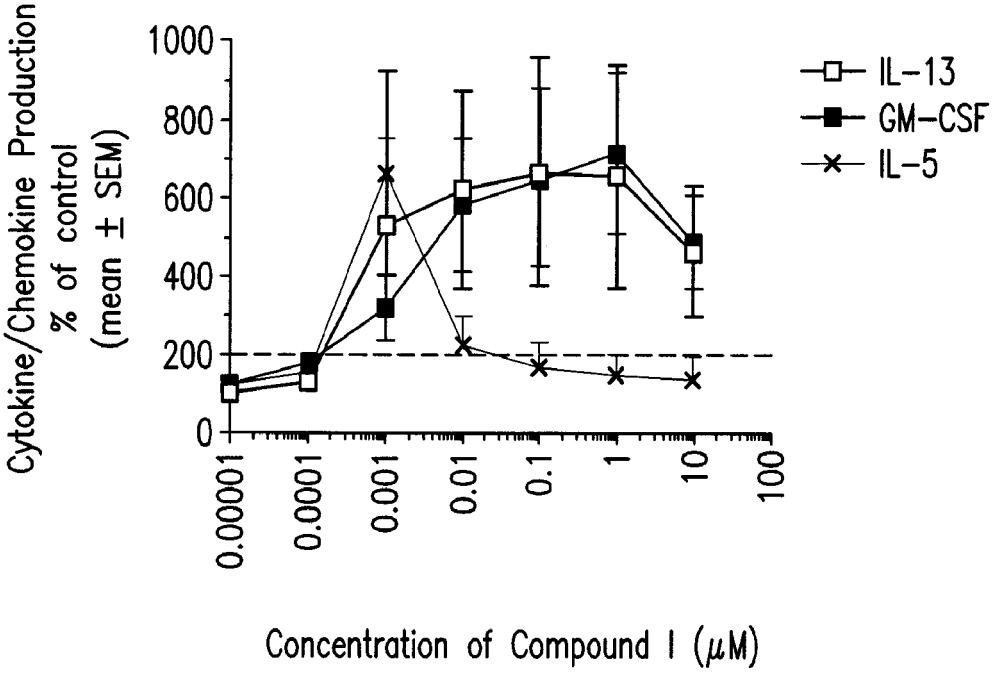
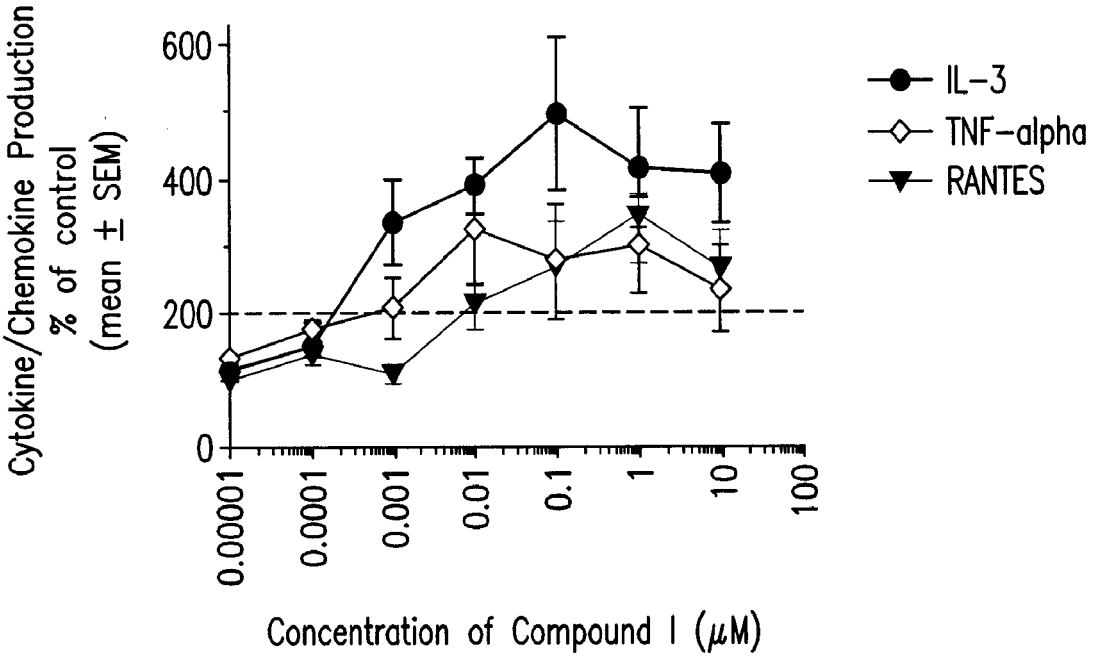


FIG. 2

Effect on Compound I on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Percentage of Control



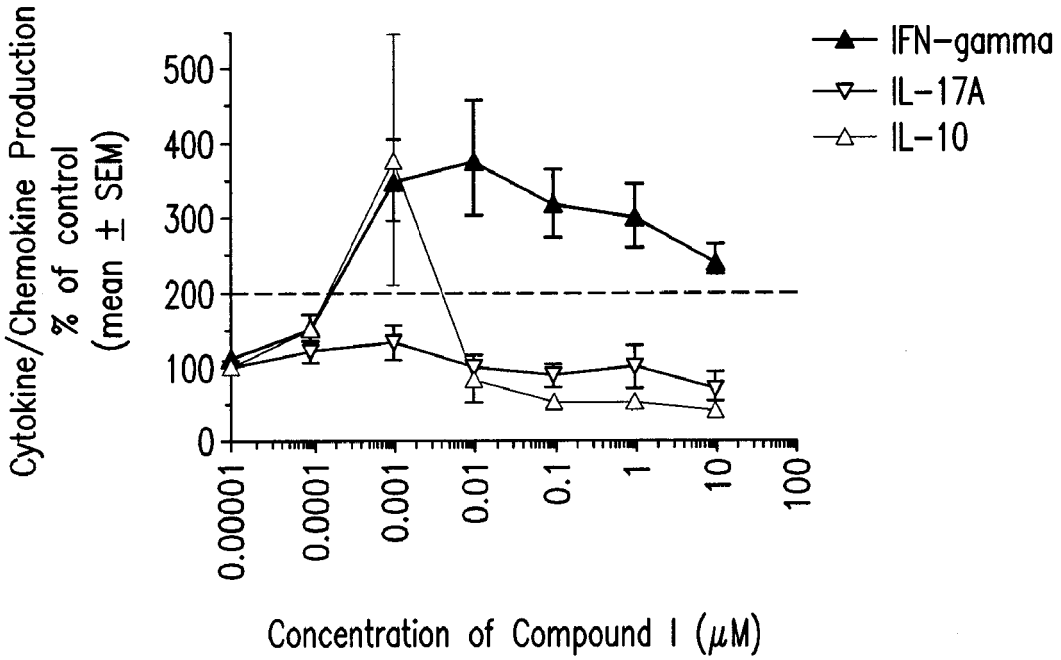
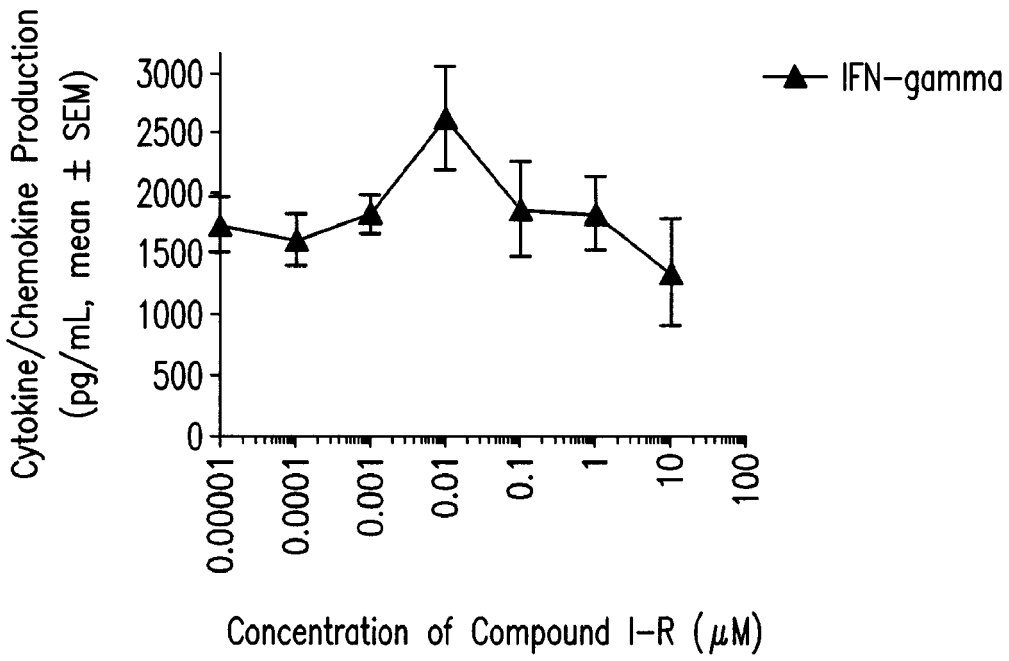


FIG. 2 (Cont'd)

Effect on Compound I-R on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Absolute Amount Produced



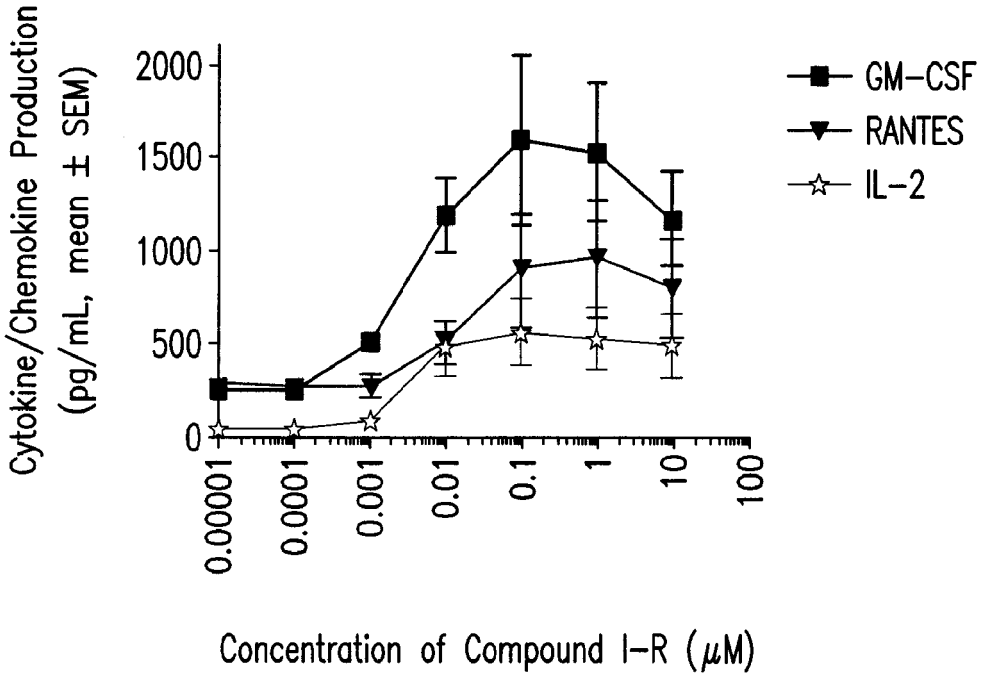
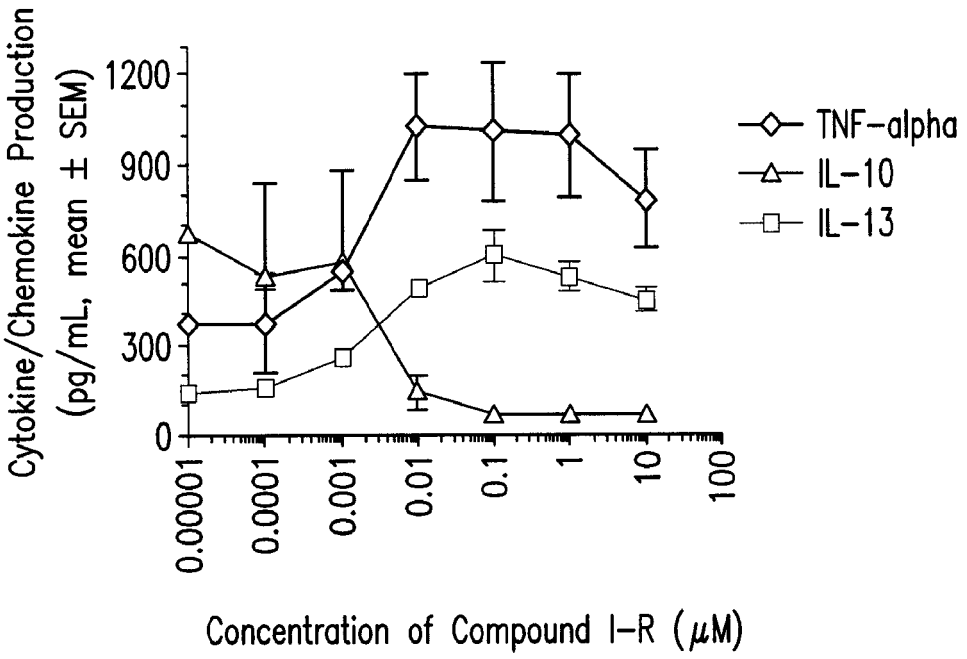


FIG. 3

Effect on Compound I-R on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Absolute Amount Produced



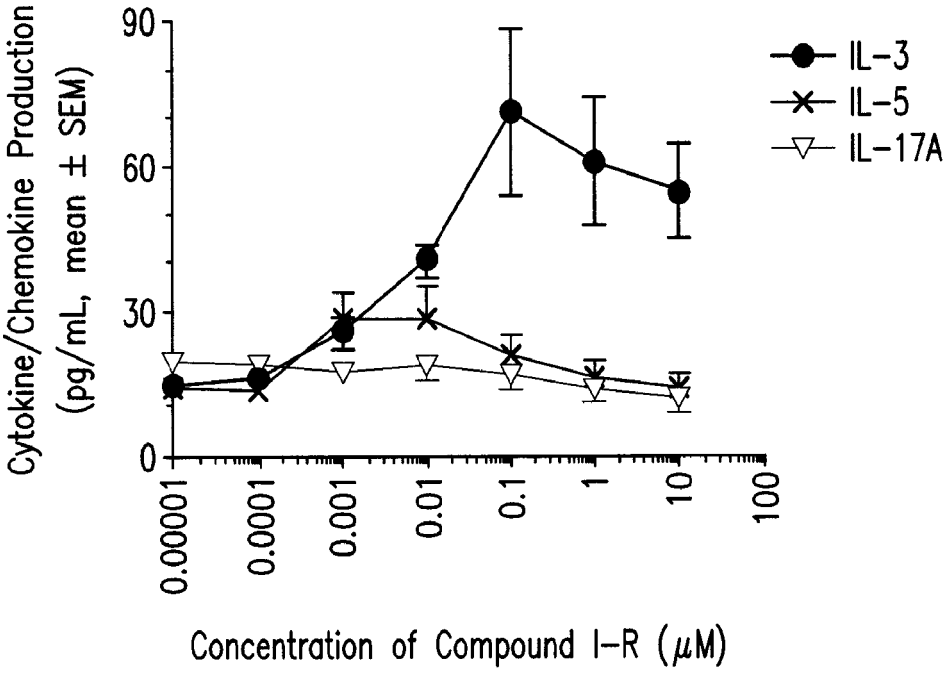


FIG. 3 (Cont'd)

Effect on Compound I-R on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Percentage of Control

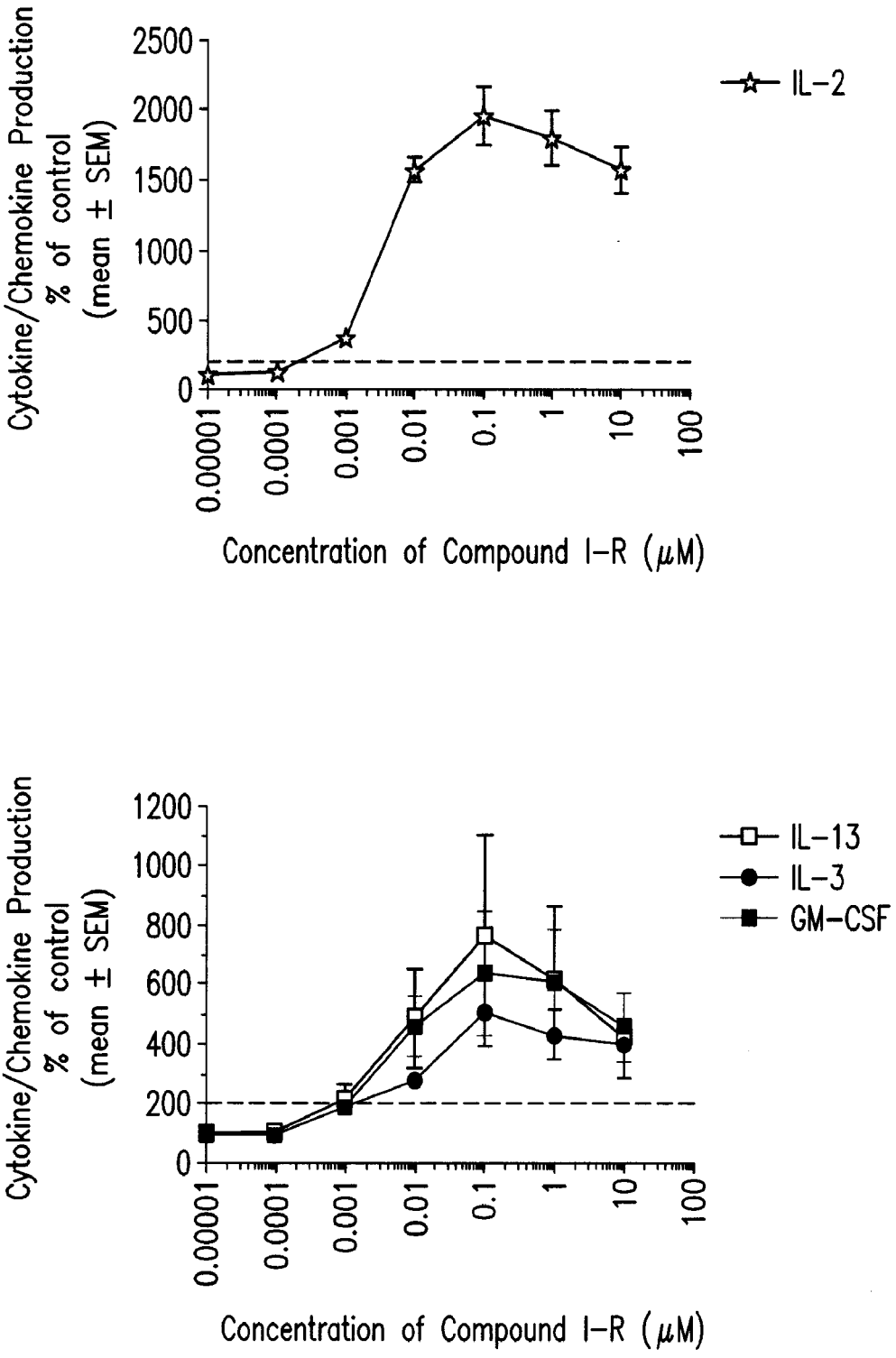
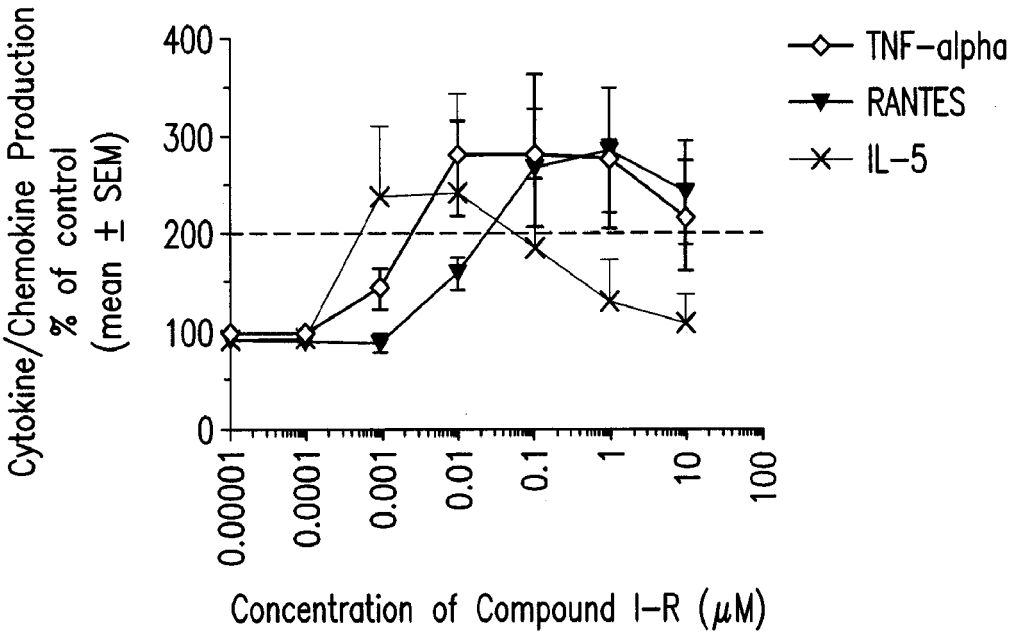


FIG. 4

Effect on Compound I-R on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Percentage of Control



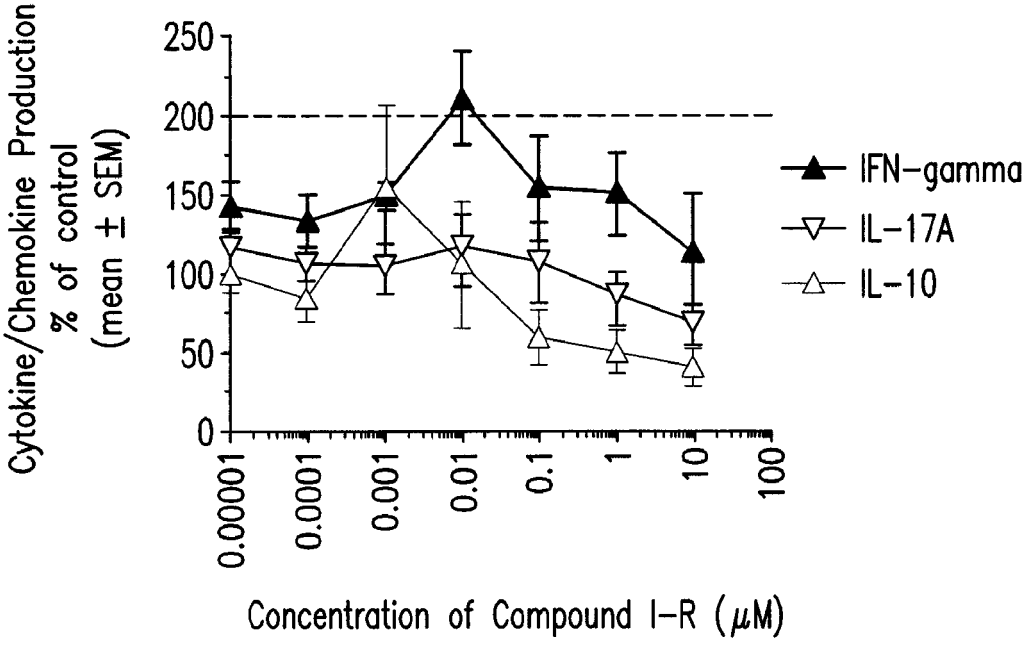
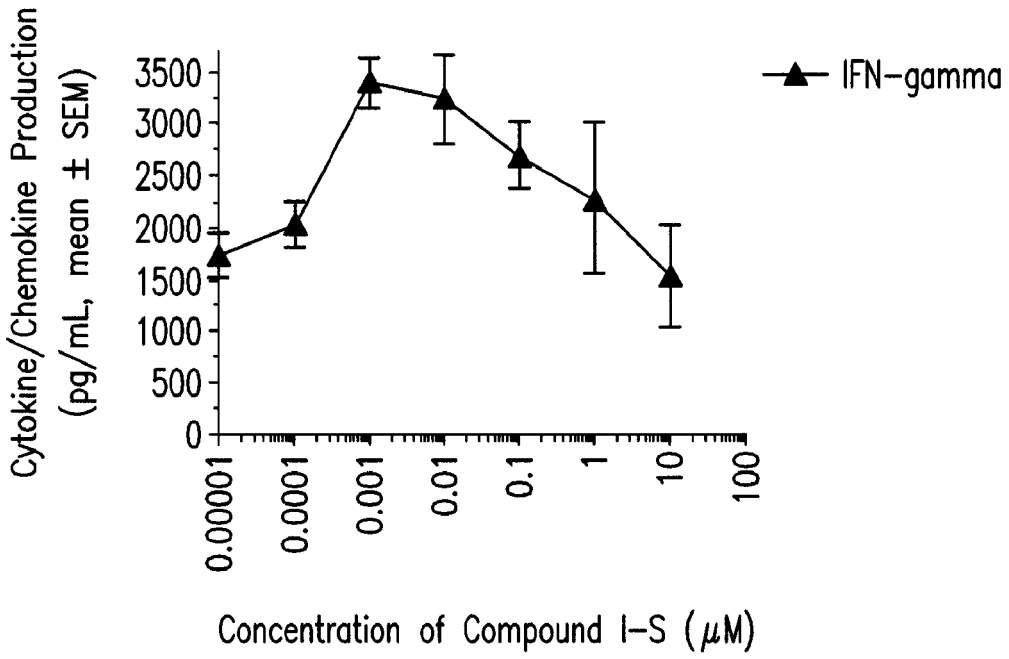


FIG. 4 (Cont'd)

Effect on Compound I-S on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Absolute Amount Produced



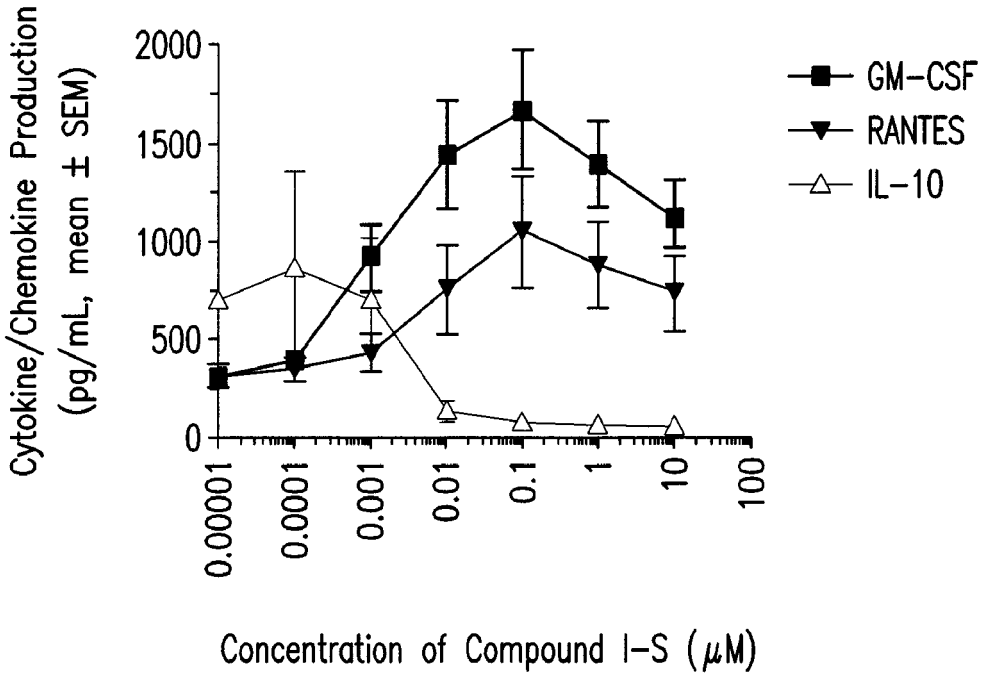
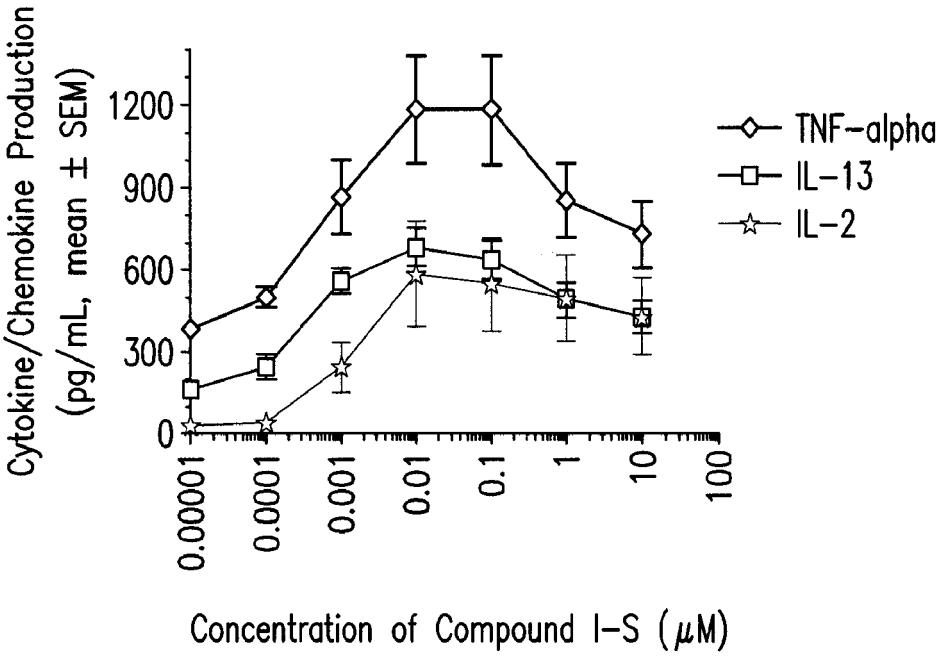


FIG. 5

Effect on Compound I-S on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Absolute Amount Produced



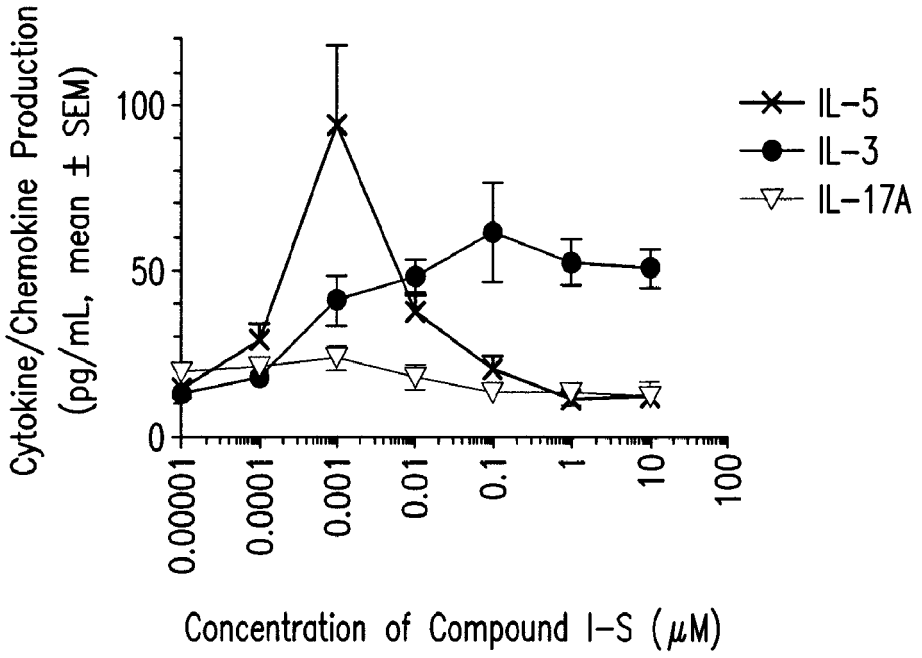
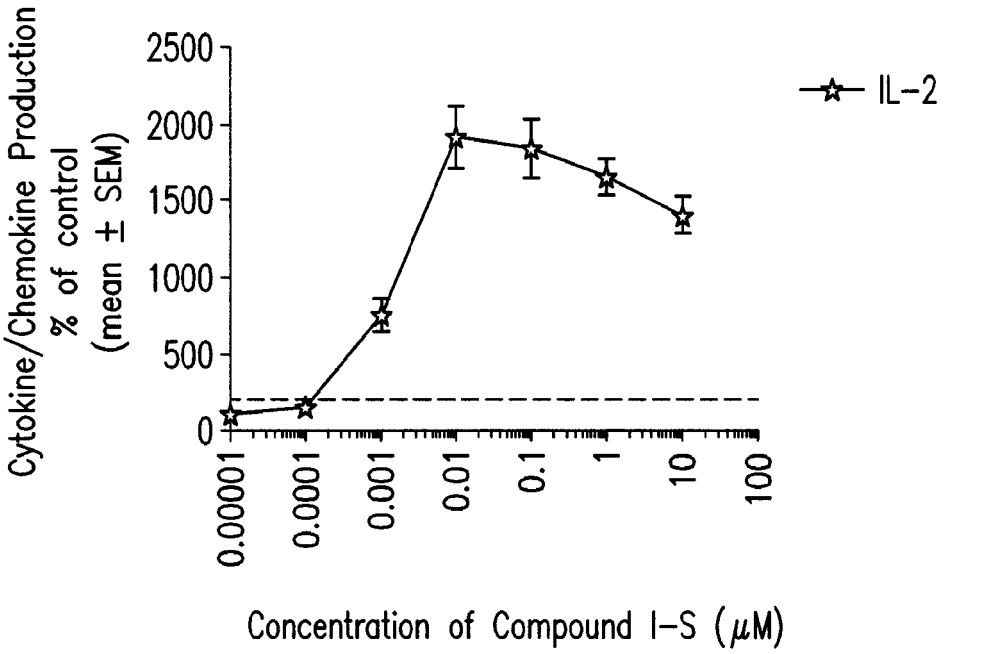


FIG. 5 (Cont'd)

Effect on Compound I-S on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Percentage of Control



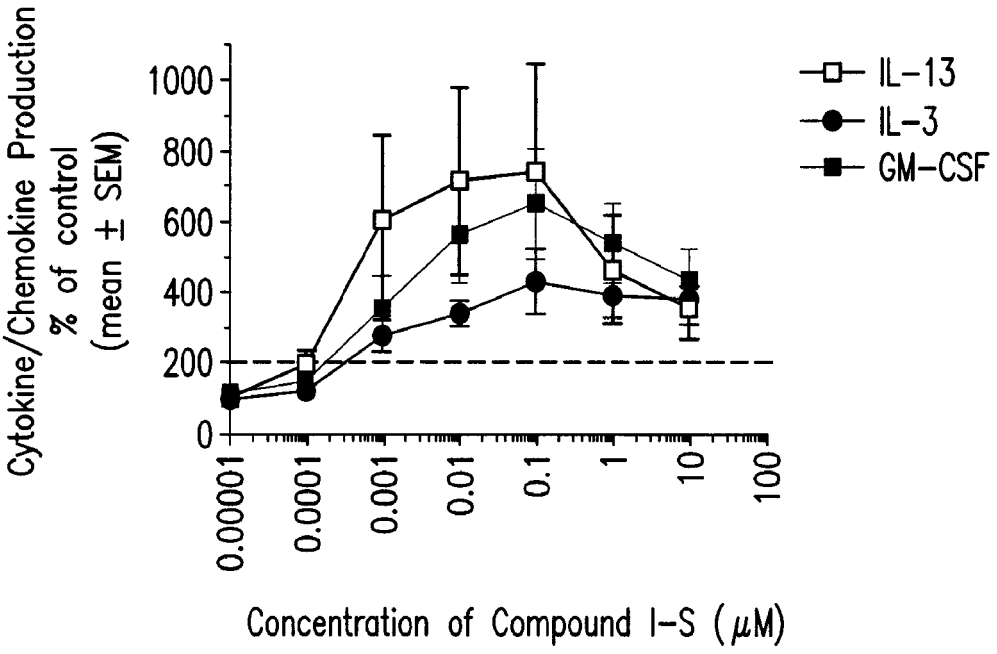
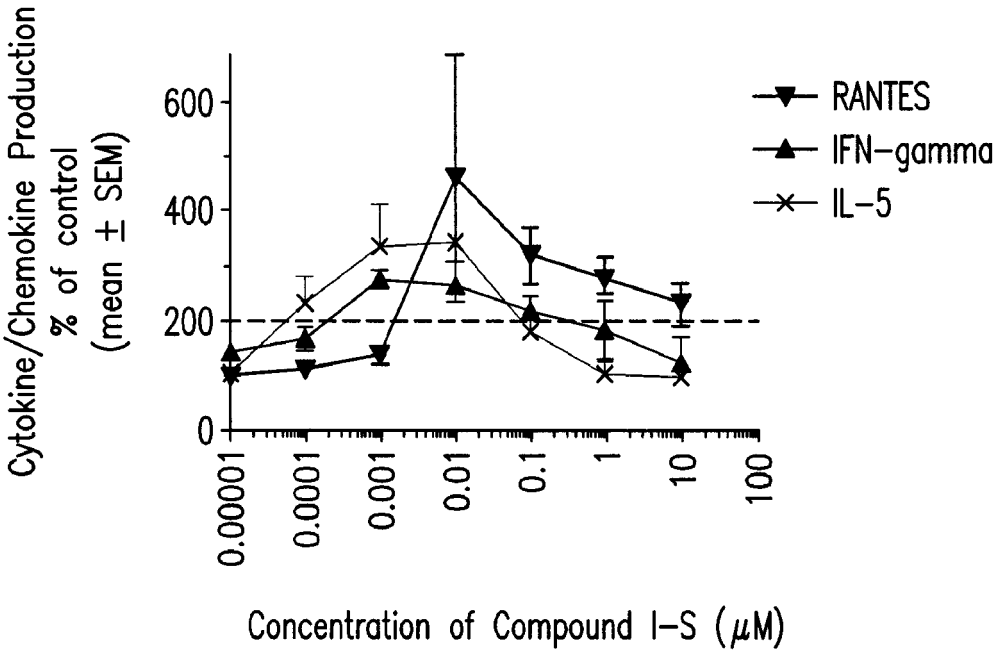


FIG. 6

Effect on Compound I-S on Cytokine and Chemokine Production in Anti-CD3-stimulated Human T Cells-Percentage of Control



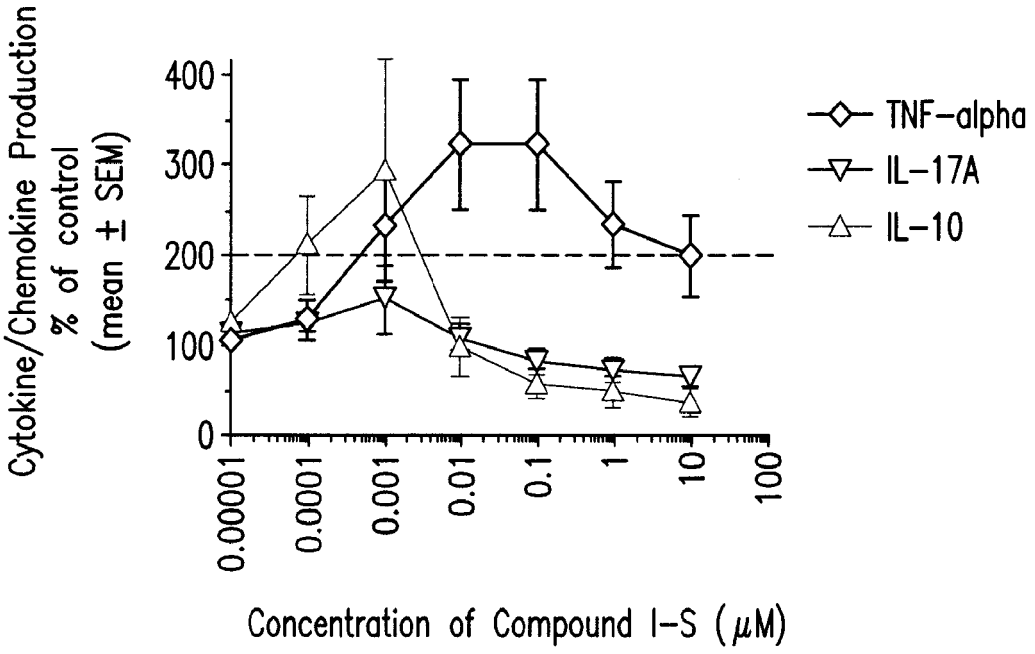


FIG. 6 (Cont'd)

Effect of Test Compounds on NK Cell IFN-Gamma Production in Response to Immobilized IgG and IL-2—Absolute Amount Produced

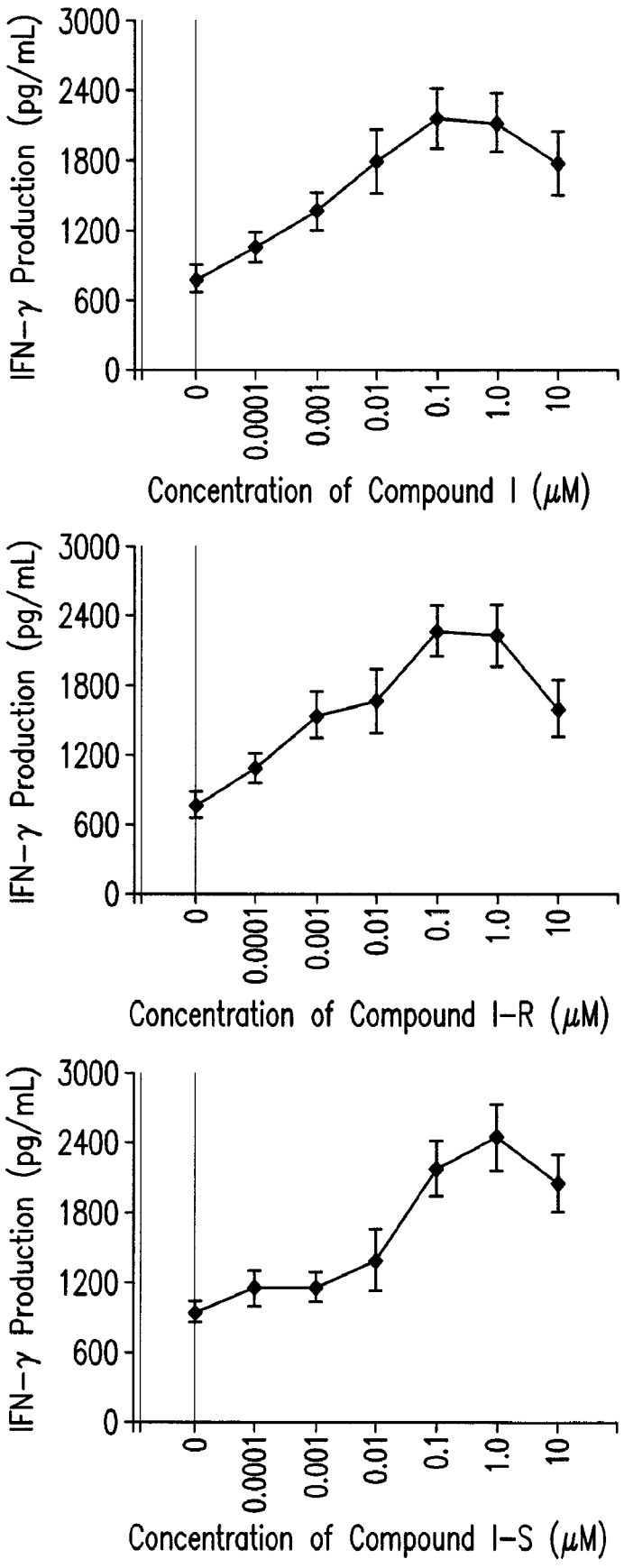


FIG. 7

Effect of Test Compounds on NK Cell IFN-Gamma Production in Response to Immobilized IgG and IL-2—Percentage of Amount of IFN-Gamma Produced in the Presence of One Micromolar Pomalidomide

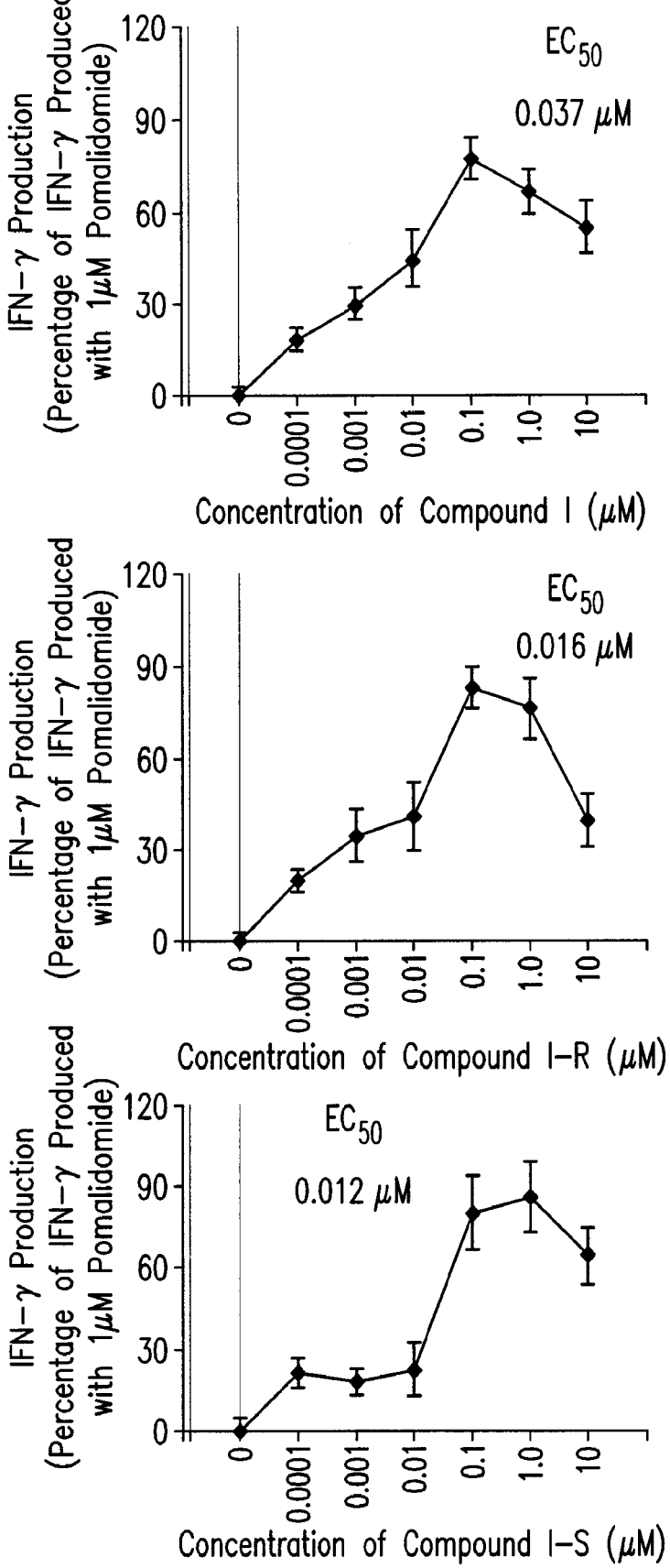


FIG. 8

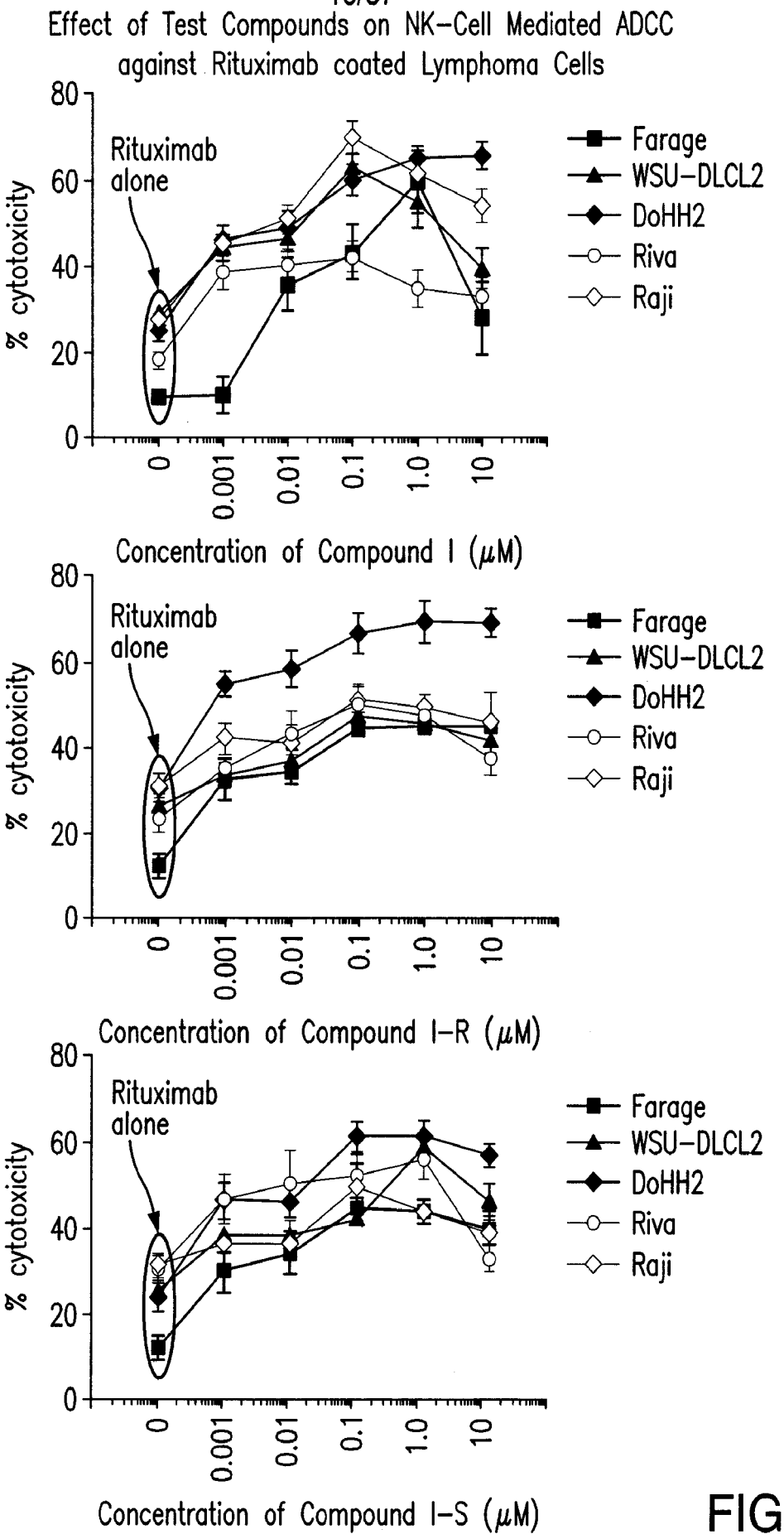

Effect of Test Compounds on NK-Cell Mediated ADCC
against Rituximab coated Lymphoma Cells
% cytotoxicity
Rituximab alone
Farage
WSU-DLCL2
DoHH2
Riva
Raji
0
20
40
60
80
0
0.001
0.01
0.1
1.0
10
Concentration of Compound I (μM)
Concentration of Compound I-R (μM)
Concentration of Compound I-S (μM)

FIG. 9

16/37

Effect of Test Compounds on Growth Factor-induced Human Umbilical Vascular Endothelial Cell Proliferation

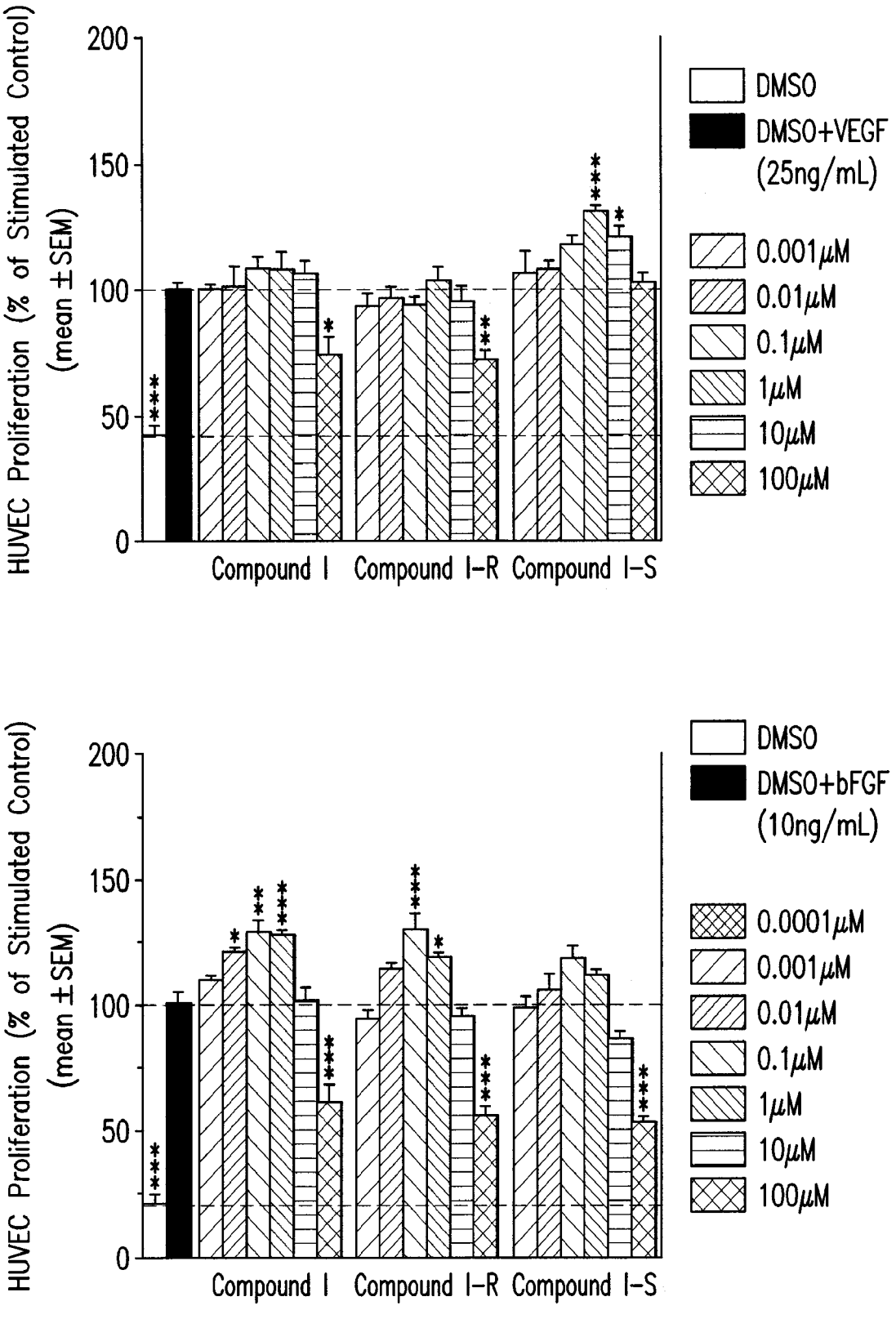


FIG. 10

Effect of Test Compounds on Growth Factor-induced Human Umbilical Vascular Endothelial Cell Proliferation

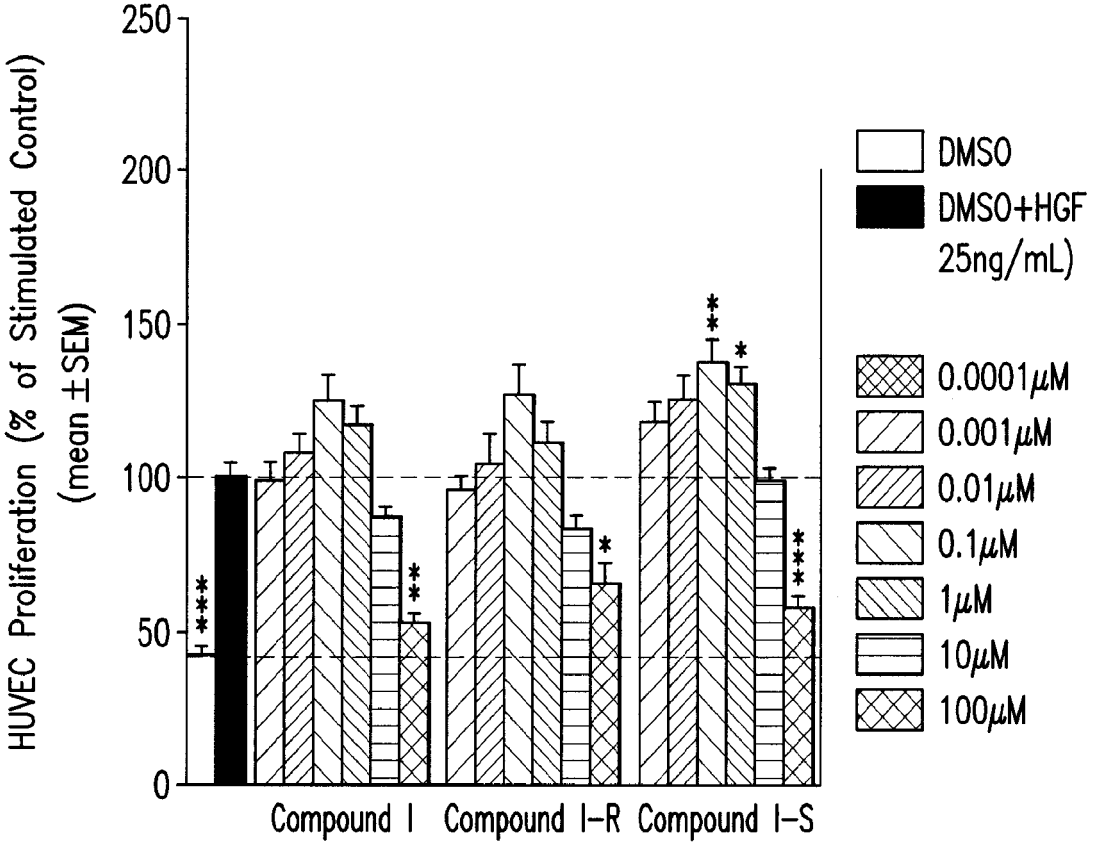


FIG. 10 (Cont'd)

Effect of Test Compounds on Growth Factor-induced Human Umbilical Vascular Endothelial Tube Formation

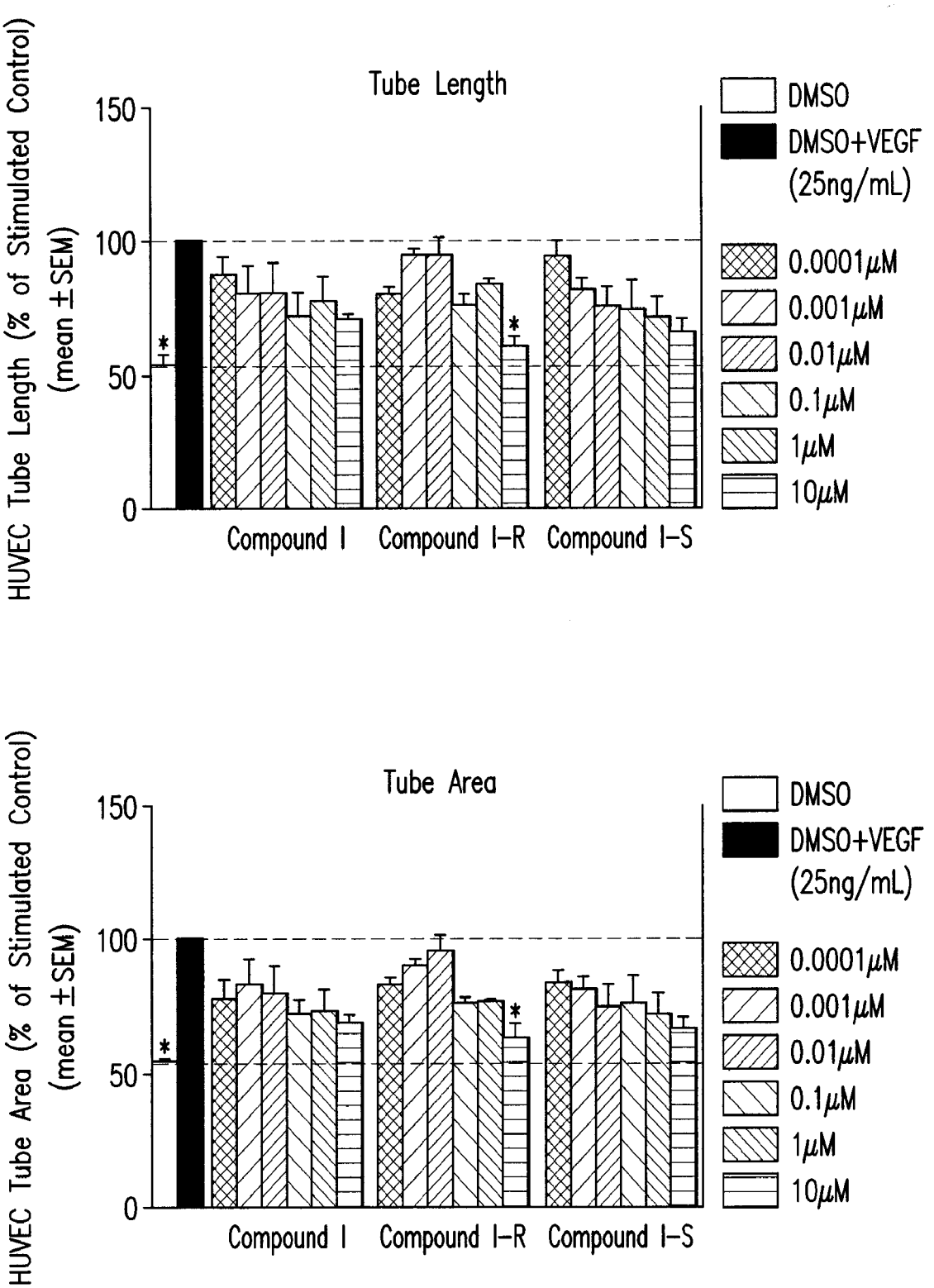


FIG. 11

Effect of Test Compounds on Growth Factor–induced Human Umbilical Vascular Endothelial Tube Formation

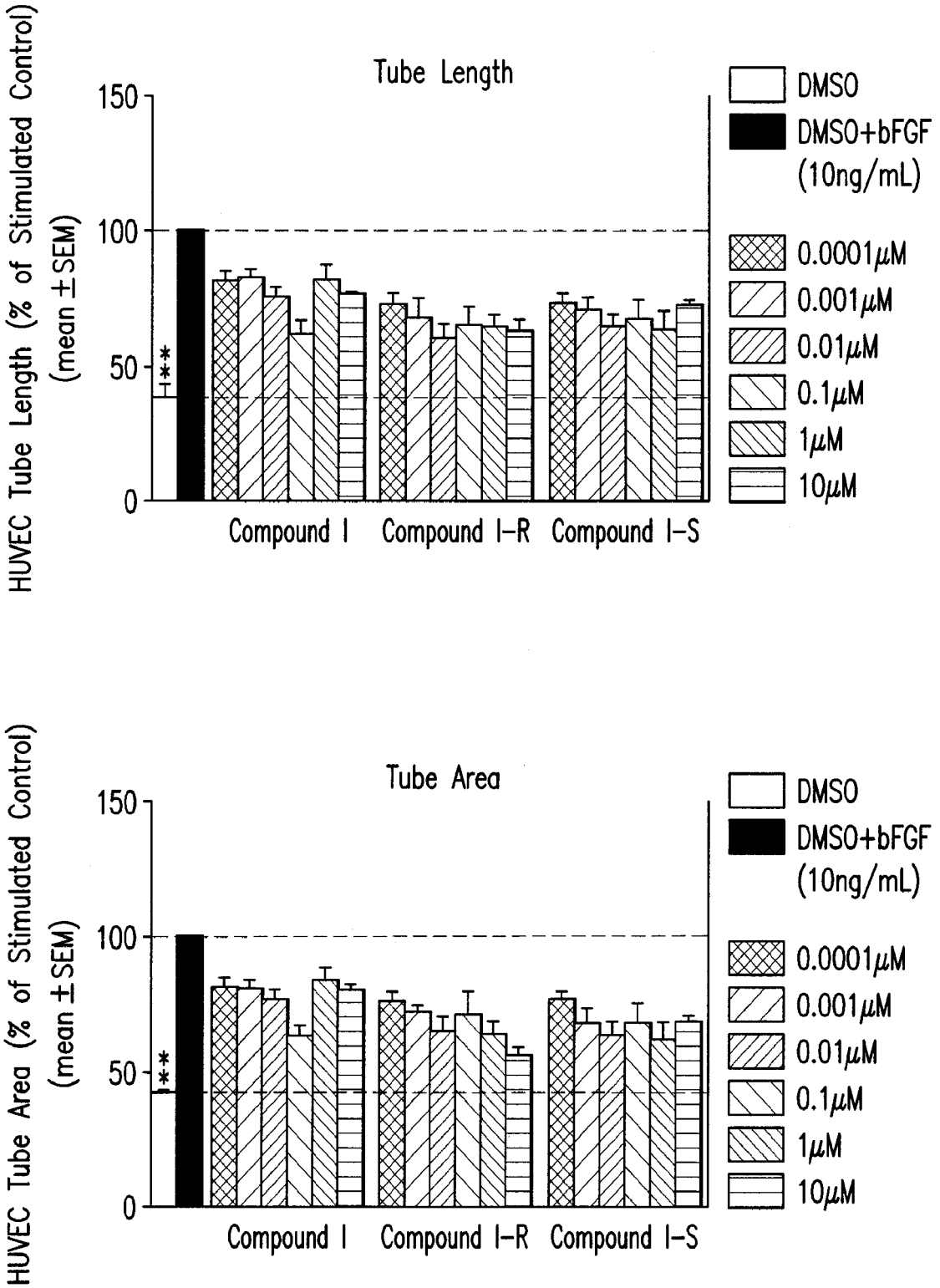


FIG. 11 (Cont'd)

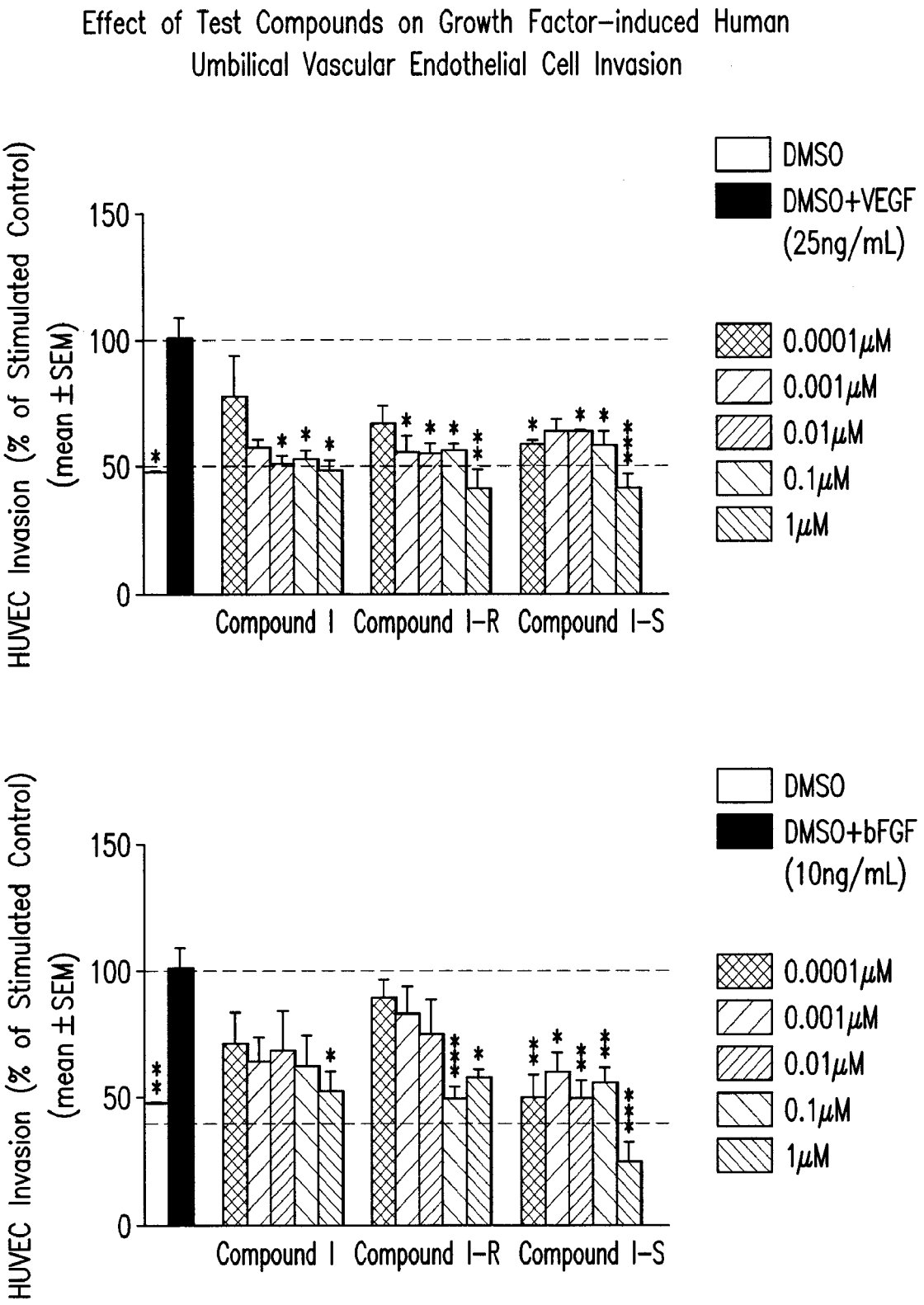

Effect of Test Compounds on Growth Factor–induced Human Umbilical Vascular Endothelial Cell Invasion
HUVEC Invasion (% of Stimulated Control) (mean ± SEM)
150
100
50
0
Compound I
Compound I-R
Compound I-S
DMSO
DMSO+VEGF (25ng/mL)
0.0001μM
0.001μM
0.01μM
0.1μM
1μM
HUVEC Invasion (% of Stimulated Control) (mean ± SEM)
150
100
50
0
Compound I
Compound I-R
Compound I-S
DMSO
DMSO+bFGF (10ng/mL)
0.0001μM
0.001μM
0.01μM
0.1μM
1μM

FIG. 12

Effect of Test Compounds on Growth Factor-induced Human Umbilical Vascular Endothelial Cell Invasion

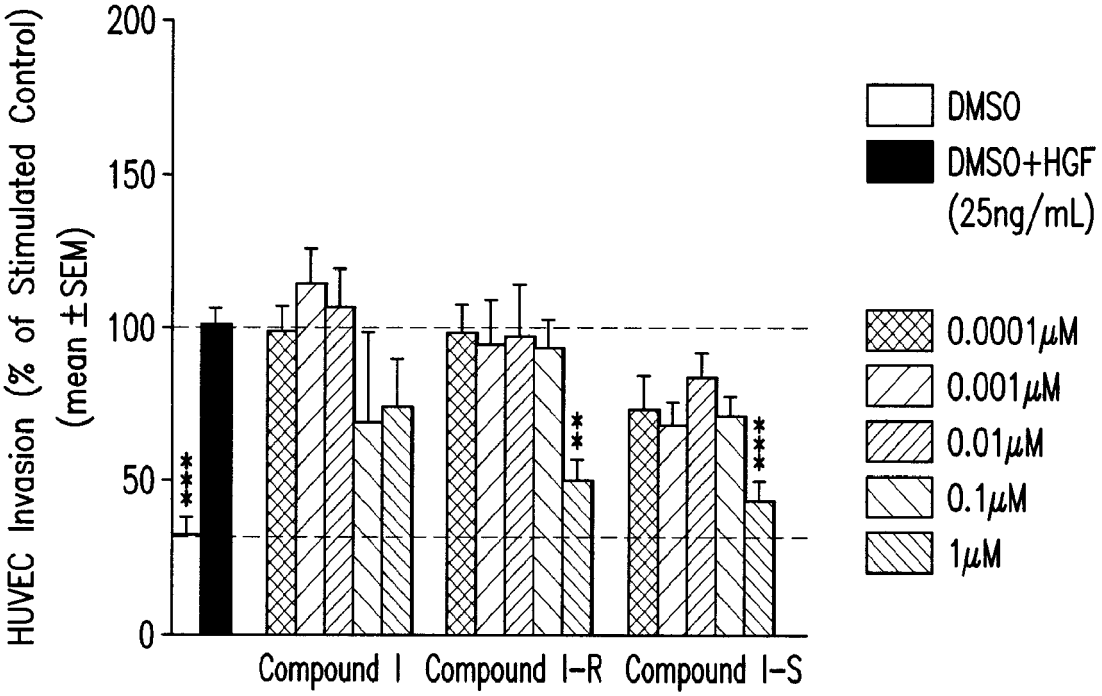


FIG. 12 (Cont'd)

Proliferation Assays of Compound I-S in Combination with Rituxan

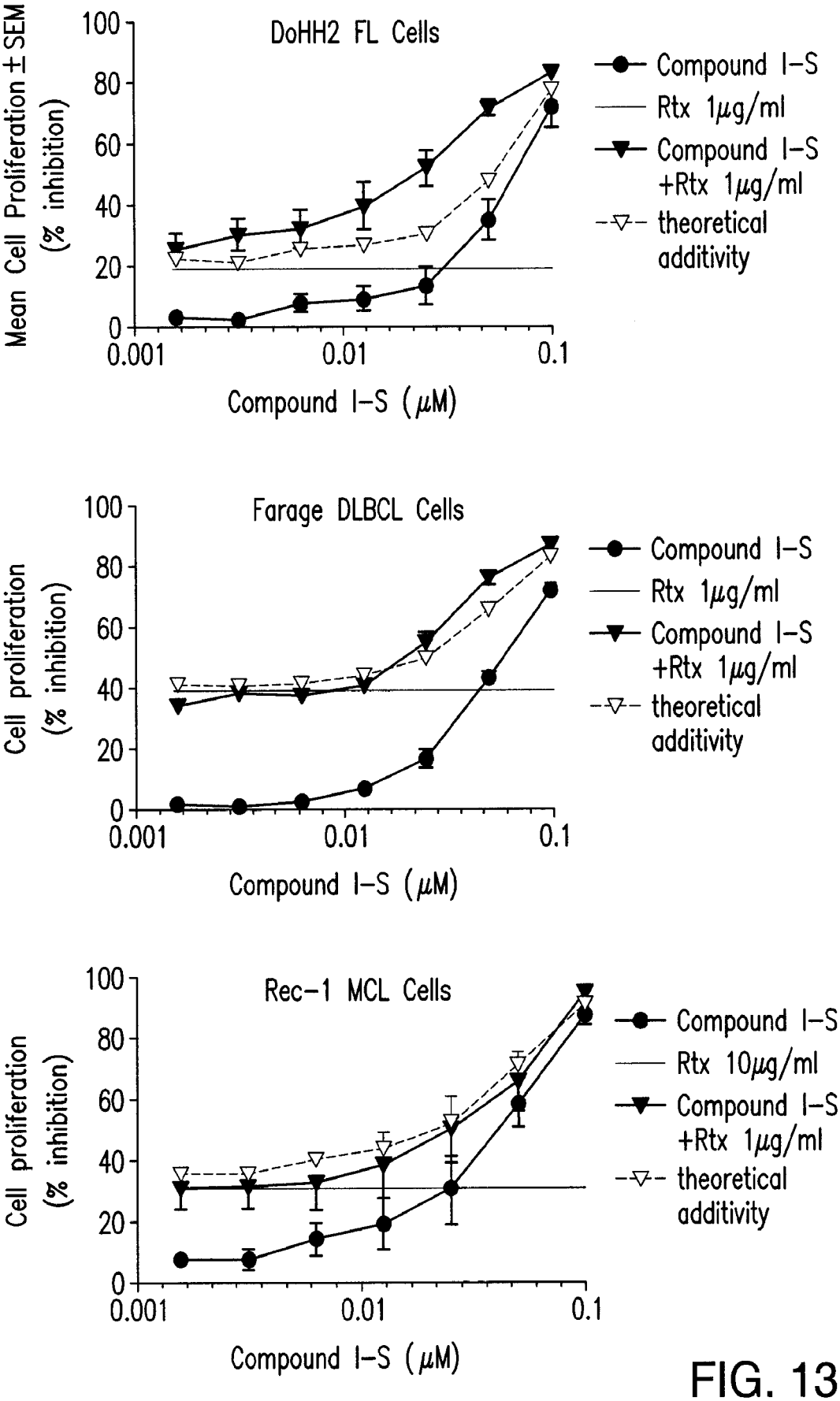


FIG. 13

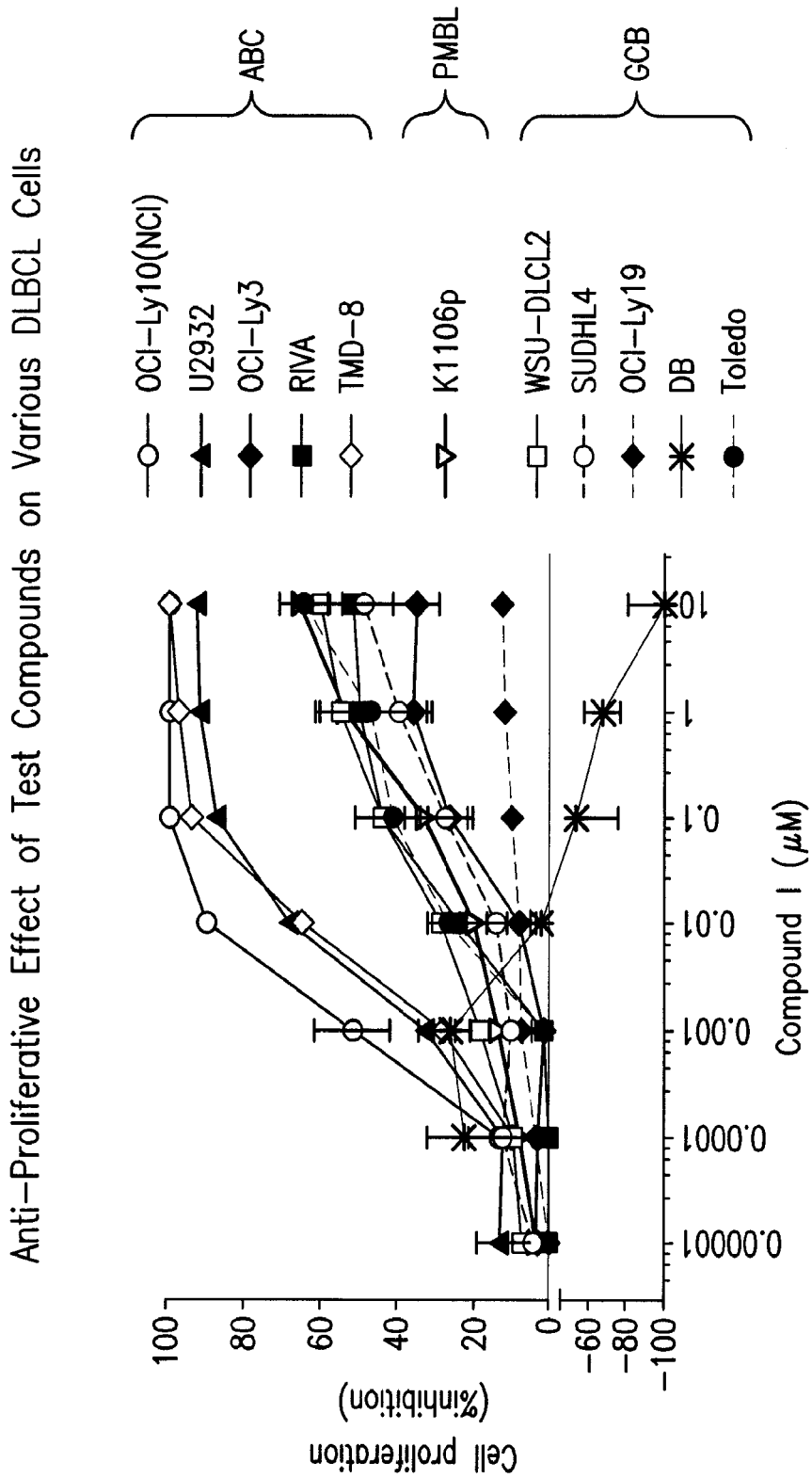

Anti-Proliferative Effect of Test Compounds on Various DLBCL Cells
ABC
PMBL
GCB
OCI-Ly10(NCI)
U2932
OCI-Ly3
RIVA
TMD-8
K1106p
WSU-DLCL2
SUDHL4
OCI-Ly19
DB
Toledo
Cell proliferation (%inhibition)
100
80
60
40
20
0
-60
-80
-100
10
1
0.1
0.01
0.001
0.0001
0.00001
Compound I (μM)

FIG. 14

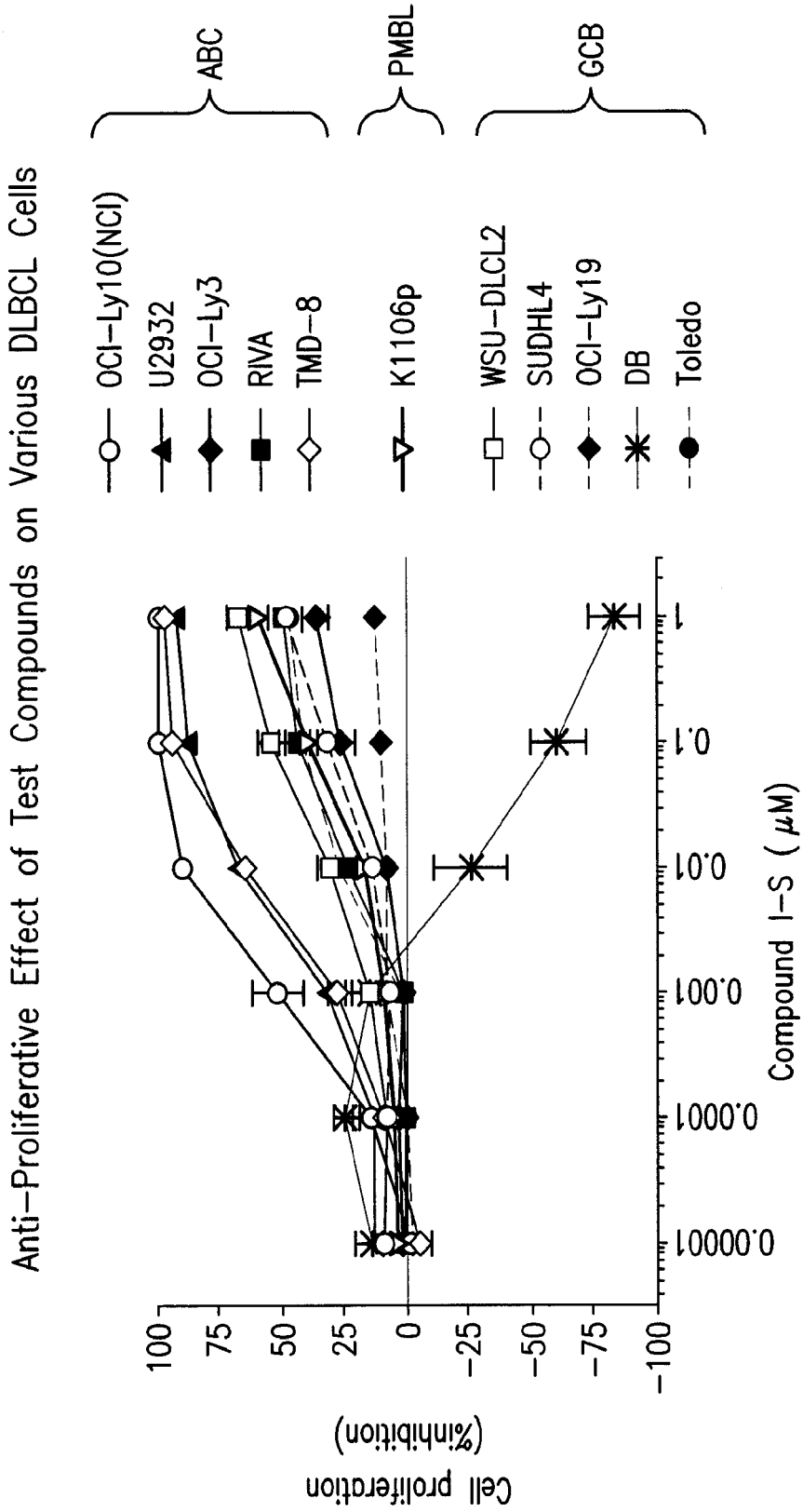

Anti-Proliferative Effect of Test Compounds on Various DLBCL Cells
ABC
PMBL
GCB
OCI-Ly10(NCI)
U2932
OCI-Ly3
RIVA
TMD-8
K1106p
WSU-DLCL2
SUDHL4
OCI-Ly19
DB
Toledo
Cell proliferation (%inhibition)
100
75
50
25
0
-25
-50
-75
-100
Compound I-S (μM)
1
0.1
0.01
0.001
0.0001
0.00001

FIG. 14 (Cont'd)

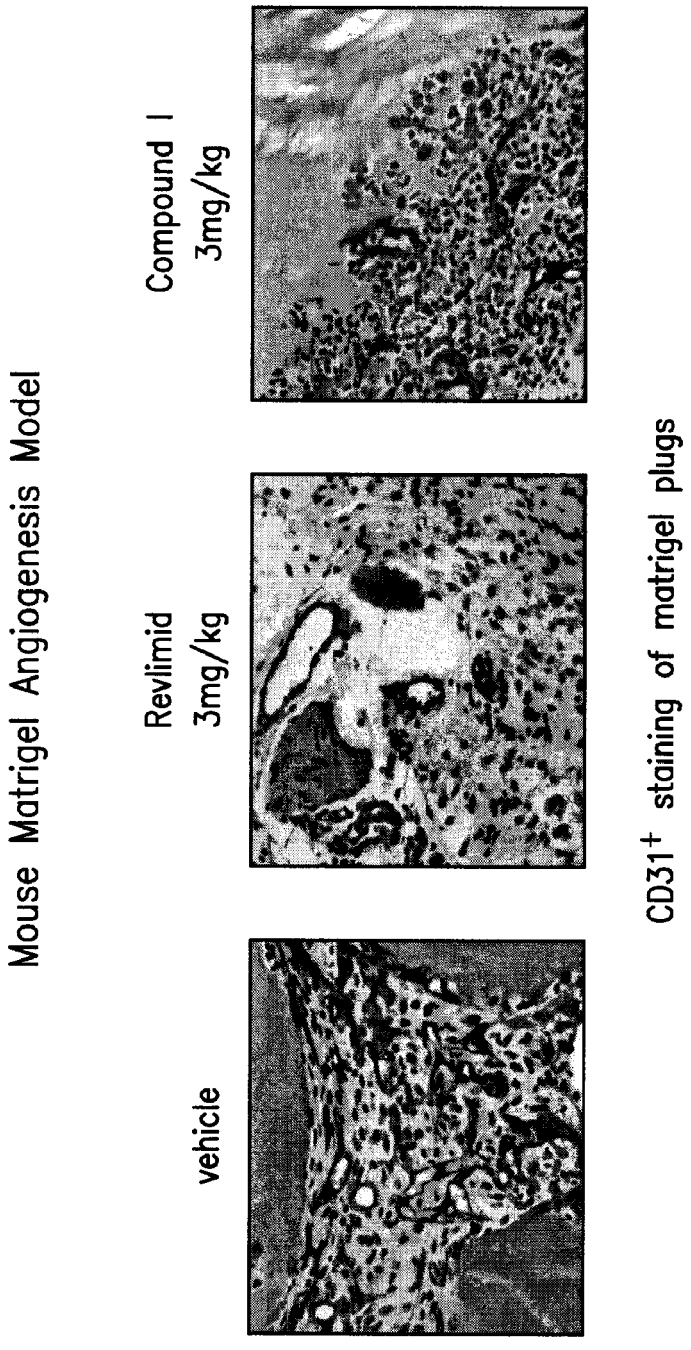

Mouse Matrigel Angiogenesis Model
vehicle
Revlimid 3mg/kg
Compound I 3mg/kg
CD31+ staining of matrigel plugs

FIG. 15

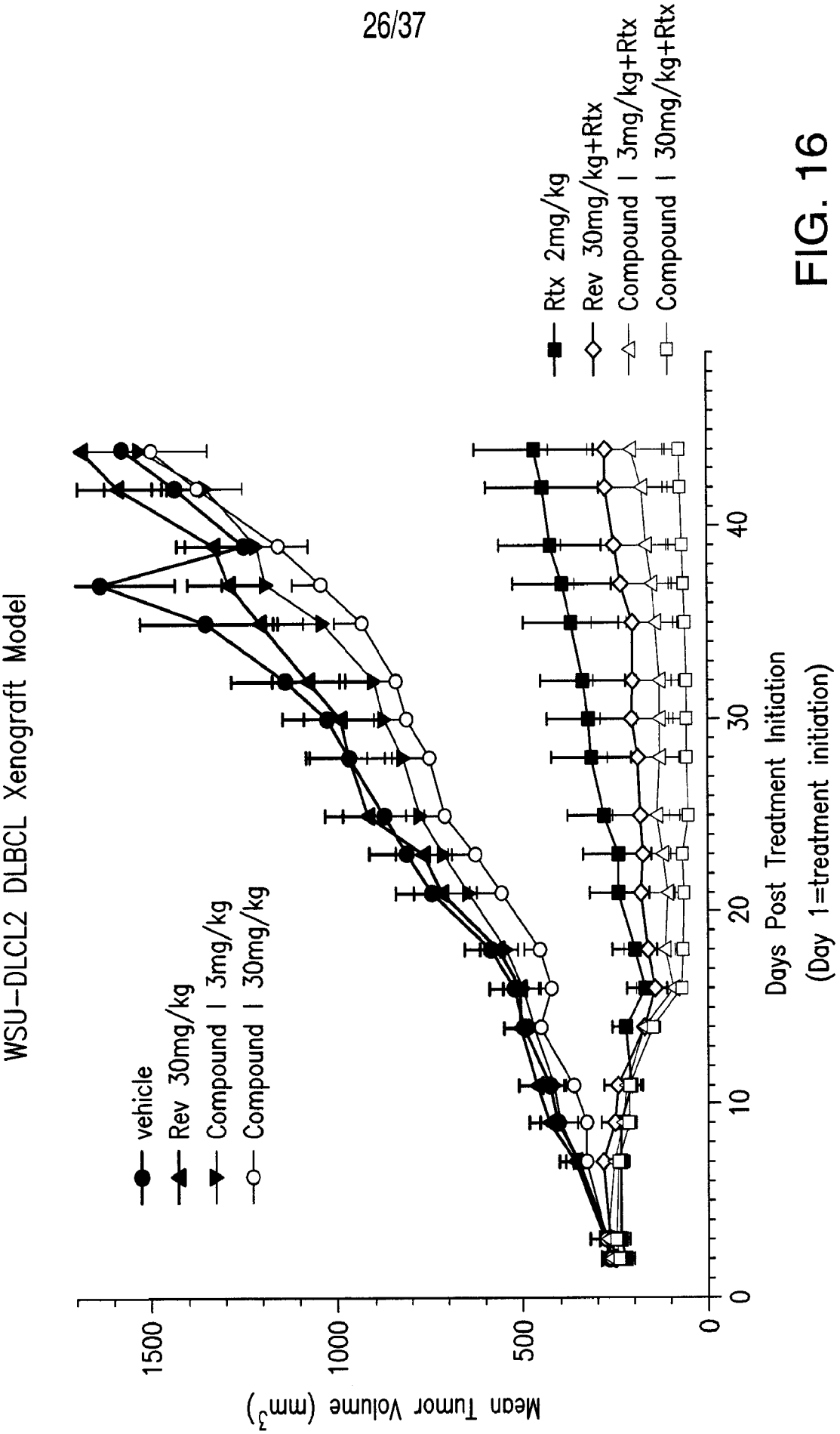
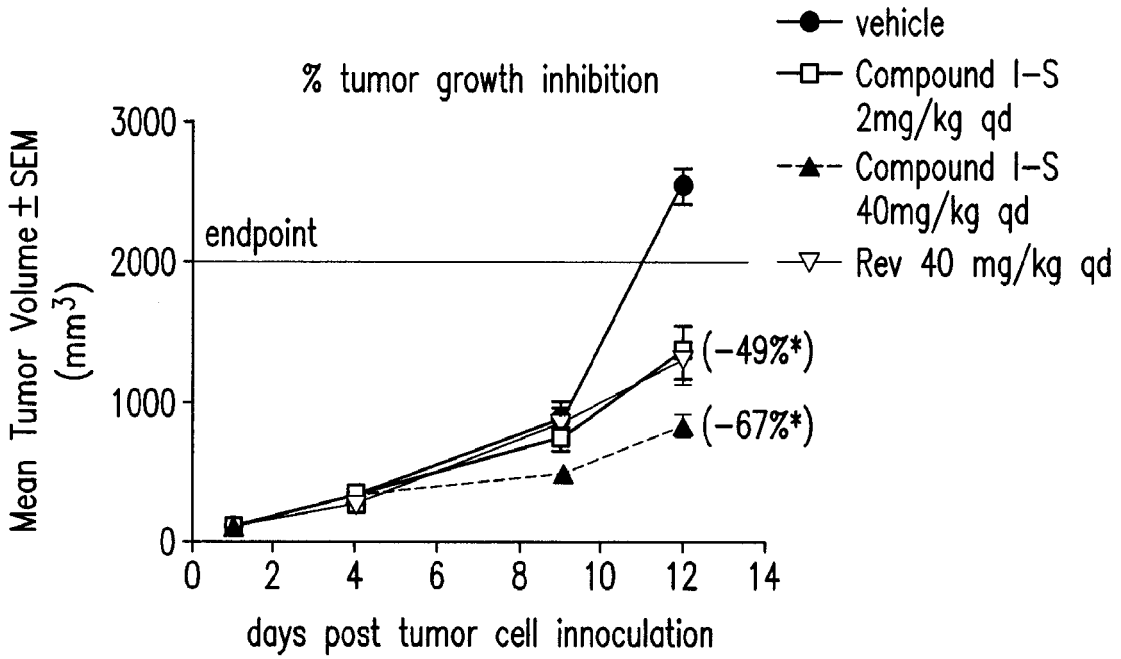
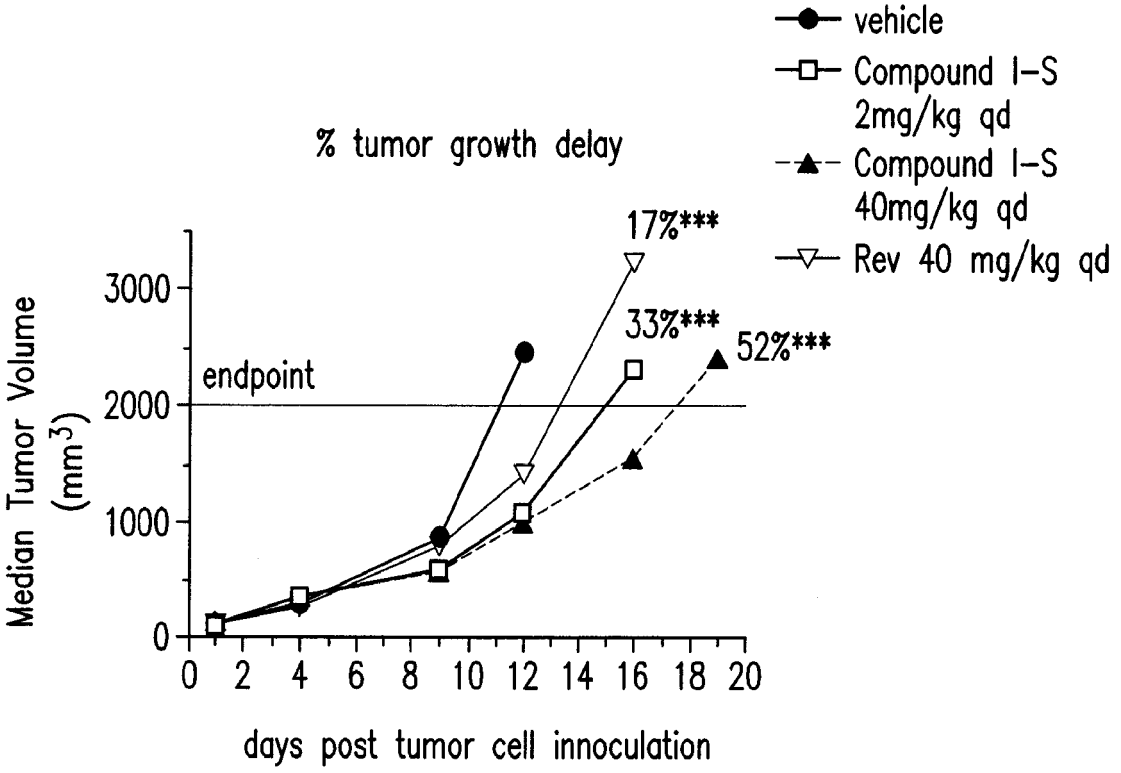

WSU-DLCL2 DLBCL Xenograft Model
vehicle
Rev 30mg/kg
Compound I 3mg/kg
Compound I 30mg/kg
Rtx 2mg/kg
Rev 30mg/kg+Rtx
Compound I 3mg/kg+Rtx
Compound I 30mg/kg+Rtx
Mean Tumor Volume (mm³)
0
500
1000
1500
0
10
20
30
40
Days Post Treatment Initiation
(Day 1=treatment initiation)

FIG. 16

DoHH2 Xenograft Model—Monotherapy



*p<0.05 vs vehicle



***p<0.0001 vs vehicle

FIG. 17

DoHH2 Xenograft Model—Combination Therapy

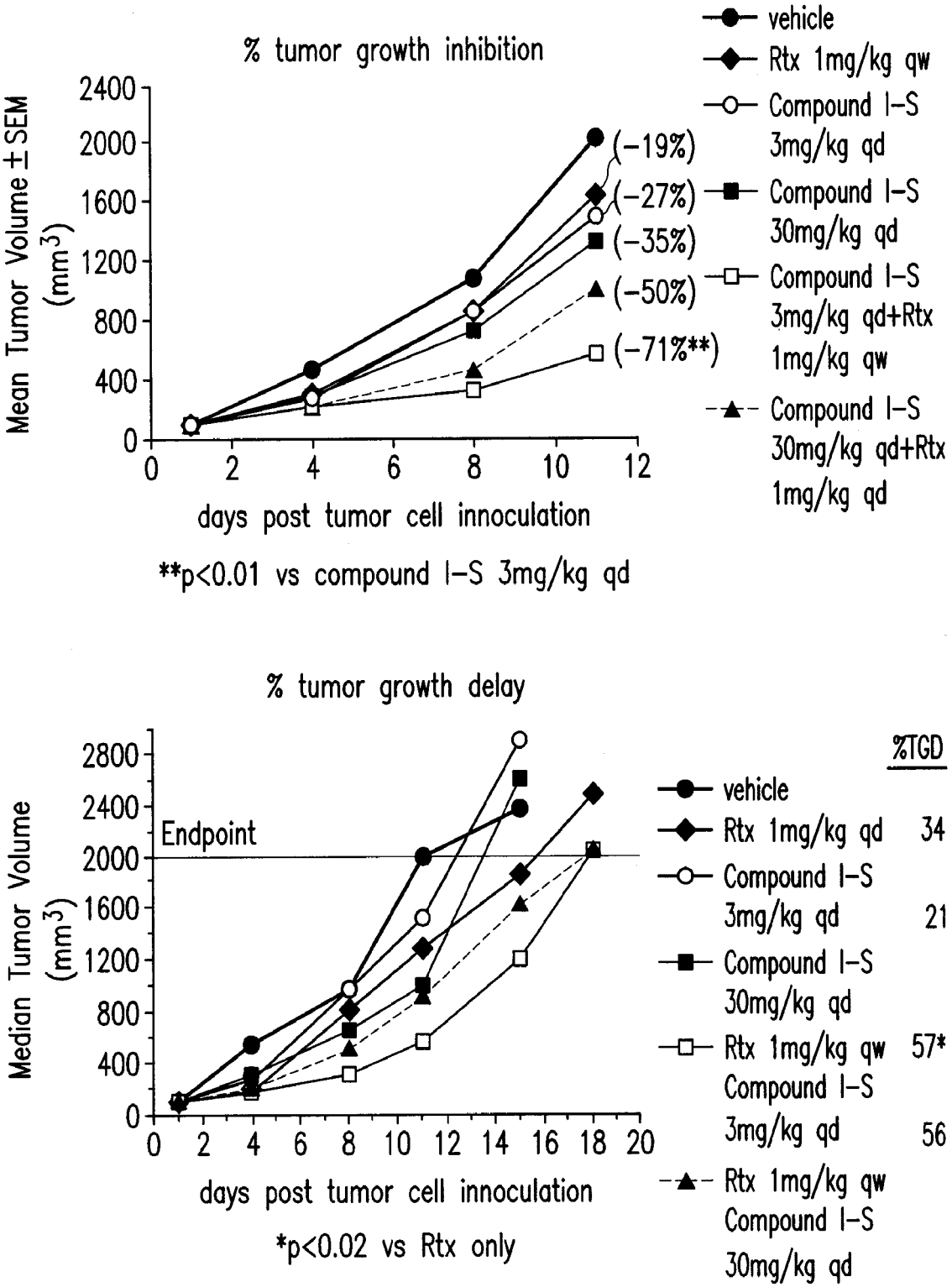
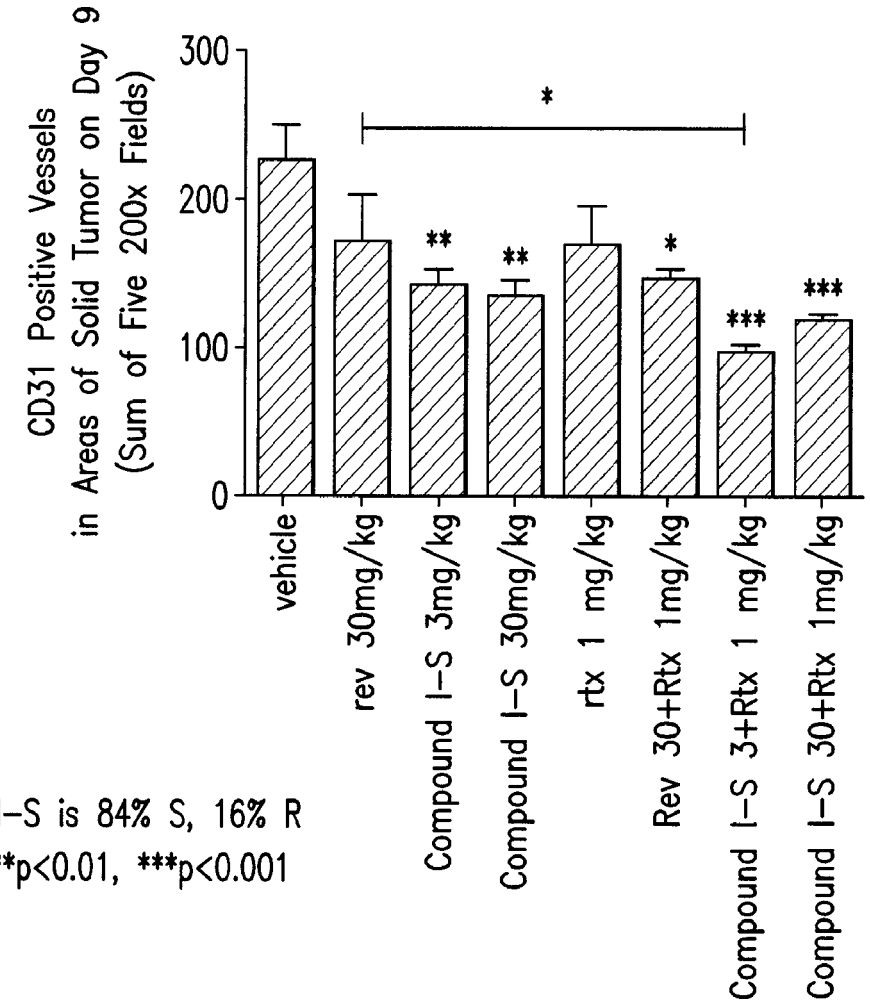


FIG. 18

CD31 IHC on DoHH2 Xenograft Tumors



Compound I-S is 84% S, 16% R
*p<0.05, **p<0.01, ***p<0.001

tumor size D9(g)	2.7	2.8	2.4	2.7	1.8	1.2	1.3	1.3
%TGI at D12		19	27	35	19	54	71	50

FIG. 19

Rec-1 MCL Xenograft Model

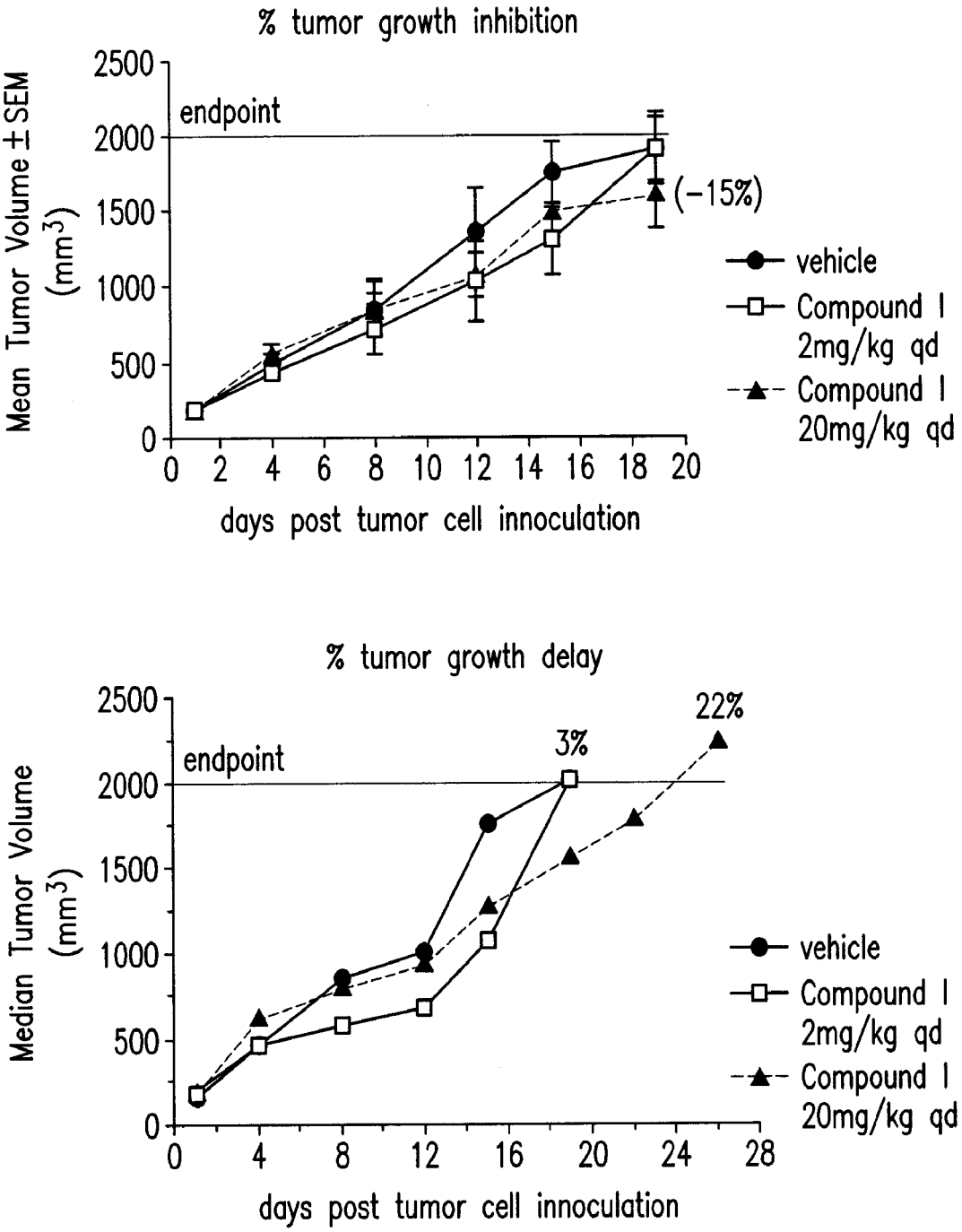


FIG. 20

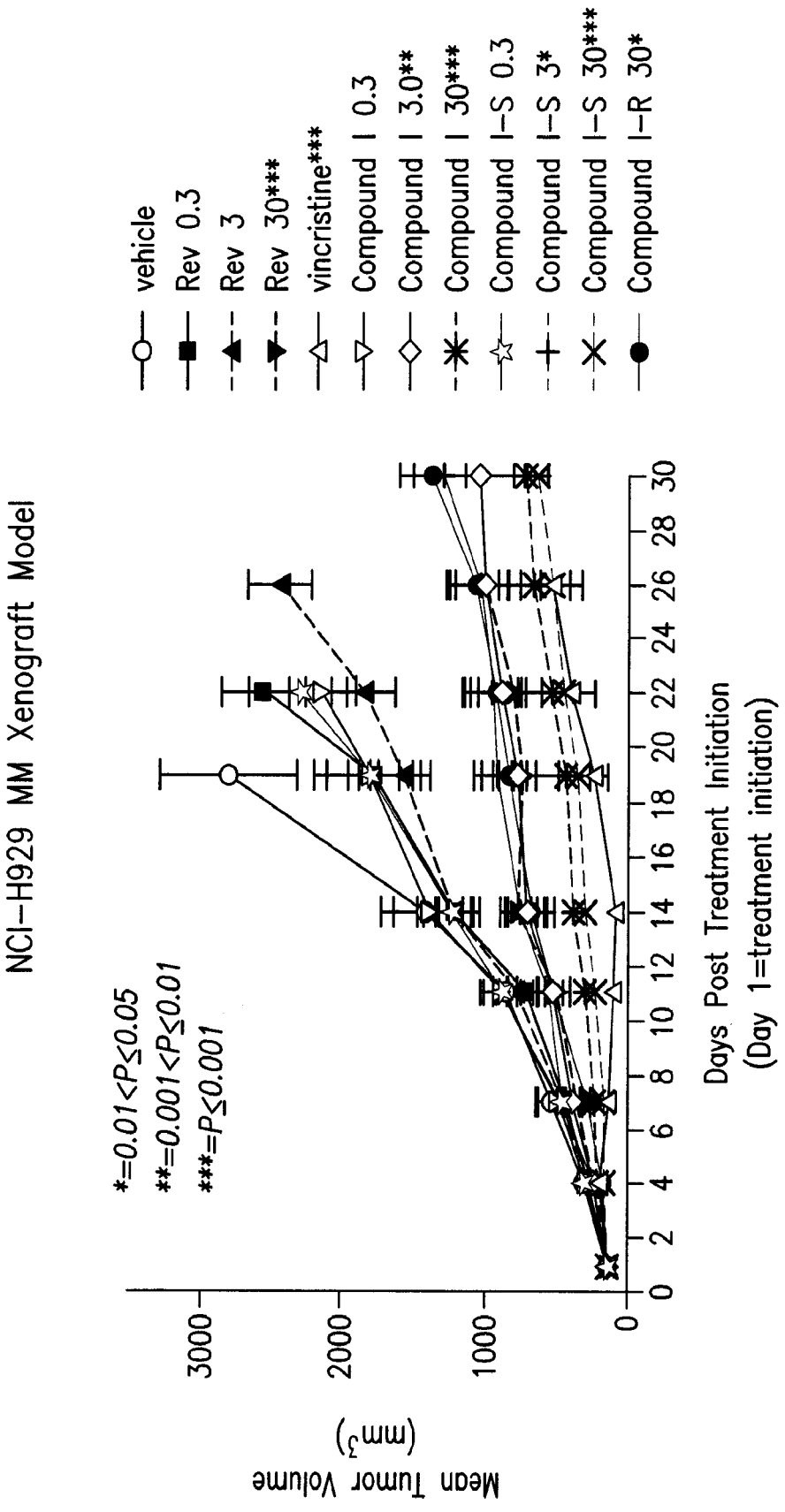

NCI-H929 MM Xenograft Model
*=0.01<P≤0.05
**=0.001<P≤0.01
***=P≤0.001
Mean Tumor Volume (mm³)
3000
2000
1000
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Days Post Treatment Initiation (Day 1=treatment initiation)
vehicle
Rev 0.3
Rev 3
Rev 30***
vincristine***
Compound I 0.3
Compound I 3.0**
Compound I 30***
Compound I-S 0.3
Compound I-S 3*
Compound I-S 30***
Compound I-R 30*

FIG. 21

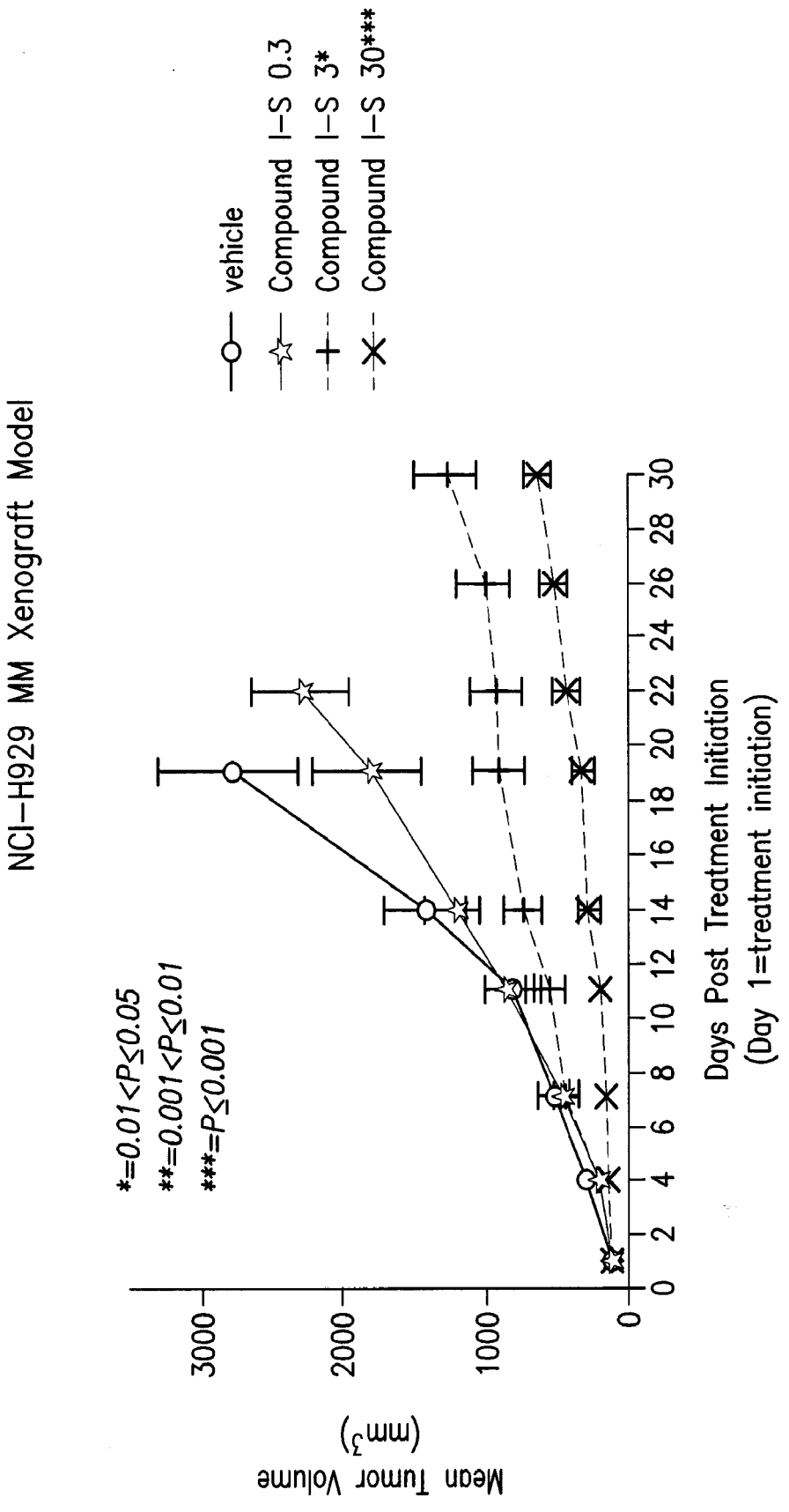

NCI-H929 MM Xenograft Model
vehicle
Compound I-S 0.3
Compound I-S 3*
Compound I-S 30***
*=0.01<P≤0.05
**=0.001<P≤0.01
***=P≤0.001
Mean Tumor Volume (mm³)
3000
2000
1000
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
Days Post Treatment Initiation
(Day 1=treatment initiation)

FIG. 21 (Cont'd)

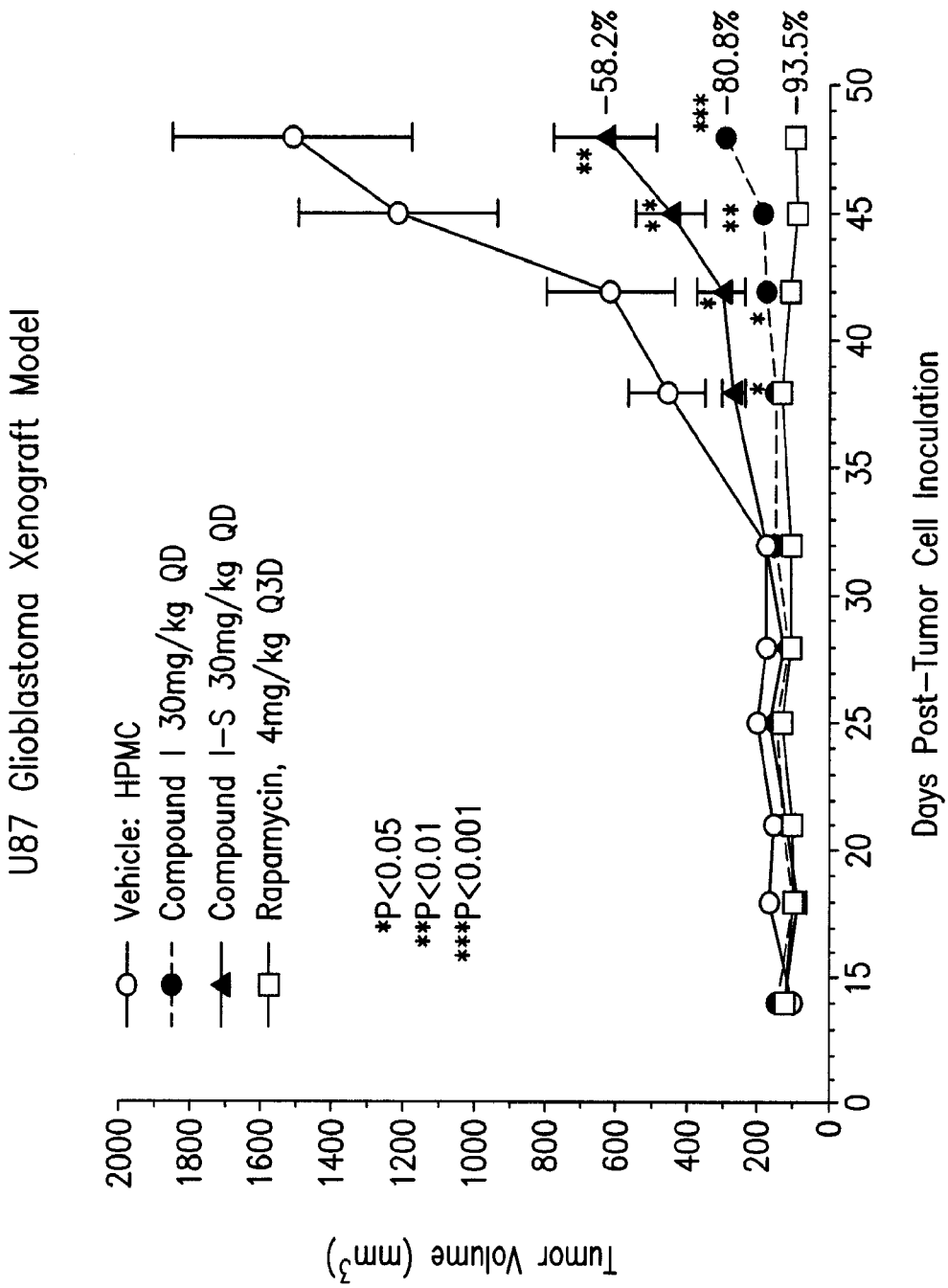

U87 Glioblastoma Xenograft Model
Vehicle: HPMC
Compound I 30mg/kg QD
Compound I-S 30mg/kg QD
Rapamycin, 4mg/kg Q3D
*P<0.05
**P<0.01
***P<0.001
-58.2%
-80.8%
-93.5%
Tumor Volume (mm3)
Days Post-Tumor Cell Inoculation
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
15
20
25
30
35
40
45
50

FIG. 22

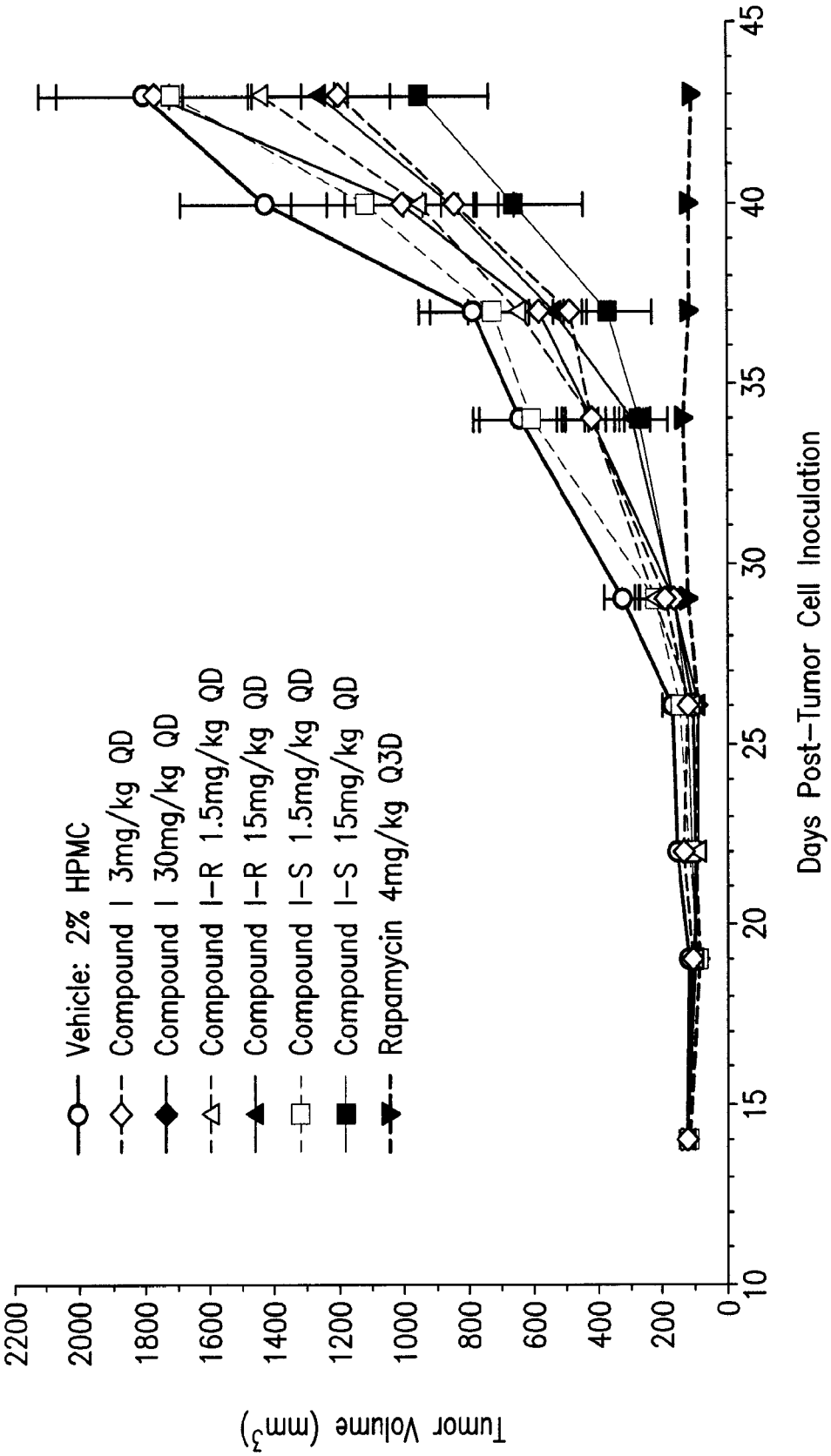

U87 Glioblastoma Xenograft Model
Vehicle: 2% HPMC
Compound I 3mg/kg QD
Compound I 30mg/kg QD
Compound I-R 1.5mg/kg QD
Compound I-R 15mg/kg QD
Compound I-S 1.5mg/kg QD
Compound I-S 15mg/kg QD
Rapamycin 4mg/kg Q3D
Tumor Volume (mm3)
Days Post-Tumor Cell Inoculation
0
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
10
15
20
25
30
35
40
45

FIG. 22 (Cont'd)

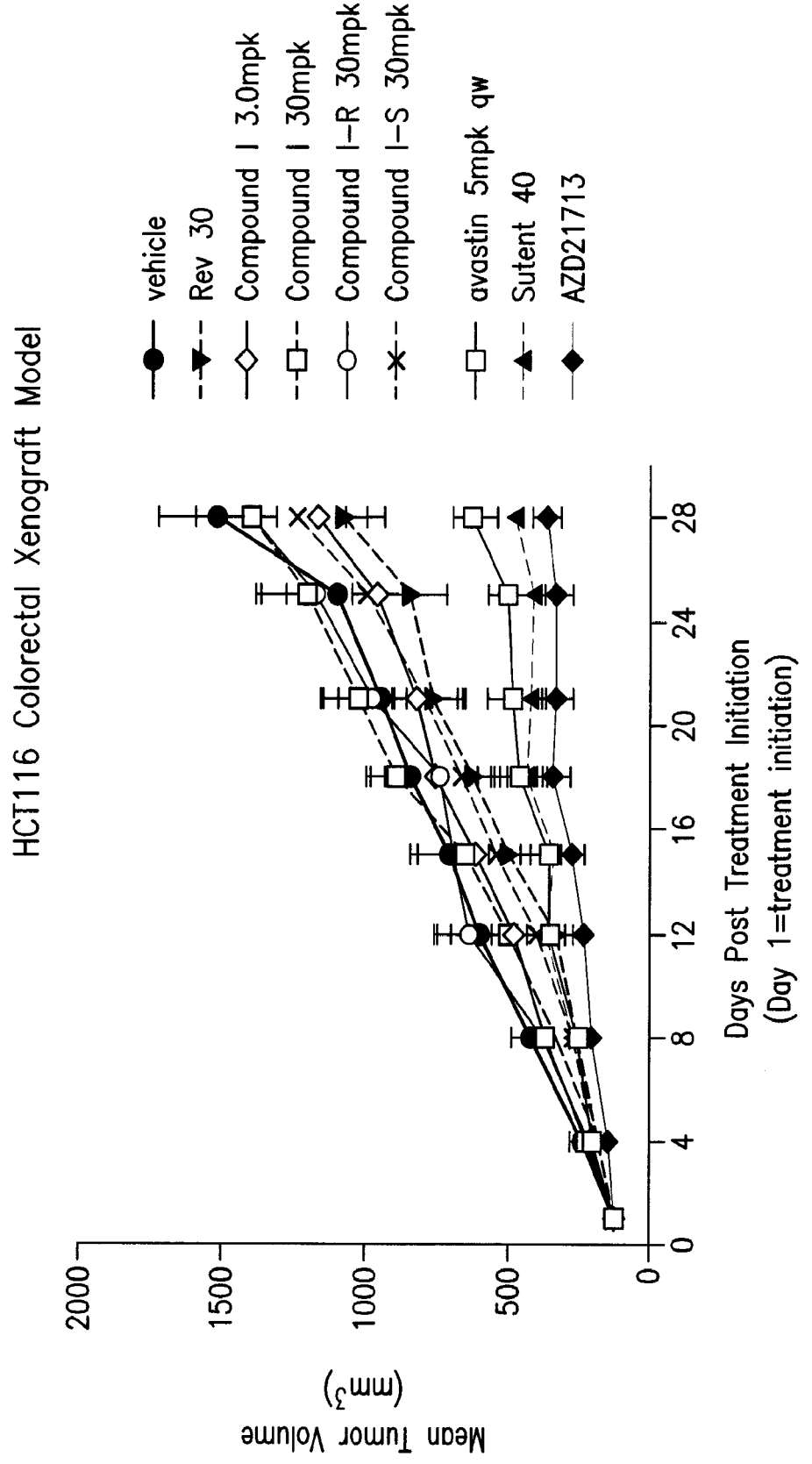

HCT116 Colorectal Xenograft Model
vehicle
Rev 30
Compound I 3.0mpk
Compound I 30mpk
Compound I-R 30mpk
Compound I-S 30mpk
avastin 5mpk qw
Sutent 40
AZD21713
Mean Tumor Volume (mm3)
2000
1500
1000
500
0
0
4
8
12
16
20
24
28
Days Post Treatment Initiation
(Day 1=treatment initiation)

FIG. 23

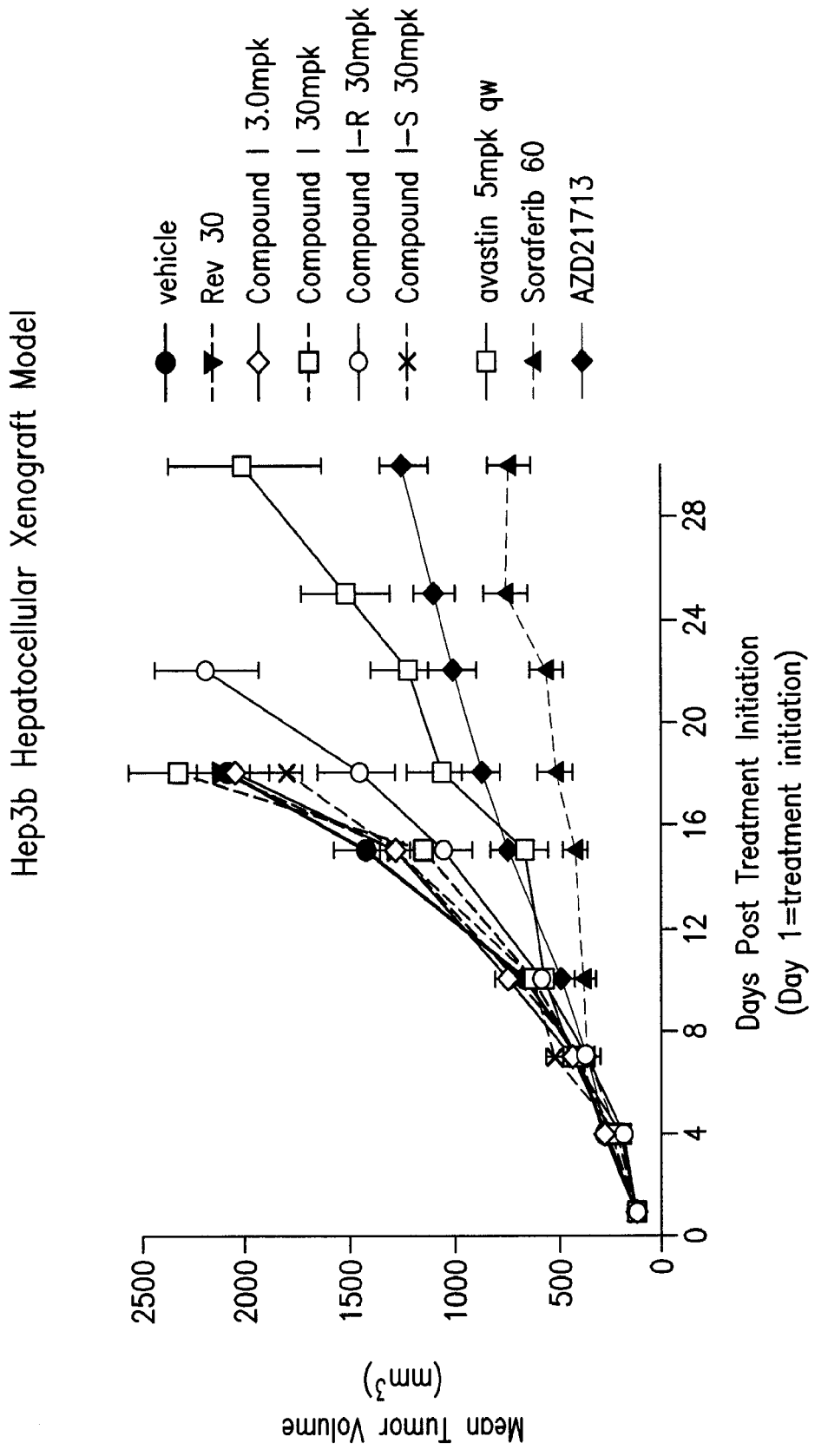

Hep3b Hepatocellular Xenograft Model
vehicle
Rev 30
Compound I 3.0mpk
Compound I 30mpk
Compound I-R 30mpk
Compound I-S 30mpk
avastin 5mpk qw
Soraferib 60
AZD21713
Mean Tumor Volume
(mm³)
2500
2000
1500
1000
500
0
0
4
8
12
16
20
24
28
Days Post Treatment Initiation
(Day 1=treatment initiation)

FIG. 24

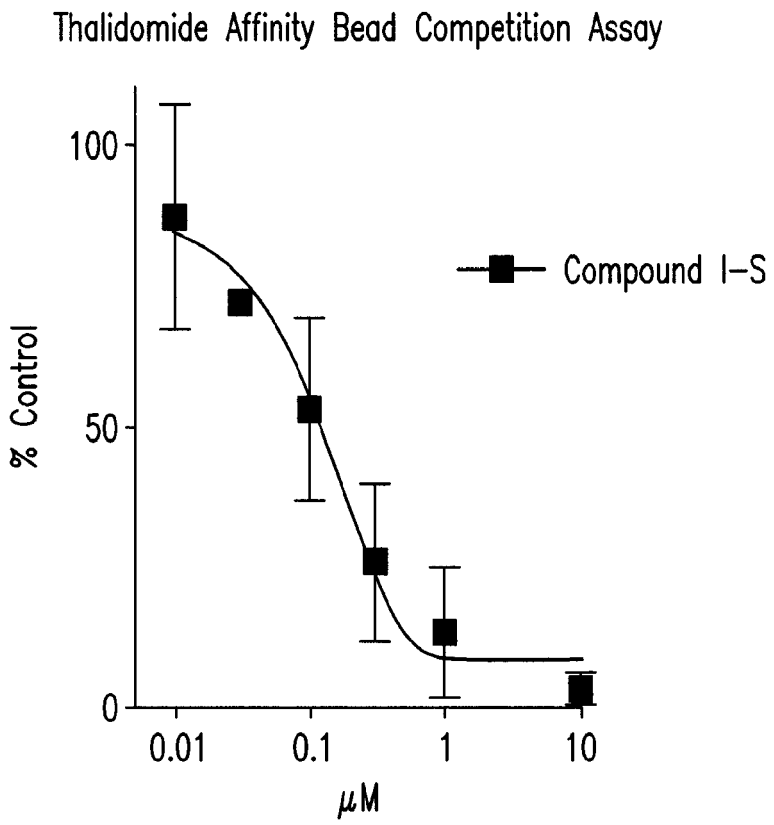

Thalidomide Affinity Bead Competition Assay
100
50
0
% Control
Compound I-S
0.01
0.1
1
10
μM

FIG. 25