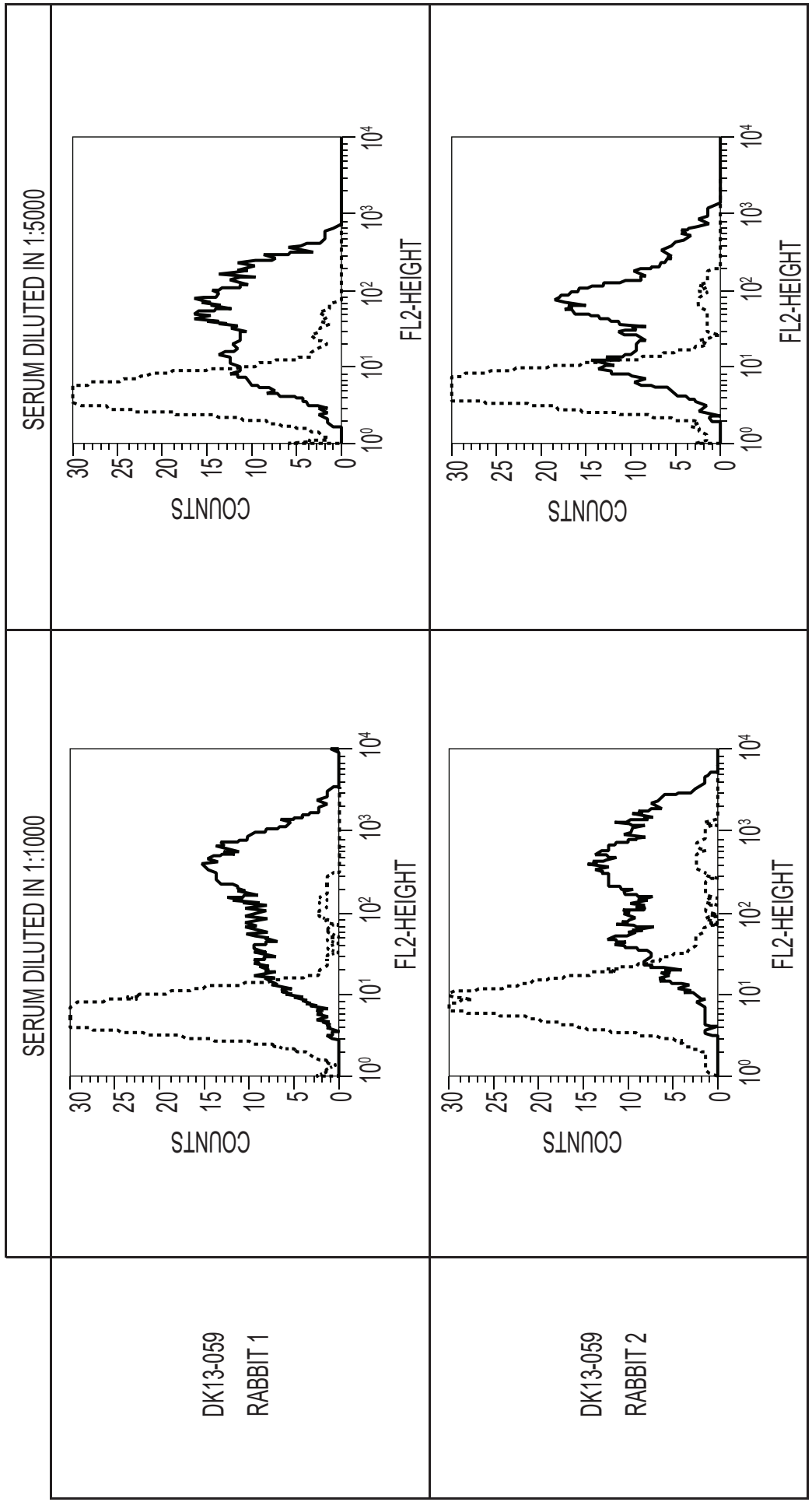

SERUM DILUTED IN 1:1000
SERUM DILUTED IN 1:5000
DK13-059
RABBIT 1
DK13-059
RABBIT 2
COUNTS
FL2-HEIGHT
0
5
10
15
20
25
30
10^0
10^1
10^2
10^3
10^4

FIG. 1

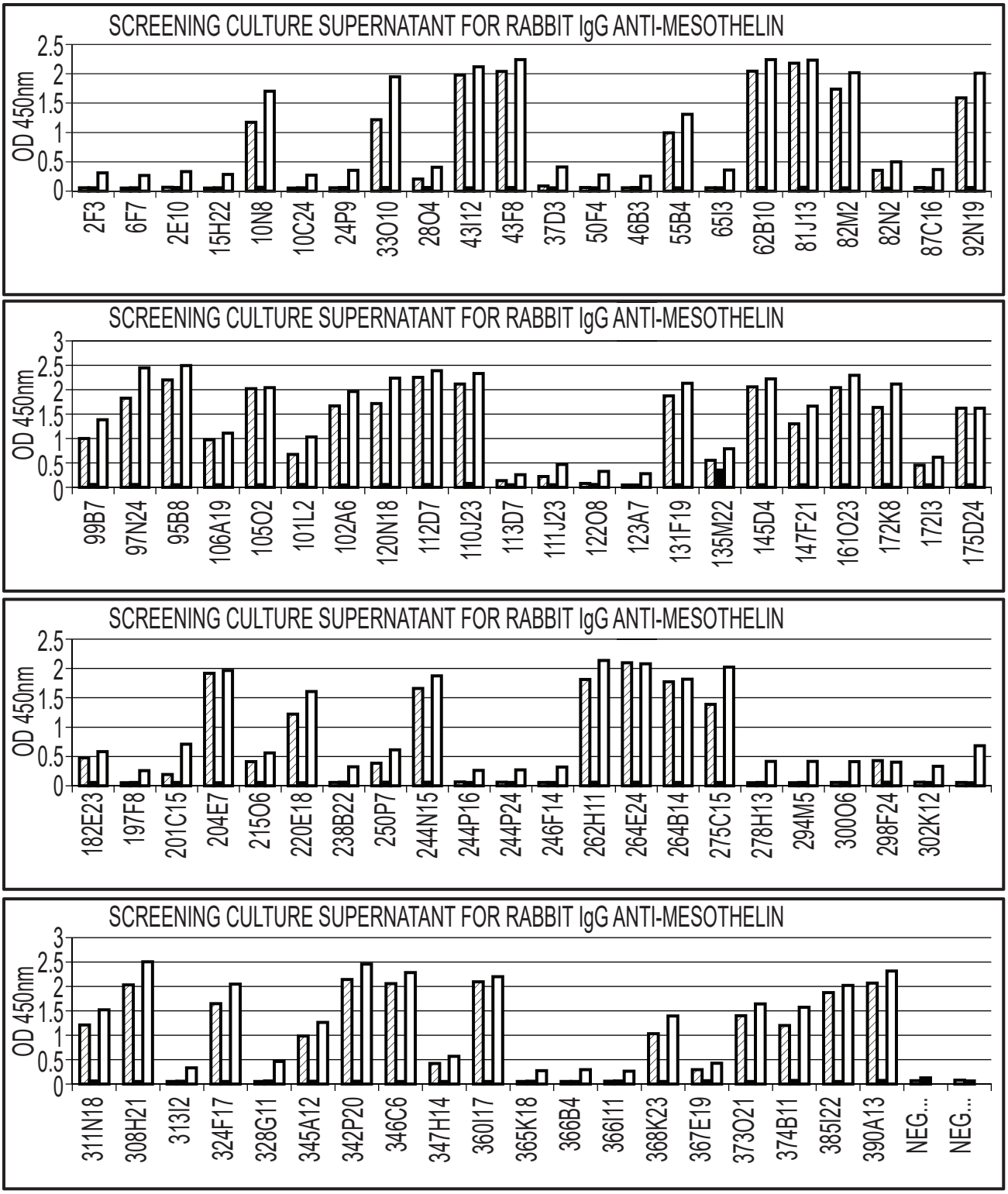
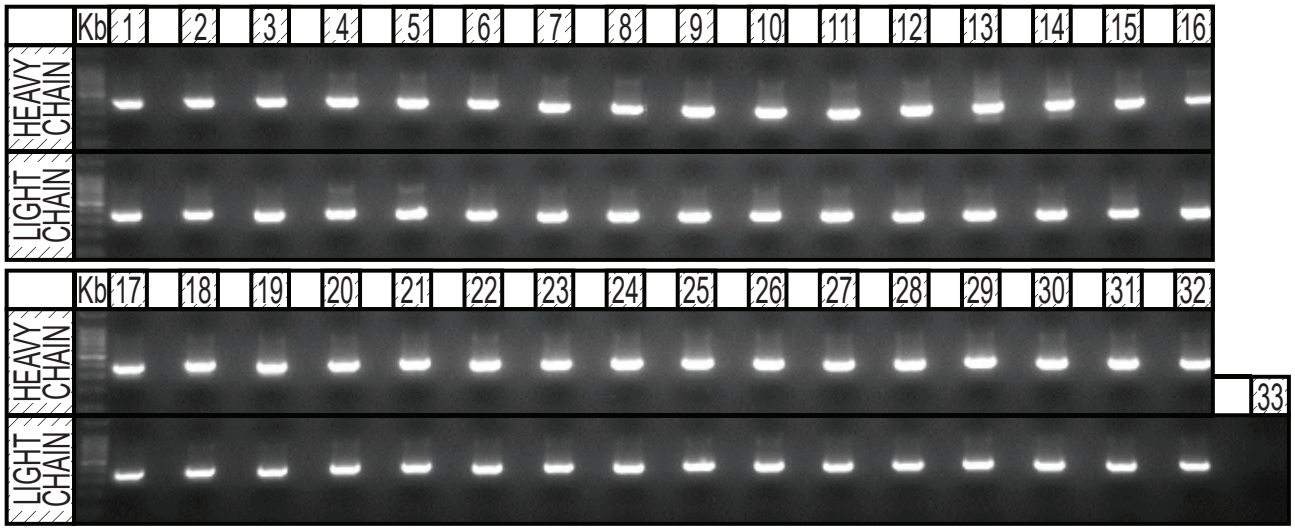
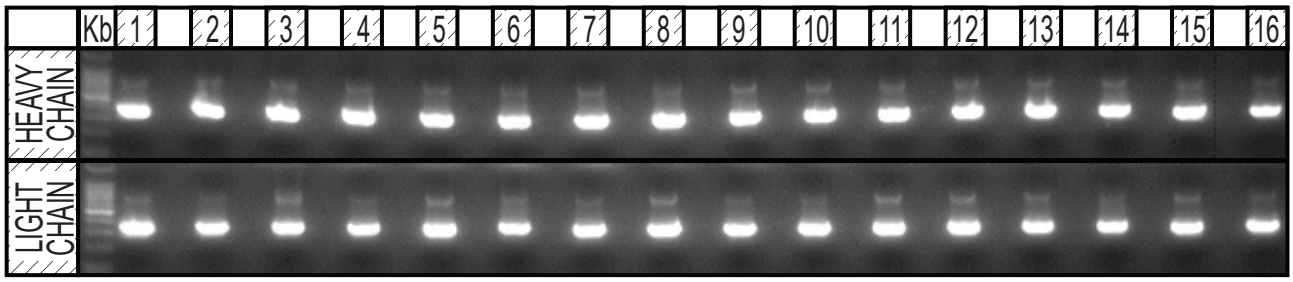
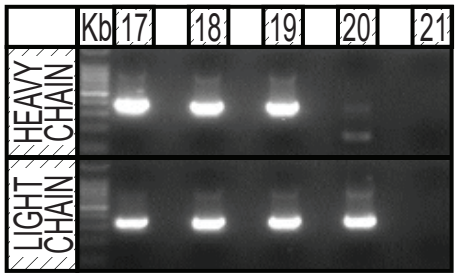

SCREENING CULTURE SUPERNATANT FOR RABBIT IgG ANTI-MESOTHELIN
OD 450nm
2.5
2
1.5
1
0.5
0
2F3
6F7
2E10
15H22
10N8
10C24
24P9
33O10
28O4
43I12
43F8
37D3
50F4
46B3
55B4
65I3
62B10
81J13
82M2
82N2
87C16
92N19
SCREENING CULTURE SUPERNATANT FOR RABBIT IgG ANTI-MESOTHELIN
OD 450nm
3
2.5
2
1.5
1
0.5
0
99B7
97N24
95B8
106A19
105O2
101L2
102A6
120N18
112D7
110J23
113D7
111J23
122O8
123A7
131F19
135M22
145D4
147F21
161O23
172K8
172I3
175D24
SCREENING CULTURE SUPERNATANT FOR RABBIT IgG ANTI-MESOTHELIN
OD 450nm
2.5
2
1.5
1
0.5
0
182E23
197F8
201C15
204E7
215O6
220E18
238B22
250P7
244N15
244P16
244P24
246F14
262H11
264E24
264B14
275C15
278H13
294M5
300O6
298F24
302K12
SCREENING CULTURE SUPERNATANT FOR RABBIT IgG ANTI-MESOTHELIN
OD 450nm
3
2.5
2
1.5
1
0.5
0
311N18
308H21
313I2
324F17
328G11
345A12
342P20
346C6
347H14
360I17
365K18
366B4
366I11
368K23
367E19
373O21
374B11
385I22
390A13
NEG...
NEG...

FIG. 2



LANE	CLONE	LANE	CLONE	LANE	CLONE	LANE	CLONE	LANE	
1	2012_10N8	9	2012_106A19	17	2012_172K8	25	2012_311N18	33	NEGATIVE CONTROL
2	2012_33O10	10	2012_105O2	18	2012_172I3	26	2012_308H21		
3	2012_43I12	11	2012_110J23	19	2012_175D24	27	2012_324F17		
4	2012_55B4	12	2012_111J23	20	2012_176J16	28	2012_345A12		
5	2012_62B10	13	2012_131F19	21	2012_204E7	29	2012_346C6		
6	2012_82M2	14	2012_145D4	22	2012_215O6	30	2012_347H14		
7	2012_99B7	15	2012_147F21	23	2012_264B14	31	2012_360I17		
8	2012_95B8	16	2012_101L2	24	2012_300O6	32	2012_390A13		





LANE	SAMPLE	LANE	SAMPLE	LANE	SAMPLE
1	2012_28O4	9	2012_112D7	17	2012_368K23
2	2012_43F8	10	2012_201C15	18	2012_367E19
3	2012_82N2	11	2012_238B22	19	2012_373O21
4	2012_92N19	12	2012_250P7	20	2012_385I22
5	2012_97N24	13	2012_246F14	21	NEG CONTROL
6	2012_161O23	14	2012_262H11		
7	2012_102A6	15	2012_264E24		
8	2012_120N18	16	2012_342P20		

FIG. 3

	1	2	3	4	5	6	7	8	9	10	11	12
A	2012_10N8-HC	2012_10N8-LC	2012_106A19-HC	2012_106A19-LC	2012_172K8-HC	2012_172K8-LC	2012_311N18-HC	2012_311N18-LC	2012_28O4-HC	2012_28O4-LC	2012_112D7-HC	2012_112D7-LC
B	2012_33O10-HC	2012_33O10-LC	2012_105O2-HC	2012_105O2-LC	2012_172I3-HC	2012_172I3-LC	2012_308H21-HC	2012_308H21-LC	2012_43F8-HC	2012_43F8-LC	2012_201C15-HC	2012_201C15-LC
C	2012_43I12-HC	2012_43I12-LC	2012_110J23-HC	2012_110J23-LC	2012_175D24-HC	2012_175D24-LC	2012_324F17-HC	2012_324F17-LC	2012_82N2-HC	2012_82N2-LC	2012_238B22-HC	2012_238B22-LC
D	2012_55B4-HC	2012_55B4-LC	2012_111J23-HC	2012_111J23-LC	2012_176J16-HC	2012_176J16-LC	2012_345A12-HC	2012_345A12-LC	2012_92N19-HC	2012_92N19-LC	2012_250P7-HC	2012_250P7-LC
E	2012_62B10-HC	2012_62B10-LC	2012_131F19-HC	2012_131F19-LC	2012_204E7-HC	2012_204E7-LC	2012_346C6-HC	2012_346C6-LC	2012_97N24-HC	2012_97N24-LC	2012_246F14-HC	2012_246F14-LC
F	2012_82M2-HC	2012_82M2-LC	2012_145D4-HC	2012_145D4-LC	2012_215O6-HC	2012_215O6-LC	2012_347H14-HC	2012_347H14-LC	2012_161O23-HC	2012_161O23-LC	2012_262H11-HC	2012_262H11-LC
G	2012_99B7-HC	2012_99B7-LC	2012_147F21-HC	2012_147F21-LC	2012_264B14-HC	2012_264B14-LC	2012_360I17-HC	2012_360I17-LC	2012_102A6-HC	2012_102A6-LC	2012_264E24-HC	2012_264E24-LC
H	2012_95B8-HC	2012_95B8-LC	2012_101L2-HC	2012_101L2-LC	2012_300O6-HC	2012_300O6-LC	2012_390A13-HC	2012_390A13-LC	2012_120N18-HC	2012_120N18-LC	2012_342P20-HC	2012_342P20-LC

FIG. 4

WELL	CLONE	TOTAL (μg)
A1	2012_10N8	492.4
B1	2012_33O10	420.2
C1	2012_43I12	459.8
D1	2012_55B4	439.8
E1	2012_62B10	423.6
F1	2012_82M2	327.6
G1	2012_99B7	397
H1	2012_95B8	466.4
A2	2012_106A19	132.3
B2	2012_105O2	TOO LOW
C2	2012_110J23	521.8
D2	2012_111J23	TOO LOW
E2	2012_131F19	591
F2	2012_145D4	439.4
G2	2012_147F21	235.6
H2	2012_101L2	319.4

WELL	CLONE	TOTAL (μg)
A3	2012_172K8	138.14
B3	2012_172I3	166.4
C3	2012_175D24	792.8
D3	2012_176J16	830
E3	2012_204E7	TOO LOW
F3	2012_215O6	246.6
G3	2012_264B14	160.16
H3	2012_300O6	263.6
A4	2012_311N18	139.68
B4	2012_308H21	397.8
C4	2012_324F17	649.6
D4	2012_345A12	330.6
E4	2012_346C6	262.2
F4	2012_347H14	685.6
G4	2012_360I17	78.82
H4	2012_390A13	292.4

WELL	CLONE	TOTAL (μg)
A5	2012_28O4	637.2
B5	2012_43F8	195.2
C5	2012_82N2	236.4
D5	2012_92N19	960.2
E5	2012_97N24	315.2
F5	2012_161O23	671
G5	2012_102A6	231.18
H5	2012_120N18	408.8
A6	2012_112D7	77.6
B6	2012_201C15	610
C6	2012_238B22	333.6
D6	2012_250P7	361.6
E6	2012_246F14	285.8
F6	2012_262H11	282.4
G6	2012_264E24	288.8
H6	2012_342P20	341.4

FIG. 5

		OVCAR3		A431-K5		A431	
		EC50 (M)	MAX KILLING (%)	EC50 (M)	MAX KILLING (%)	EC50 (M)	MAX KILLING (%)
2012_10N8	A1	5.21E-09	95.5	7.885E-09	82.4	~5.359e-008	32.9
2012_33O10	B1	2.273E-09	94.6	1.913E-09	76.7	~2.319e-007	21.3
2012_43I12	C1	2.428E-09	91.8	1.301E-08	80.7	~1.562e-006	45.6
2012_55B4	D1	2.922E-09	94.1	7.013E-10	69.0	~4.604e-006	21.9
2012_62B10	E1	3.675E-09	96.2	5.753E-10	83.5	~3.956e-008	26.3
2012_82M2	F1	1.644E-09	89.1	8.471E-10	77.3	~4.326e-007	16.4
2012_99B7	G1	4.971E-09	89.3	2.499E-09	79.4	~6.102e-007	49.8
2012_95B8	H1	4.154E-09	87.5	1.742E-08	77.5	~1.411e-007	34.0
2012_106A19	A2	7.855E-10	87.8	1.063E-08	74.5	~2.509e-005	18.4
2012_105O2	B2	1.914E-09	88.6	~0.006310	77.5	~1.004e-005	20.3
2012_110J23	C2	5.911E-09	85.3	4.272E-09	76.0	~3.027e-008	21.1
2012_111J23	D2	6.658E-09	85.7	~1.946e-008	80.4	~7.776e-007	13.3
2012_131F19	E2	6.894E-09	84.4	9.003E-10	79.9	~7.996e-007	22.9
2012_145D4	F2	4.839E-09	84.0	1.19E-09	80.7	~9.026e-007	21.9
2012_147F21	G2	4.91E-09	83.3	8.149E-09	84.2	~3.497e-006	30.7
2012_101L2	H2	1.06E-08	83.1	5.102E-09	77.2	~6.119e-008	23.6
2012_172K8	A3	7.714E-09	83.7	3.398E-09	84.6	~8.408e-008	15.9
2012_172I3	B3	7.243E-09	83.2	2.204E-09	81.3	~8.136e-008	22.8
2012_175D24	C3	6.611E-09	81.5	~2.570e-008	65.0	~6.087e-008	30.4
2012_176J16	D3	2.392E-09	78.4	9.117E-09	69.8	~8.135e-008	42.6
2012_204E7	E3	1.193E-08	88.5	~2.062e-008	63.5	~2.507e-008	8.6
2012_215O6	F3	~2s981e-011	87.7	1.407E-08	70.2	~8.772e-007	14.3
2012_264B14	G3	2.837E-09	85.9	1.776E-08	73.0	~3.077e-008	12.7
2012_300O6	H3	5.156E-09	85.2	1.507E-08	75.0	~8.050e-008	29.2
2012_311N18	A4	5.868E-09	83.6	6.931E-09	77.3	~7.831e-008	17.6

TO FIG. 6 CONT.

FIG. 6

FROM FIG. 6

		OVCAR3		A431-K5		A431	
		EC50 (M)	MAX KILLING (%)	EC50 (M)	MAX KILLING (%)	EC50 (M)	MAX KILLING (%)
2012_308H21	B4	5.494E-09	84.2	~2.815e-008	61.5	~6.055e-008	14.2
2012_324F17	C4	8.997E-09	84.6	~2.467e-008	66.2	~2.356e-006	15.4
2012_345A12	D4	5.987E-09	87.3	1.468E-09	75.8	~8.451e-007	23.3
2012_346C6	E4	4.411E-09	86.2	6.677E-10	77.7	~1.085e-006	21.6
2012_347H14	F4	7.124E-09	88.3	1.869E-08	69.7	~6.063e-007	43.3
2012_360I17	G4	5.161E-09	89.7	3.78E-09	83.0	~5.143e-007	22.1
2012_390A13	H4	6.473E-09	87.5	2.004E-09	81.6	~5.892e-007	20.6
2012_28O4	A5	3.674E-09	85.3	4.534E-09	83.2	~6.230e-007	23.4
2012_43F8	B5	4.015E-09	85.7	1.076E-09	79.7	~2.064e-006	17.8
2012_82N2	C5	3.307E-09	80.8	8.358E-09	81.6	~1.550e-006	27.4
2012_92N19	D5	3.977E-10	89.6	4.74E-09	82.1	~3.785e-008	26.3
2012_97N24	E5	2.382E-09	88.3	1.215E-08	83.1	~3.773e-007	55.2
2012_161O23	F5	4.007E-09	87.5	3.466E-09	82.5	~3.762e-007	20.3
2012_102A6	G5	9.218E-11	89.5	4.243E-10	86.1	~6.315e-007	45.8
2012_120N18	H5	2.369E-09	86.6	6.946E-10	83.1	~1.582e-006	42.8
2012_112D7	A6	2.601E-09	89.2	~2.380e-008	74.1	~3.334e-008	21.4
2012_201C15	B6	3.515E-09	72.8	7.284E-10	80.3	~3.850e-007	23.4
2012_238B22	C6	4.599E-09	87.5	1.292E-09	82.6	~4.032e-008	22.6
2012_250P7	D6	1.086E-09	89.2	1.336E-08	73.0	~4.885e-007	20.8
2012_246F14	E6	3.866E-09	87.9	2.296E-09	78.6	~8.035e-007	32.7
2012_262H11	F6	1.89E-09	92.2	3.288E-09	86.2	~3.765e-008	33.2
2012_264E24	G6	3.782E-09	90.3	1.75E-10	83.0	~8.320e-008	39.0
2012_342P20	H6	1.232E-09	91.3	7.018E-10	83.0	~8.206e-008	25.0
	#1	~1s529e+010	51.1	2.355E-10	78.9	~6.380e-008	34.0
	#2	~0s0009022	45.2	~3.878e-006	43.2	~2.823e-007	50.1

FIG. 6 CONT.

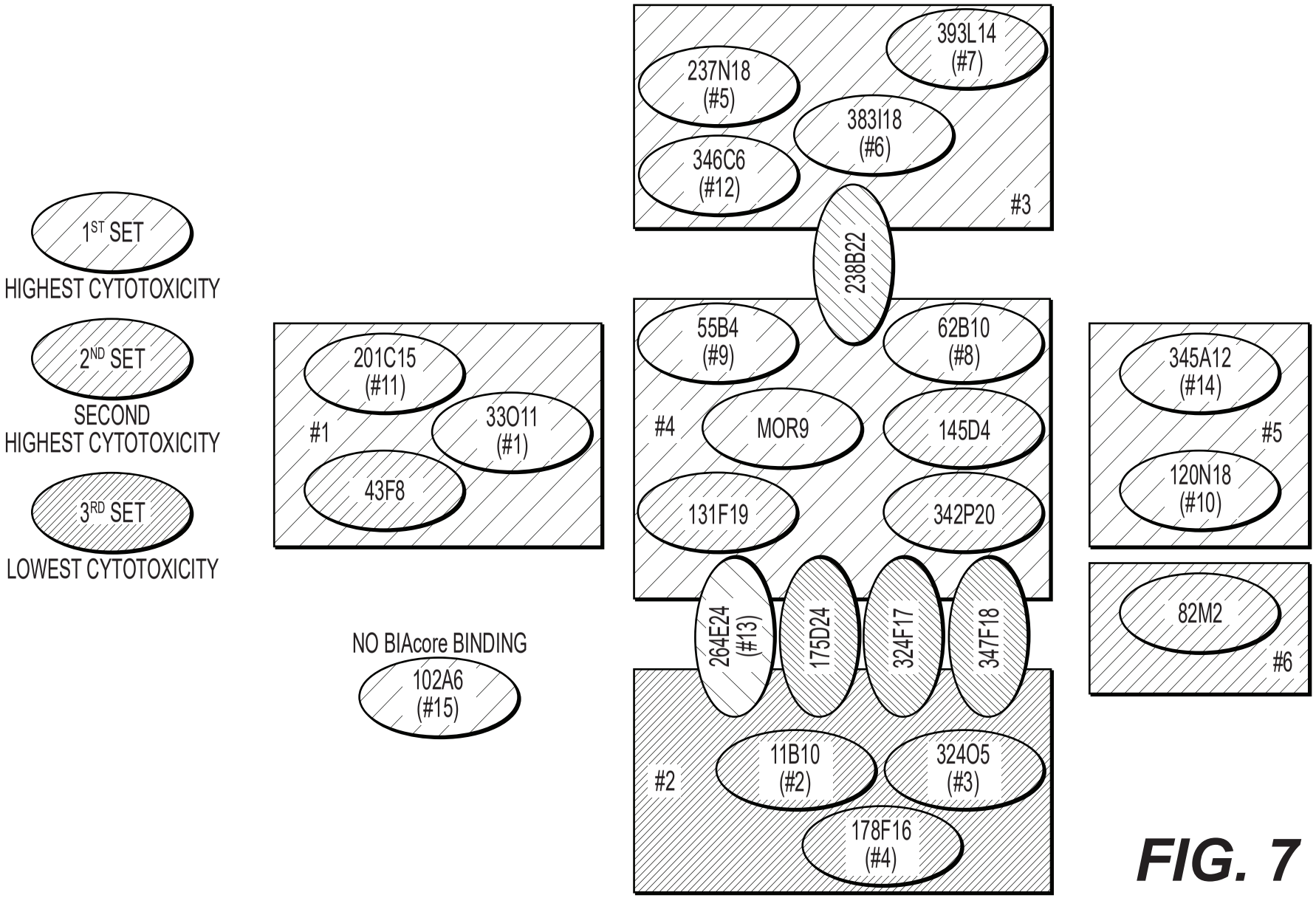

1ST SET
HIGHEST CYTOTOXICITY
2ND SET
SECOND
HIGHEST CYTOTOXICITY
3RD SET
LOWEST CYTOTOXICITY
NO BIAcore BINDING
102A6
(#15)
#1
201C15
(#11)
33O11
(#1)
43F8
#2
11B10
(#2)
324O5
(#3)
178F16
(#4)
#3
237N18
(#5)
393L14
(#7)
383I18
(#6)
346C6
(#12)
238B22
#4
55B4
(#9)
62B10
(#8)
MOR9
145D4
131F19
342P20
264E24
(#13)
175D24
324F17
347F18
#5
345A12
(#14)
120N18
(#10)
#6
82M2

FIG. 7

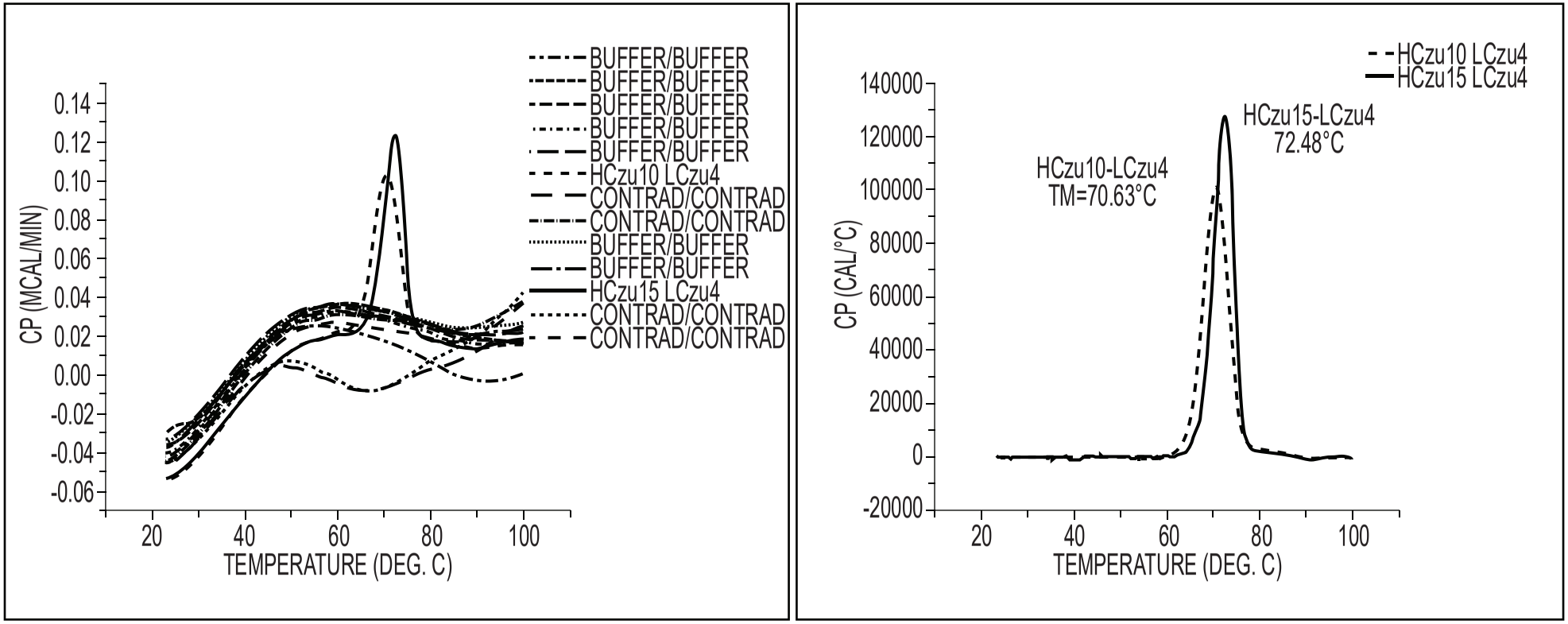

CP (MCAL/MIN)
TEMPERATURE (DEG. C)
BUFFER/BUFFER
BUFFER/BUFFER
BUFFER/BUFFER
BUFFER/BUFFER
BUFFER/BUFFER
HCzu10 LCzu4
CONTRAD/CONTRAD
CONTRAD/CONTRAD
BUFFER/BUFFER
BUFFER/BUFFER
HCzu15 LCzu4
CONTRAD/CONTRAD
CONTRAD/CONTRAD
CP (CAL/°C)
TEMPERATURE (DEG. C)
HCzu10 LCzu4
HCzu15 LCzu4
HCzu15-LCzu4
72.48°C
HCzu10-LCzu4
TM=70.63°C

FIG. 8

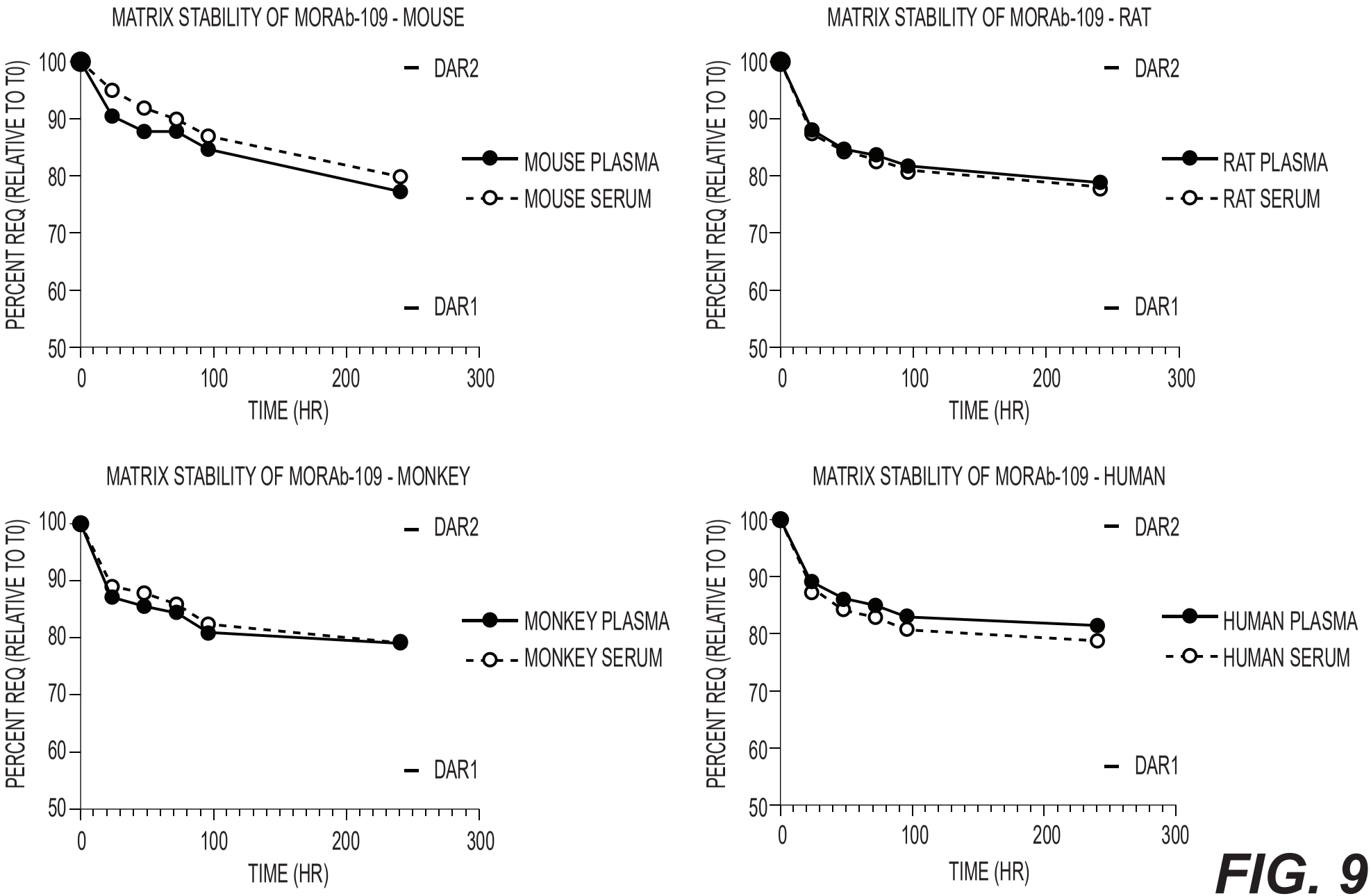

MATRIX STABILITY OF MORAb-109 - MOUSE
PERCENT REQ (RELATIVE TO T0)
TIME (HR)
DAR2
DAR1
MOUSE PLASMA
MOUSE SERUM
MATRIX STABILITY OF MORAb-109 - RAT
RAT PLASMA
RAT SERUM
MATRIX STABILITY OF MORAb-109 - MONKEY
MONKEY PLASMA
MONKEY SERUM
MATRIX STABILITY OF MORAb-109 - HUMAN
HUMAN PLASMA
HUMAN SERUM

FIG. 9

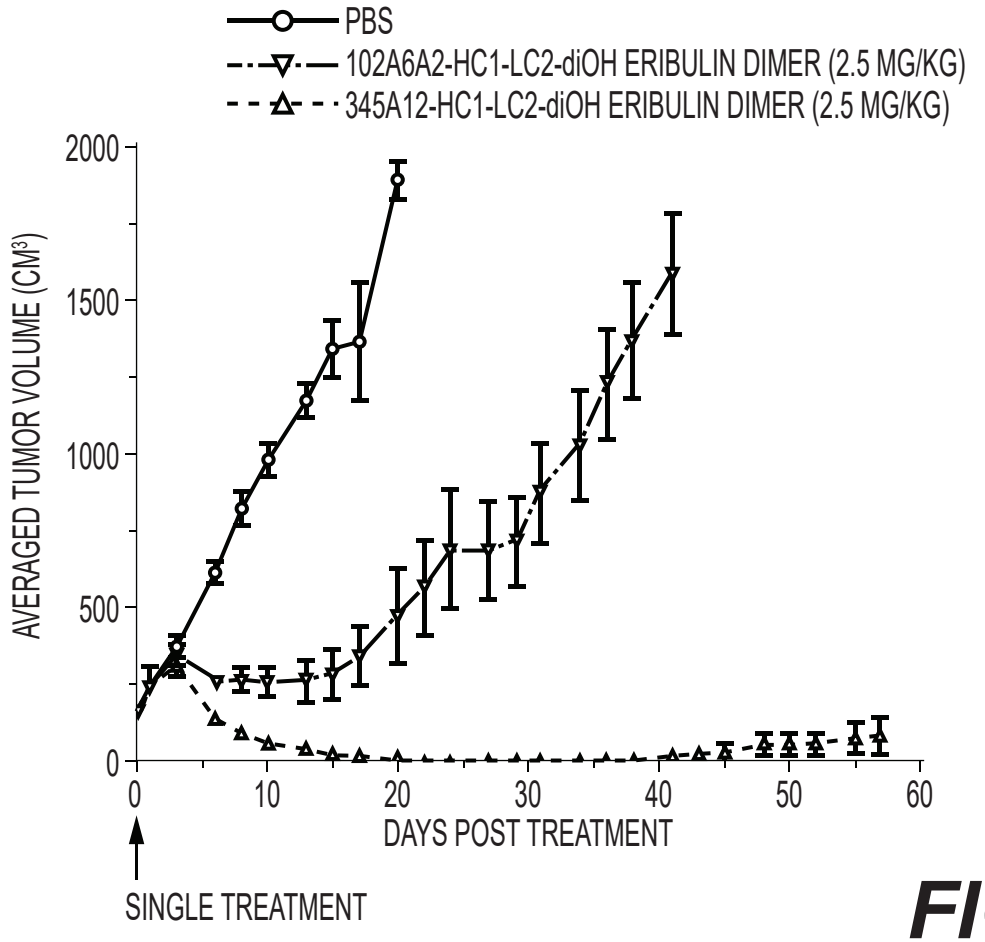


FIG. 10A

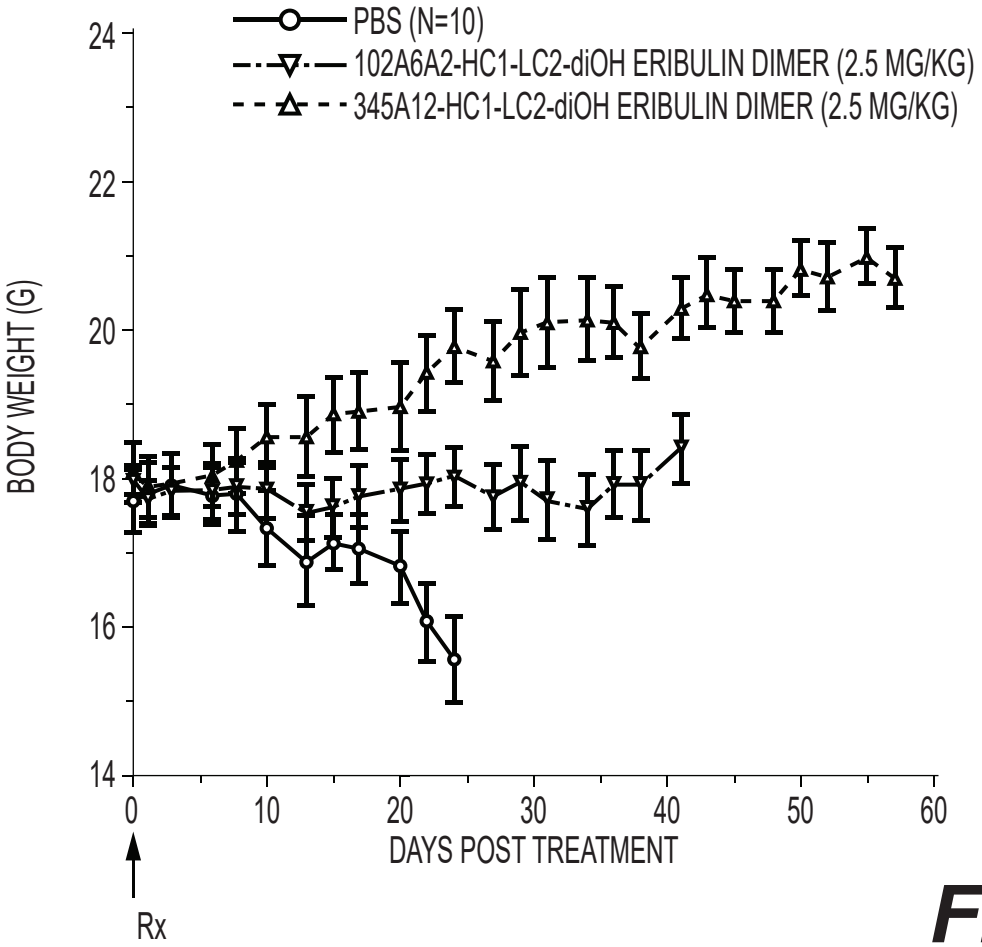


FIG. 10B

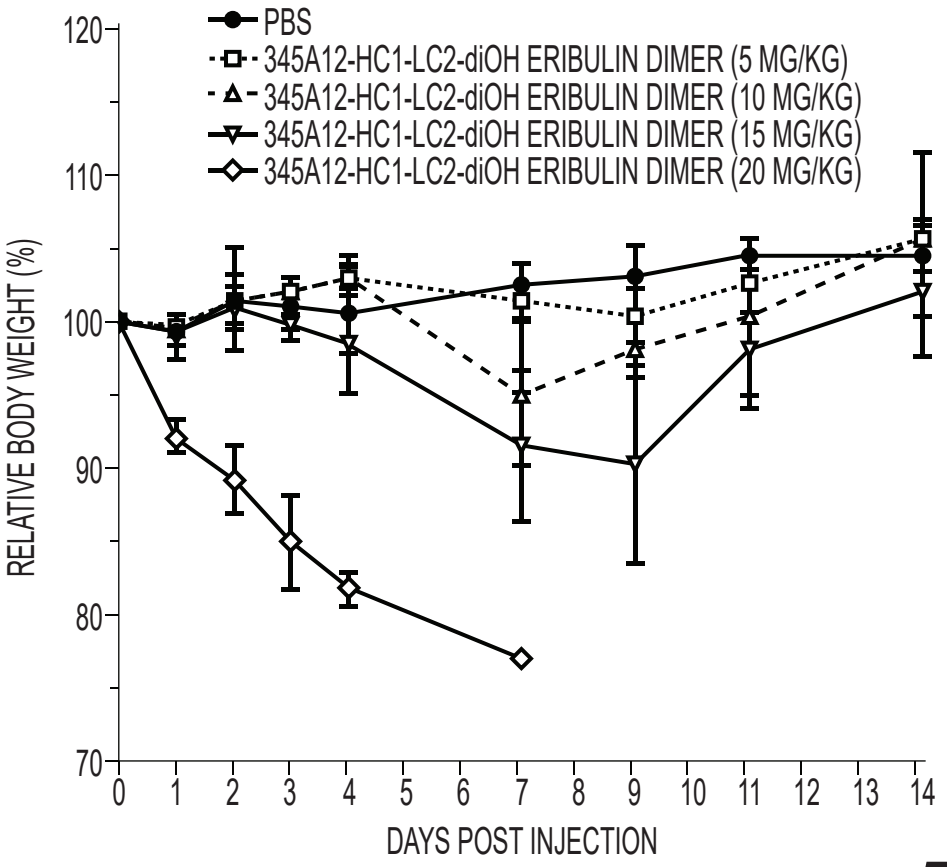


FIG. 11A

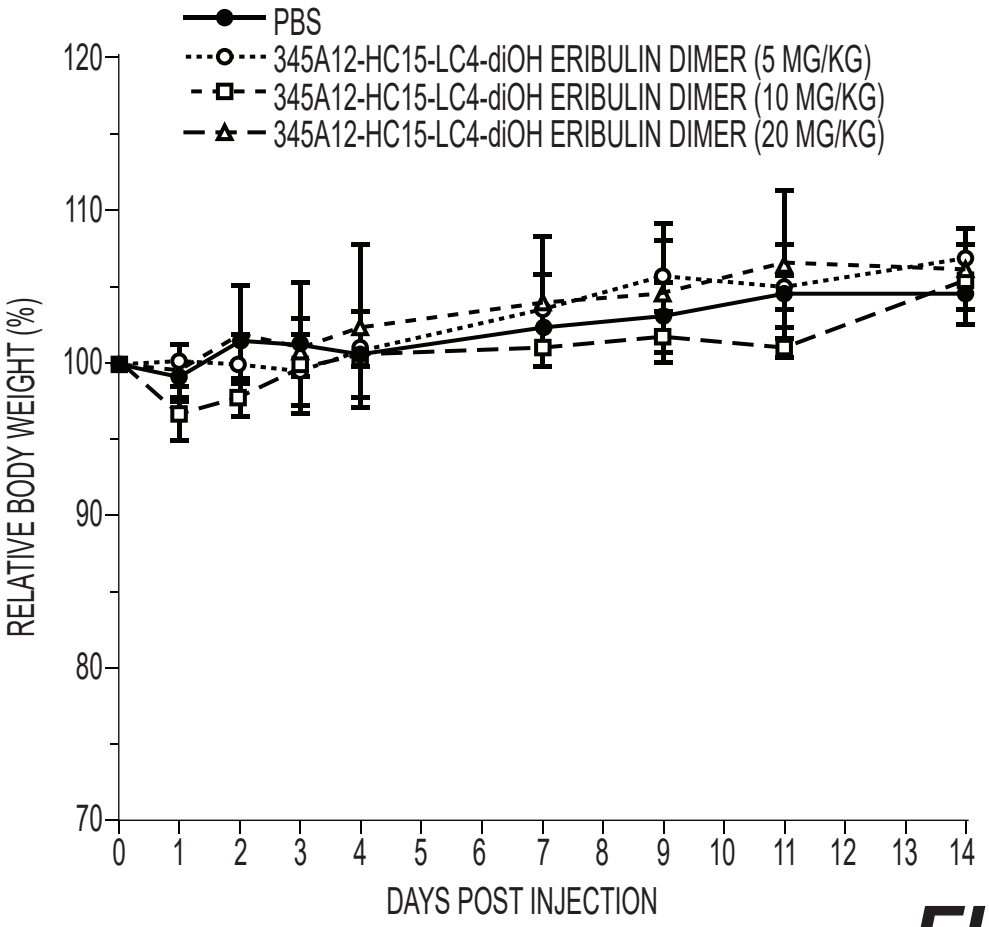


FIG. 11B

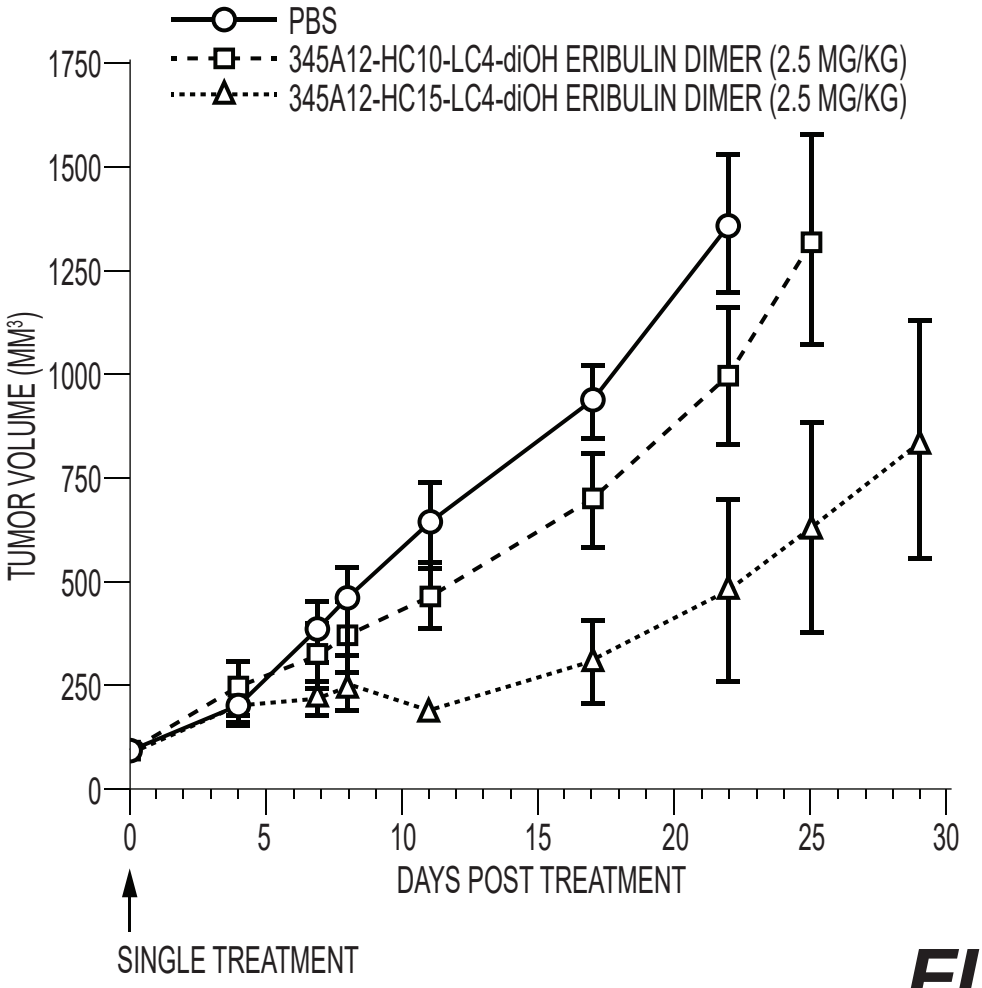


FIG. 12A

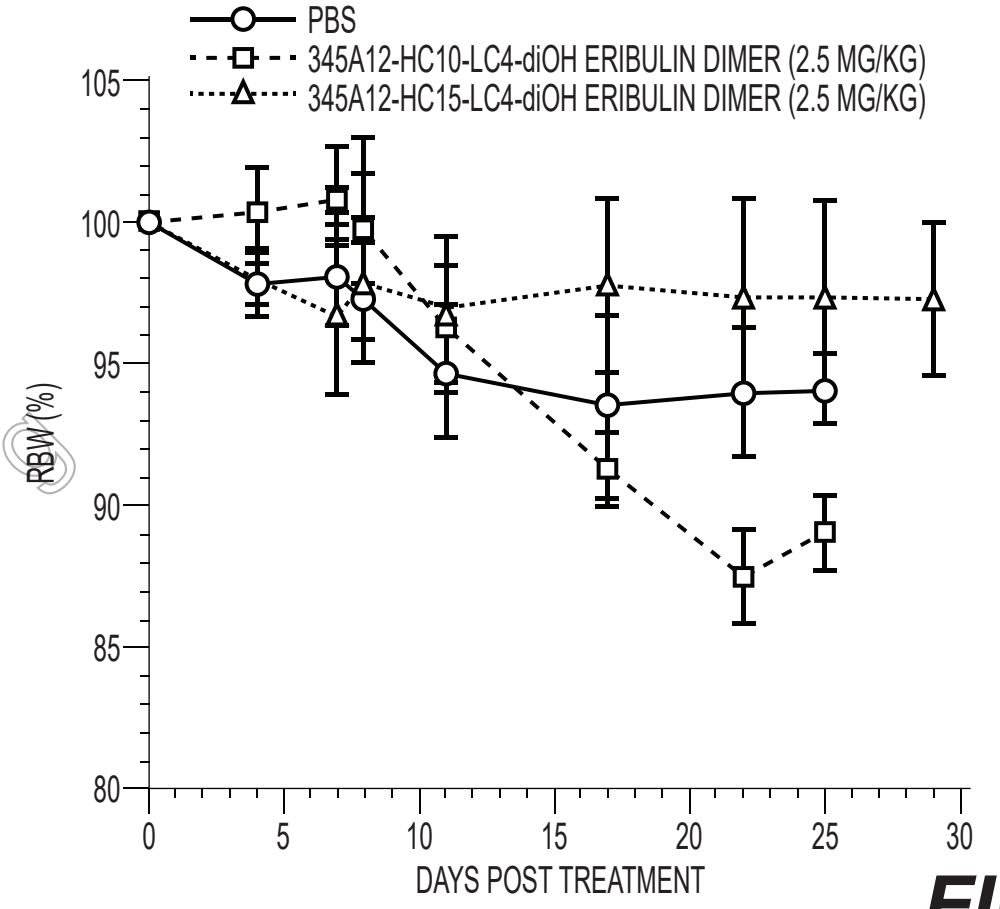


FIG. 12B

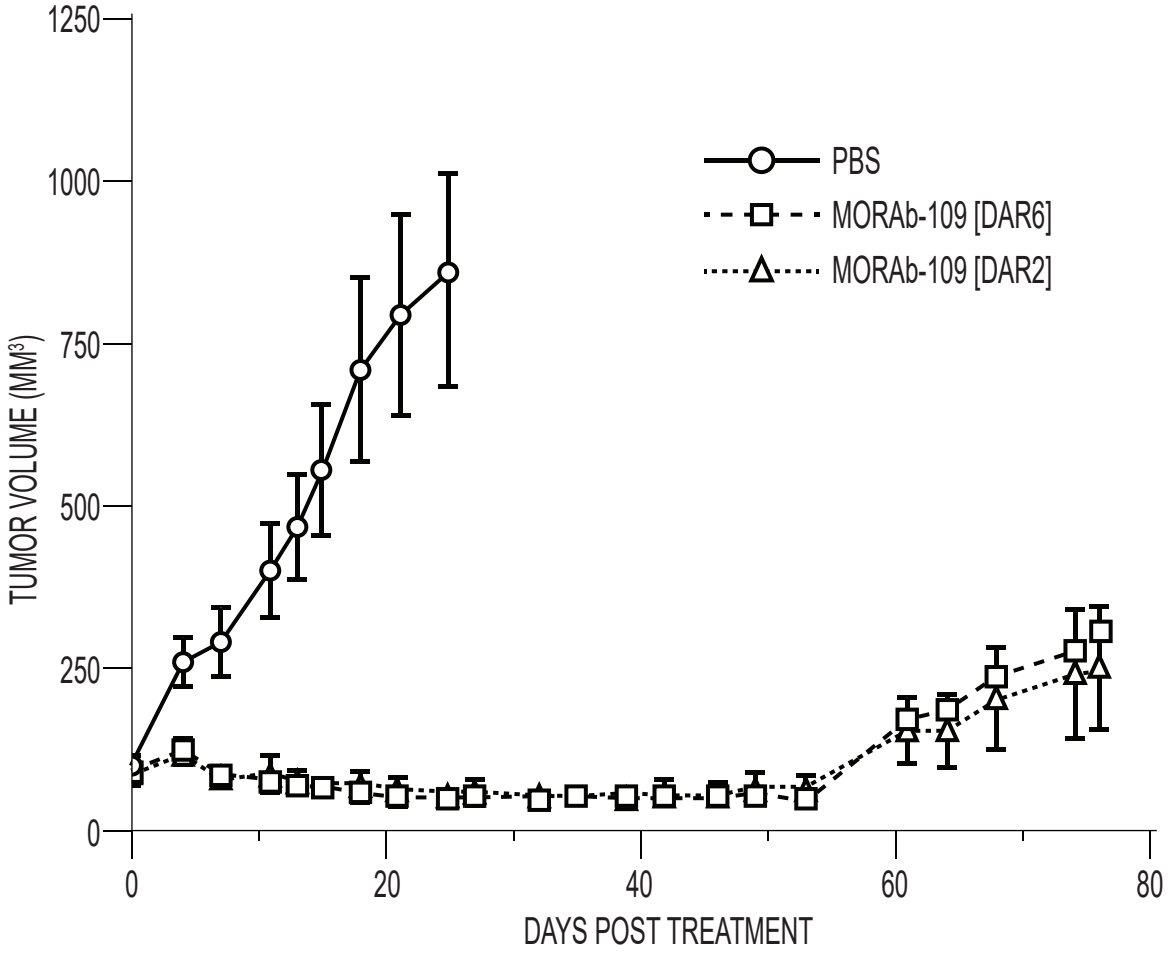


FIG. 13A

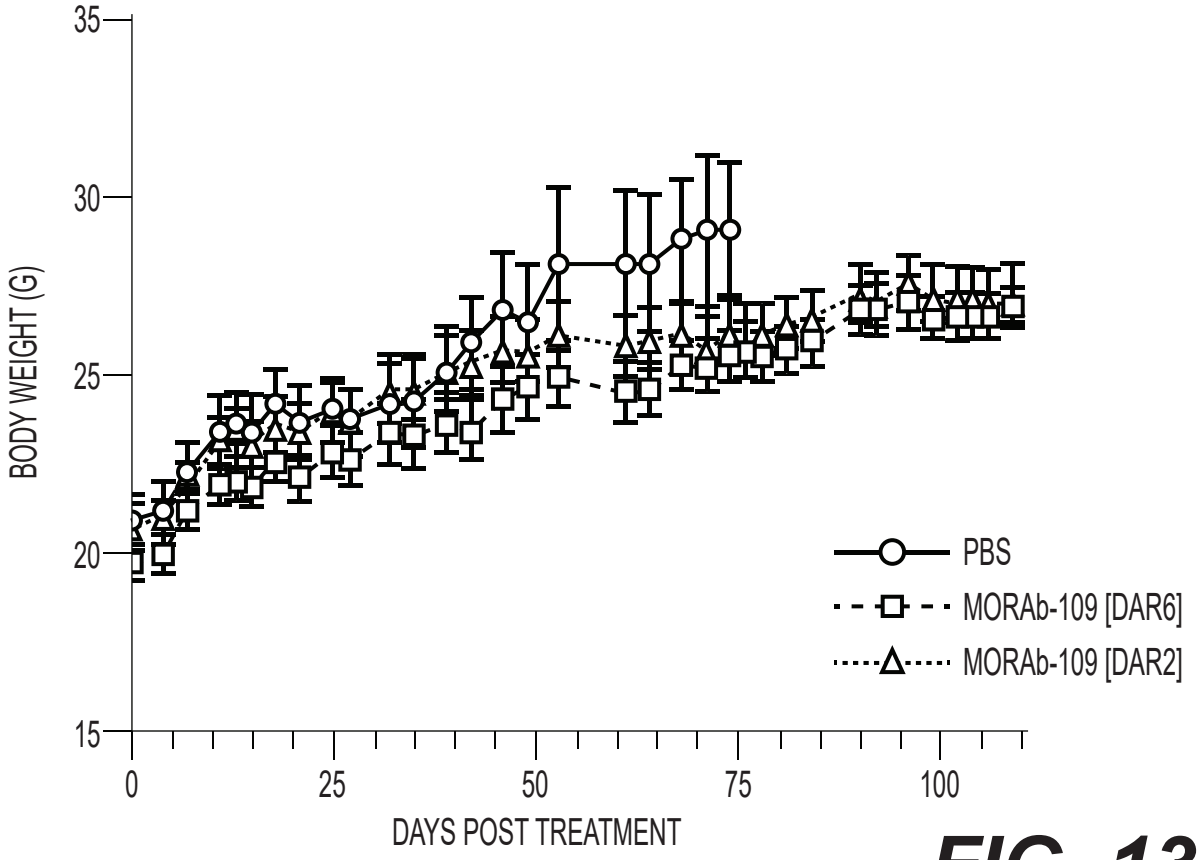


FIG. 13B

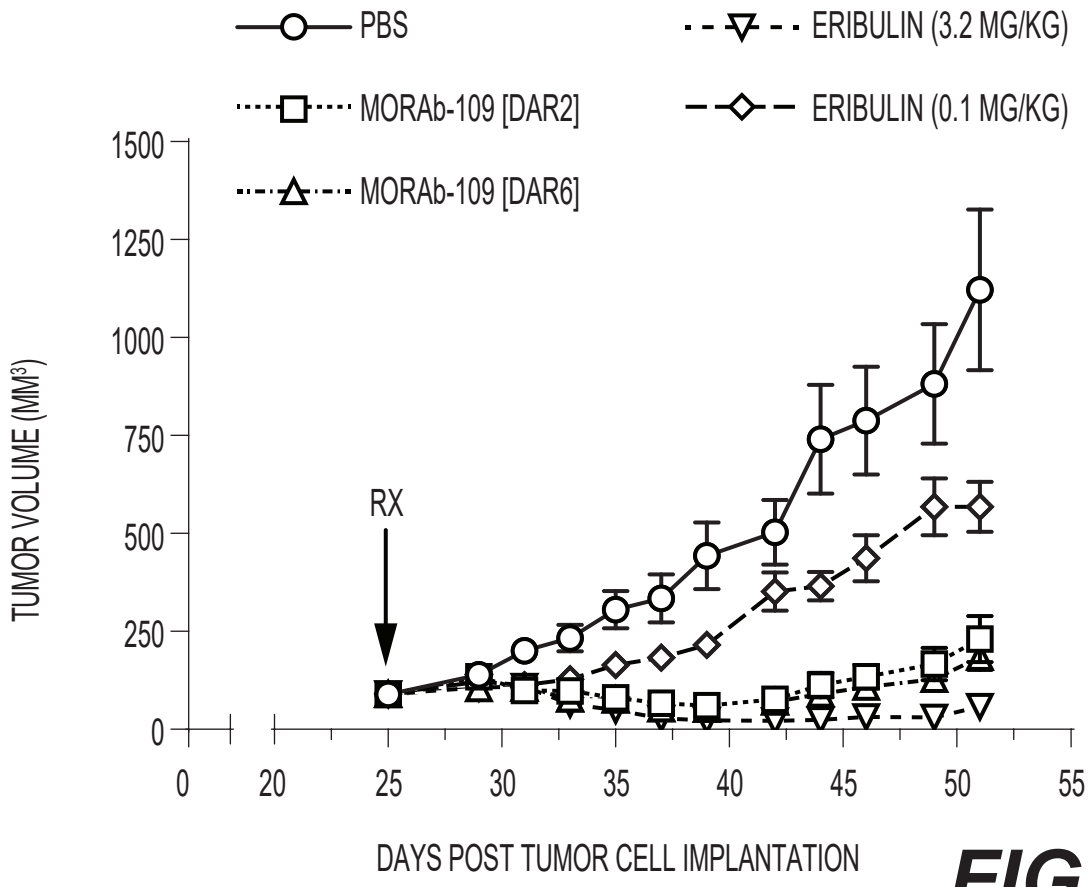


FIG. 14A

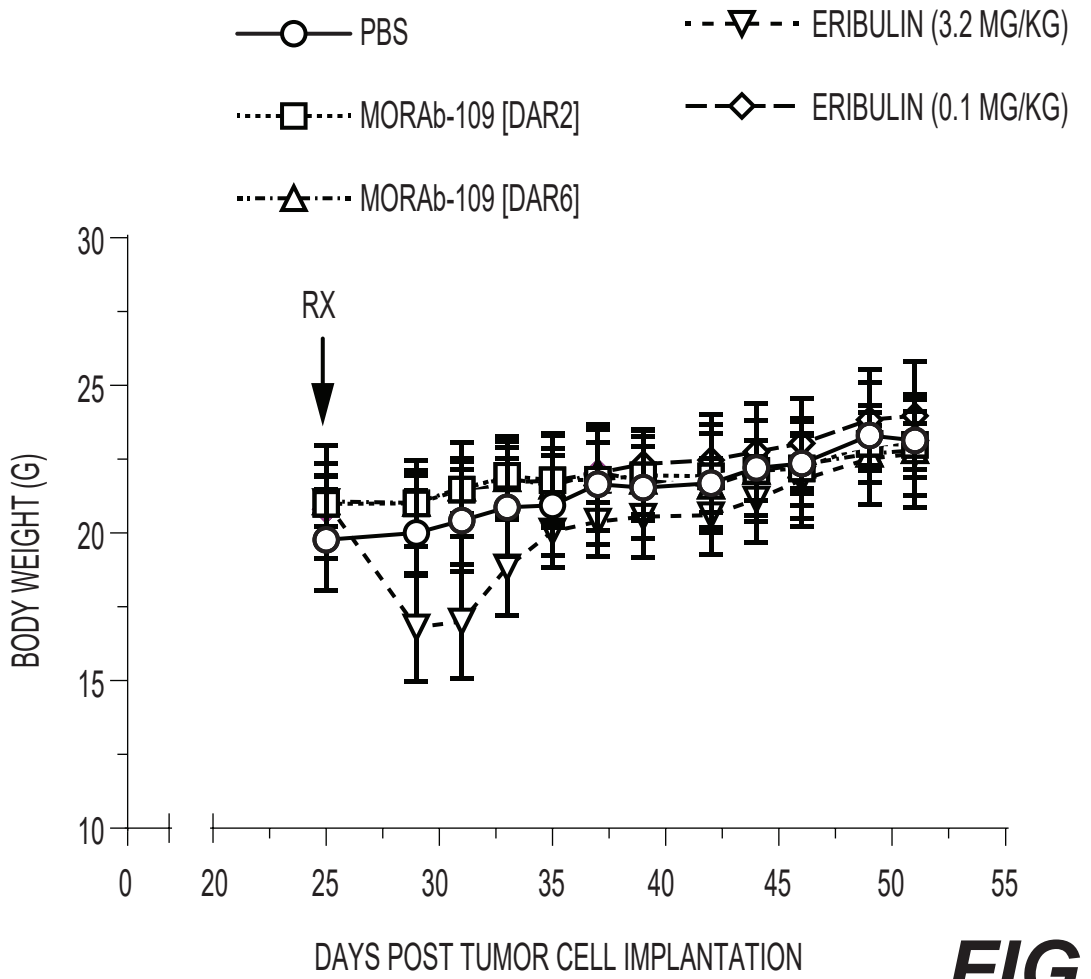


FIG. 14B

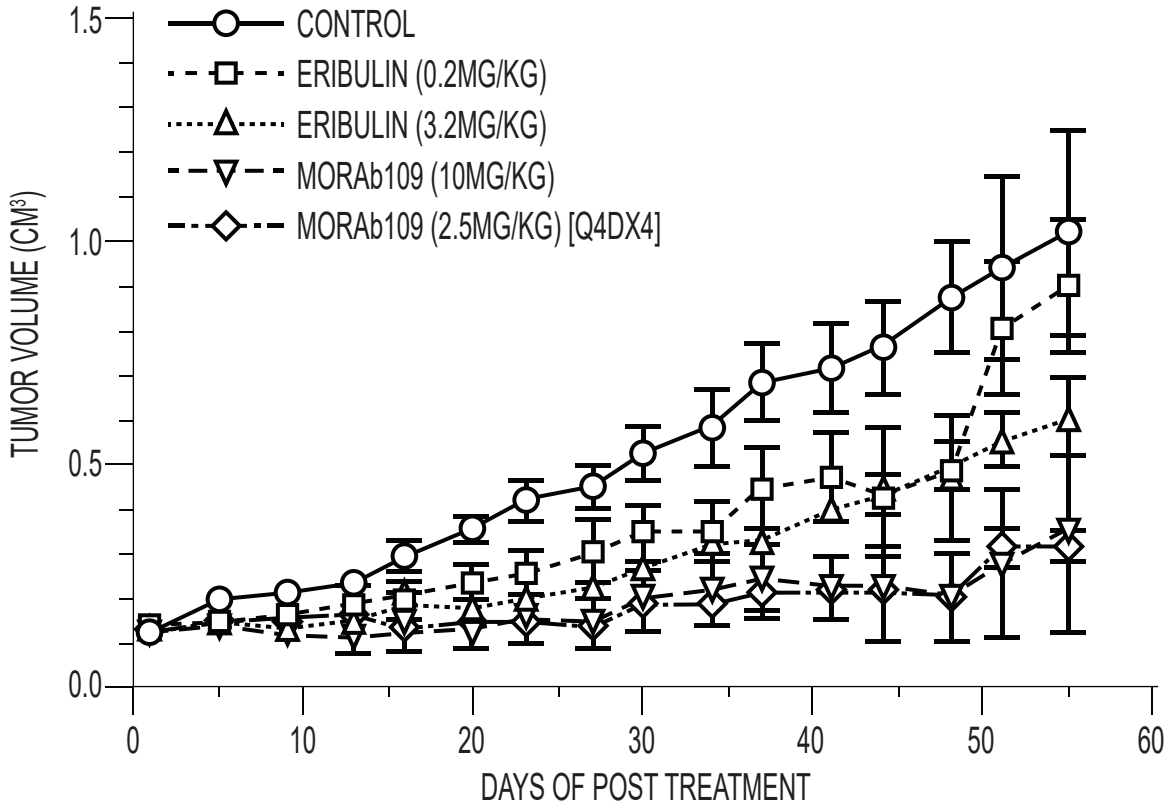


FIG. 15A

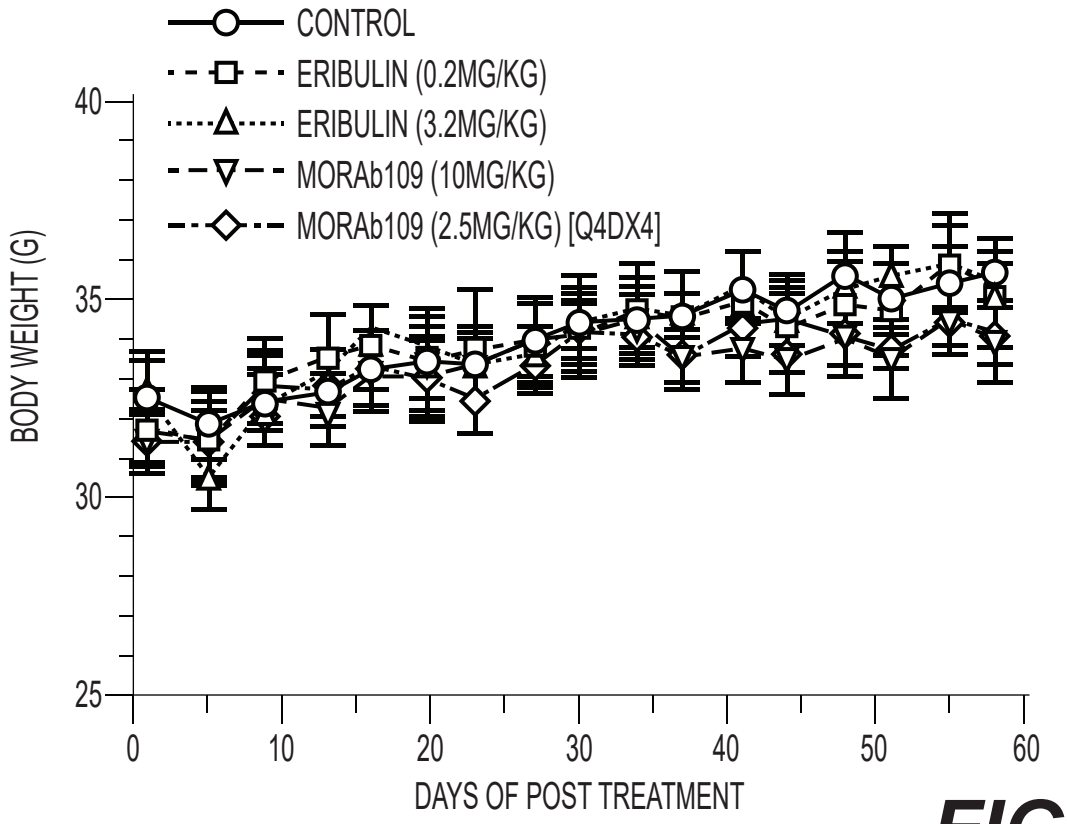


FIG. 15B

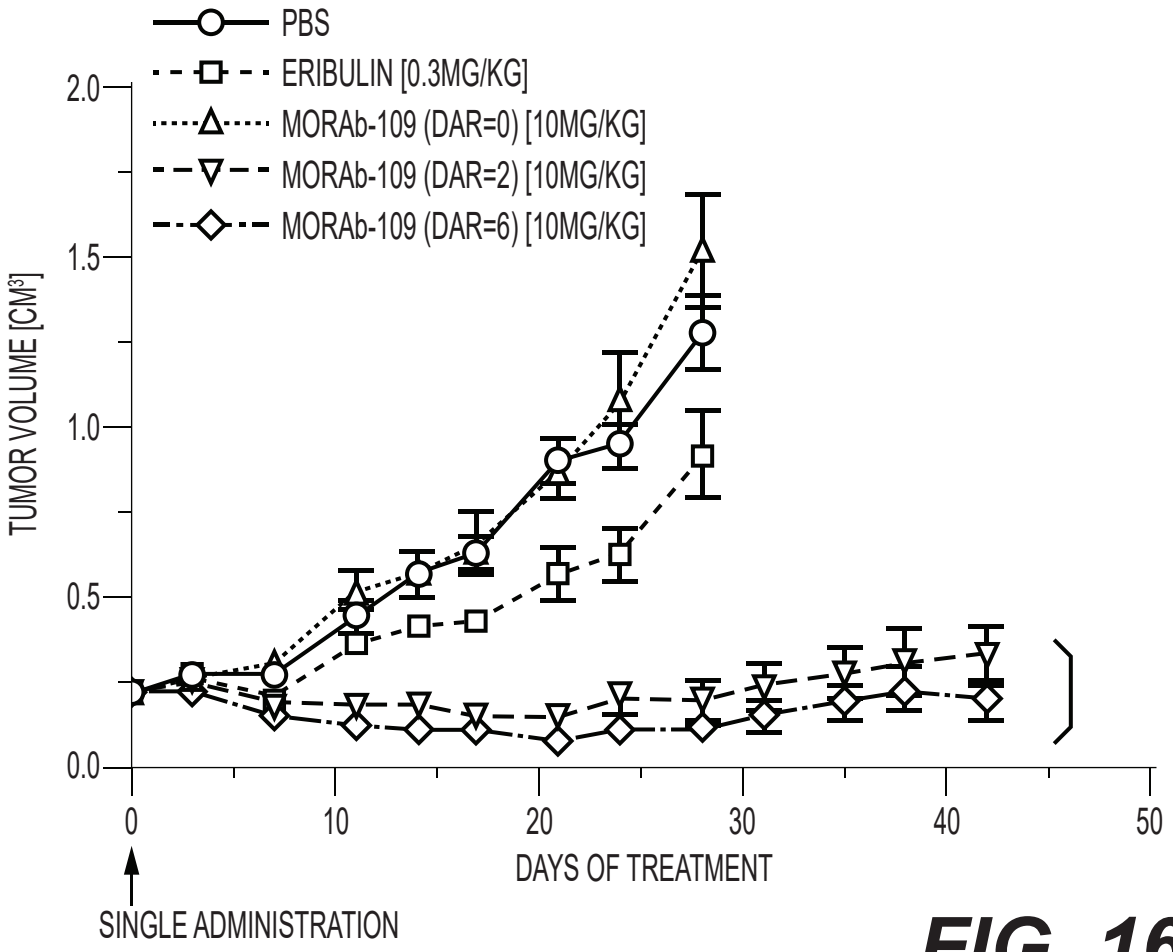


FIG. 16A

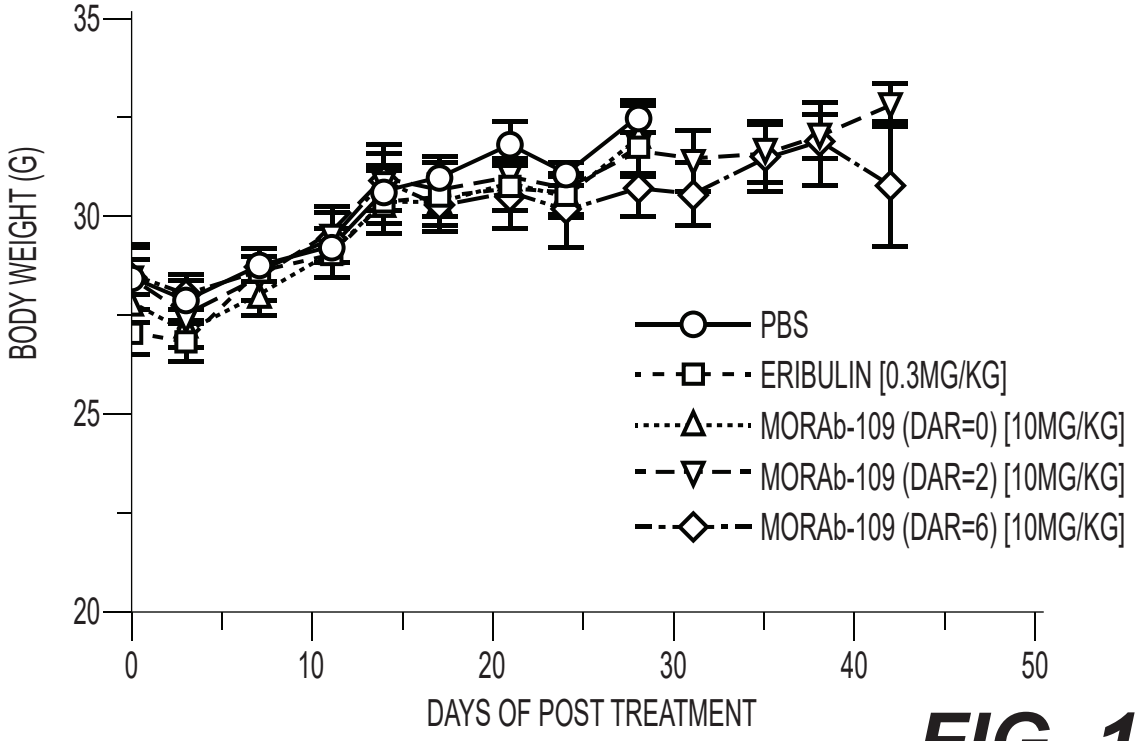


FIG. 16B

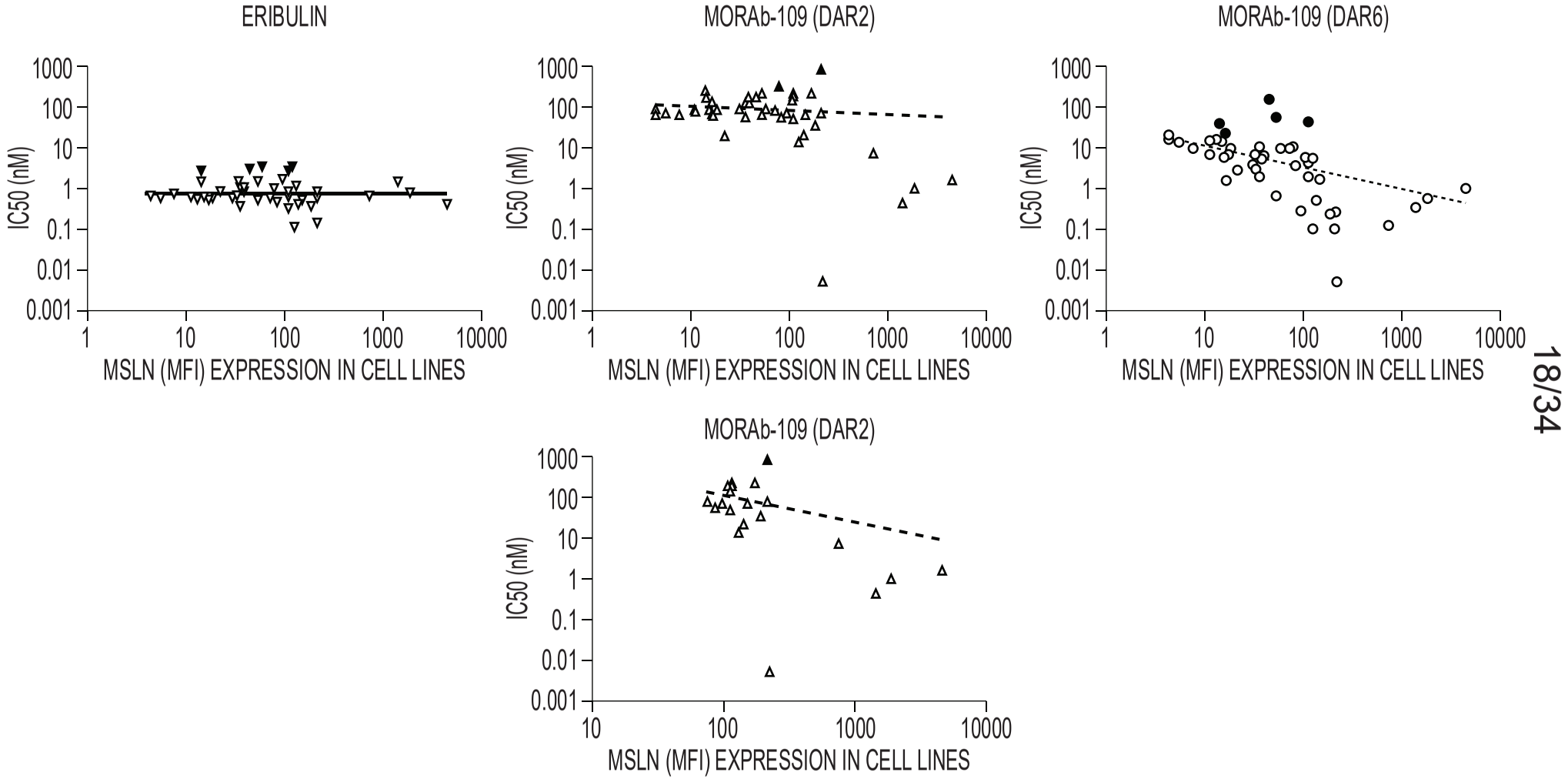

ERIBULIN
MORAb-109 (DAR2)
MORAb-109 (DAR6)
MORAb-109 (DAR2)
IC50 (nM)
1000
100
10
1
0.1
0.01
0.001
1
10
100
1000
10000
MSLN (MFI) EXPRESSION IN CELL LINES

FIG. 17

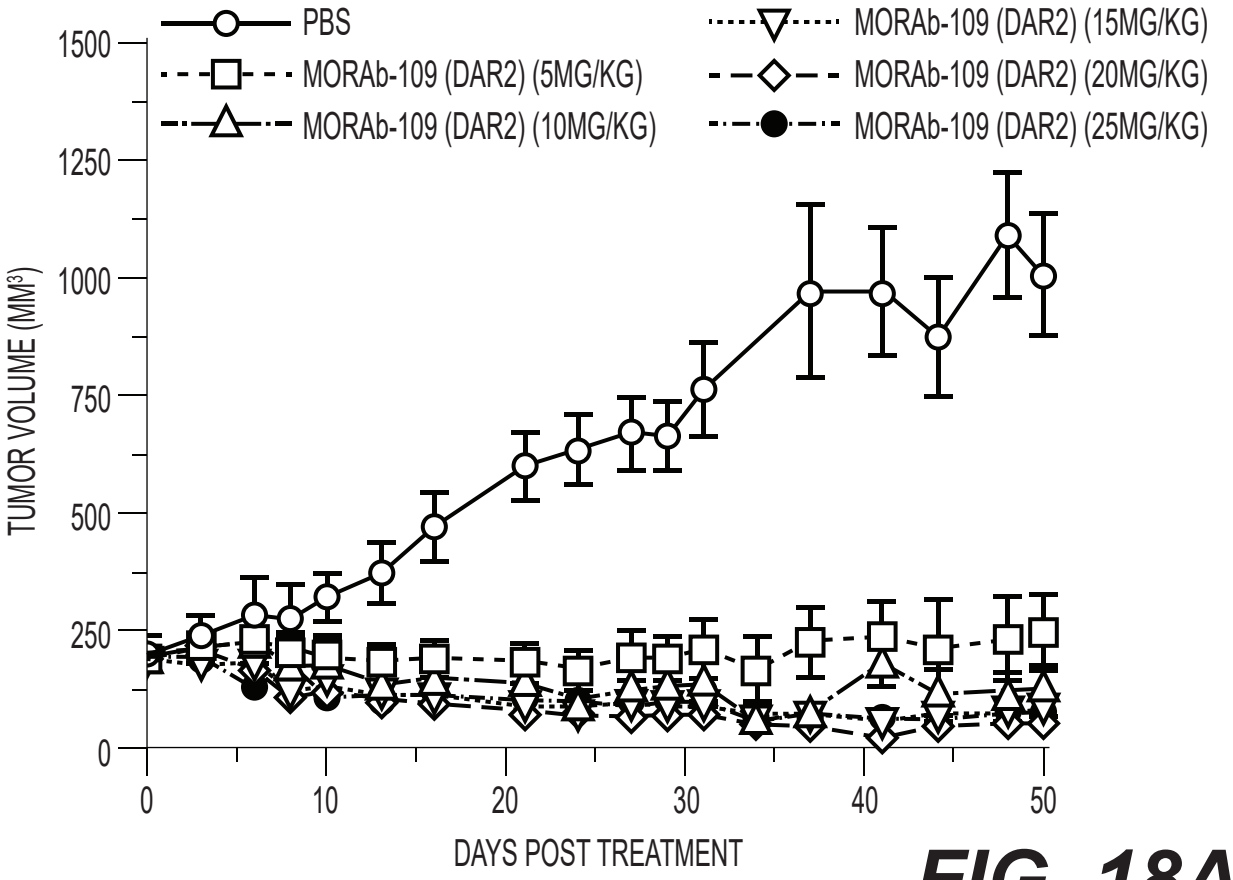


FIG. 18A

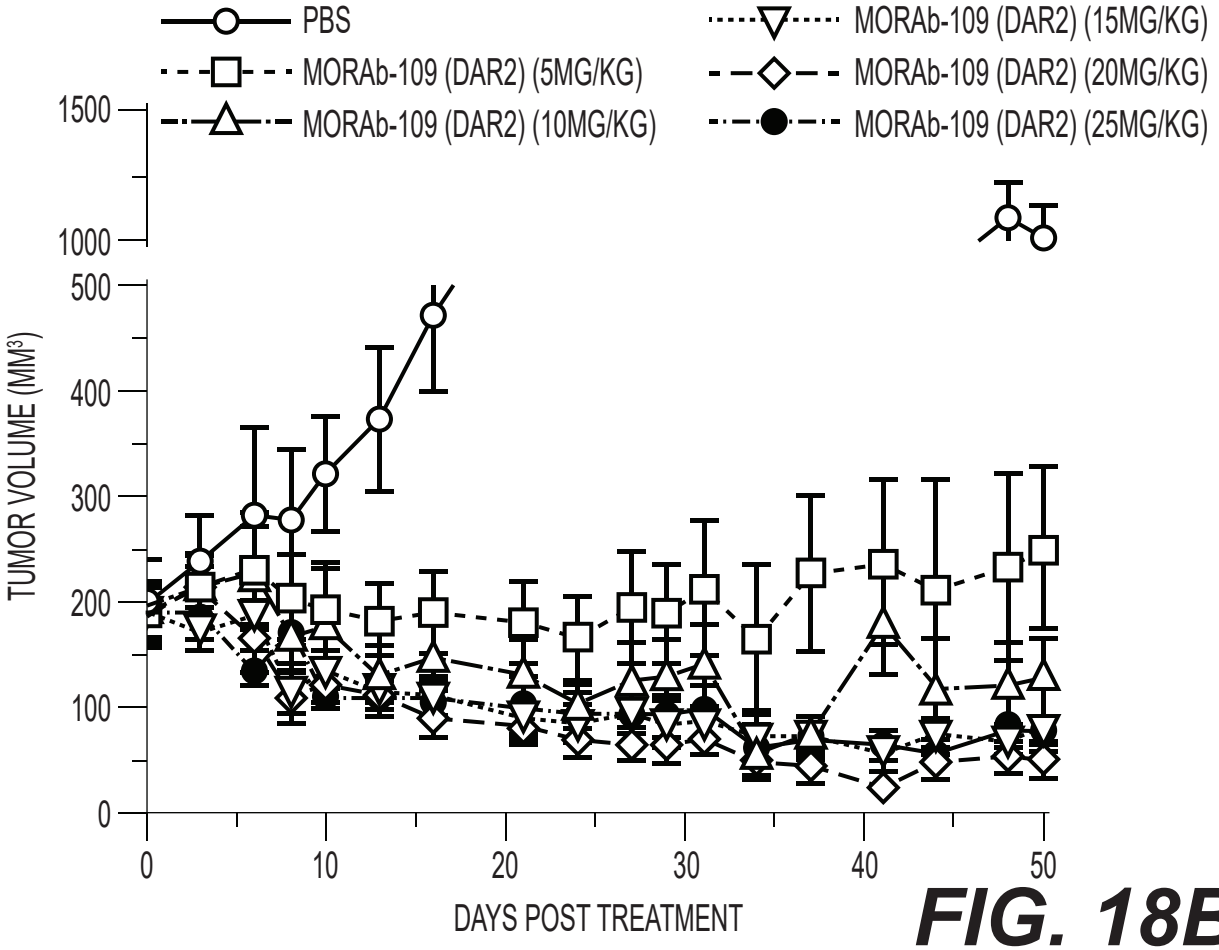


FIG. 18B

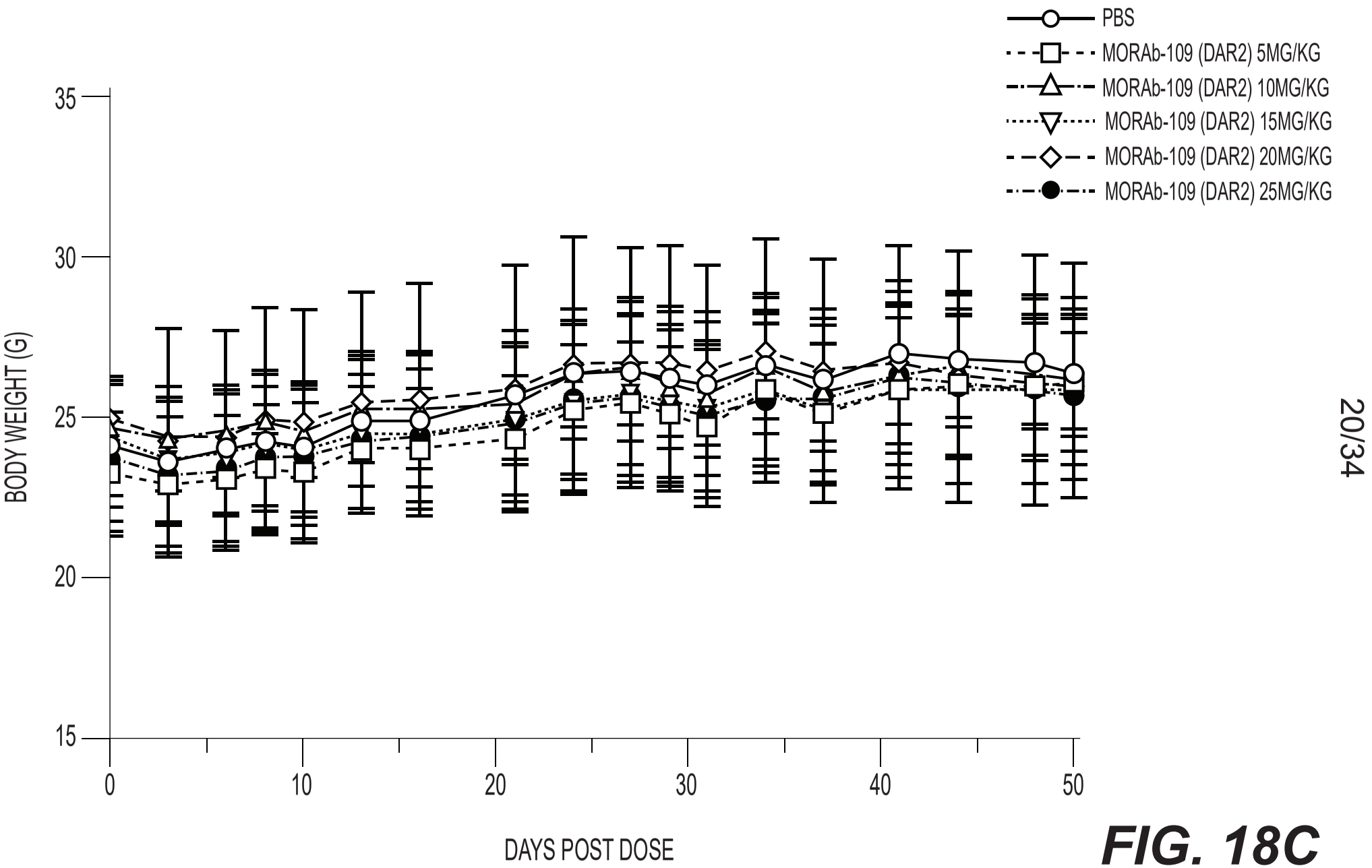

PBS
MORAb-109 (DAR2) 5MG/KG
MORAb-109 (DAR2) 10MG/KG
MORAb-109 (DAR2) 15MG/KG
MORAb-109 (DAR2) 20MG/KG
MORAb-109 (DAR2) 25MG/KG
BODY WEIGHT (G)
35
30
25
20
15
0
10
20
30
40
50
DAYS POST DOSE

FIG. 18C

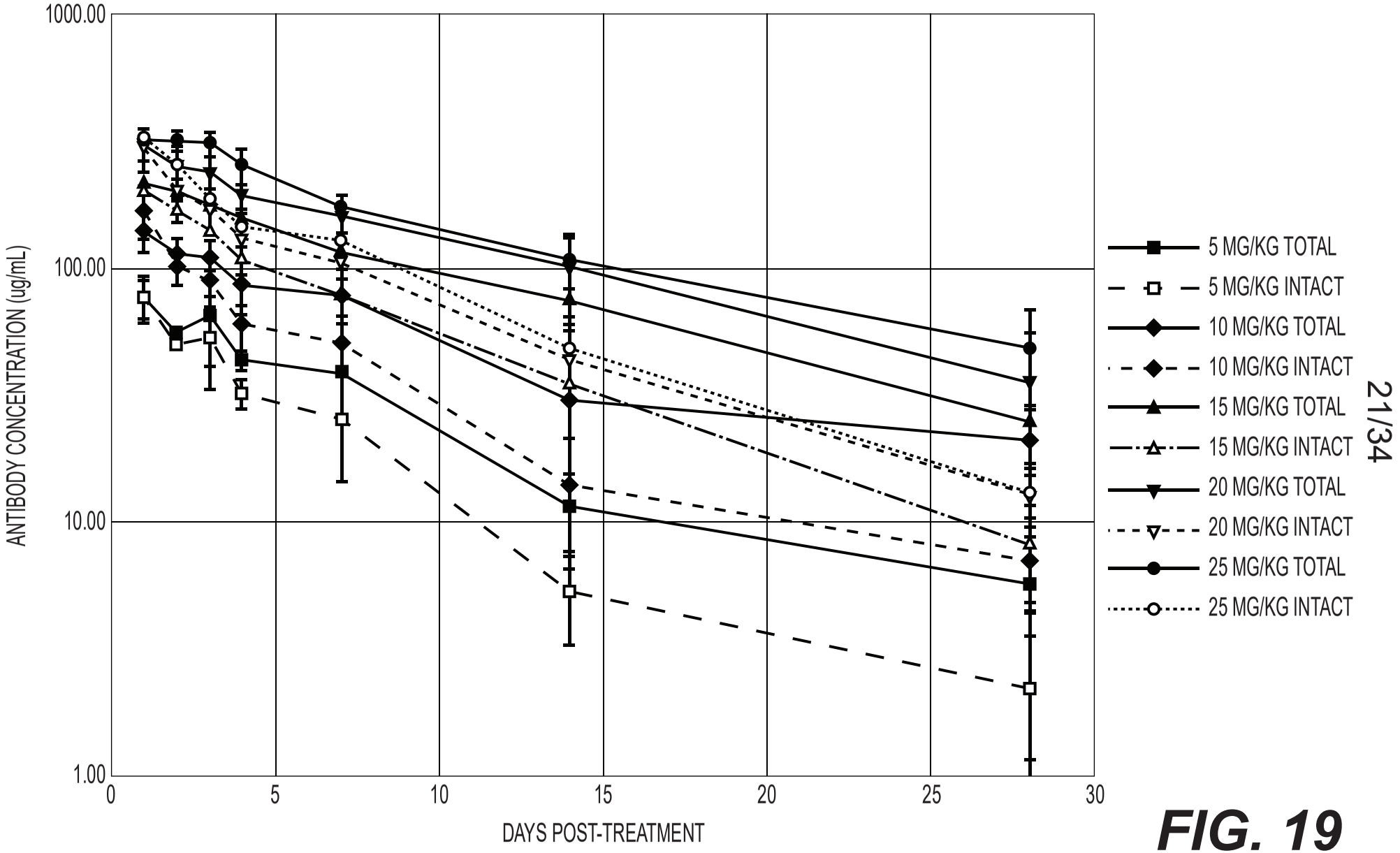

1000.00
100.00
10.00
1.00
ANTIBODY CONCENTRATION (ug/mL)
0
5
10
15
20
25
30
DAYS POST-TREATMENT
5 MG/KG TOTAL
5 MG/KG INTACT
10 MG/KG TOTAL
10 MG/KG INTACT
15 MG/KG TOTAL
15 MG/KG INTACT
20 MG/KG TOTAL
20 MG/KG INTACT
25 MG/KG TOTAL
25 MG/KG INTACT

FIG. 19

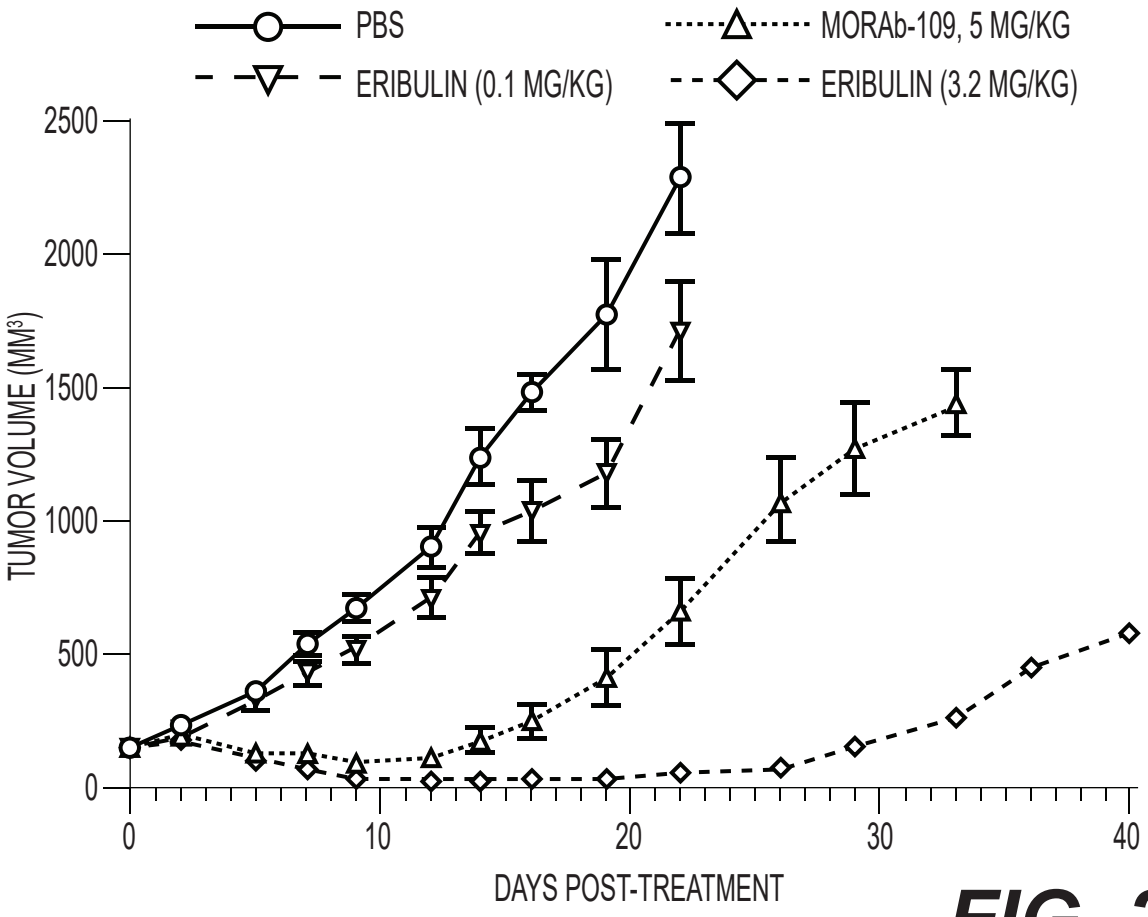


FIG. 20A

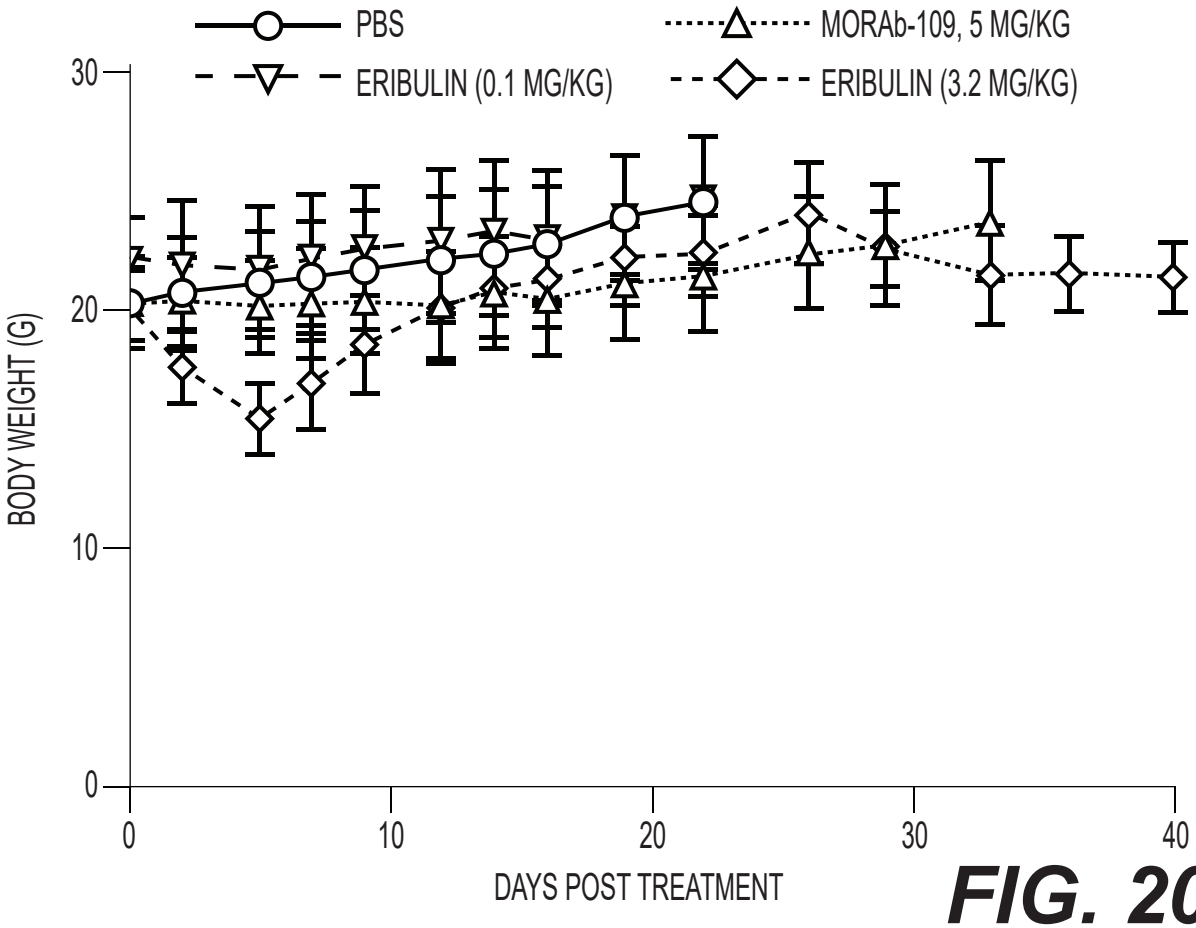


FIG. 20B

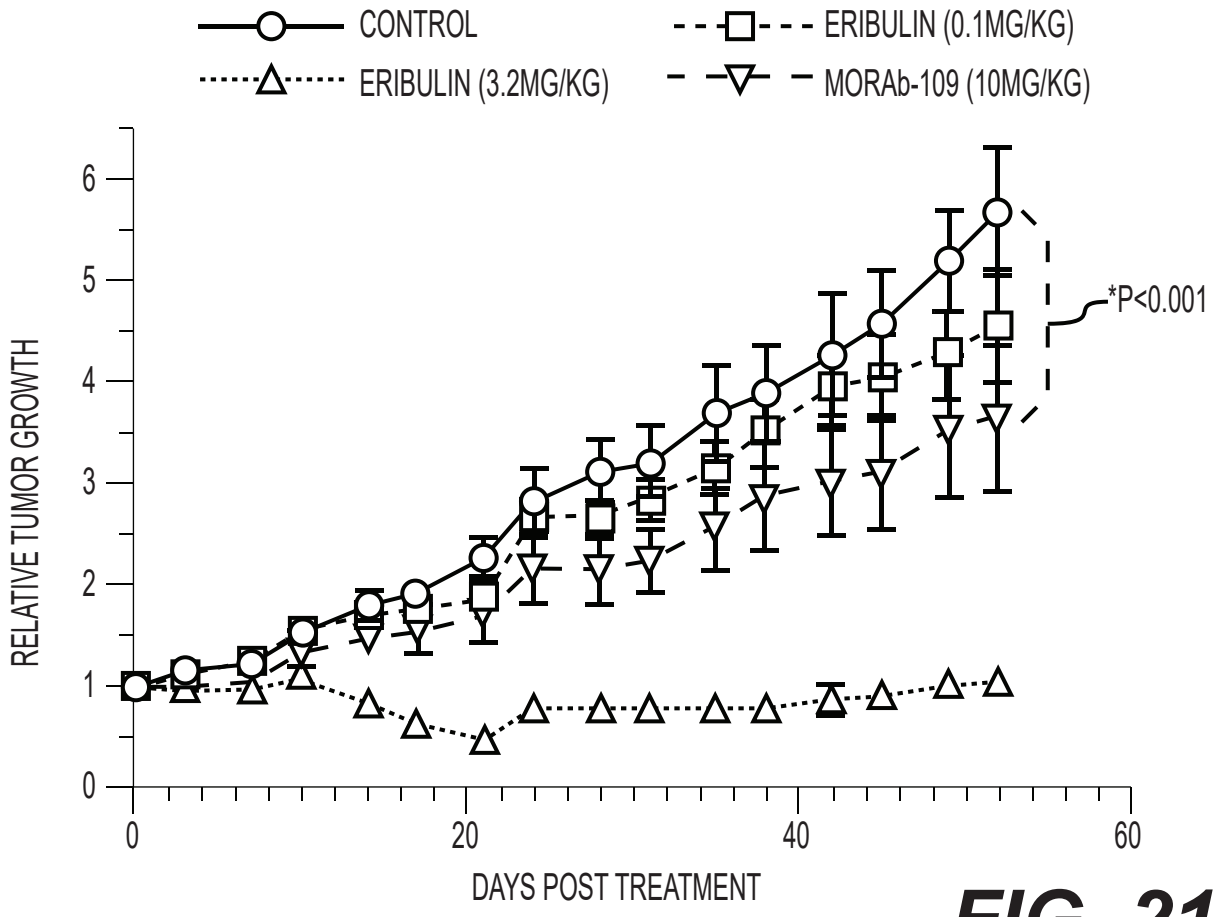


FIG. 21A

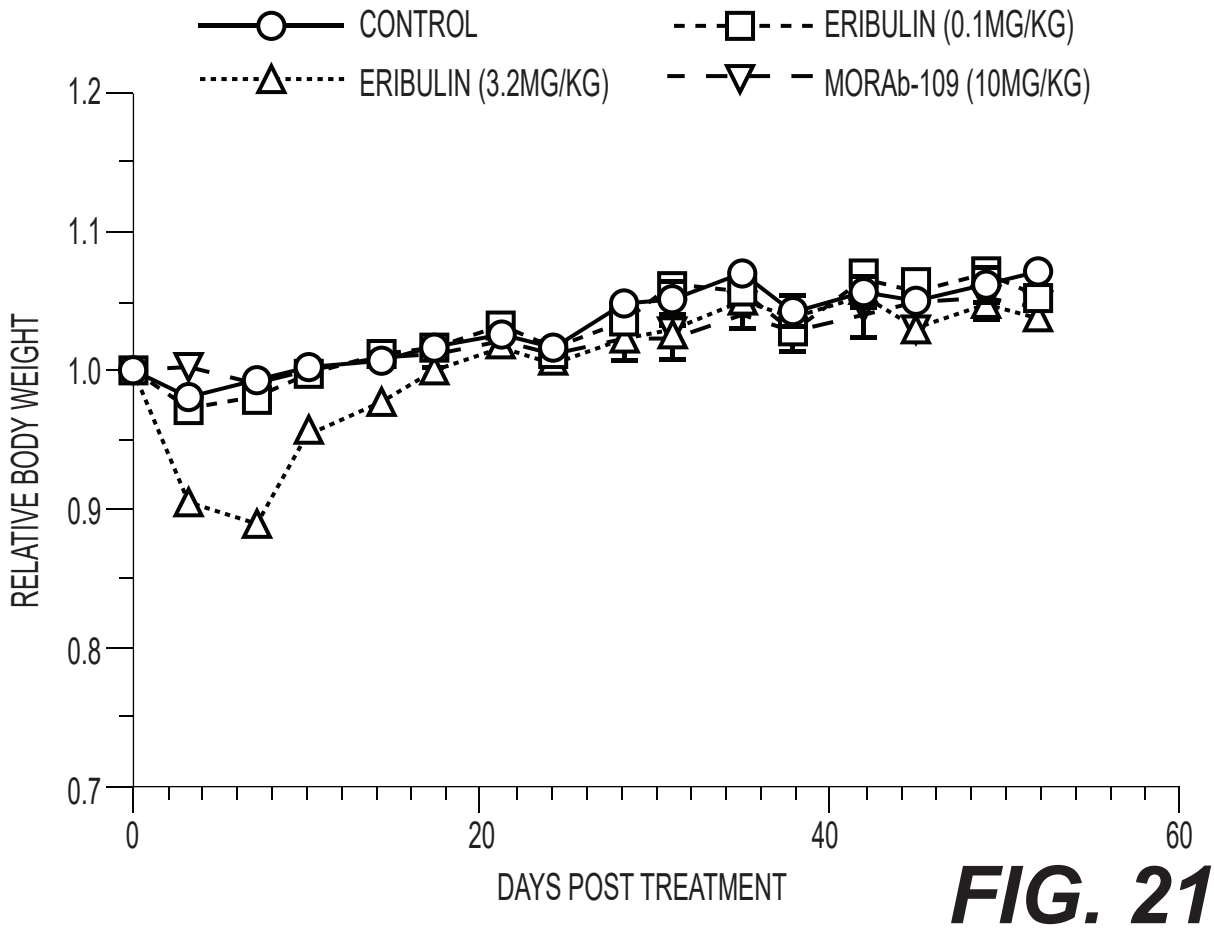


FIG. 21B

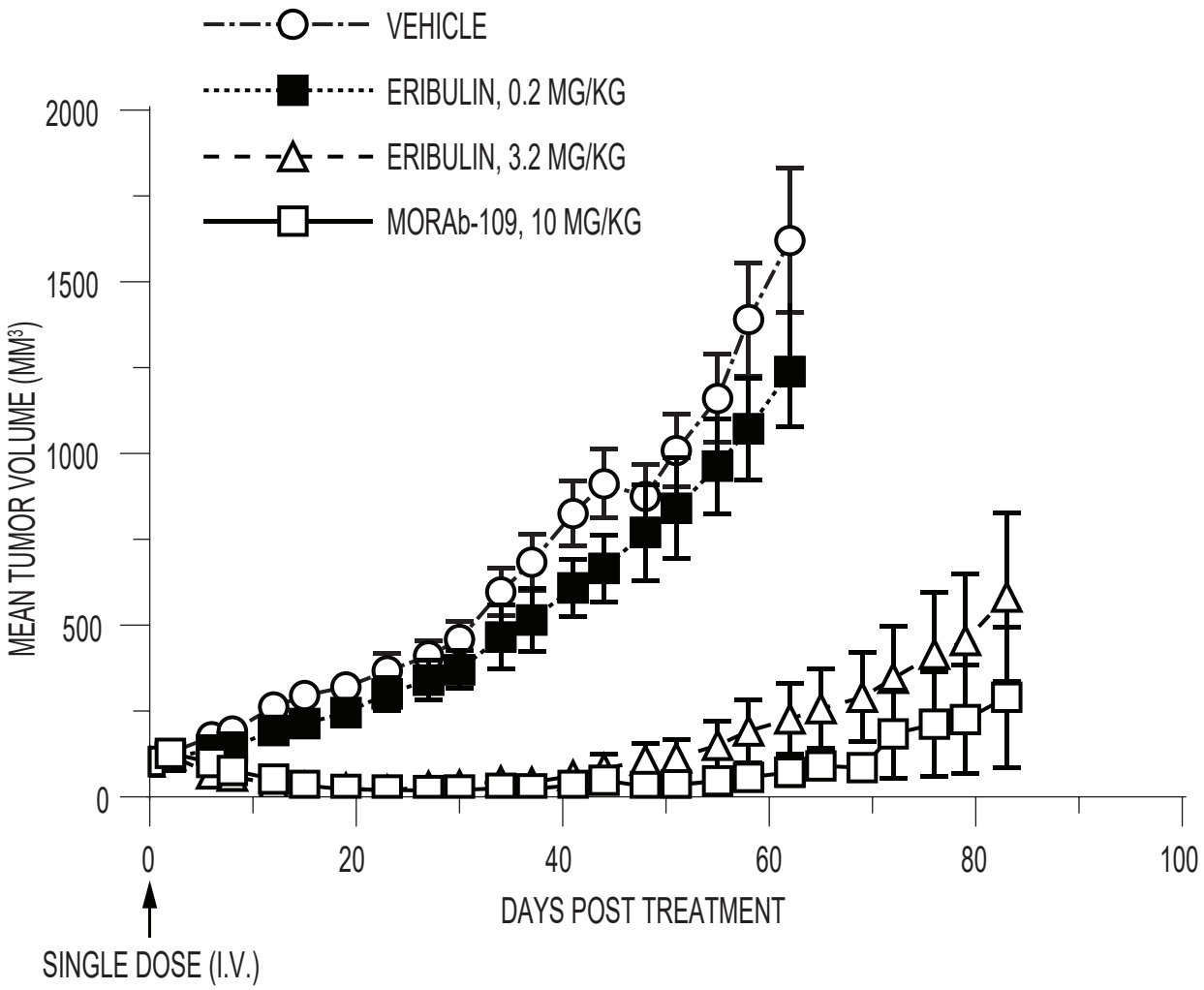


FIG. 22A

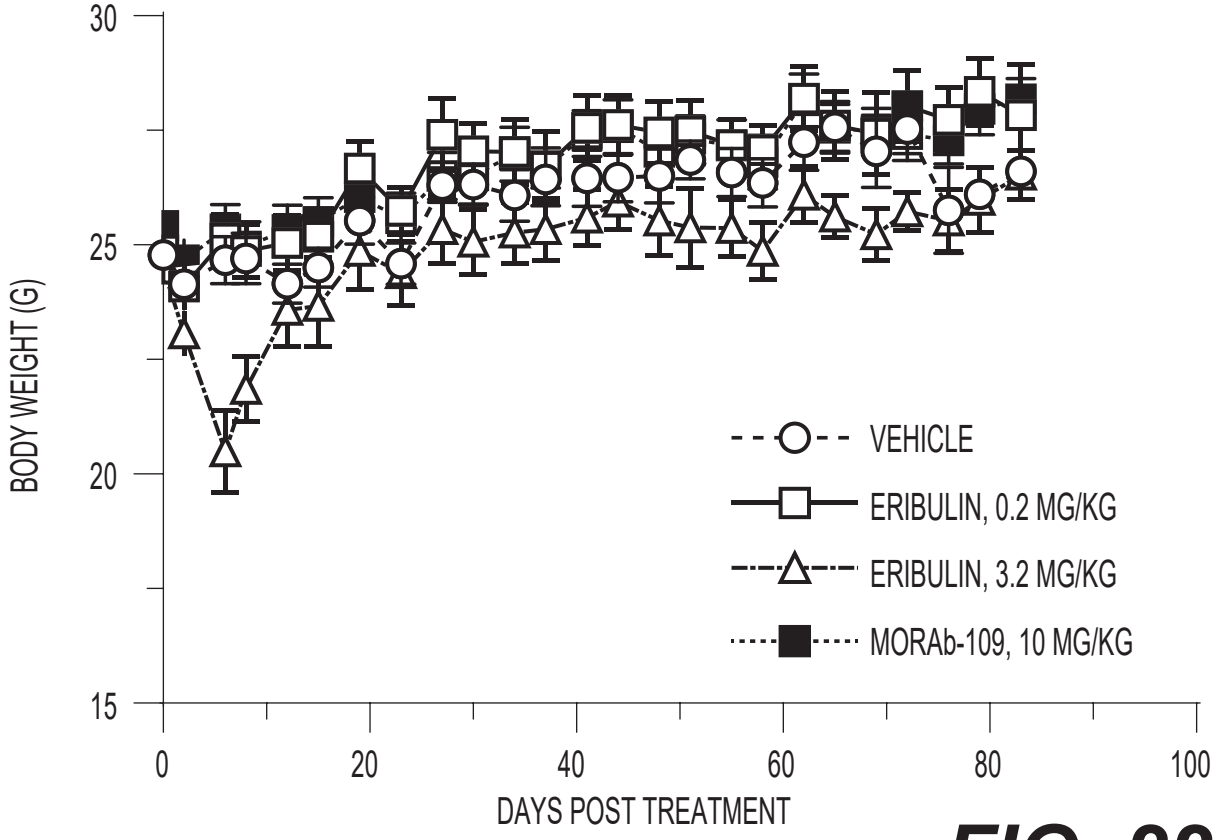


FIG. 22B

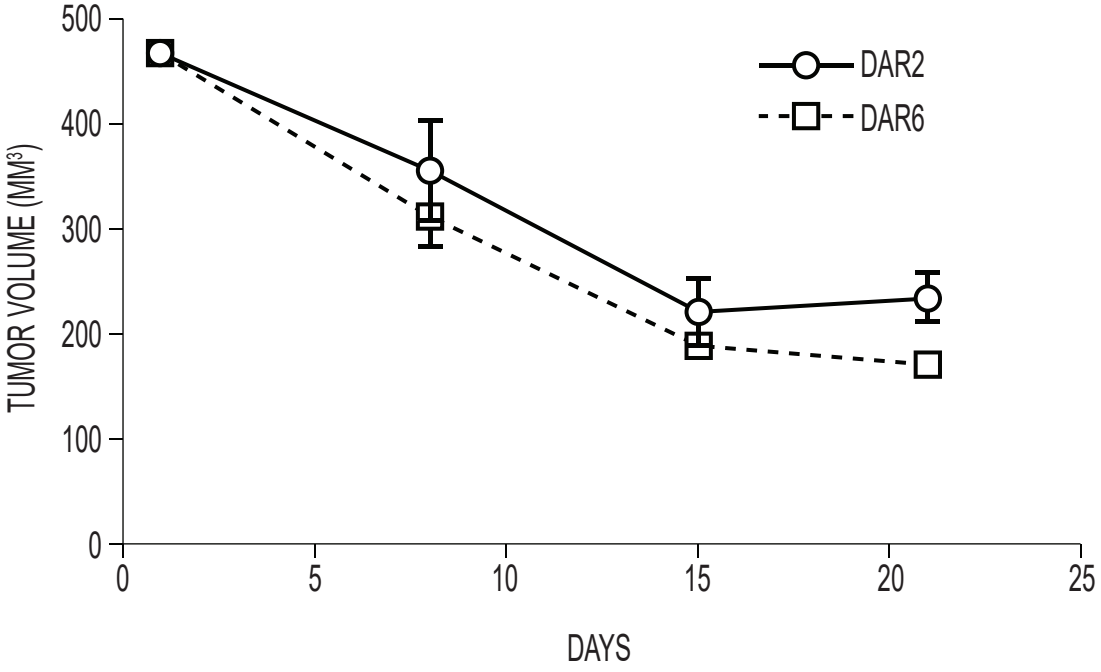


FIG. 23A

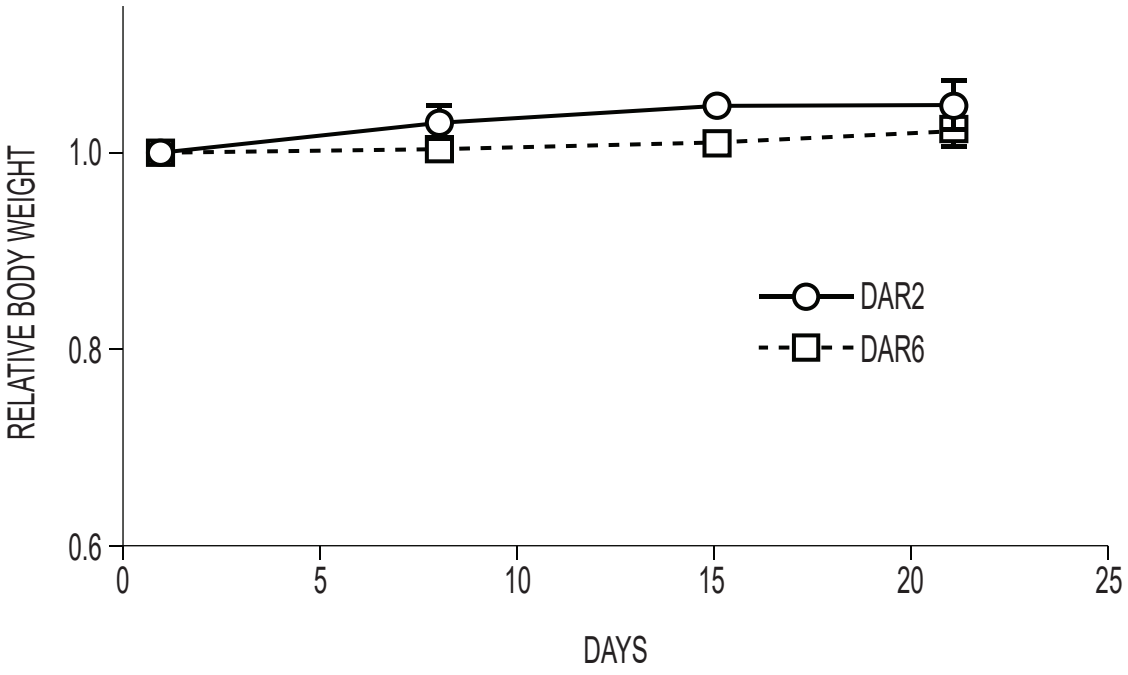


FIG. 23B

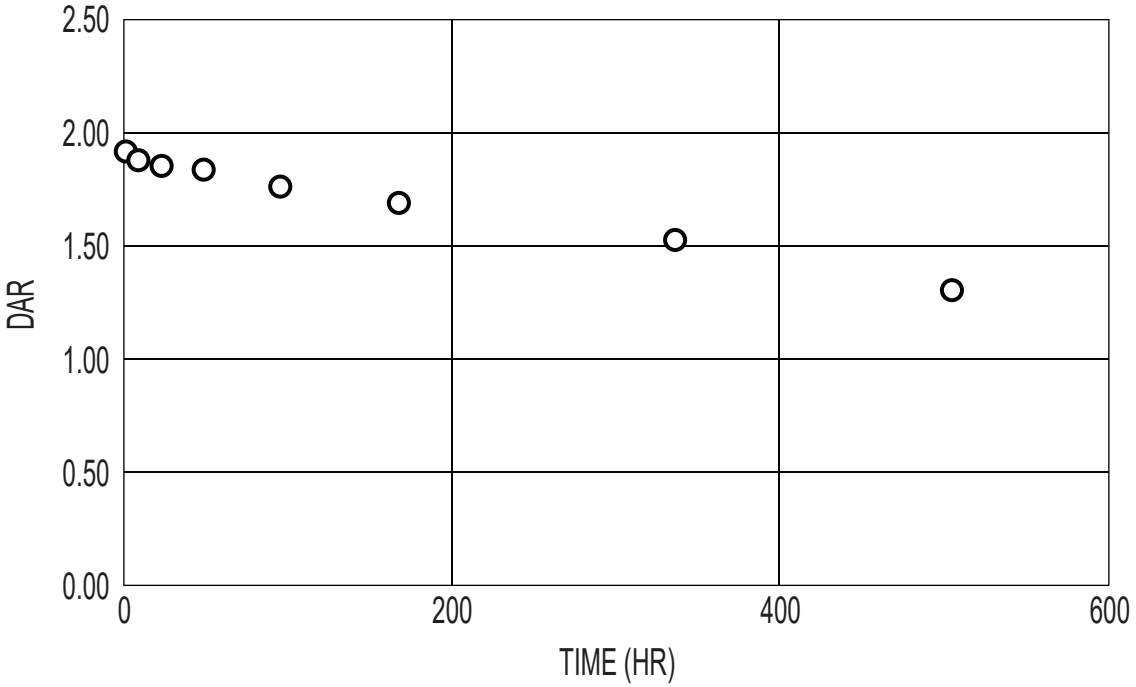


FIG. 24A

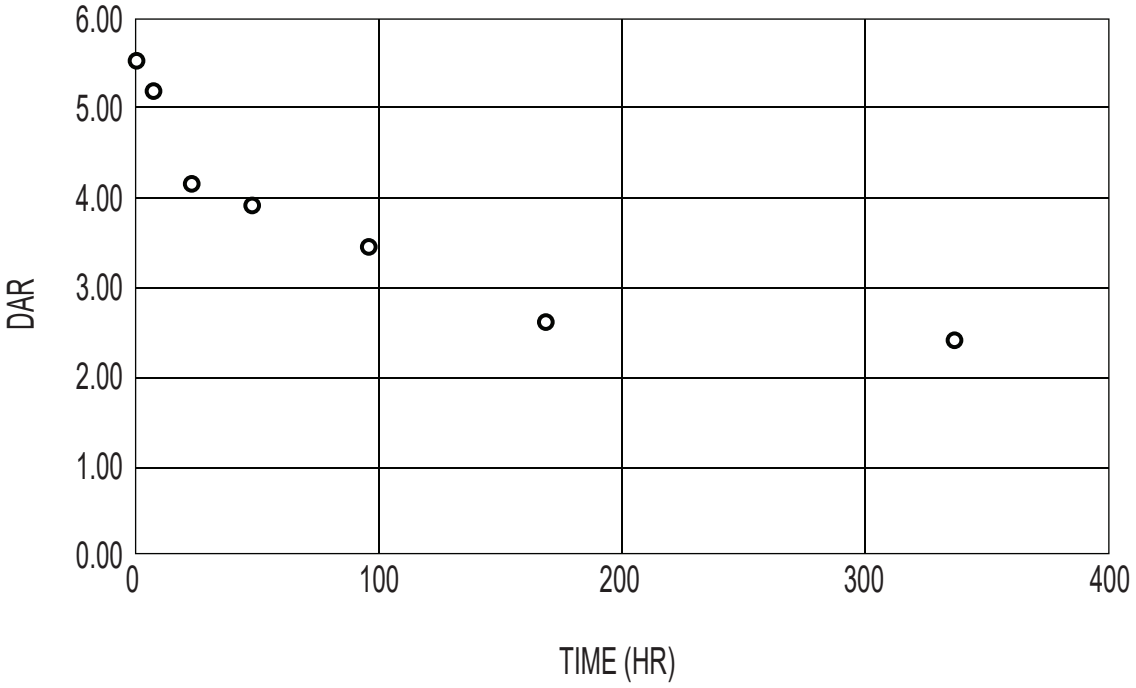


FIG. 24B

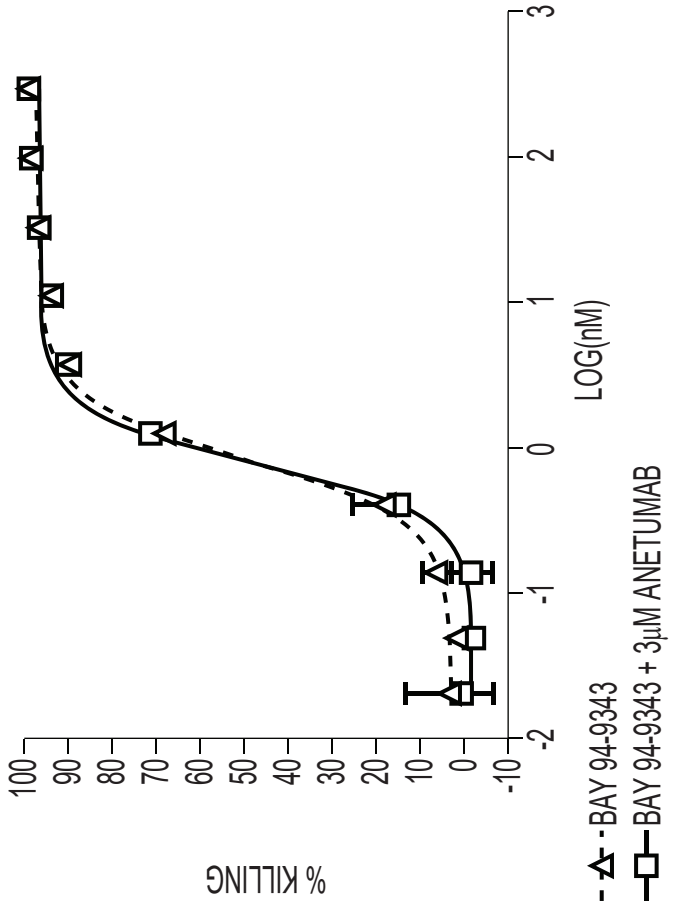


FIG. 25B

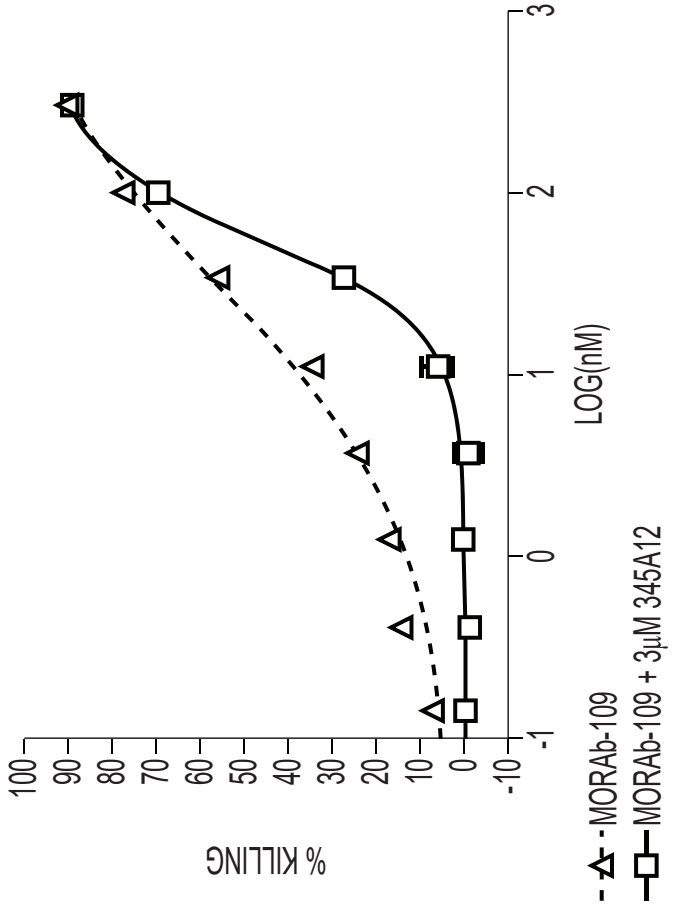


FIG. 25A

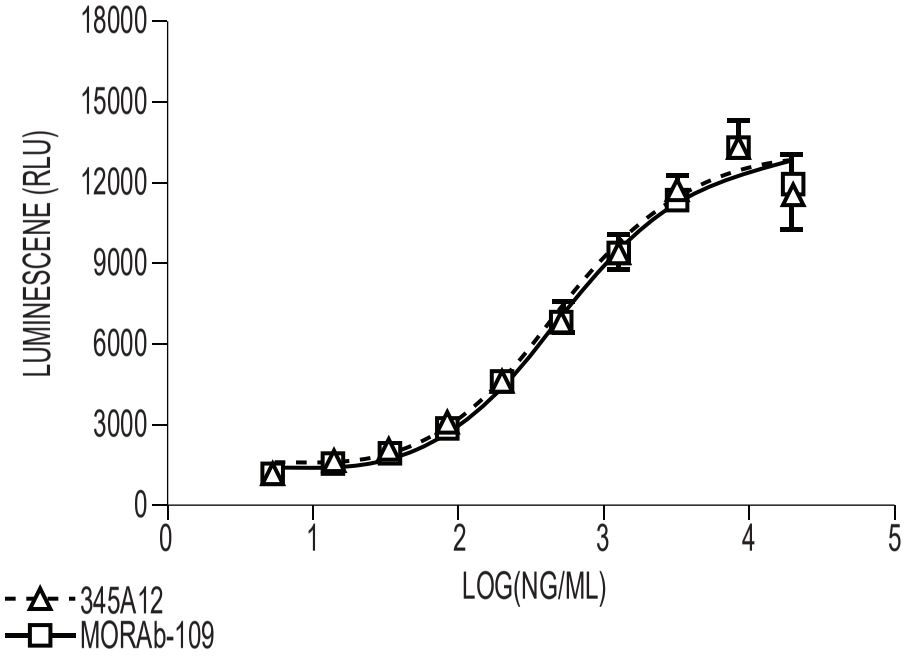


FIG. 26A

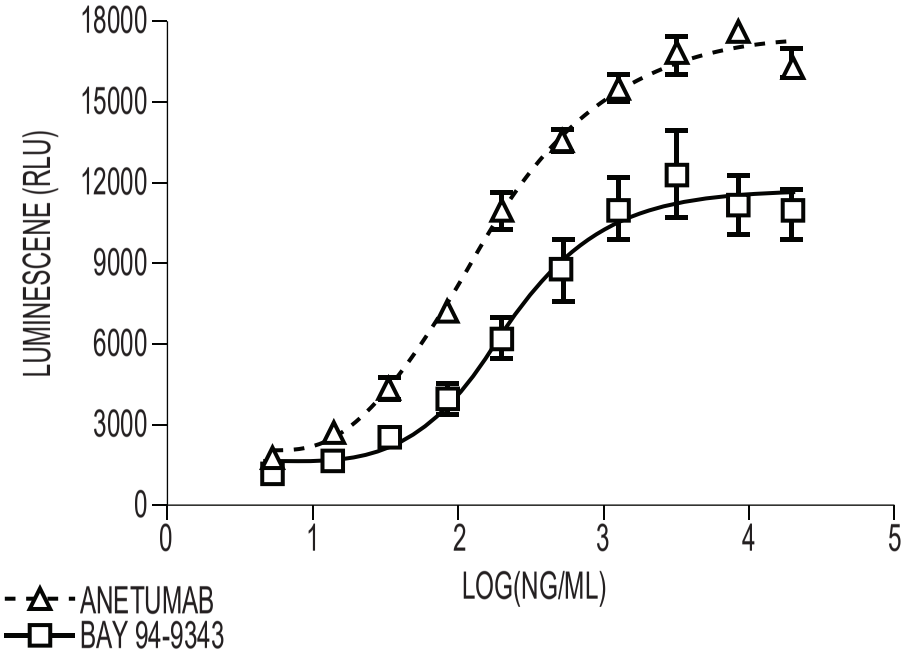


FIG. 26B

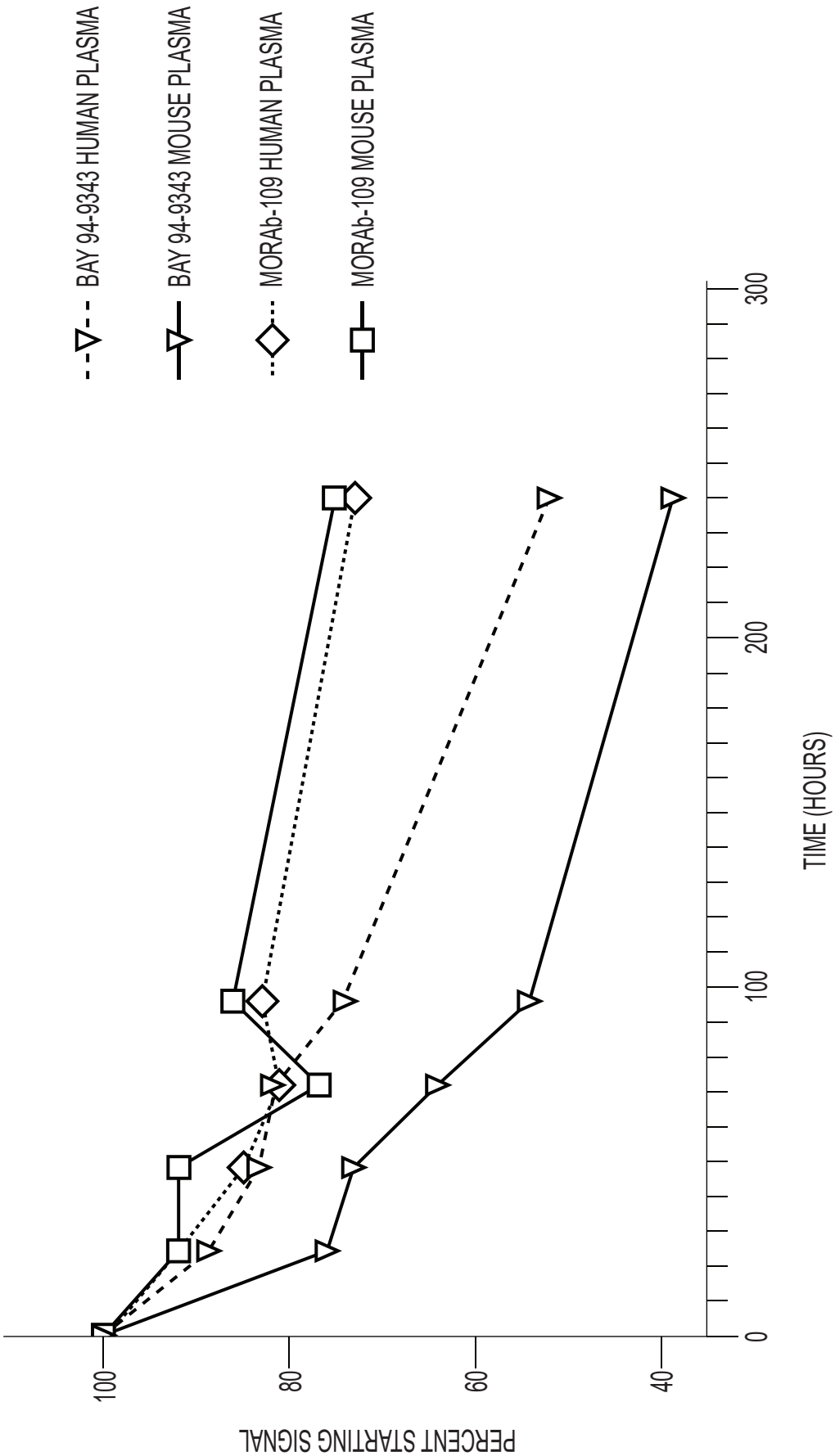

BAY 94-9343 HUMAN PLASMA
BAY 94-9343 MOUSE PLASMA
MORAb-109 HUMAN PLASMA
MORAb-109 MOUSE PLASMA
PERCENT STARTING SIGNAL
100
80
60
40
0
100
200
300
TIME (HOURS)

FIG. 27

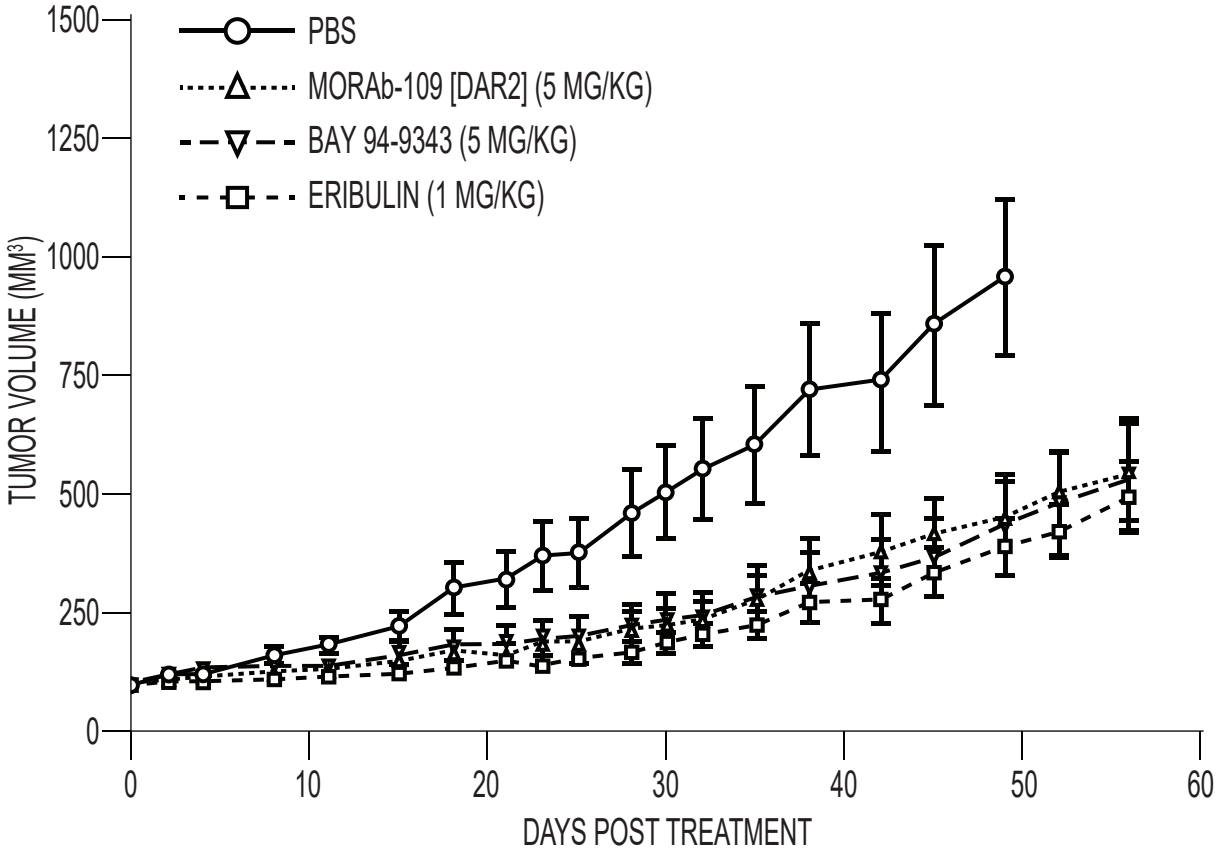


FIG. 28A

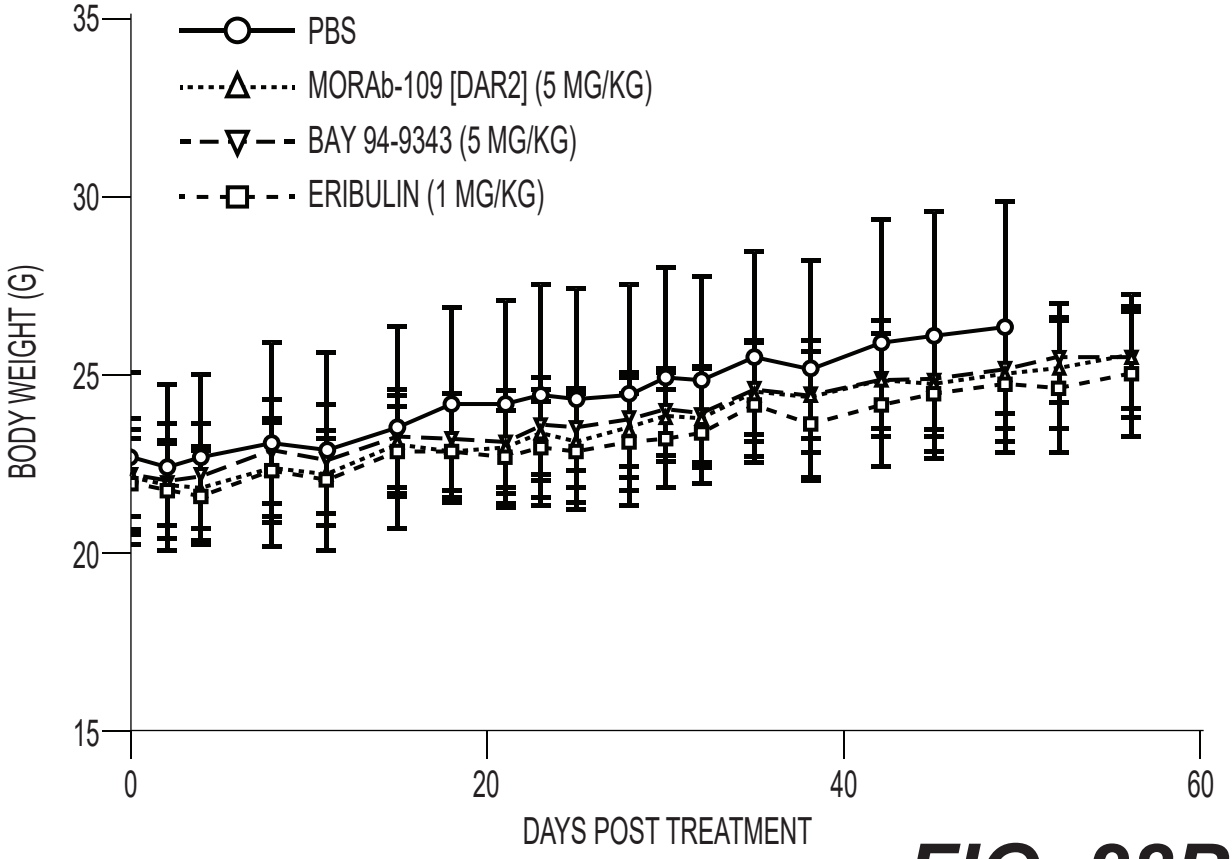


FIG. 28B

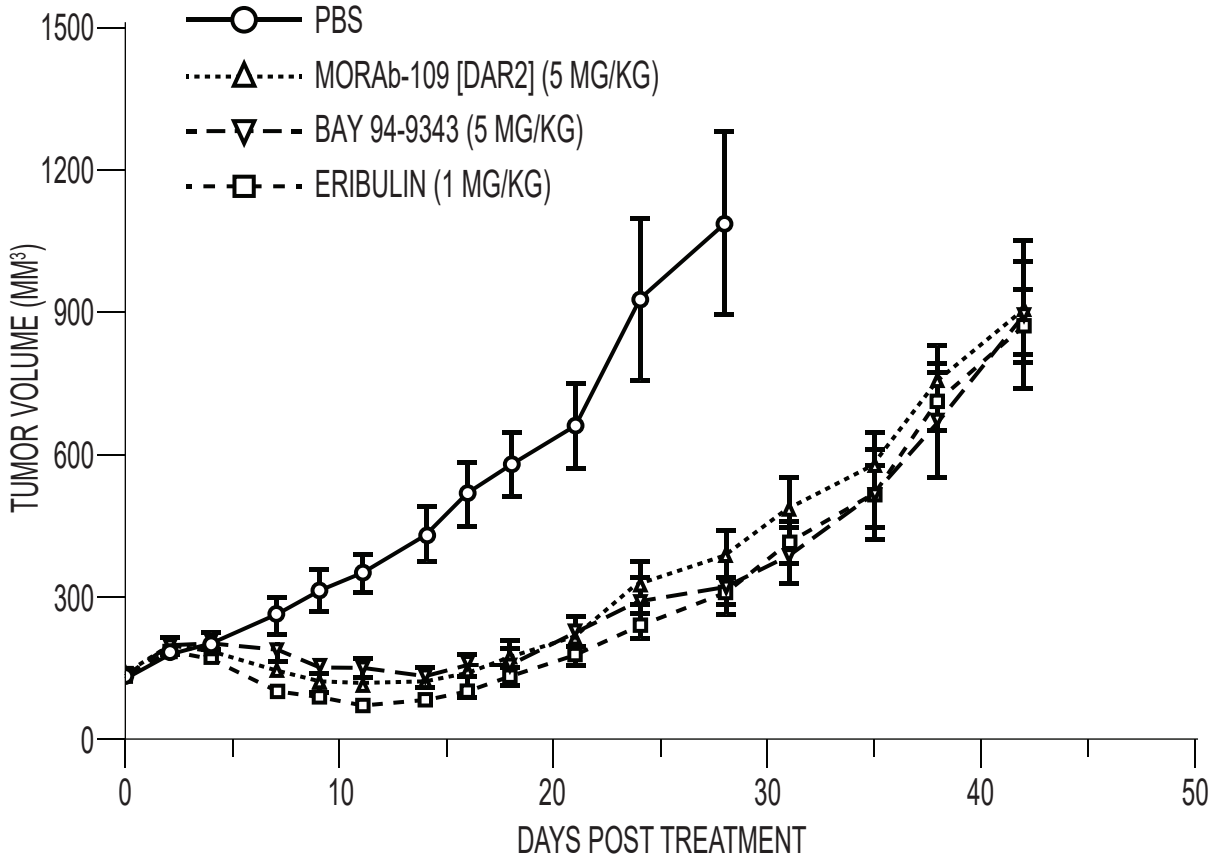


FIG. 29A

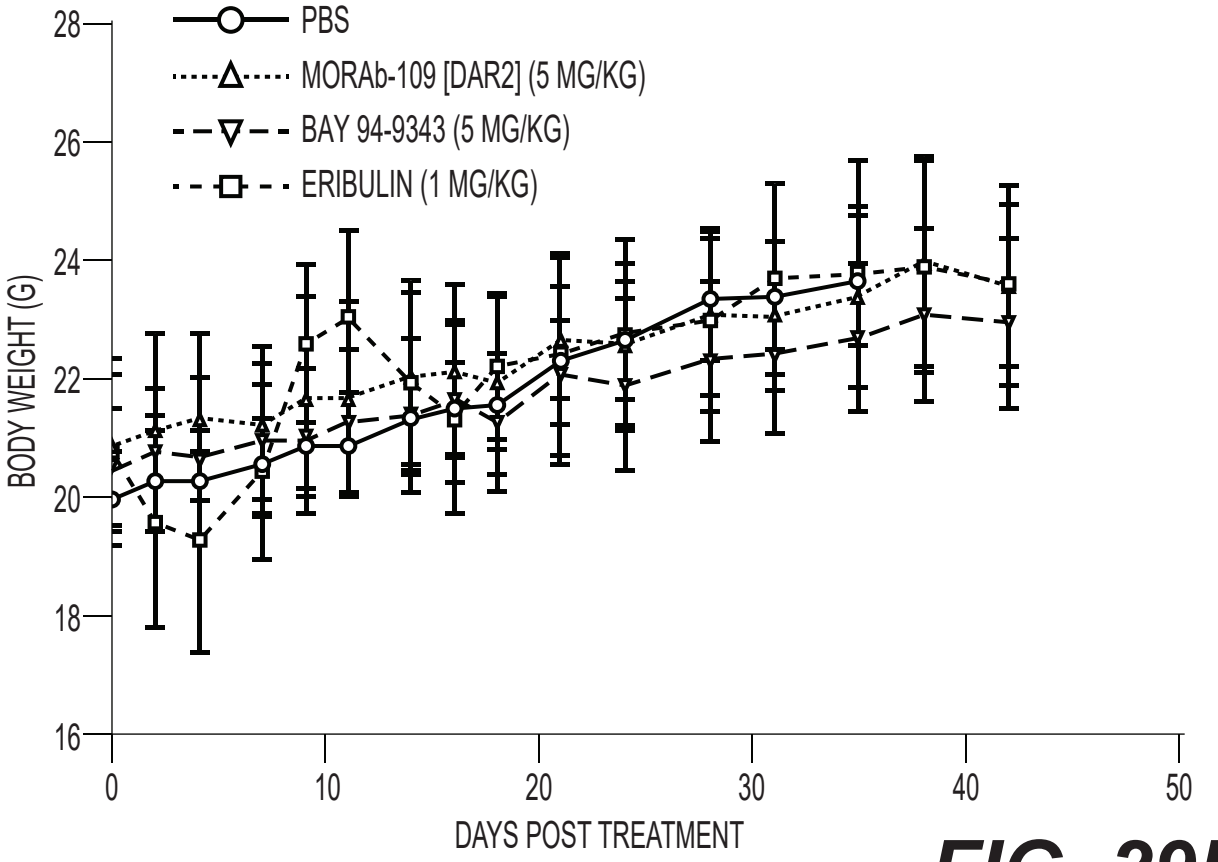


FIG. 29B

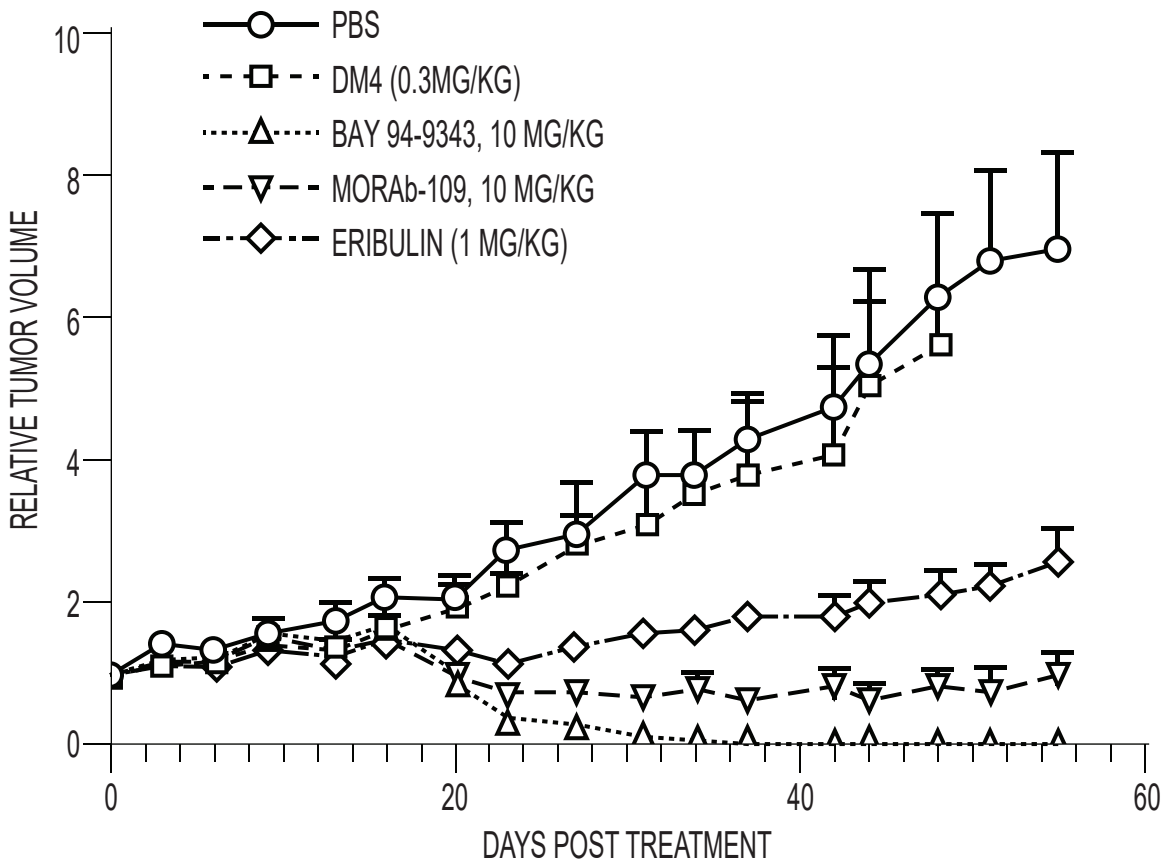


FIG. 30A

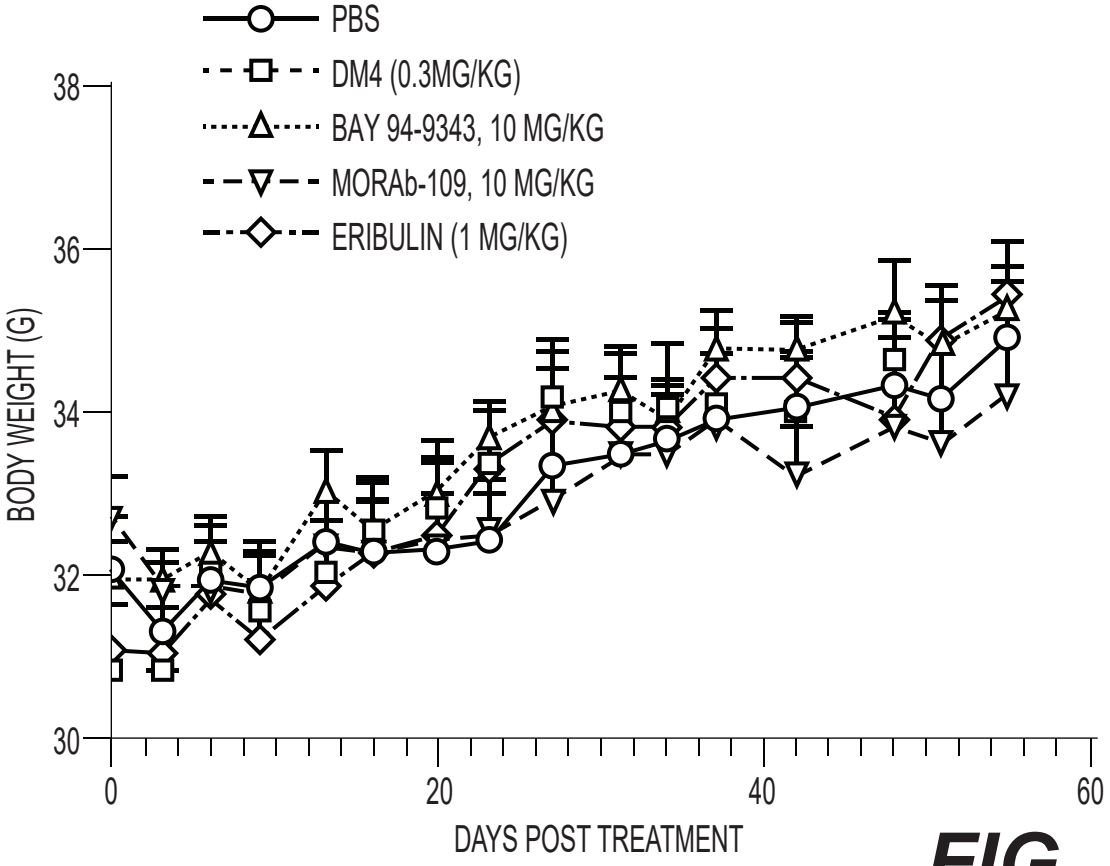


FIG. 30B

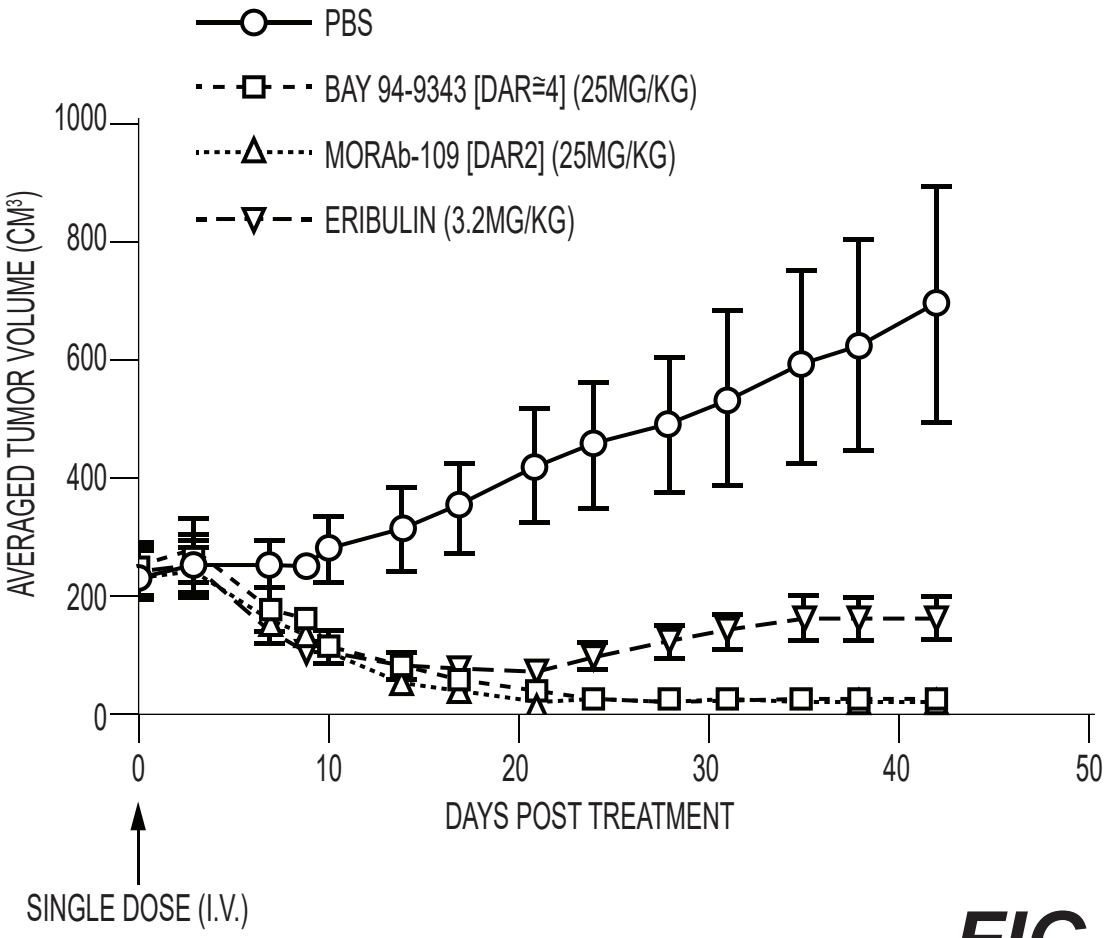


FIG. 31A

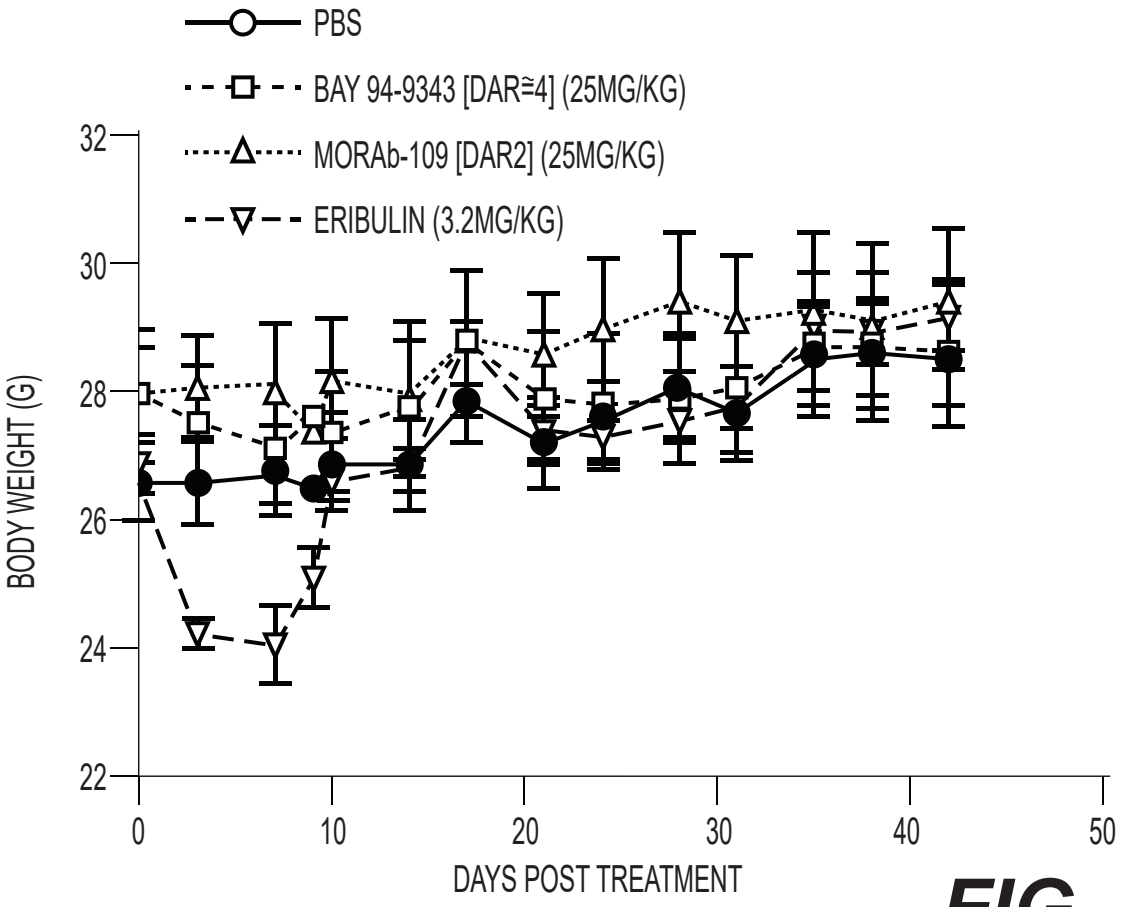


FIG. 31B

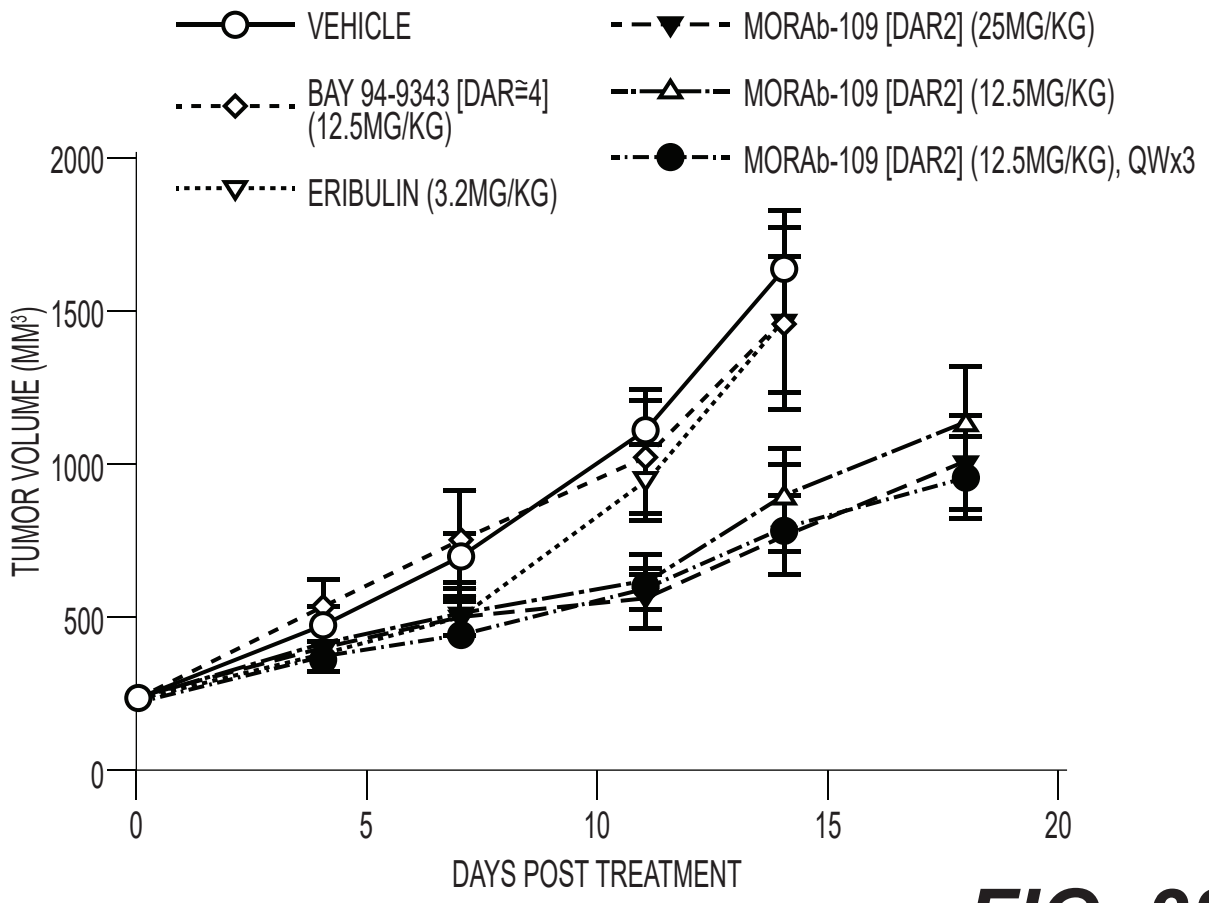


FIG. 32A

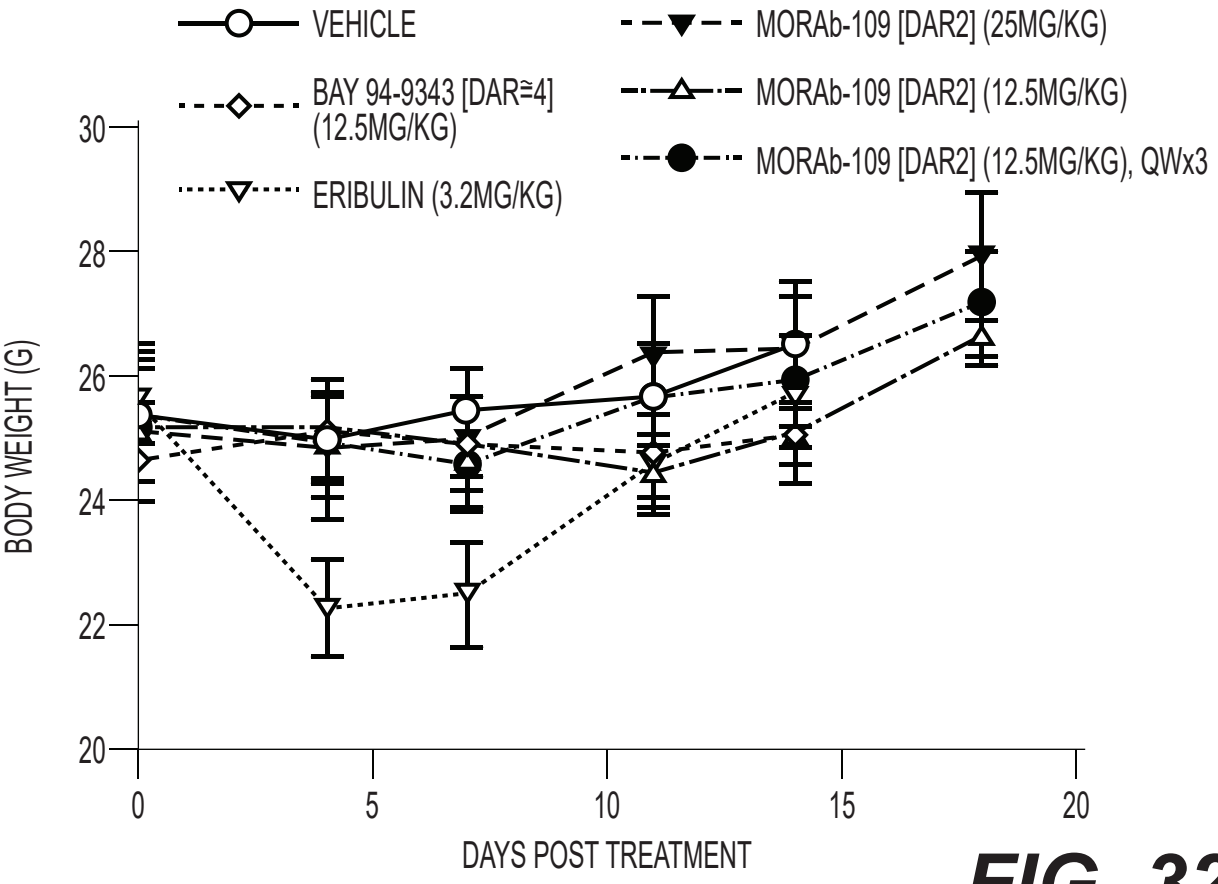


FIG. 32B