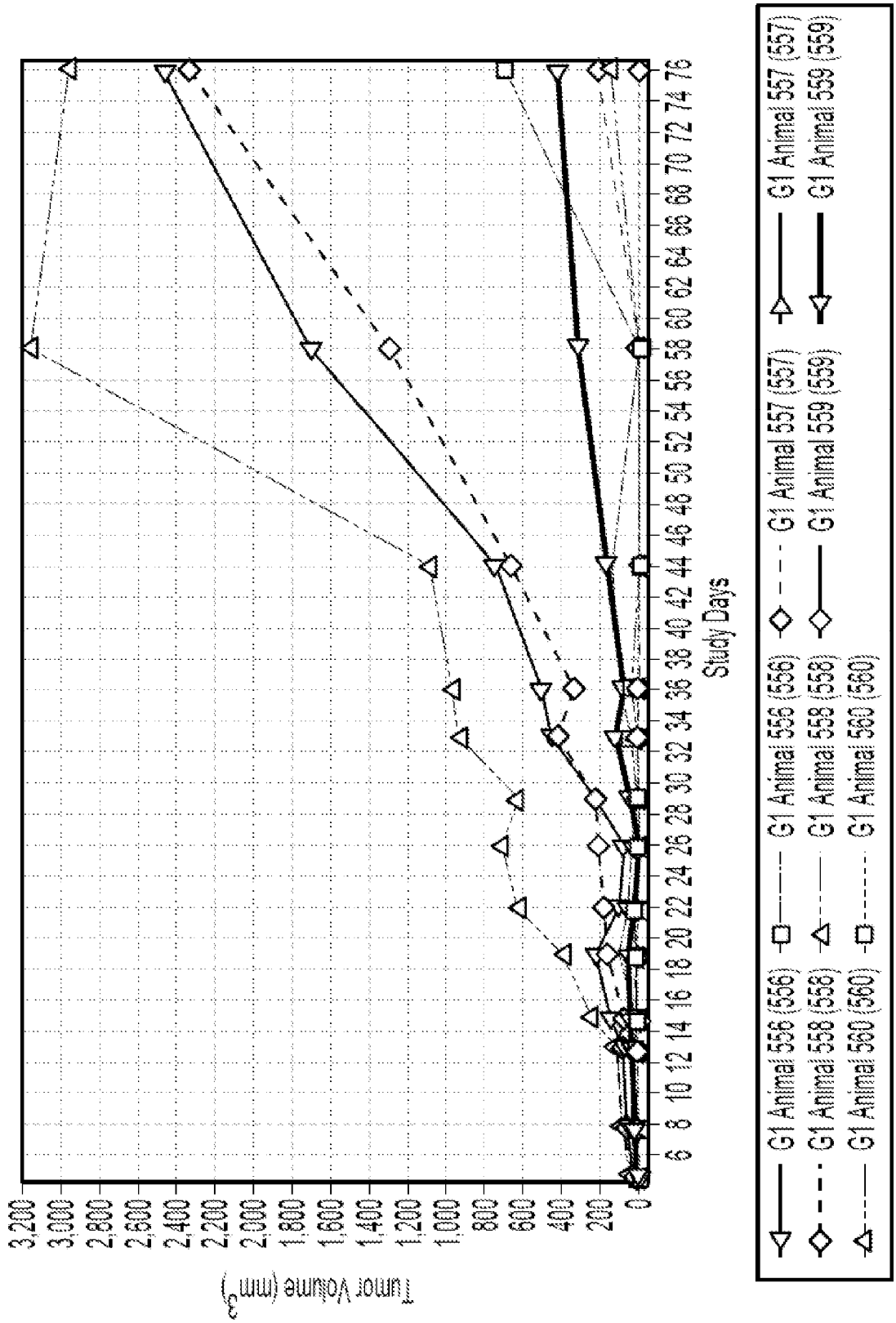

Tumor Volume (mm3)
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76
Study Days
G1 Animal 556 (556)
G1 Animal 557 (557)
G1 Animal 558 (558)
G1 Animal 559 (559)
G1 Animal 560 (560)

Fig. 1A

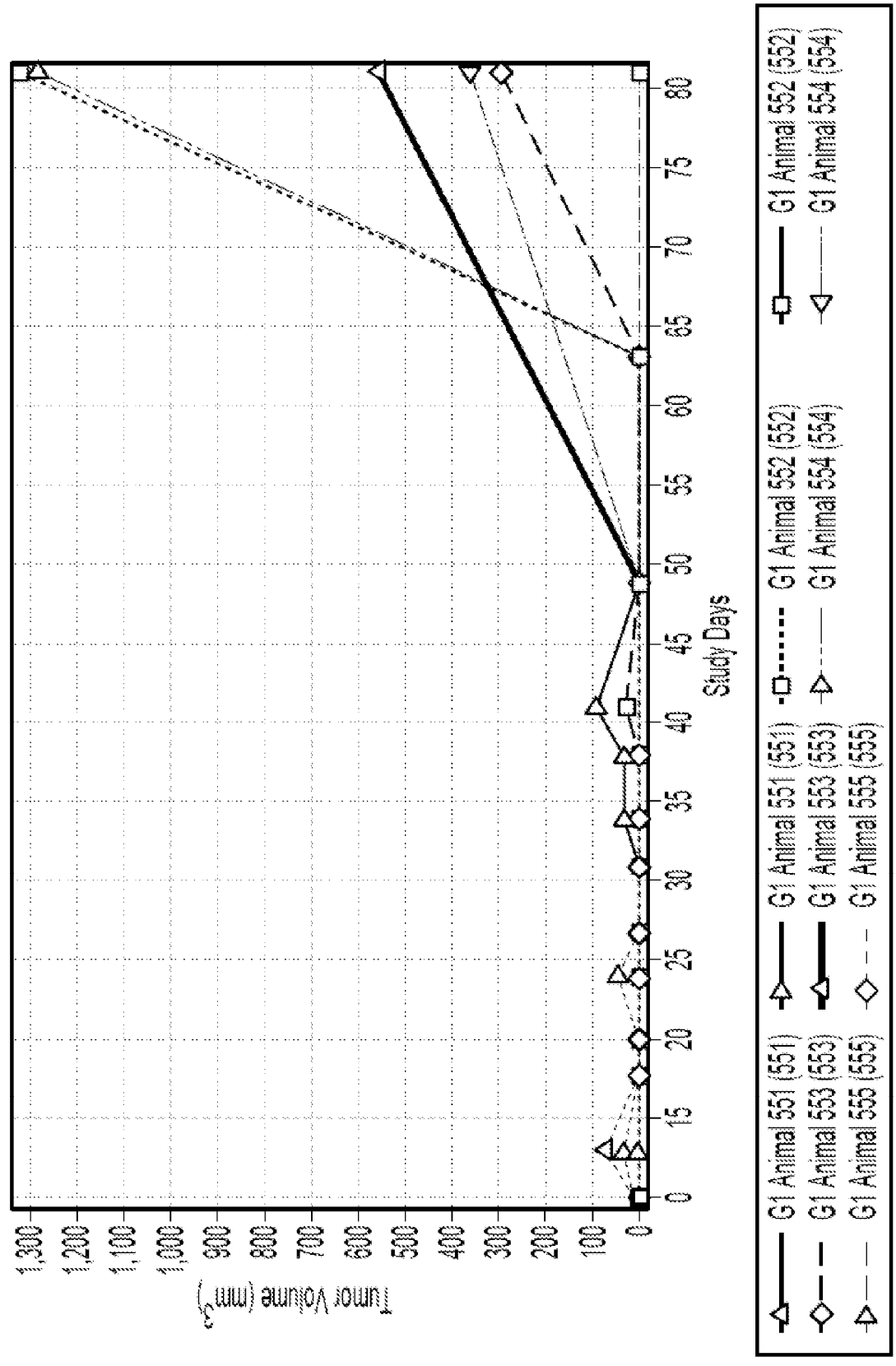

Tumor Volume (mm3)
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
0
15
20
25
30
35
40
45
50
55
60
65
70
75
80
Study Days
G1 Animal 551 (551)
G1 Animal 552 (552)
G1 Animal 553 (553)
G1 Animal 554 (554)
G1 Animal 555 (555)

Fig. 1B

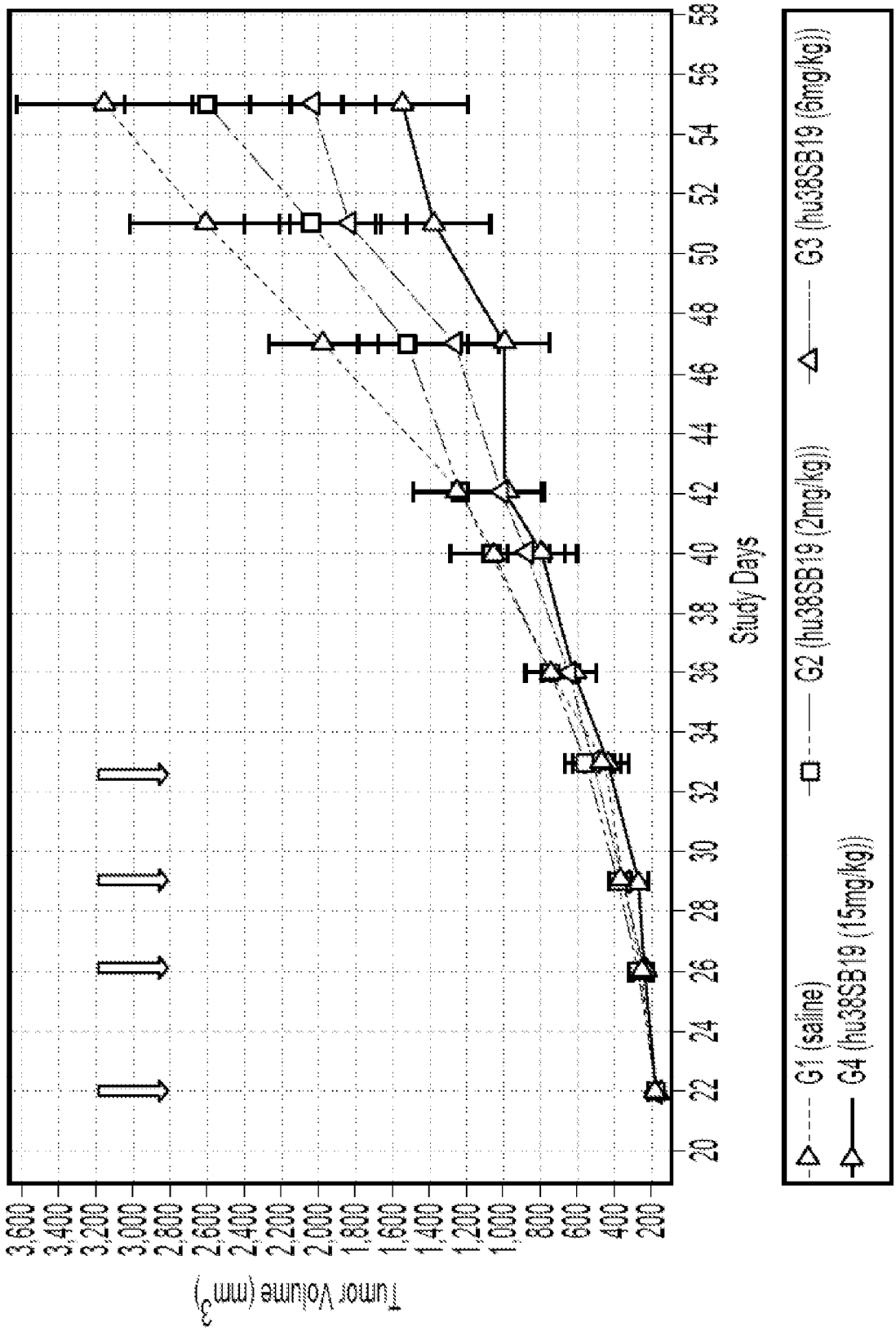

Tumor Volume (mm3)
3,600
3,400
3,200
3,000
2,800
2,600
2,400
2,200
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
54
56
58
Study Days
G1 (saline)
G2 (hu38SB19 (2mg/kg))
G3 (hu38SB19 (6mg/kg))
G4 (hu38SB19 (15mg/kg))

Fig. 2A

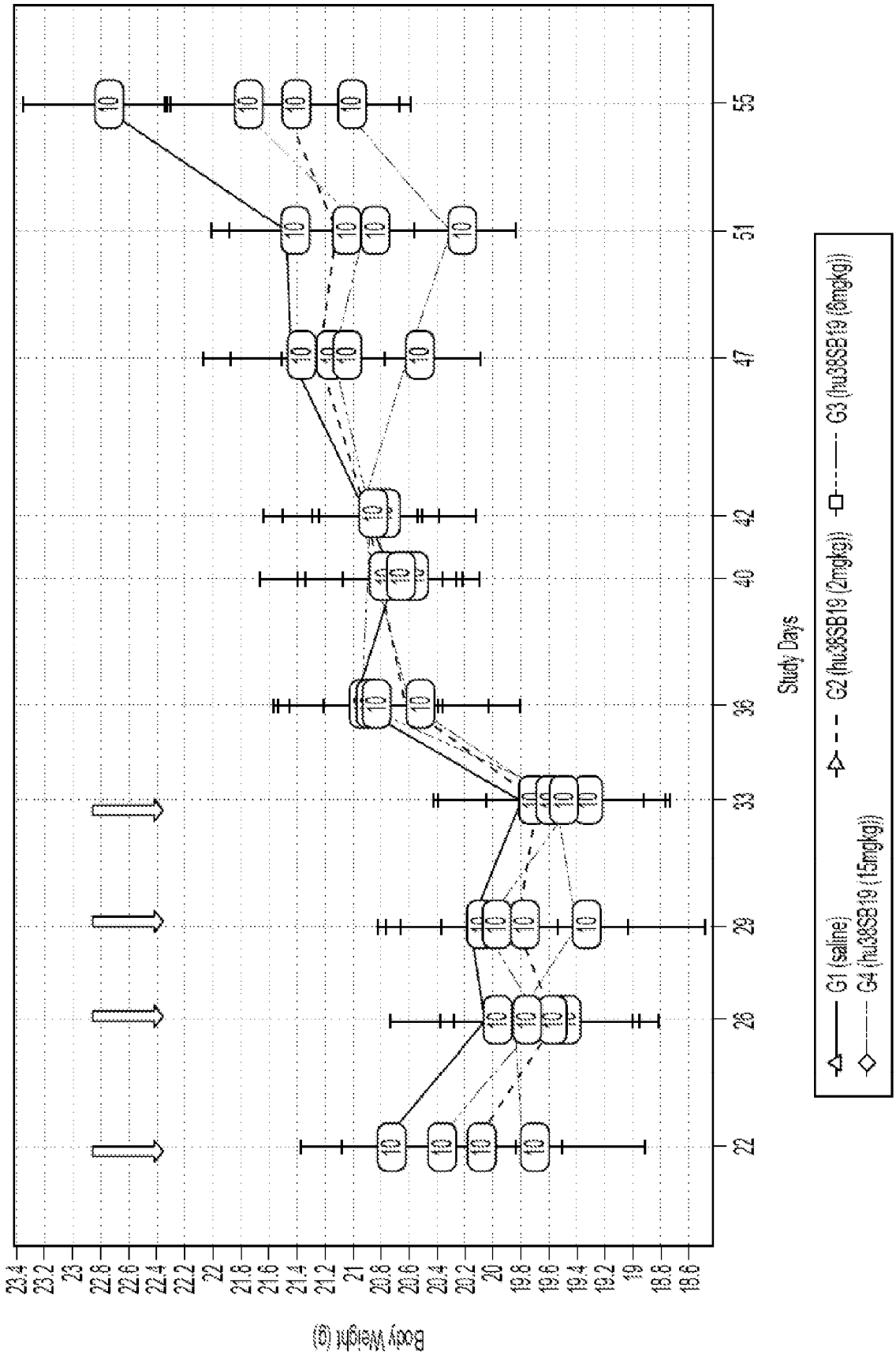

Body Weight (g)
Study Days
G1 (saline)
G2 (hu38SB19 (2mg/kg))
G3 (hu38SB19 (8mg/kg))
G4 (hu38SB19 (15mg/kg))

Fig. 2B

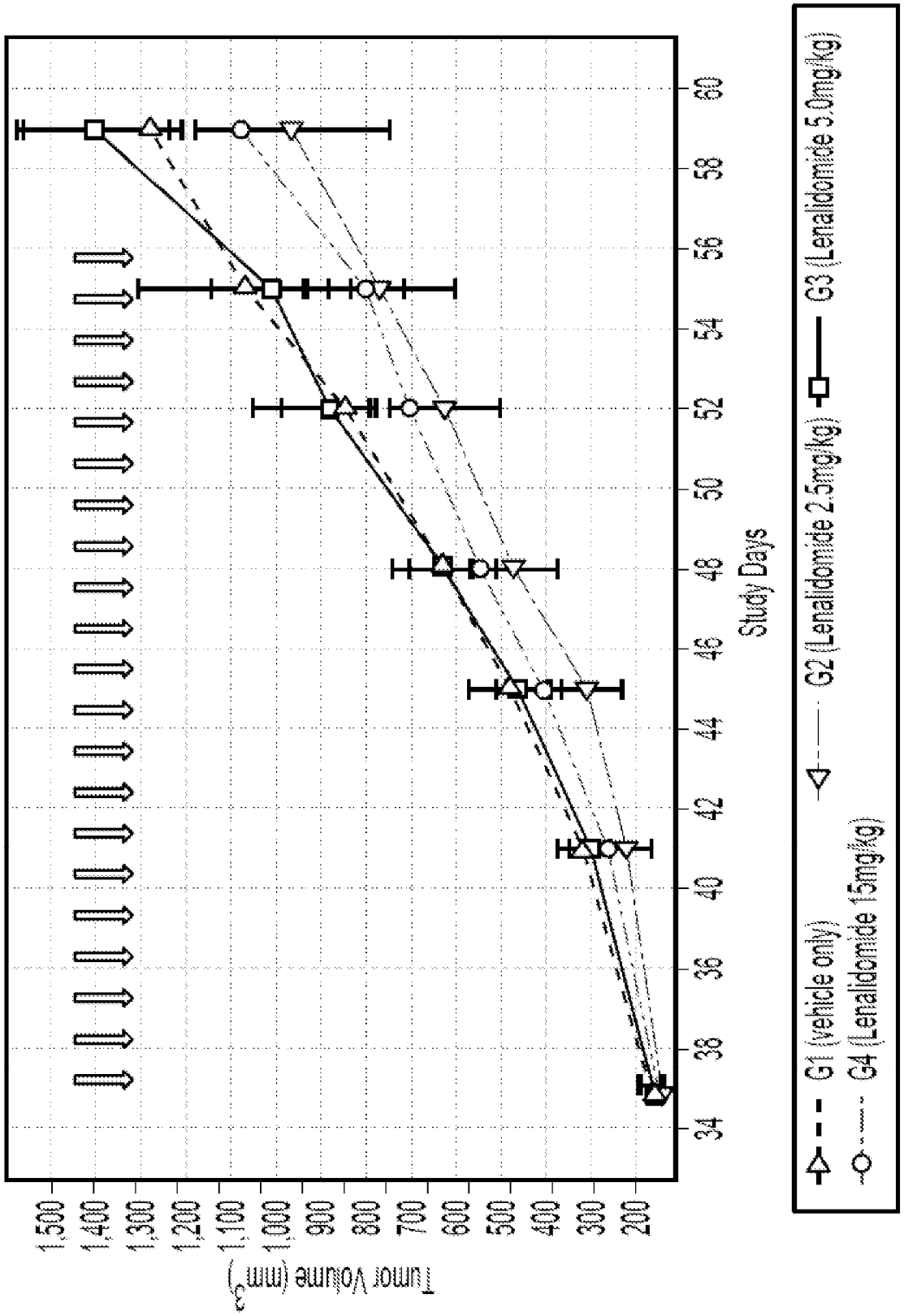

Tumor Volume (mm3)
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
34
38
36
40
42
44
46
48
50
52
54
56
58
60
Study Days
G1 (vehicle only)
G2 (Lenalidomide 2.5mg/kg)
G3 (Lenalidomide 5.0mg/kg)
G4 (Lenalidomide 15mg/kg)

Fig. 3A

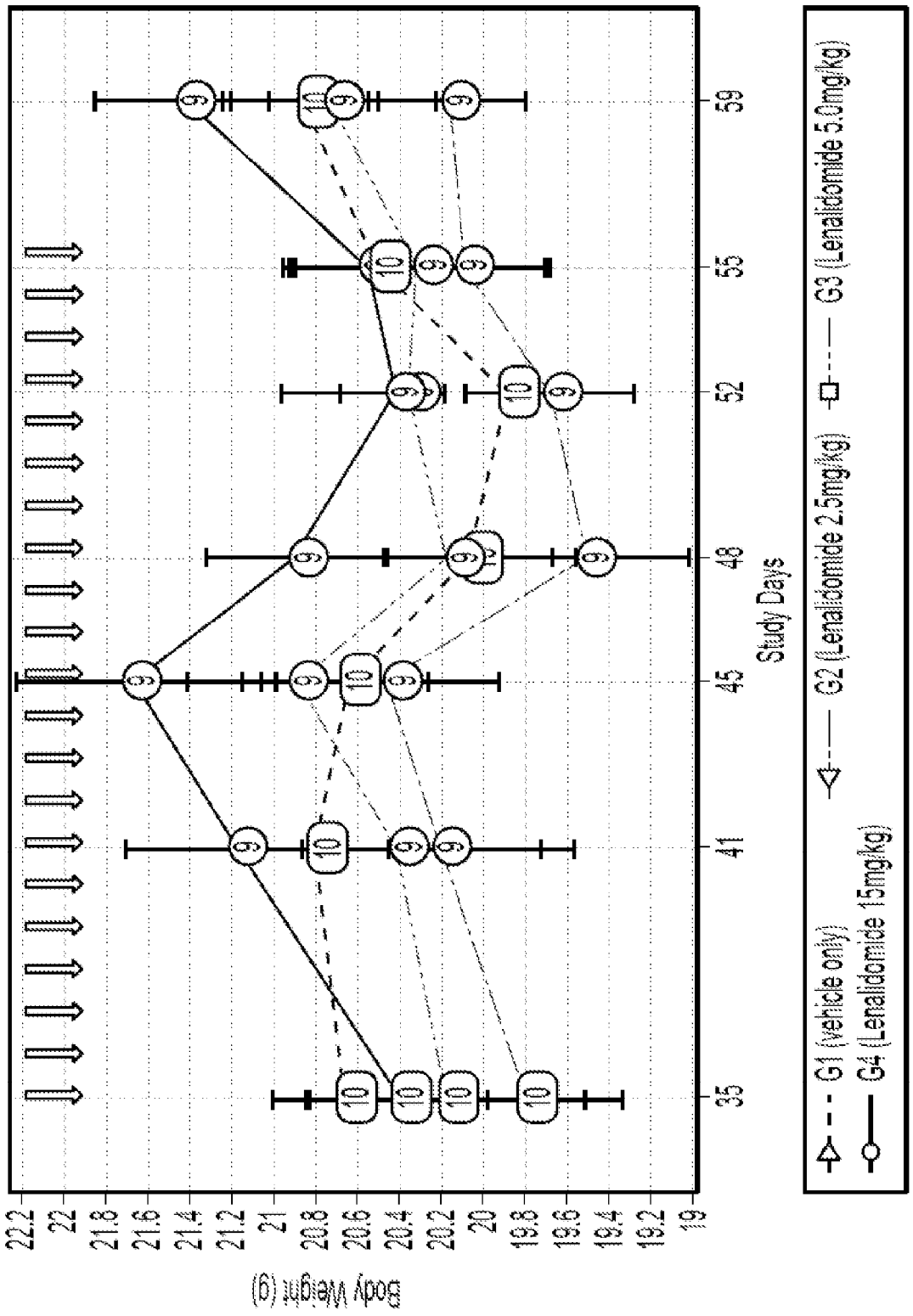

Body Weight (g)
22.2
22
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2
20
19.8
19.6
19.4
19.2
19
35
41
45
48
52
55
59
Study Days
G1 (vehicle only)
G2 (Lenalidomide 2.5mg/kg)
G3 (Lenalidomide 5.0mg/kg)
G4 (Lenalidomide 15mg/kg)

Fig. 3B

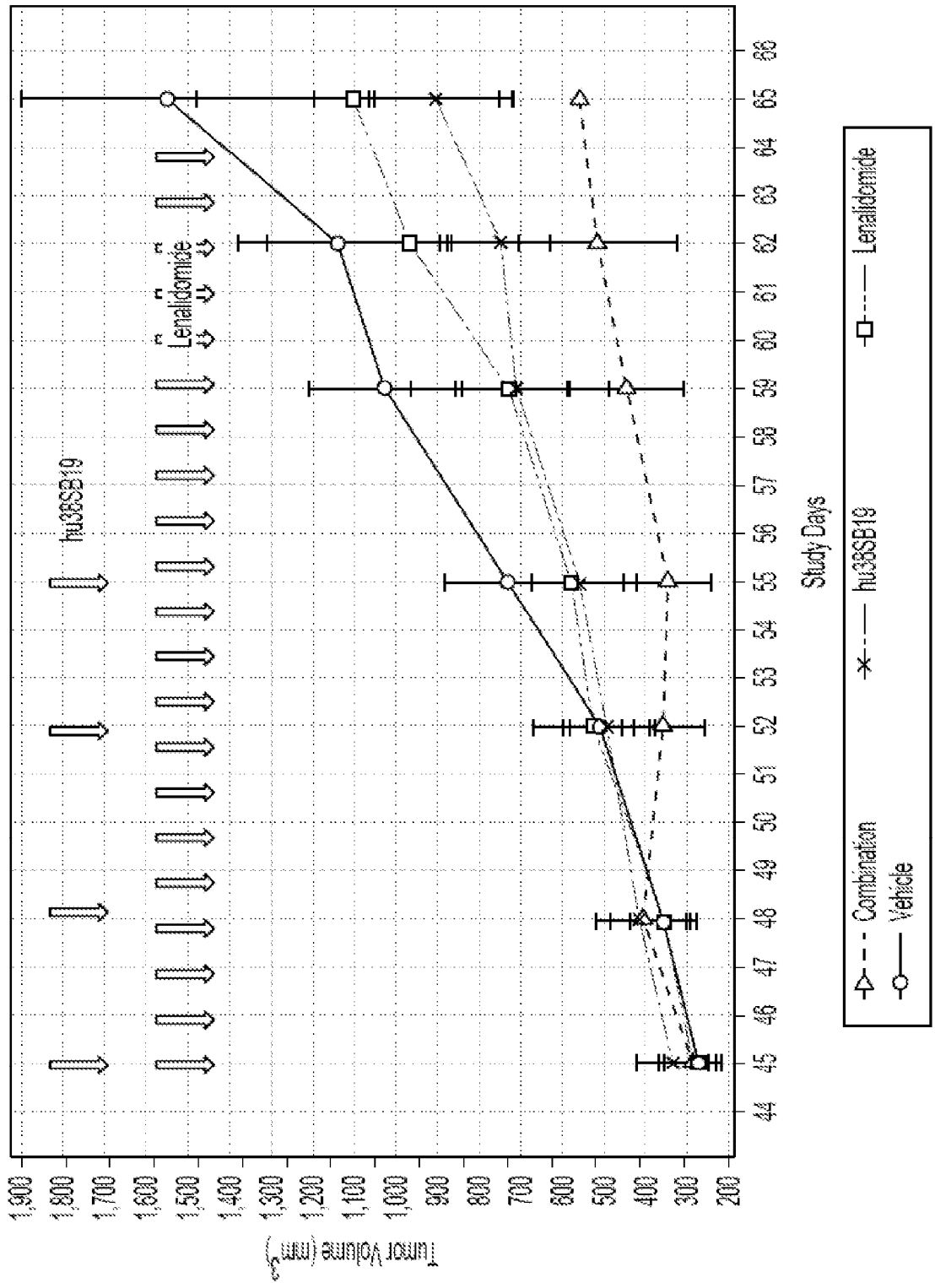

Tumor Volume (mm³)
1,900
1,800
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
Study Days
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
hu33SB19
Lenalidomide
Lenalidomide
Combination
hu33SB19
Lenalidomide
Vehicle

Fig. 4A

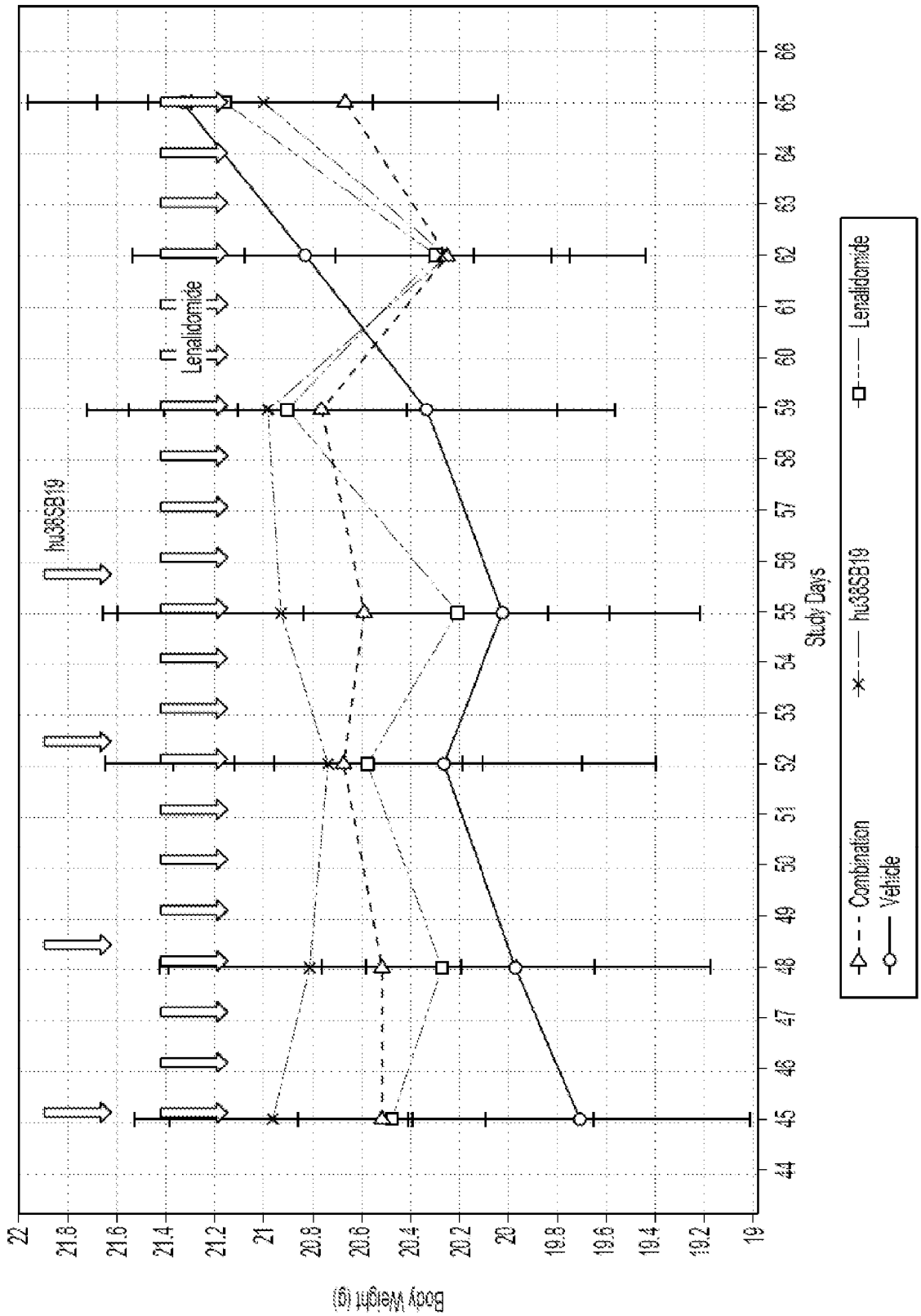

Body Weight (g)
22
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2
20
19.8
19.6
19.4
19.2
19
Study Days
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
hu38SB19
Lenalidomide
Combination
hu38SB19
Lenalidomide
Vehicle

Fig. 4B

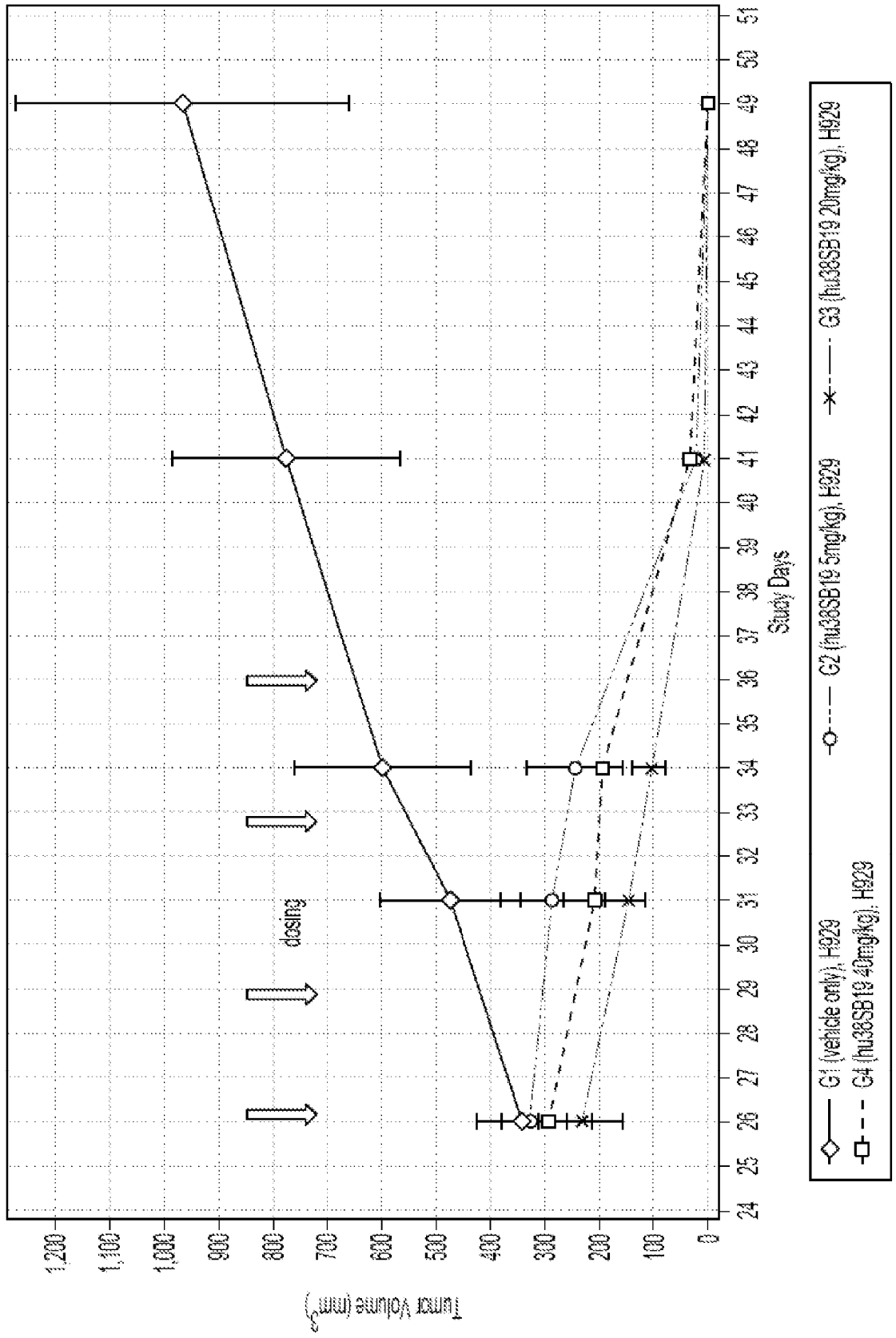

Tumor Volume (mm³)
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
dosing
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
Study Days
G1 (vehicle only), H929
G2 (hu38SB19 5mg/kg), H929
G3 (hu38SB19 20mg/kg), H929
G4 (hu38SB19 40mg/kg), H929

Fig. 5A

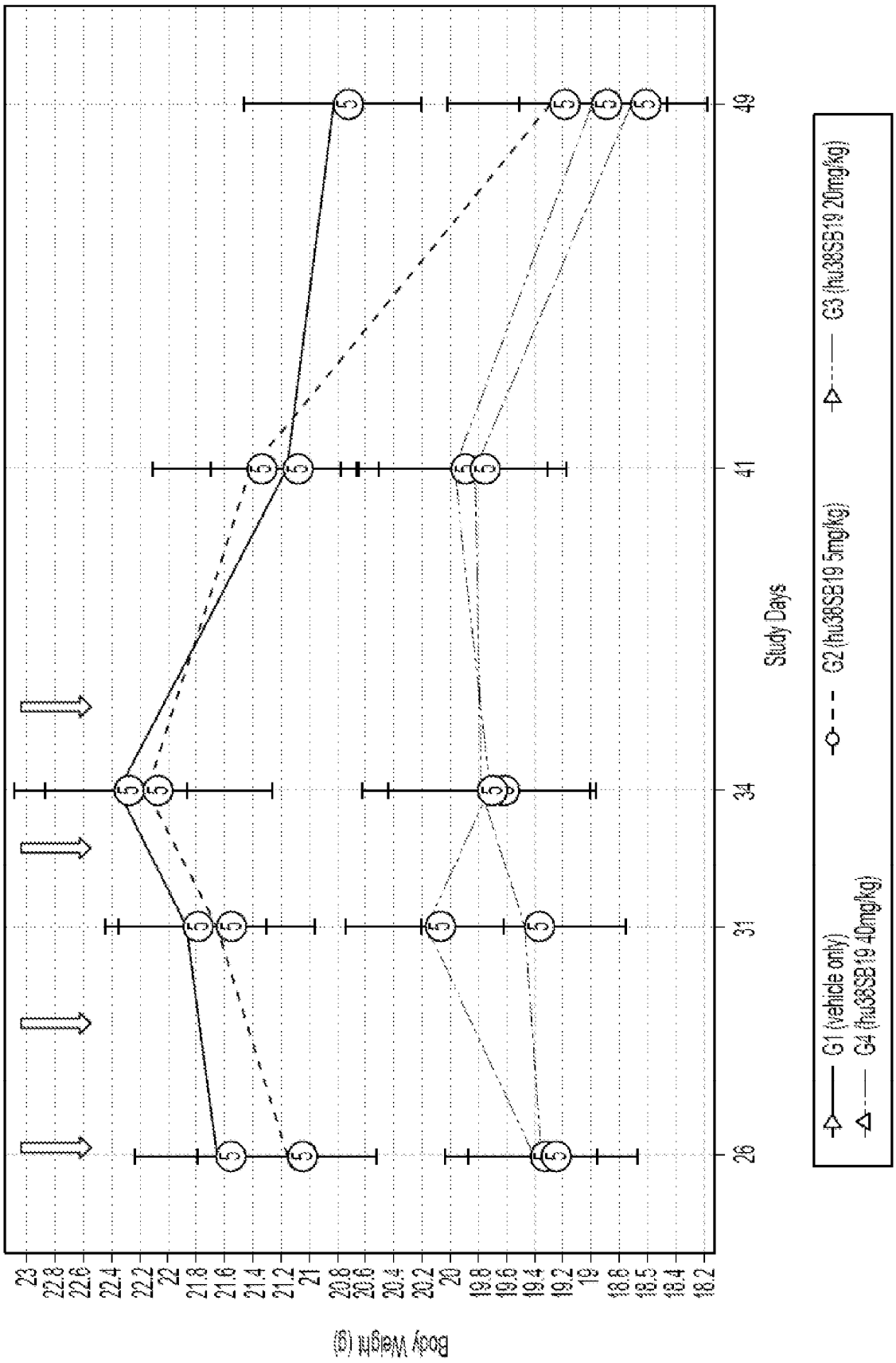

Body Weight (g)
23
22.8
22.6
22.4
22.2
22
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2
20
19.8
19.6
19.4
19.2
19
18.8
18.6
18.4
18.2
26
31
34
41
49
Study Days
G1 (vehicle only)
G2 (hu38SB19 5mg/kg)
G3 (hu38SB19 20mg/kg)
G4 (hu38SB19 40mg/kg)

Fig. 5B

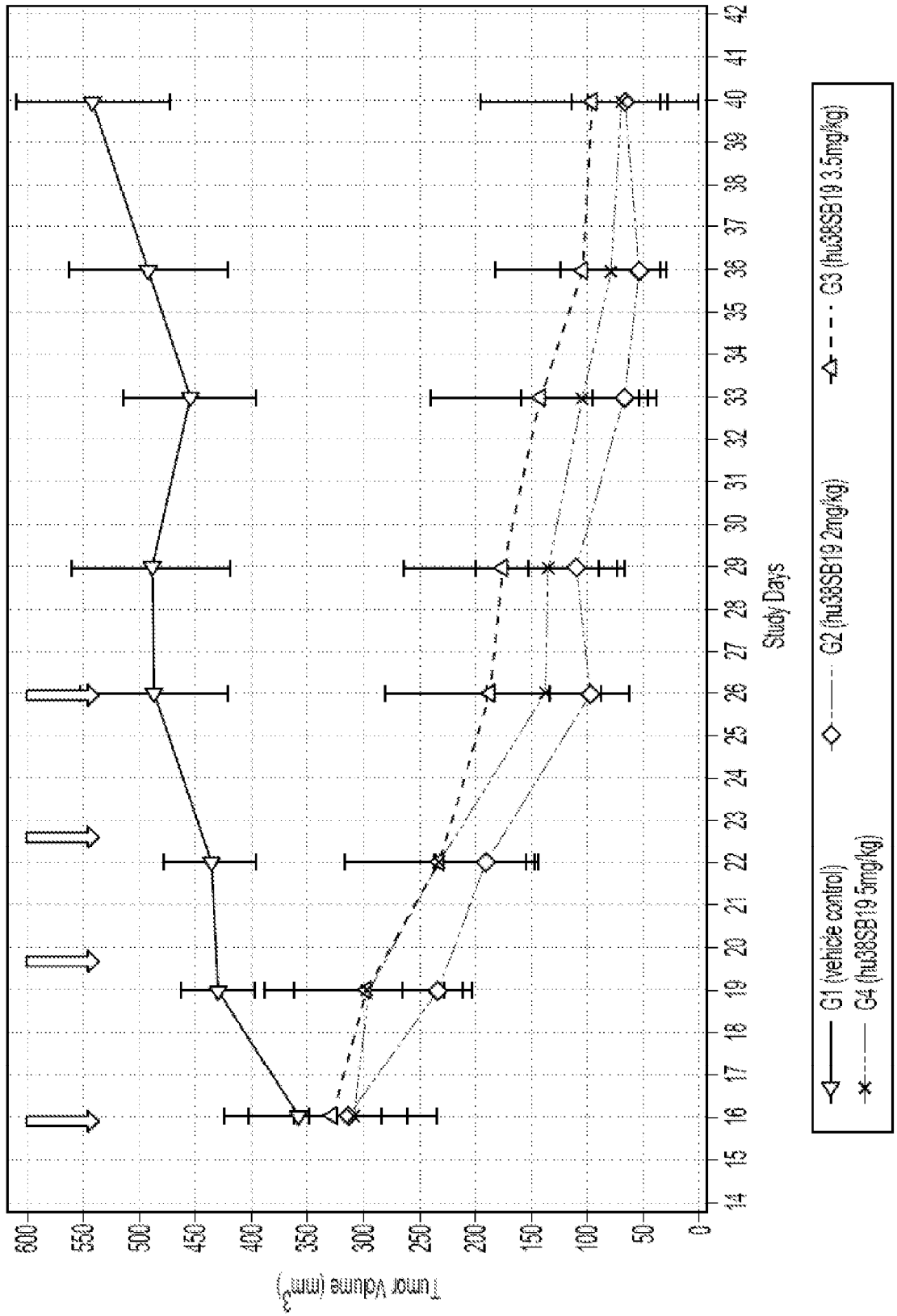

Tumor Volume (mm³)
600
550
500
450
400
350
300
250
200
150
100
50
0
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42
Study Days
G1 (vehicle control)
G2 (hu38SB19 2mg/kg)
G3 (hu38SB19 3.5mg/kg)
G4 (hu38SB19 5mg/kg)

Fig. 6A

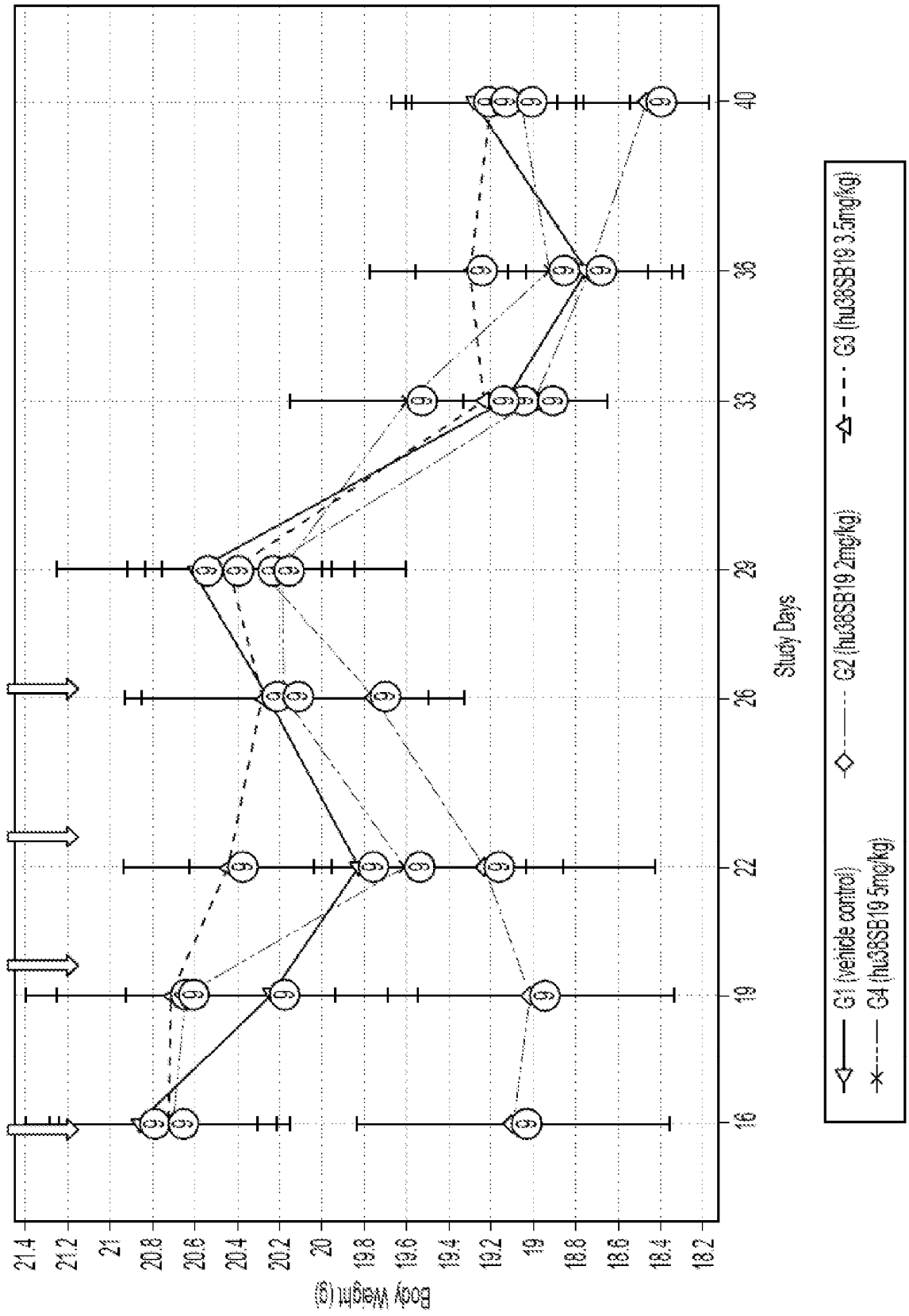

Body weight (g)
21.4
21.2
21
20.8
20.6
20.4
20.2
20
19.8
19.6
19.4
19.2
19
18.8
18.6
18.4
18.2
16
19
22
26
29
33
36
40
Study Days
G1 (vehicle control)
G2 (hu38SB19 2mg/kg)
G3 (hu38SB19 3.5mg/kg)
G4 (hu38SB19 5mg/kg)

Fig. 6B

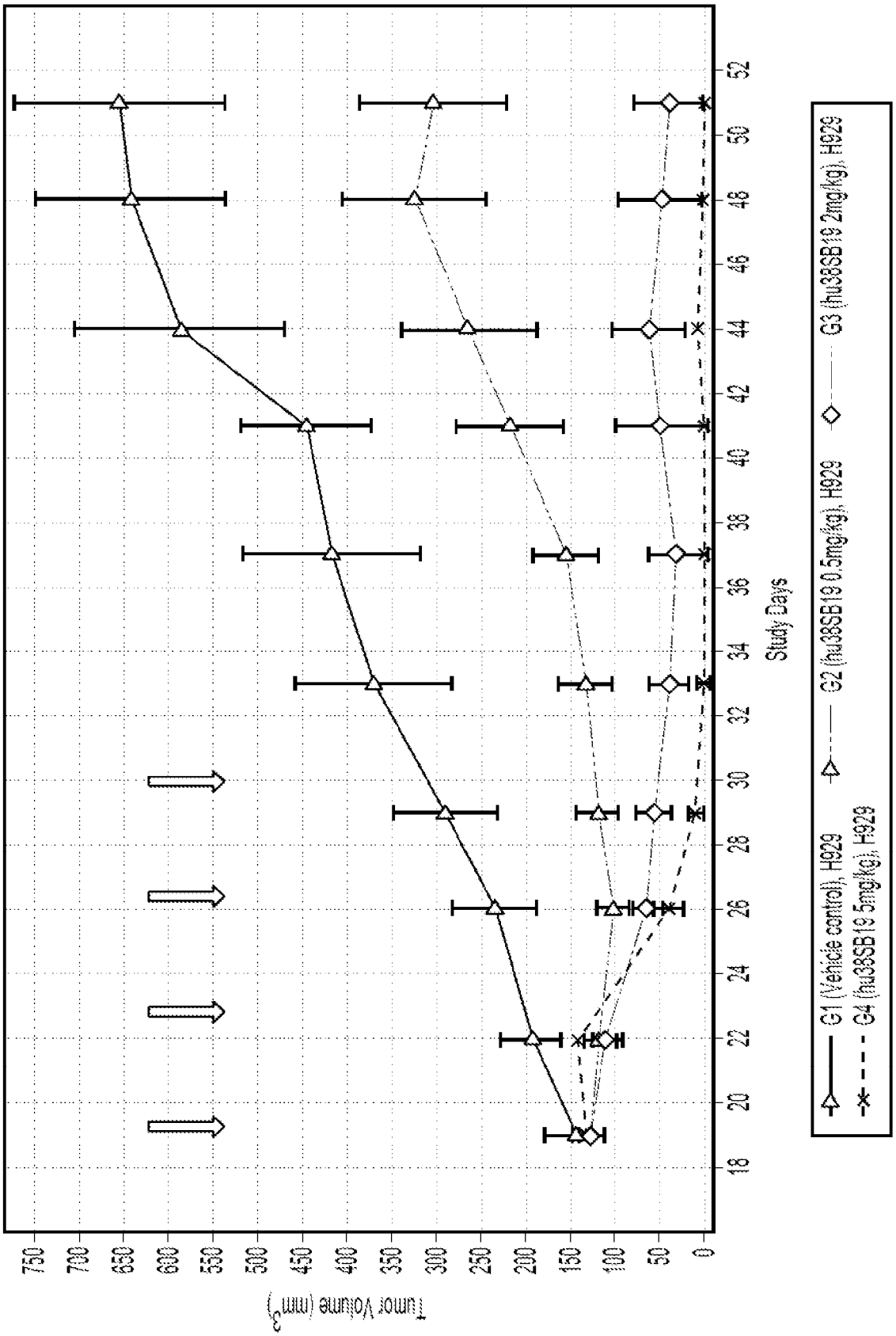

Tumor Volume (mm3)
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
Study Days
G1 (Vehicle control), H929
G2 (hu38SB19 0.5mg/kg), H929
G3 (hu38SB19 2mg/kg), H929
G4 (hu38SB19 5mg/kg), H929

Fig. 7A

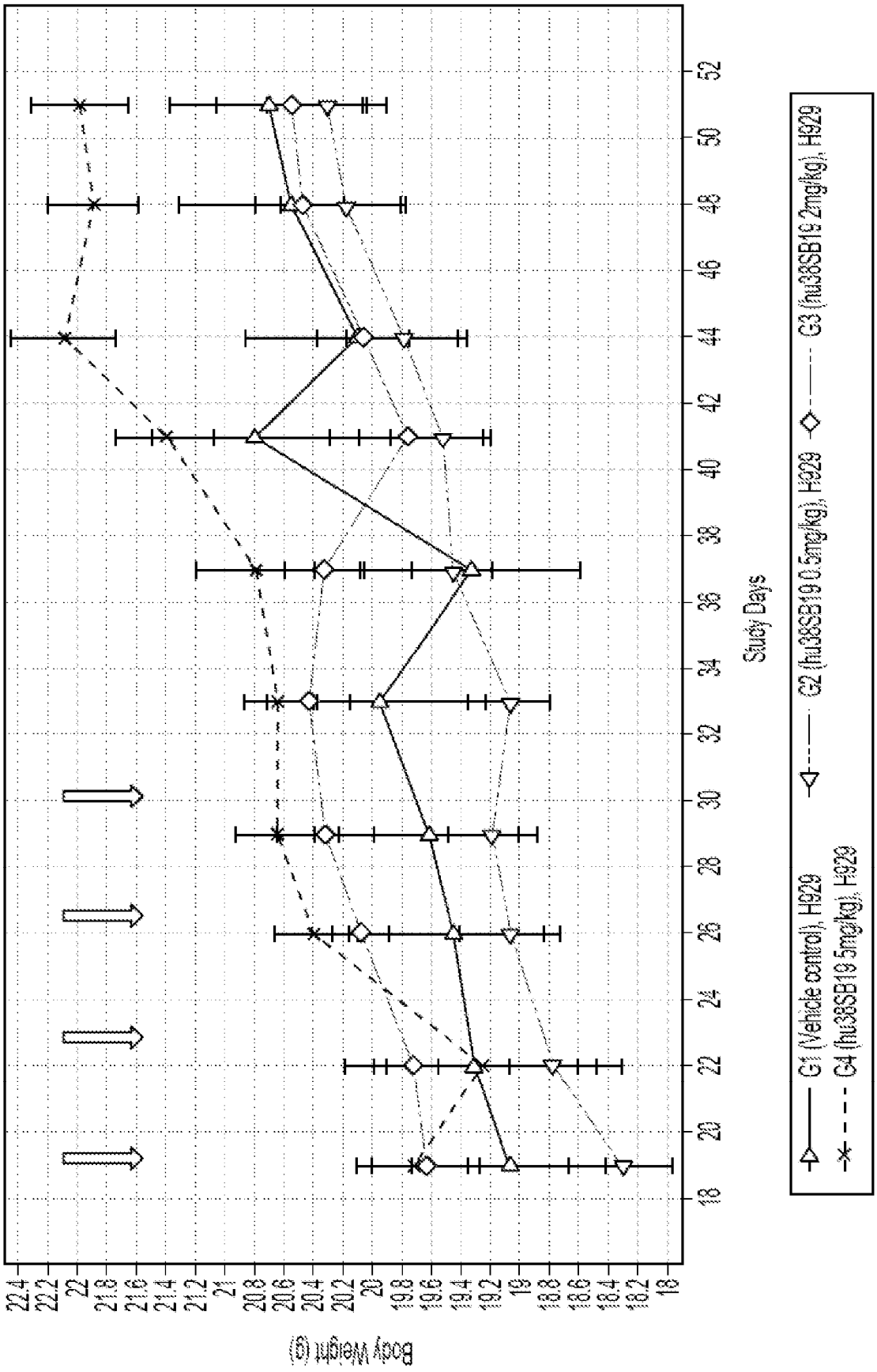

Body Weight (g)
22.4
22.2
22
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2
20
19.8
19.6
19.4
19.2
19
18.8
18.6
18.4
18.2
18
Study Days
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
G1 (Vehicle control), H929
G2 (hu38SB19 0.5mg/kg), H929
G3 (hu38SB19 2mg/kg), H929
G4 (hu38SB19 5mg/kg), H929

Fig. 7B

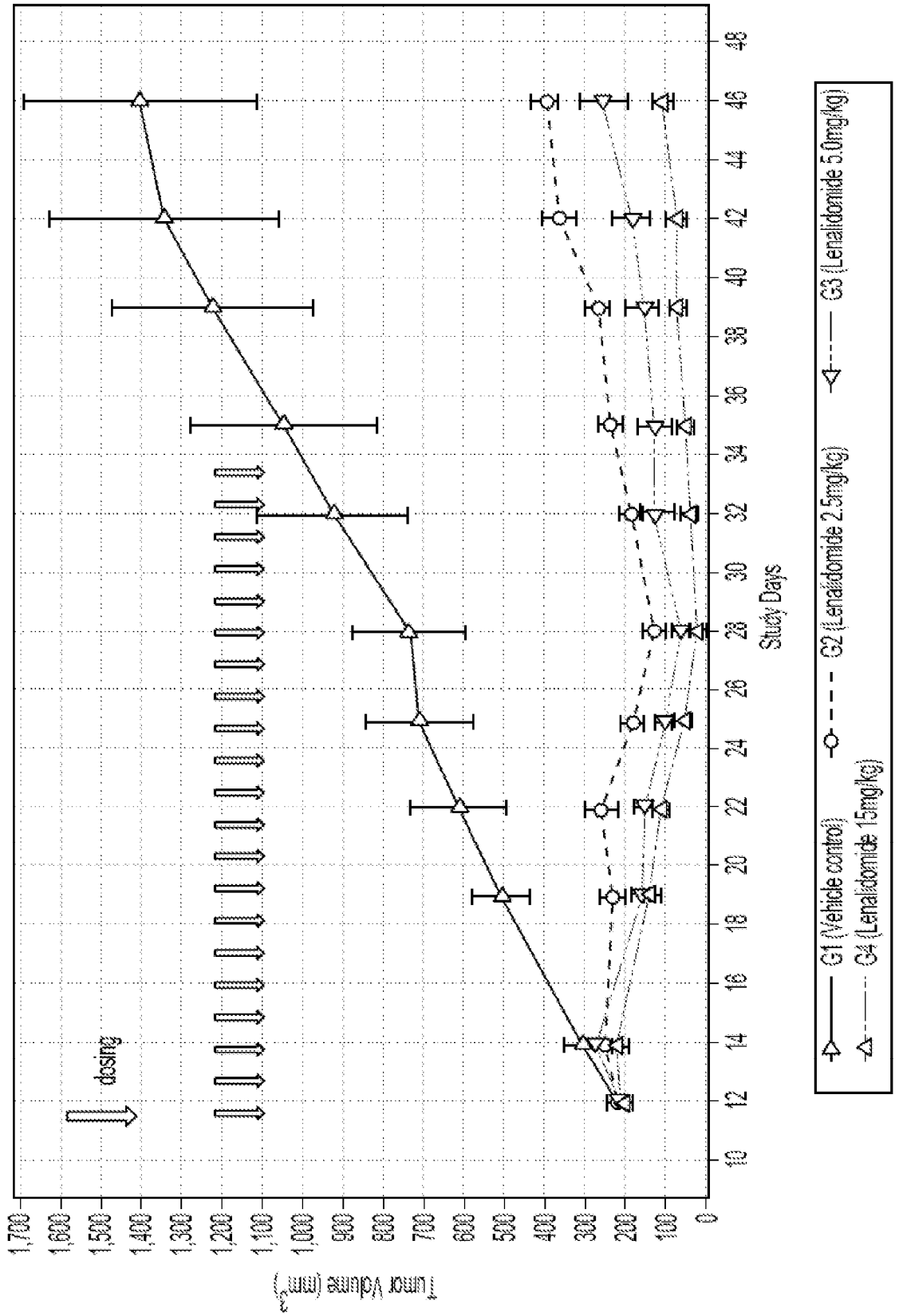

Tumor Volume (mm³)
1,700
1,600
1,500
1,400
1,300
1,200
1,100
1,000
900
800
700
600
500
400
300
200
100
0
dosing
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
Study Days
G1 (Vehicle control)
G2 (Lenalidomide 2.5mg/kg)
G3 (Lenalidomide 5.0mg/kg)
G4 (Lenalidomide 15mg/kg)

Fig. 8A

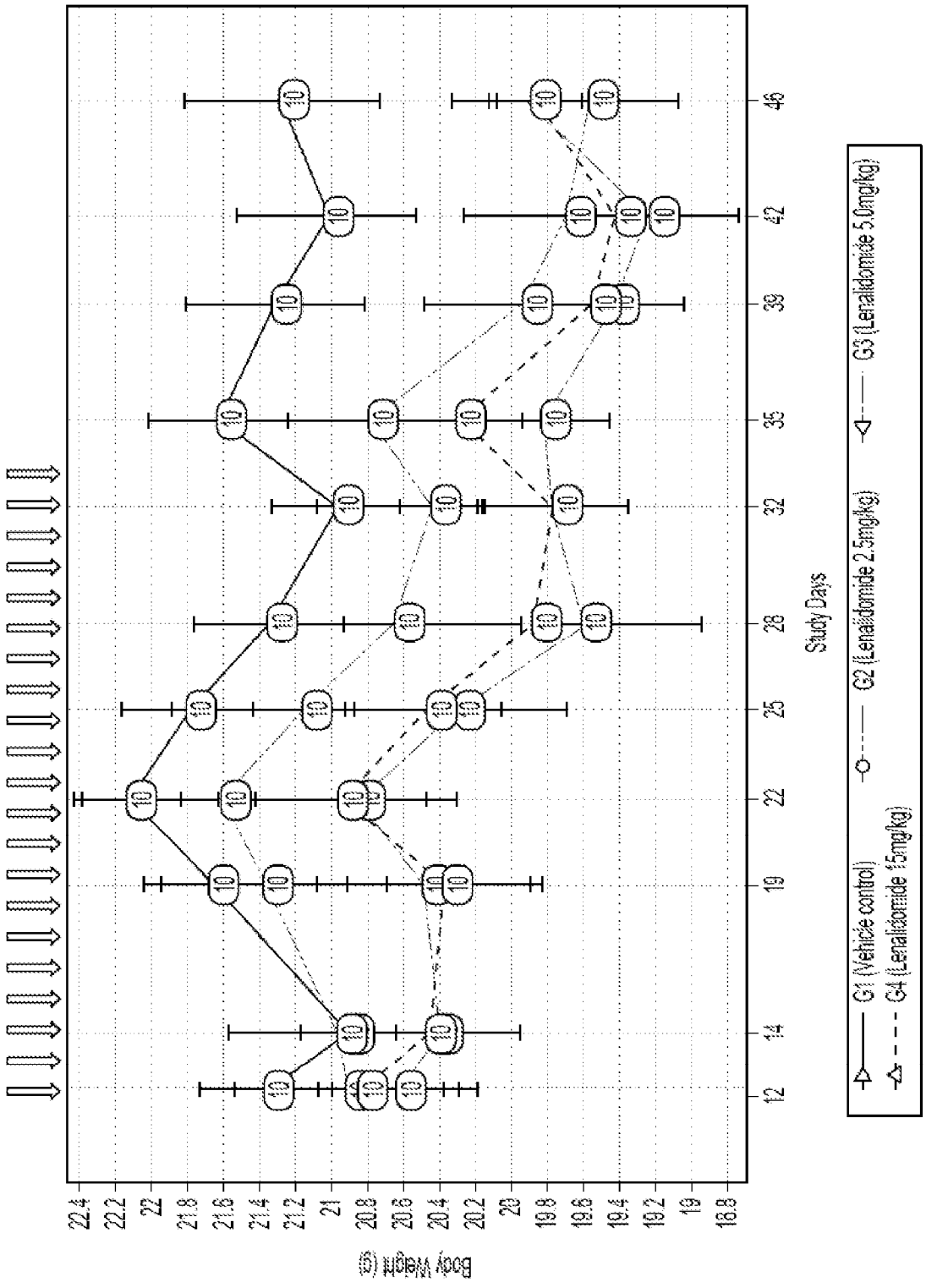

Body Weight (g)
22.4
22.2
22
21.8
21.6
21.4
21.2
21
20.8
20.6
20.4
20.2
20
19.8
19.6
19.4
19.2
19
18.8
12
14
19
22
25
28
32
35
39
42
46
Study Days
G1 (Vehicle control)
G2 (Lenalidomide 2.5mg/kg)
G3 (Lenalidomide 5.0mg/kg)
G4 (Lenalidomide 15mg/kg)

Fig. 8B

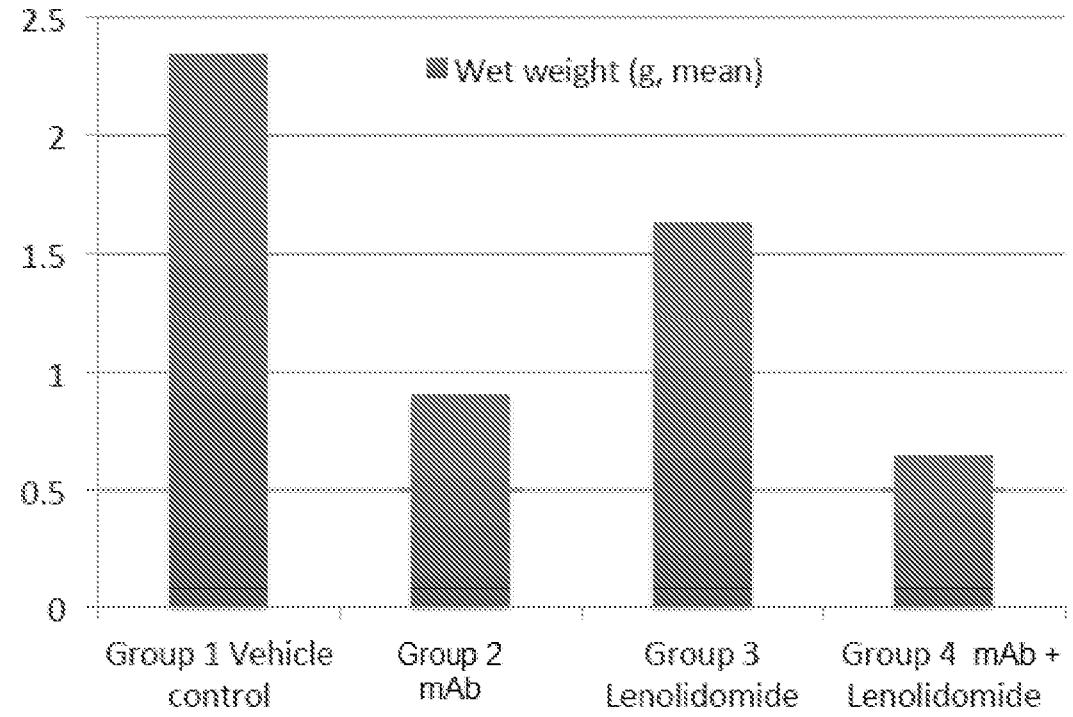

2.5
2
1.5
1
0.5
0
Wet weight (g, mean)
Group 1 Vehicle control
Group 2 mAb
Group 3 Lenolidomide
Group 4 mAb + Lenolidomide

Fig. 9A

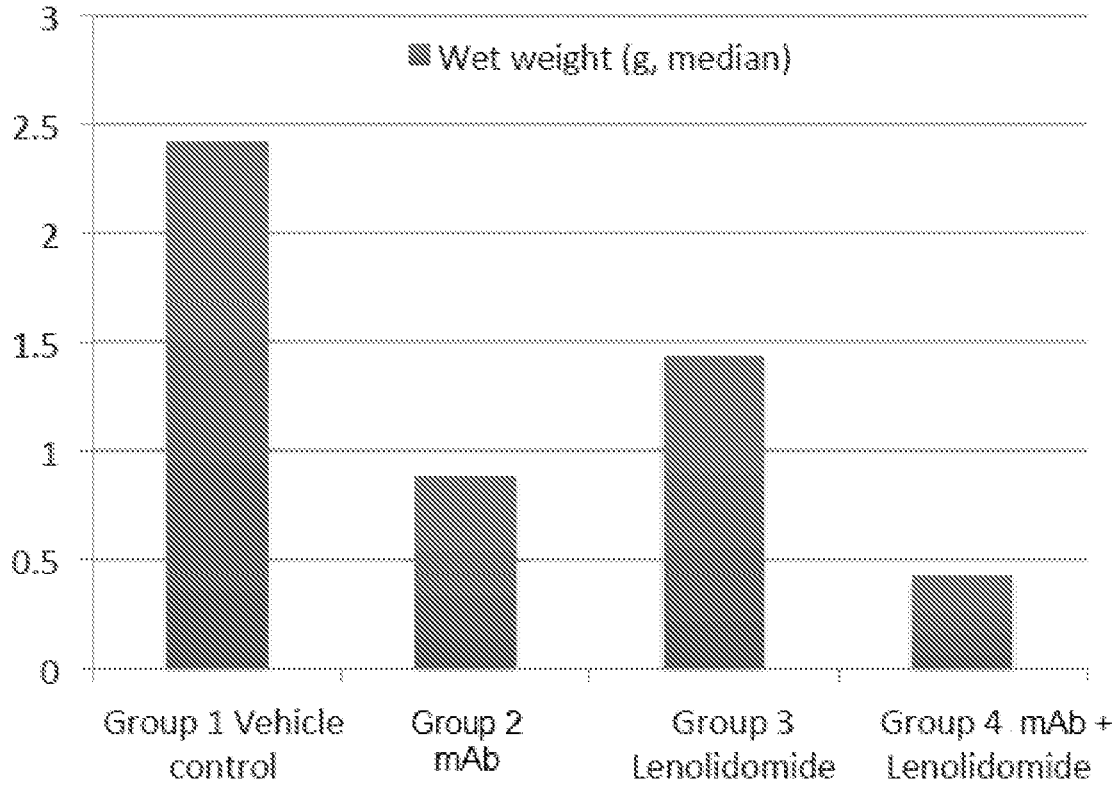

3
2.5
2
1.5
1
0.5
0
Wet weight (g, median)
Group 1 Vehicle control
Group 2 mAb
Group 3 Lenolidomide
Group 4 mAb + Lenolidomide

Fig. 9B

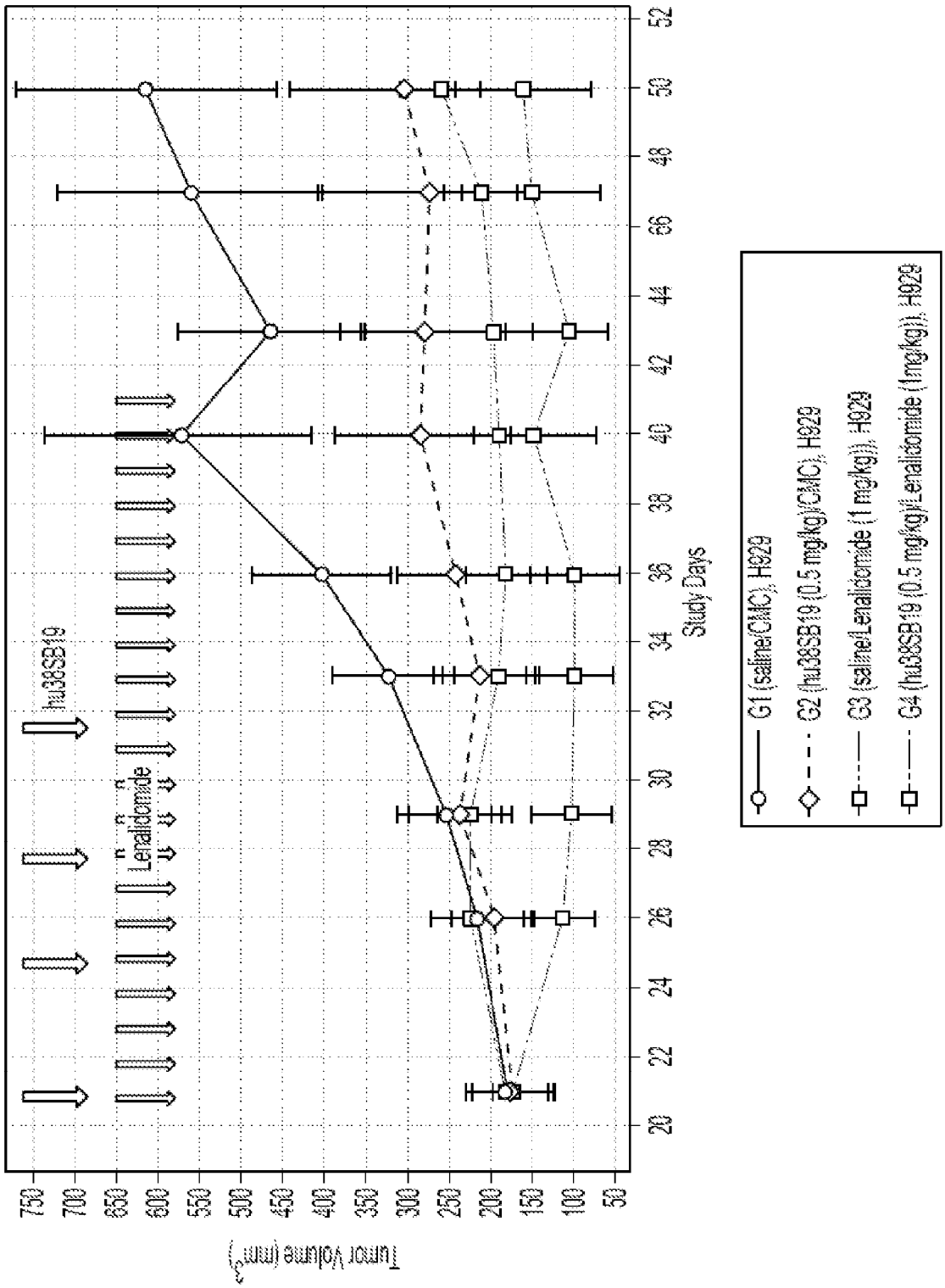

Tumor Volume (mm³)
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
Study Days
hu38SB19
Lenalidomide
G1 (saline/CMC), H929
G2 (hu38SB19 (0.5 mg/kg)/CMC), H929
G3 (saline/Lenalidomide (1 mg/kg)), H929
G4 (hu38SB19 (0.5 mg/kg)/Lenalidomide (1mg/kg)), H929

Fig. 10A

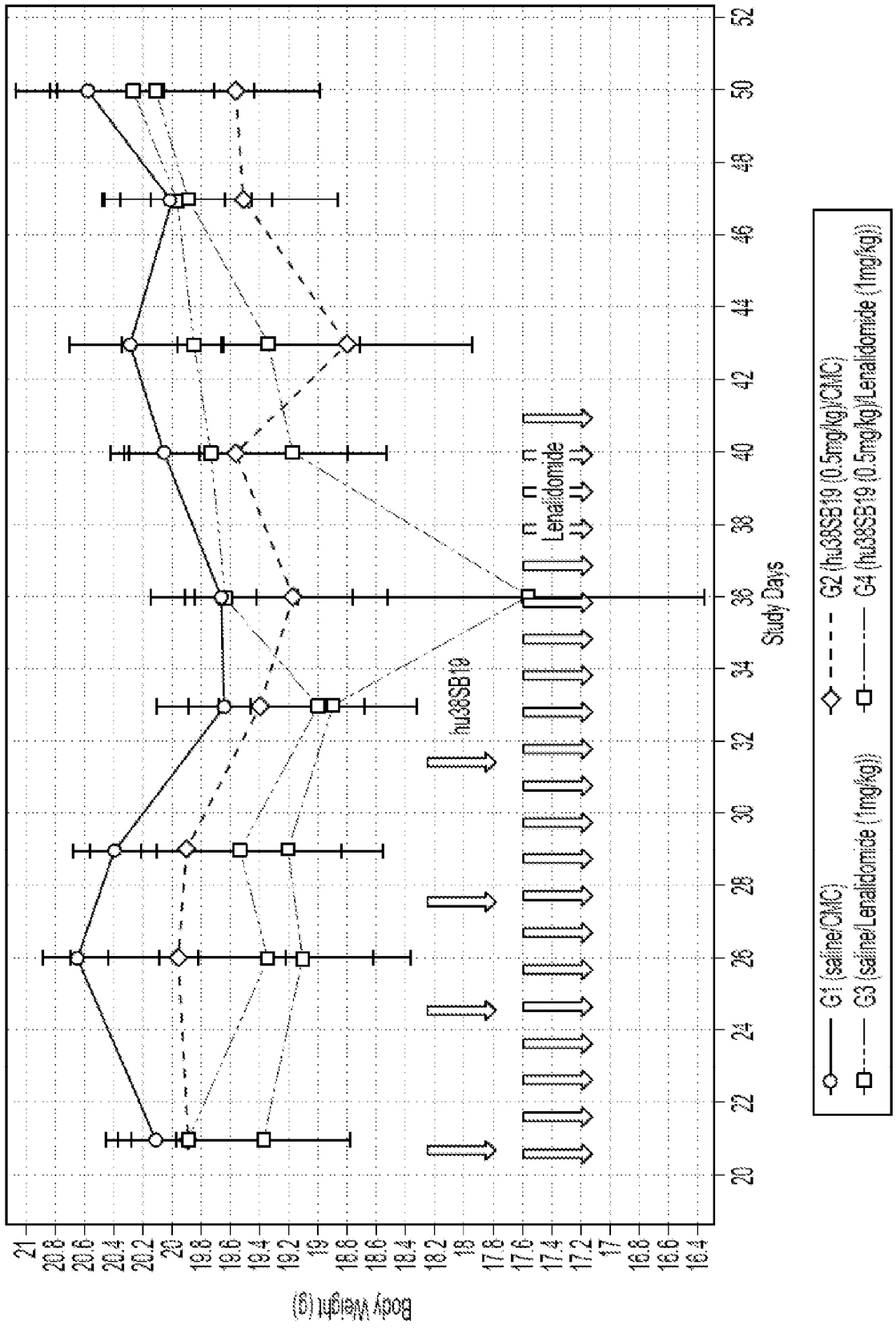

Body Weight (g)
Study Days
hu38SB19
Lenalidomide
G1 (saline/CMC)
G2 (hu38SB19 (0.5mg/kg)/CMC)
G3 (saline/Lenalidomide (1mg/kg))
G4 (hu38SB19 (0.5mg/kg)/Lenalidomide (1mg/kg))

Fig. 10B

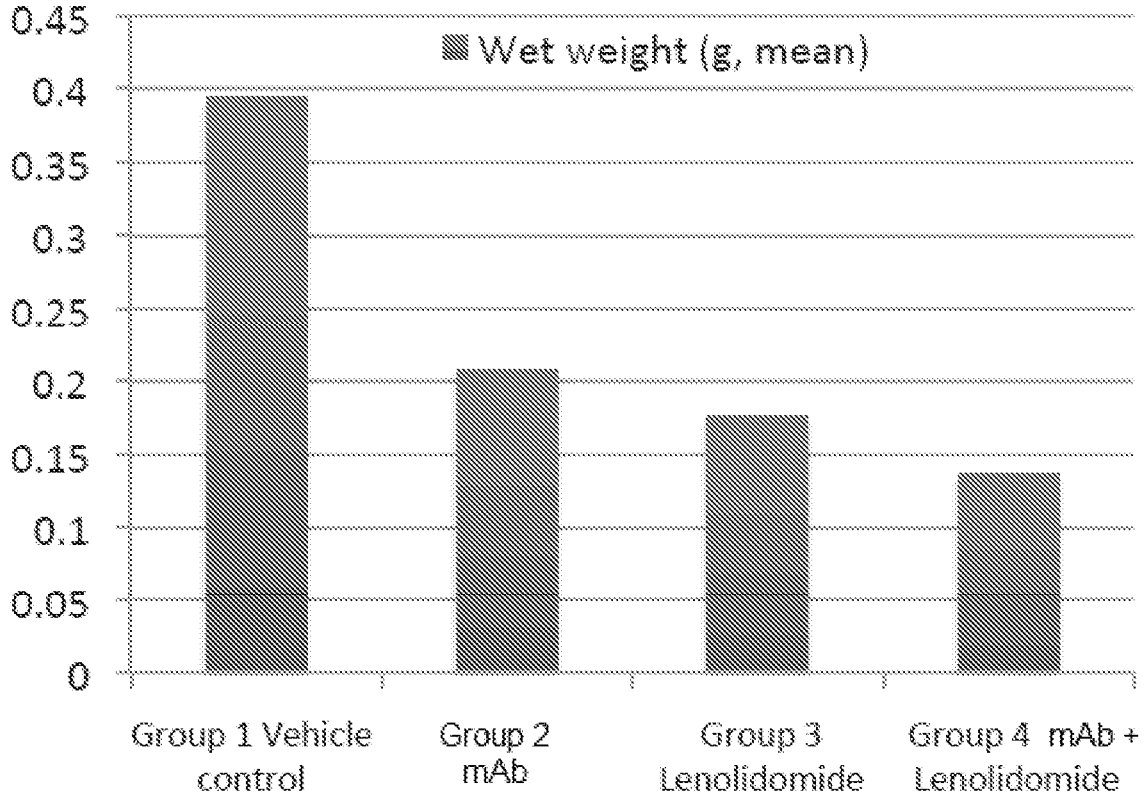


Fig. 11A

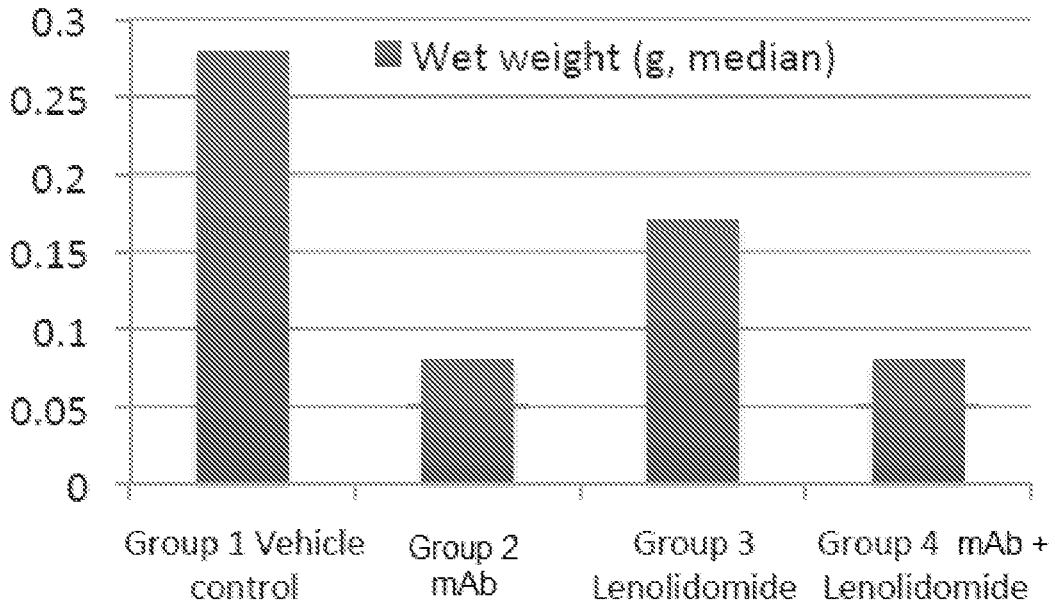


Fig. 11B

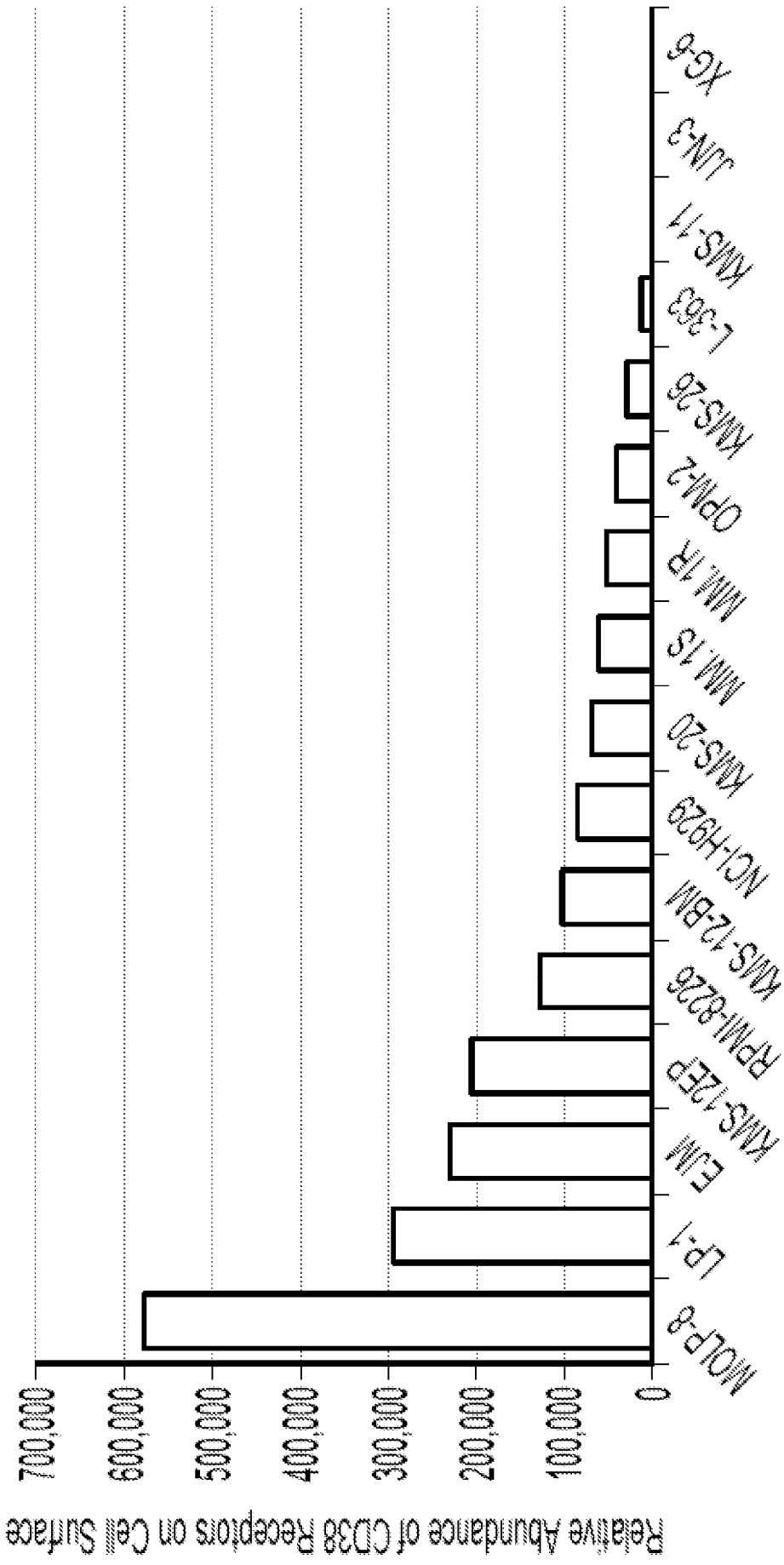

Relative Abundance of CD38 Receptors on Cell Surface
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
MOLP-8
LP-1
EJM
KMS-12EP
RPMI-8226
KMS-12-BM
NCI-H929
KMS-20
MM.1S
MM.1R
OPM-2
KMS-28
L-363
KMS-11
JJN-3
XG-6

Fig. 12

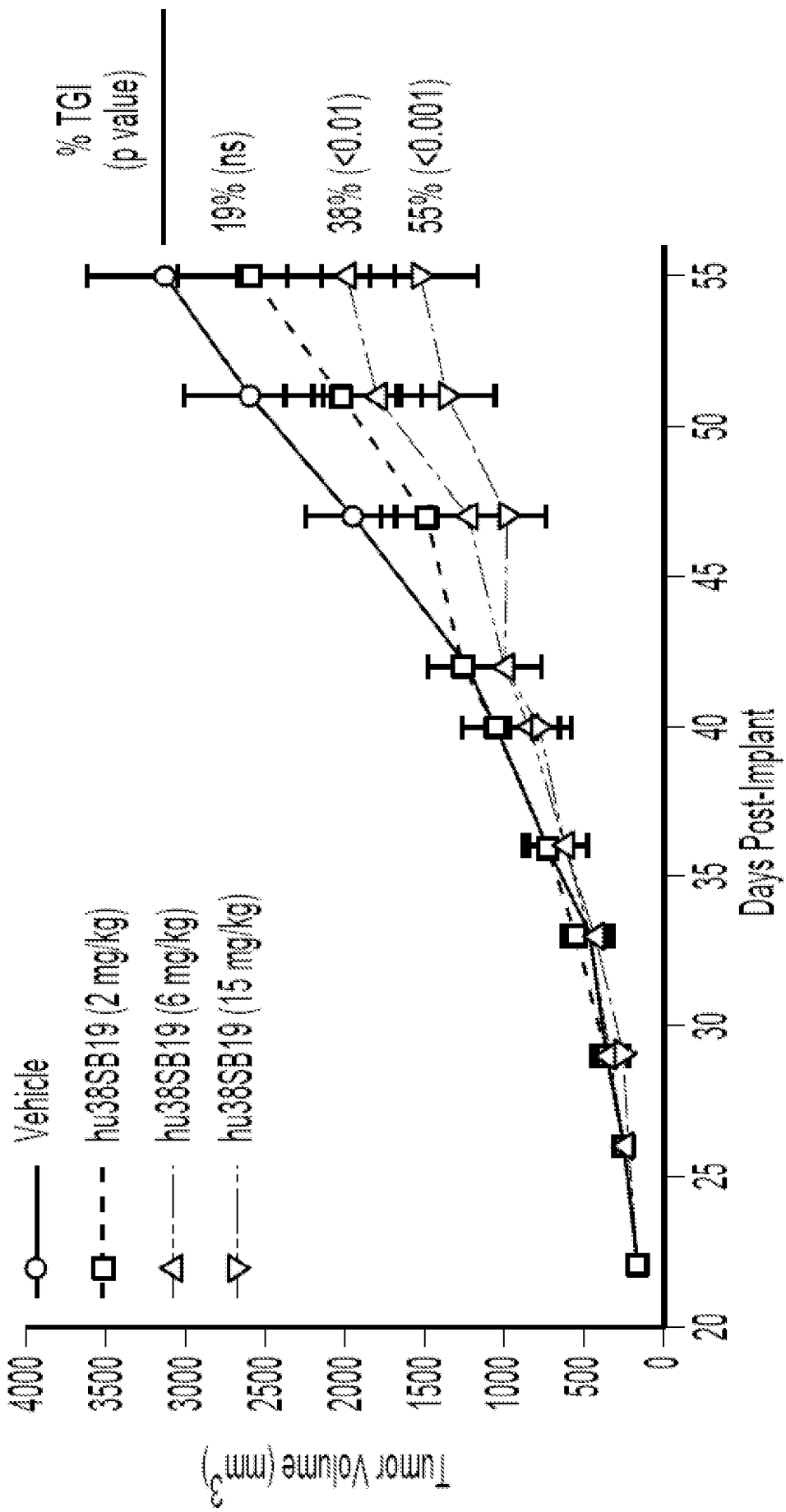

% TGI
(p value)
19% (ns)
38% (<0.01)
55% (<0.001)
Vehicle
hu38SB19 (2 mg/kg)
hu38SB19 (6 mg/kg)
hu38SB19 (15 mg/kg)
Tumor Volume (mm3)
Days Post-Implant
4000
3500
3000
2500
2000
1500
1000
500
0
20
25
30
35
40
45
50
55

Fig. 13

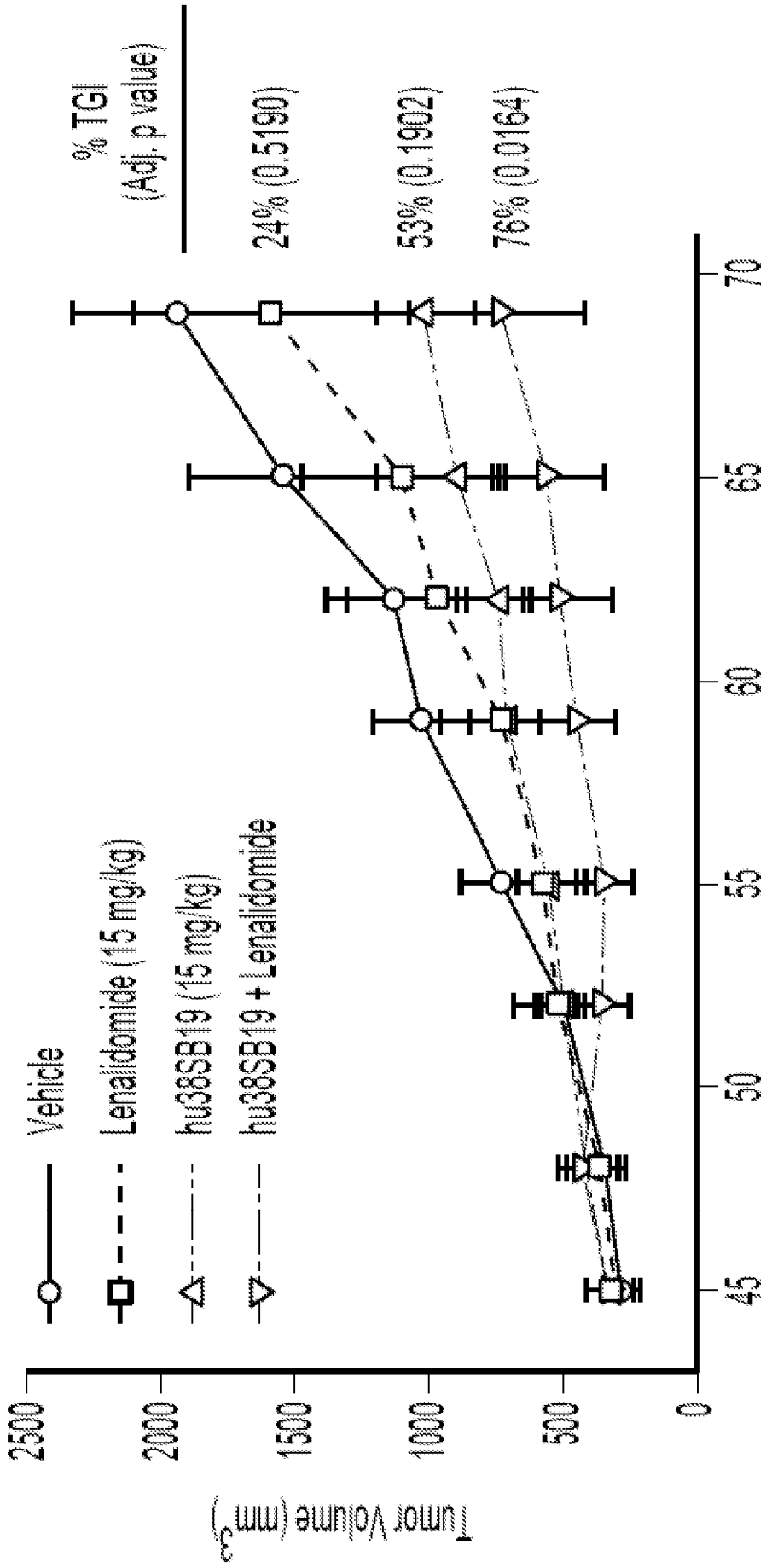

% TGI
(Adj. p value)
24% (0.5190)
53% (0.1902)
76% (0.0164)
Vehicle
Lenalidomide (15 mg/kg)
hu38SB19 (15 mg/kg)
hu38SB19 + Lenalidomide
Tumor Volume (mm3)
2500
2000
1500
1000
500
0
45
50
55
60
65
70
Days Post-Implant

Fig. 14