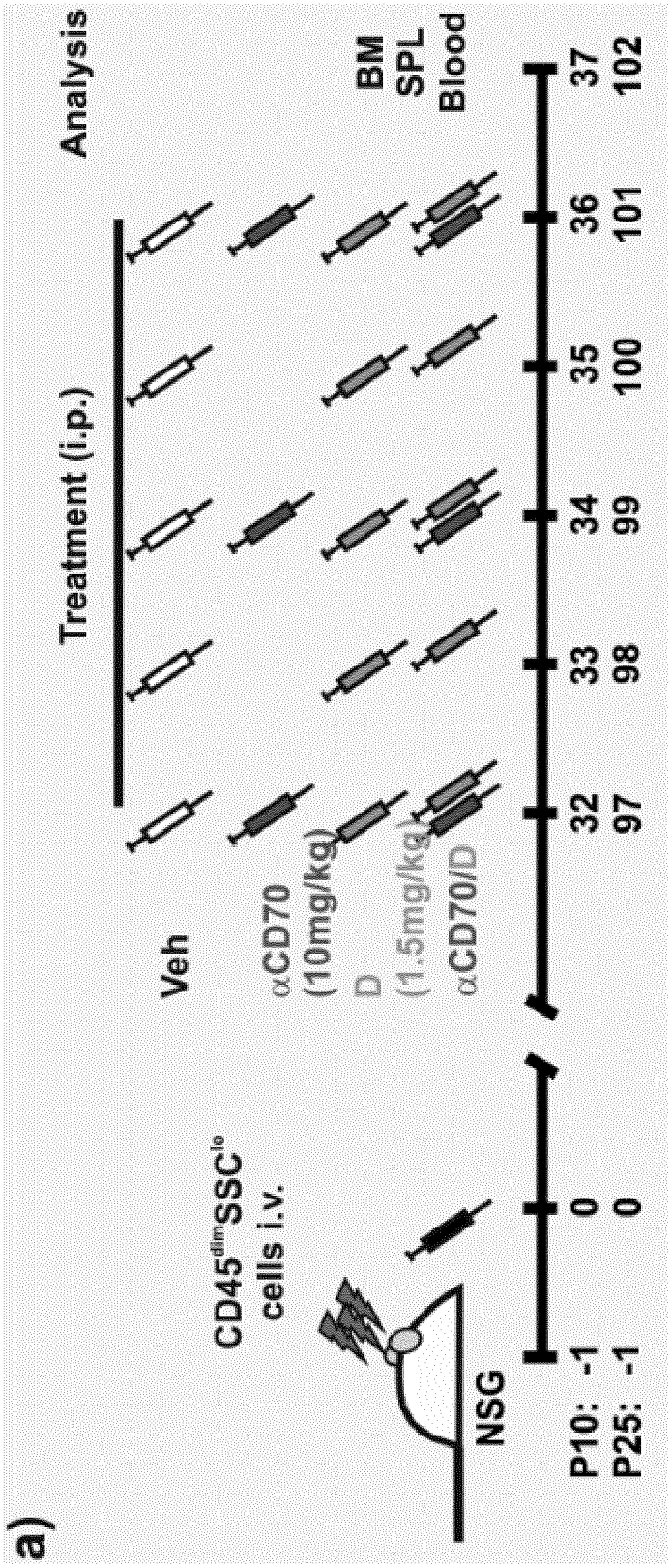

a)
NSG
CD45dimSSClo cells i.v.
P10: -1
P25: -1
0
0
Treatment (i.p.)
Veh
αCD70 (10mg/kg)
D (1.5mg/kg)
αCD70/D
32
97
33
98
34
99
35
100
36
101
37
102
Analysis
BM
SPL
Blood

Figure 1

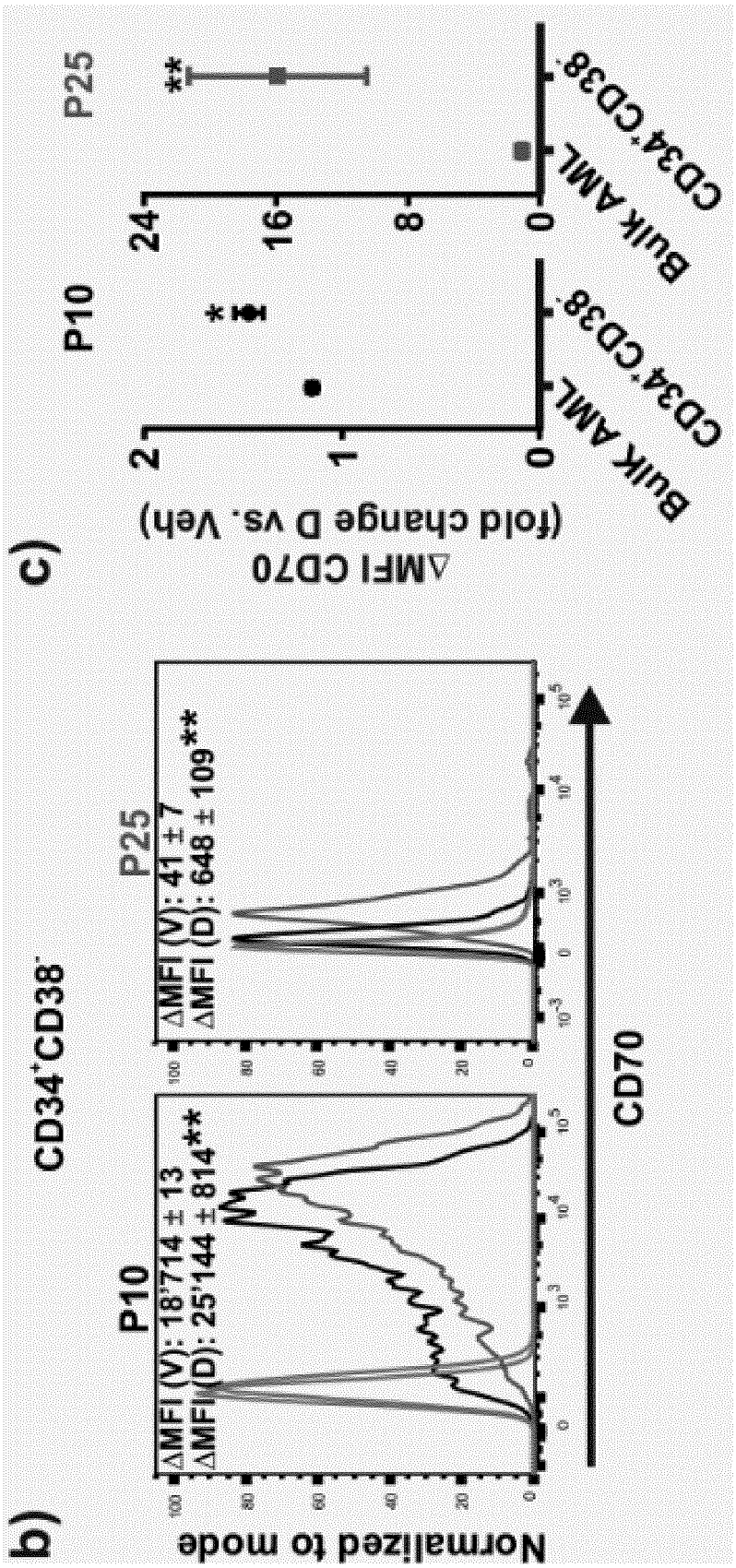


Figure 1 (cont.)

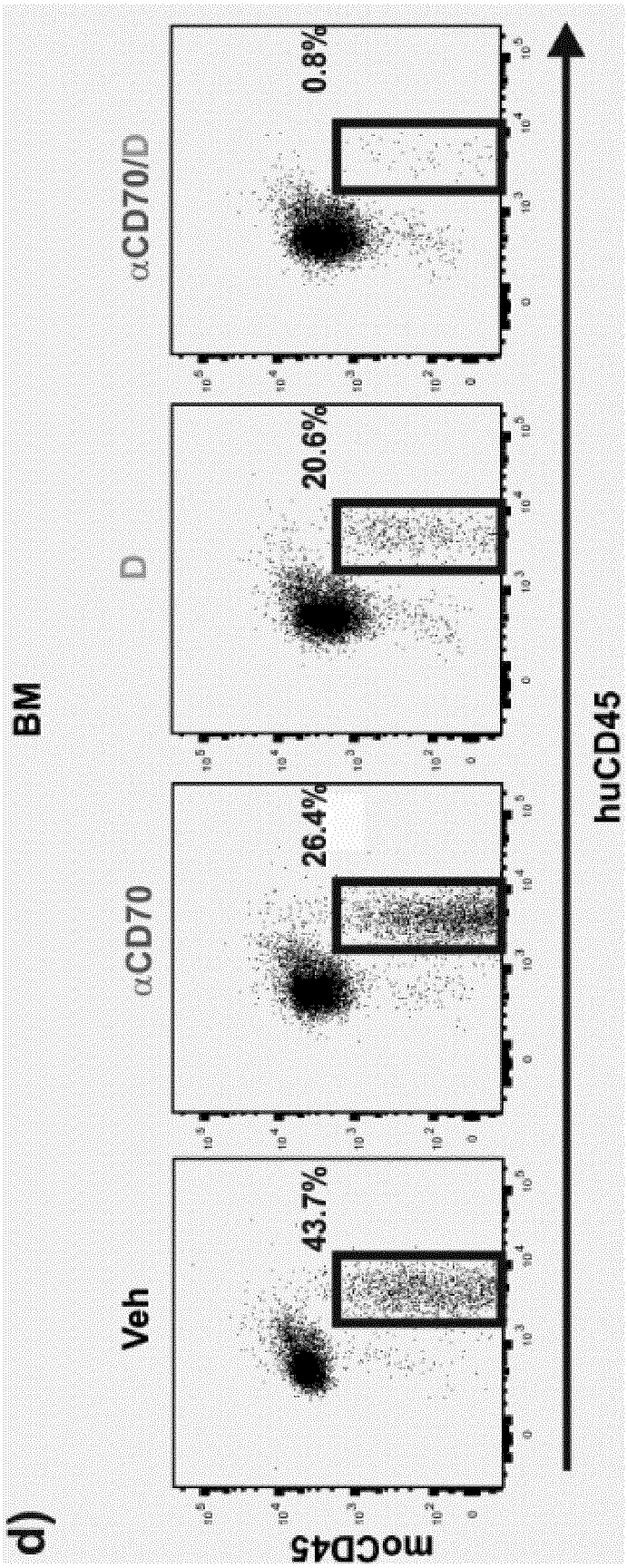


Figure 1 (cont.)

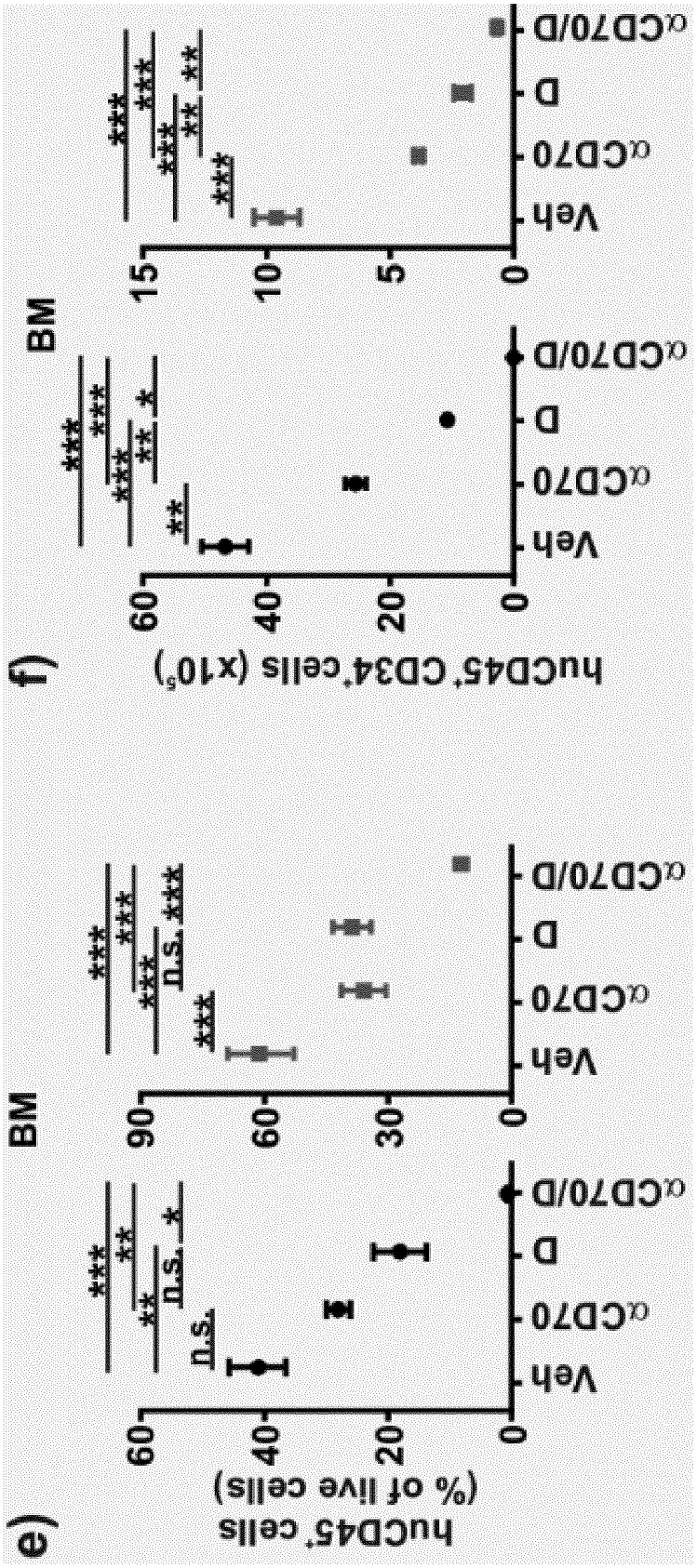


Figure 1 (cont.)

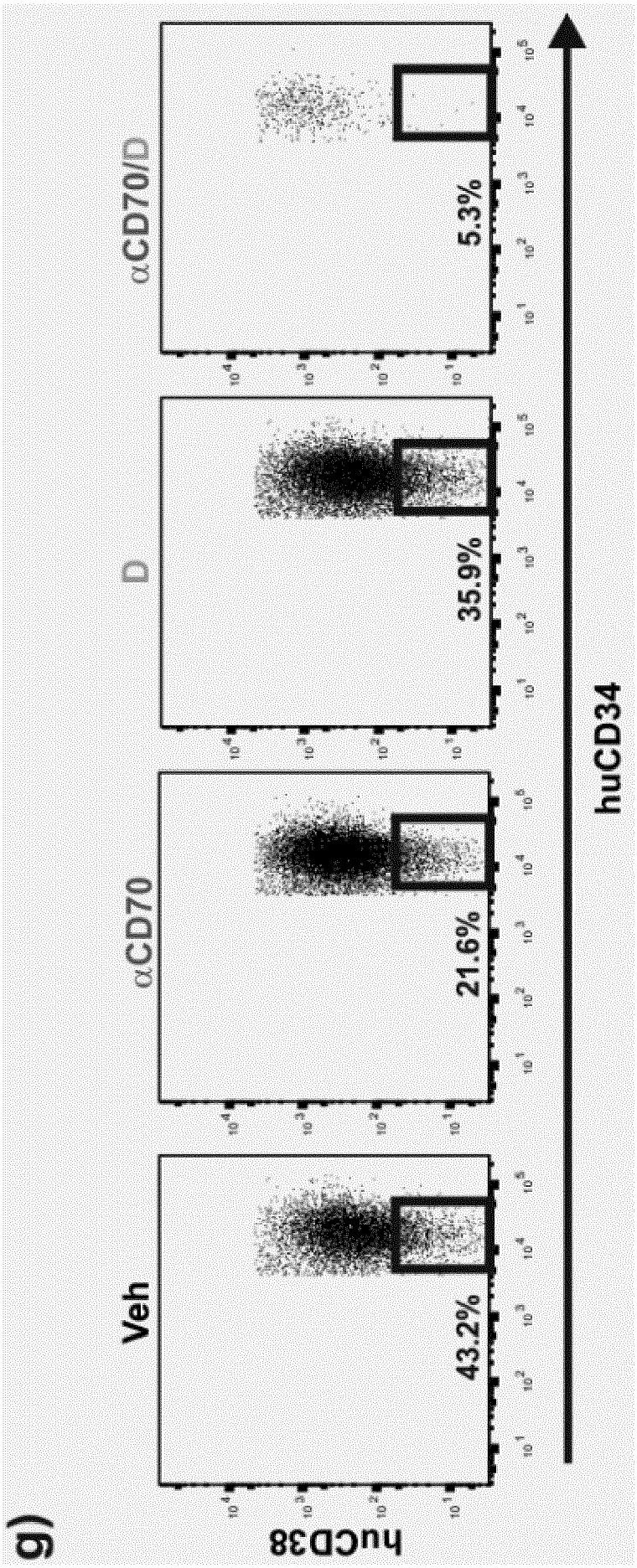


Figure 1 (cont.)

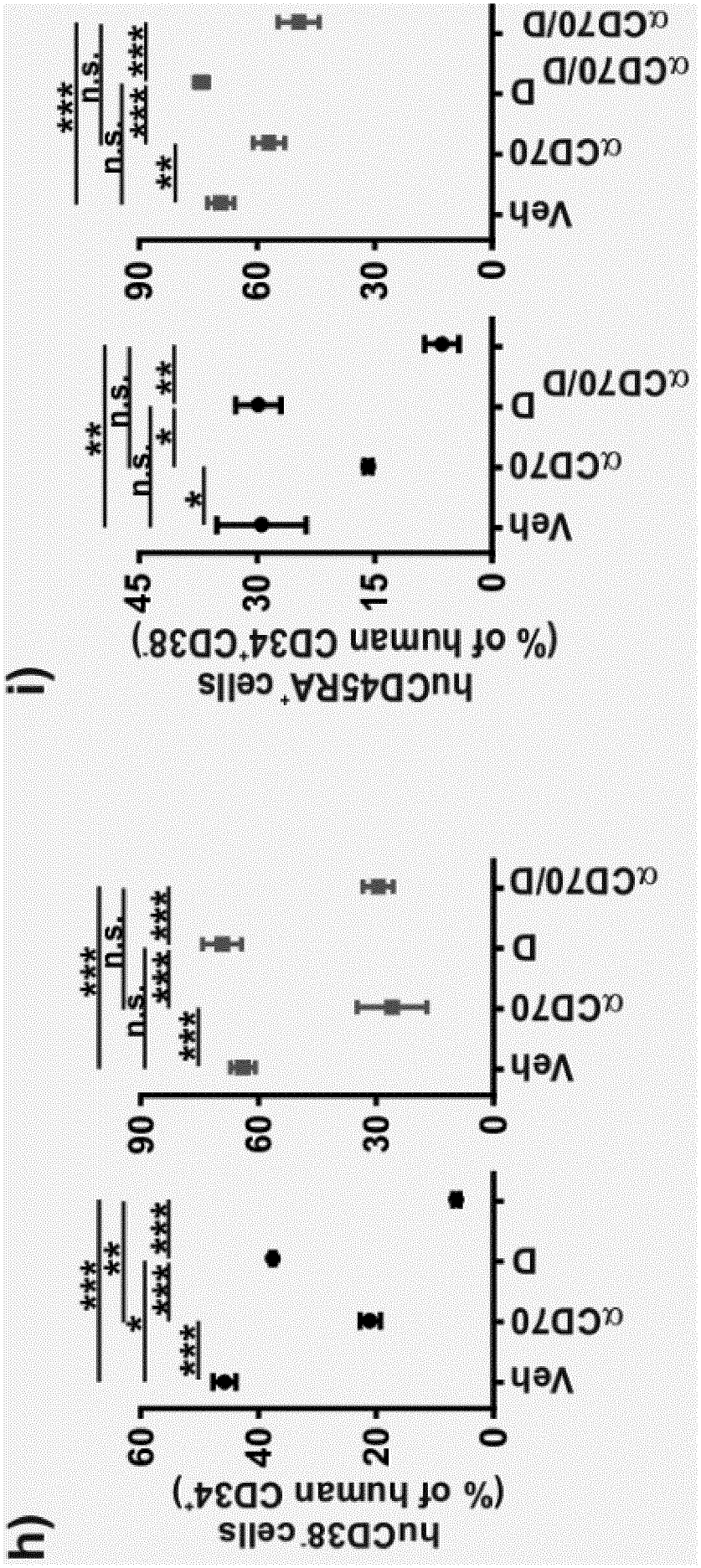


Figure 1 (cont.)

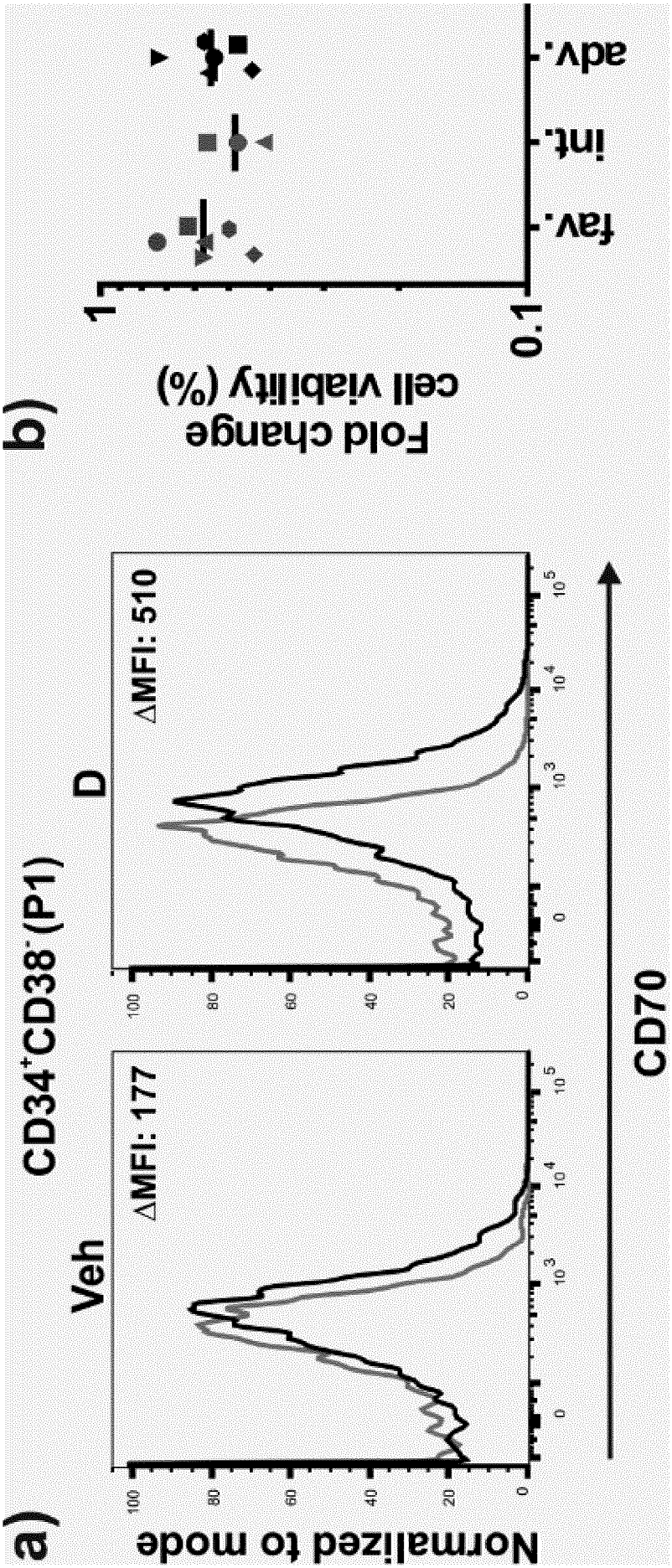

a)
Normalized to mode
CD34+CD38- (P1)
Veh
ΔMFI: 177
D
ΔMFI: 510
CD70
b)
Fold change cell viability (%)
1
0.1
fav.
int.
adv.

Figure 2

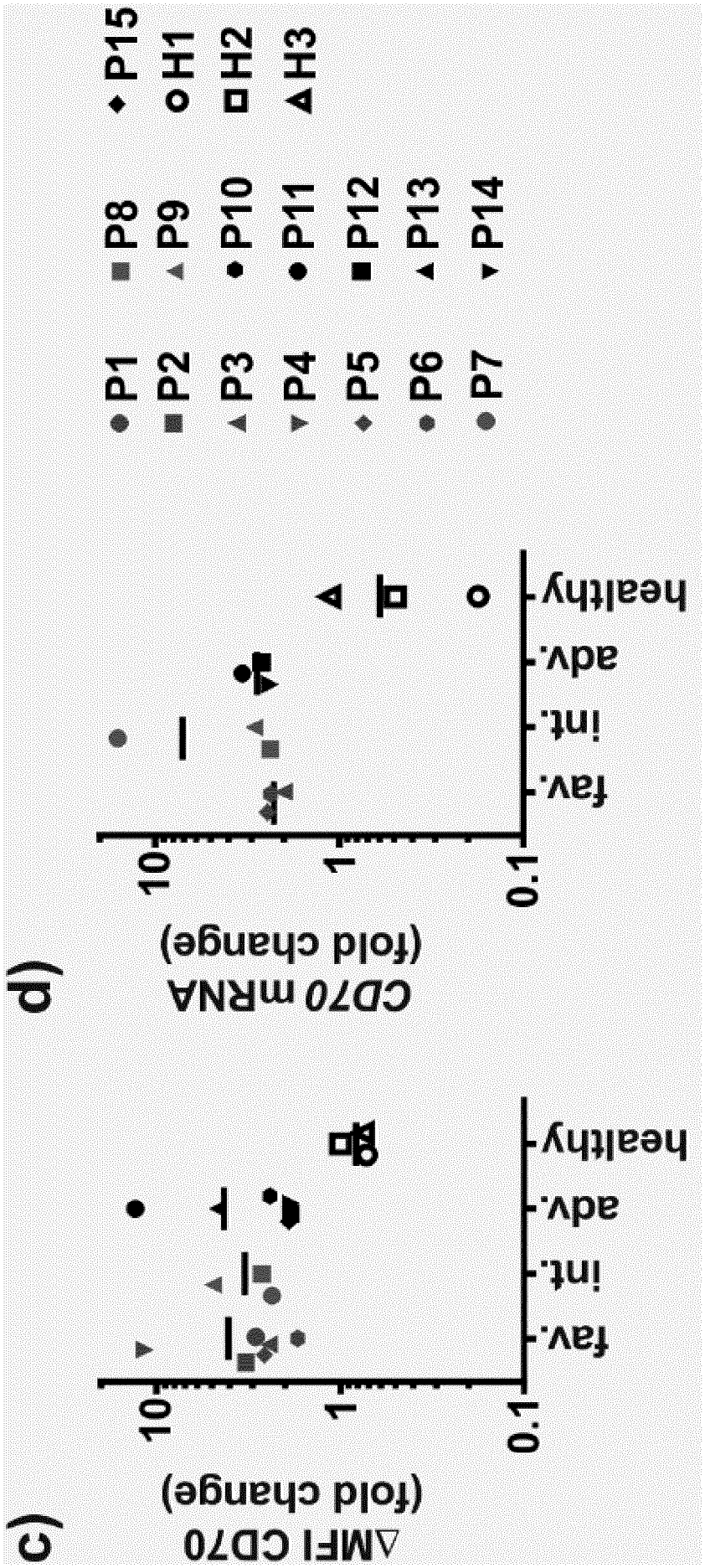


Figure 2 (cont.)

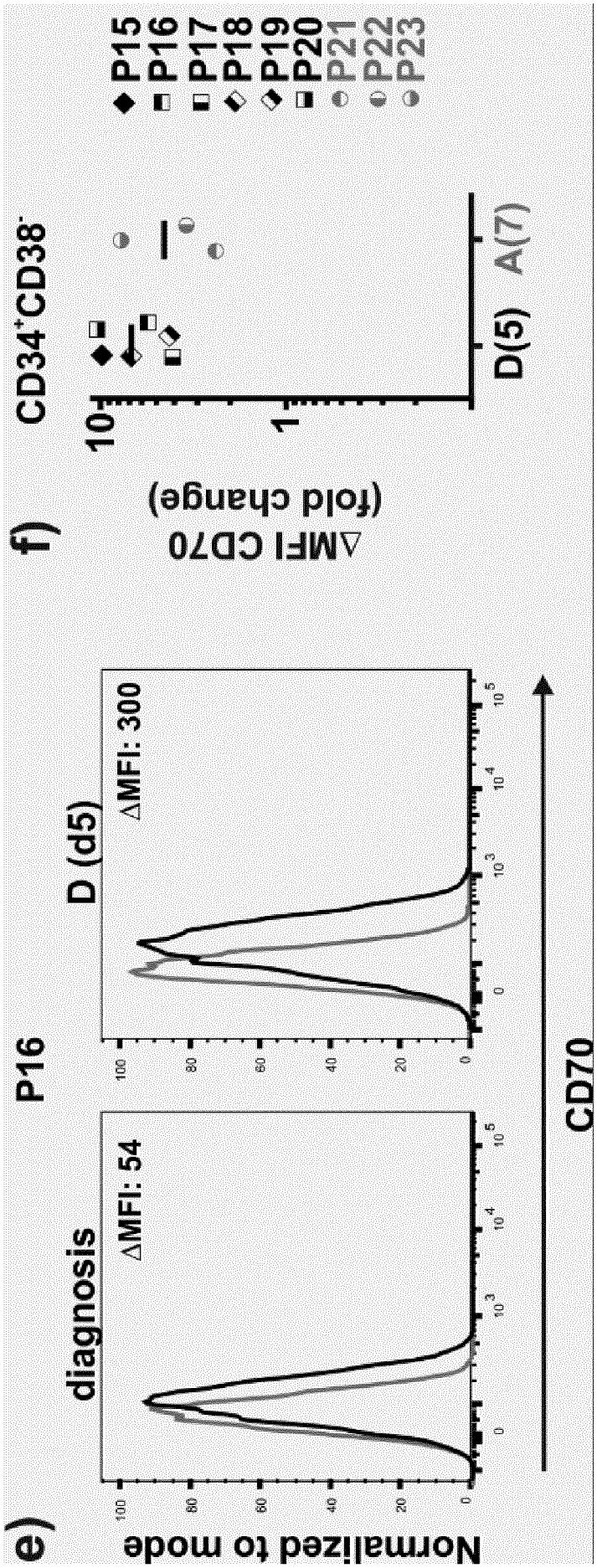


Figure 2 (cont.)

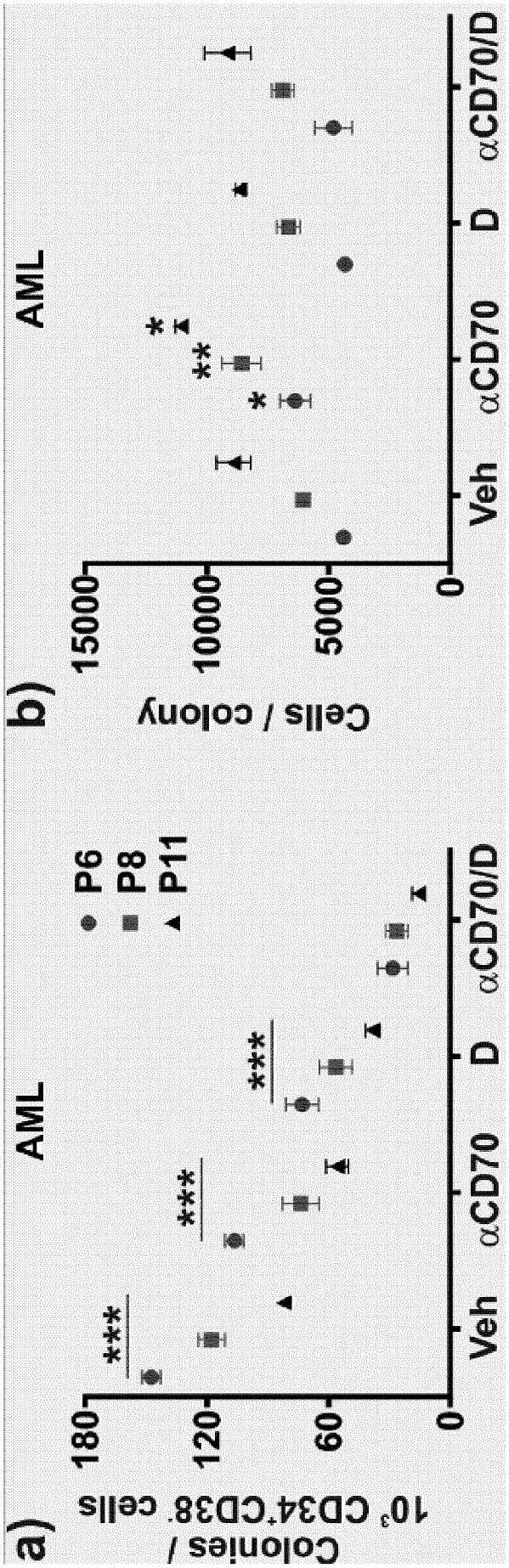

a)
AML
Colonies / 10³ CD34⁺CD38⁻ cells
180
120
60
0
***
***
***
P6
P8
P11
Veh
αCD70
D
αCD70/D
b)
AML
Cells / colony
15000
10000
5000
0
*
**
*
Veh
αCD70
D
αCD70/D

Figure 3

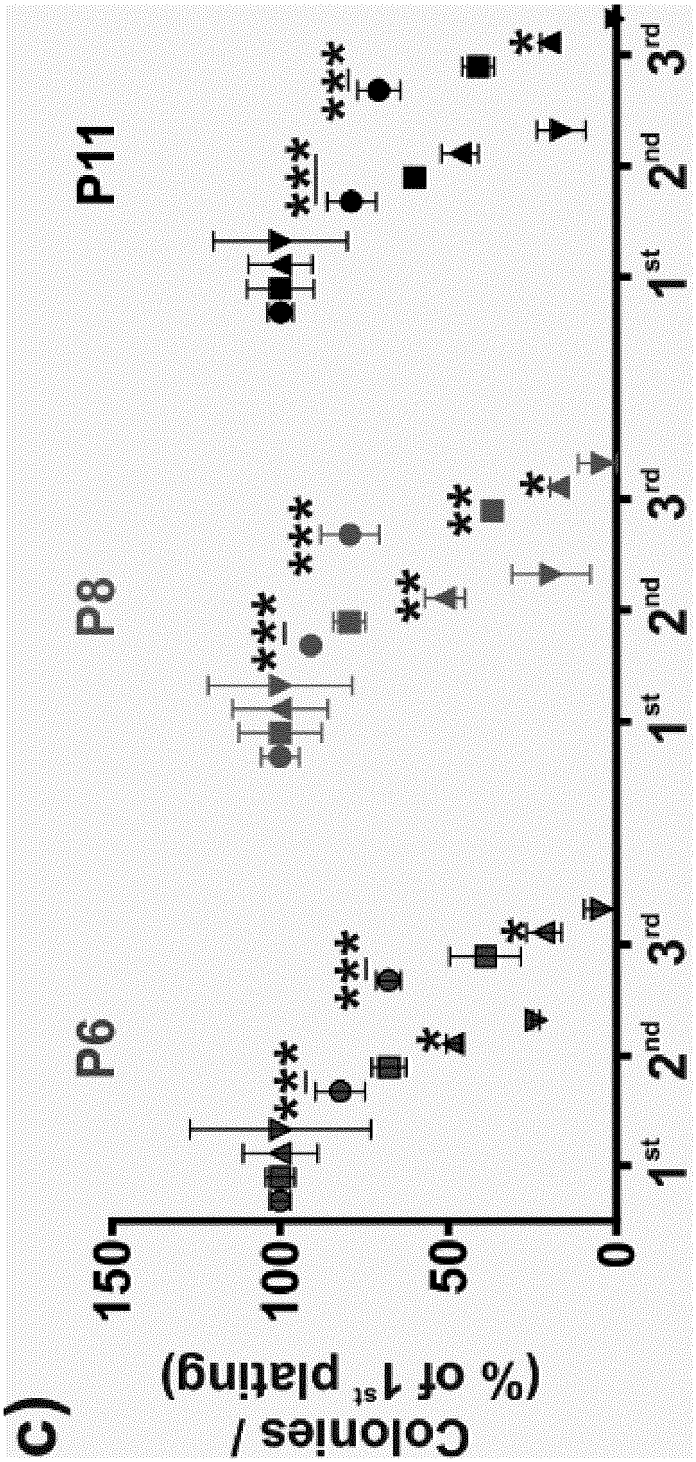
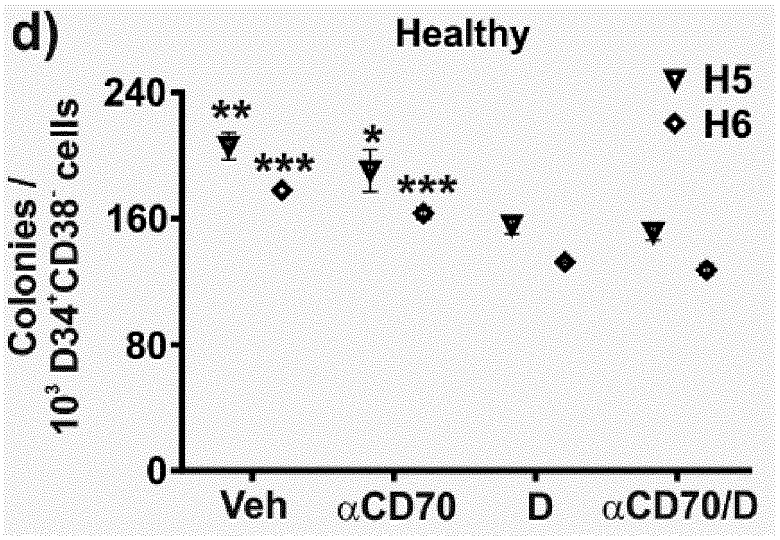
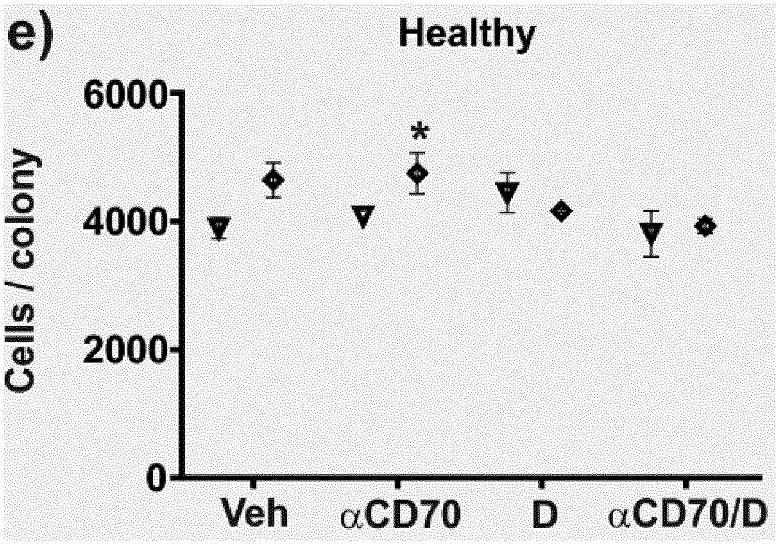


Figure 3 (cont.)

Figure 3 (cont.)





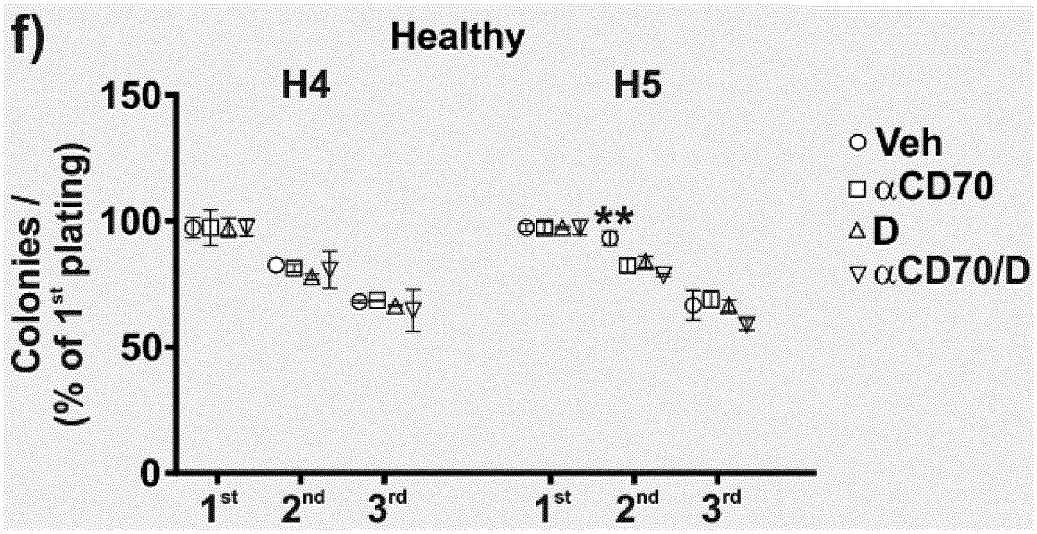
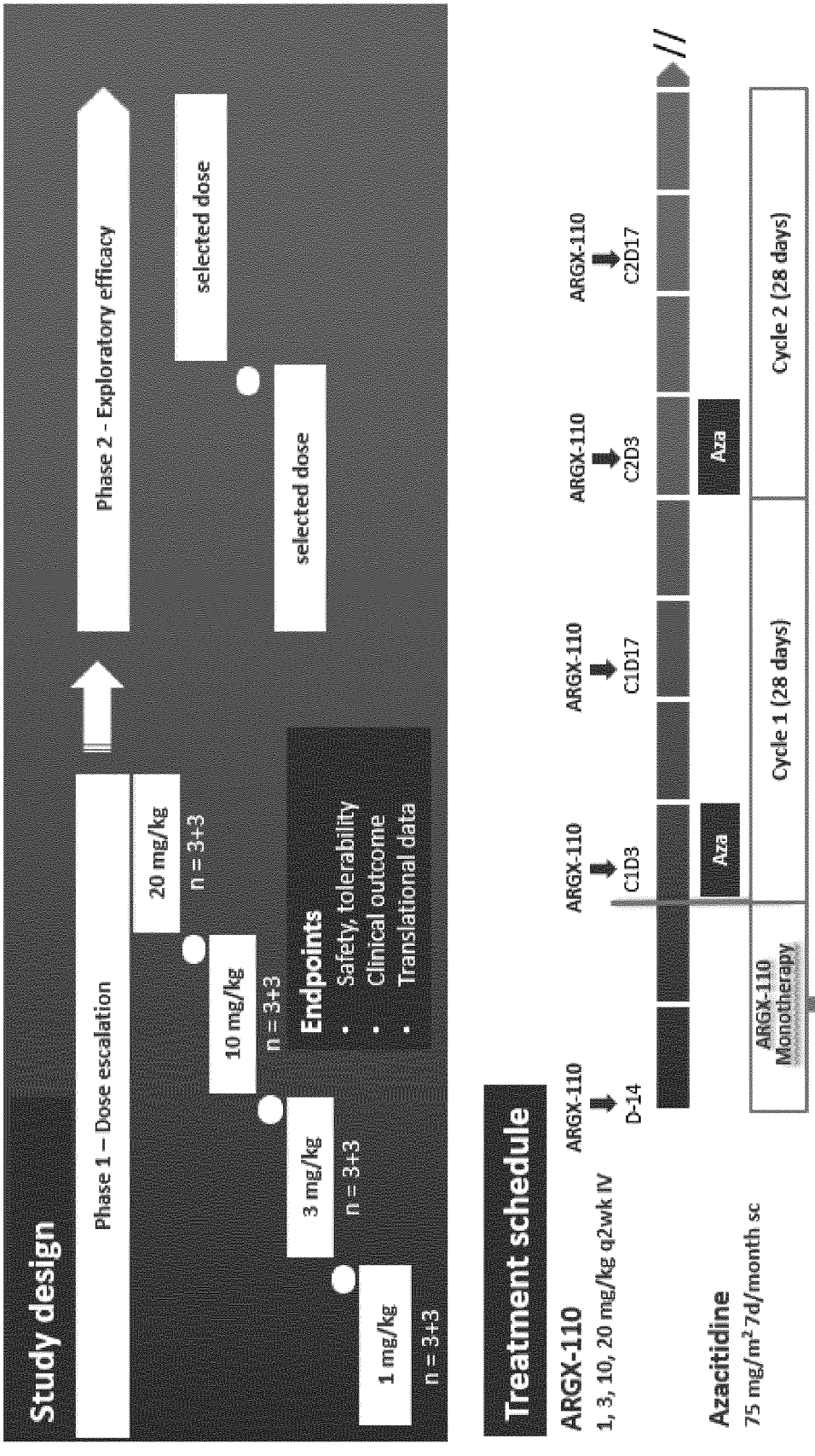


Figure 4


Study design
Phase 1 – Dose escalation
1 mg/kg
n = 3+3
3 mg/kg
n = 3+3
10 mg/kg
n = 3+3
20 mg/kg
n = 3+3
Endpoints
Safety, tolerability
Clinical outcome
Translational data
Phase 2 - Exploratory efficacy
selected dose
selected dose
Treatment schedule
ARGX-110
1, 3, 10, 20 mg/kg q2wk IV
Azacitidine
75 mg/m² 7d/month sc
ARGX-110
D-14
ARGX-110
C1D3
ARGX-110
C1D17
ARGX-110
C2D3
ARGX-110
C2D17
ARGX-110 Monotherapy
Aza
Aza
Cycle 1 (28 days)
Cycle 2 (28 days)
Allows unique insight into CD70 pathology
via translational program

SUBSTITUTE SHEET (RULE 26)

Figure 5

Footnotes are shown on the next page

	Screening Phase	Loading Dose	Open-Label Treatment Phase								End of Treatment (EOT) Visit	Follow-up Phase
Procedures	Between Days -35 to -14	Day -14	Cycle 1 Day 1 ± 2 days	Cycle 1 Day 3	Cycle 1 Day 7	Cycle 1 Day 17 + 3 days	Cycle 2 Day 1-7 + 7 days	Cycle 2 Day 17 + 3 days	Cycle ≥3 Day 1-7 +7 days	Cycle≥3 Day17 + 3 days	Within 7 days of EOT [a]	30 & 60 days after EOT ± 7 days
Study Drug Administration												
ARGX-110		X		X		X	X (D3)	X	X (D3)	X		
Azacytidine			X (D 1-7)				X (D 1-7)		X (D 1-7)			
Blood Sample Collection for Pharmacokinetic and Immunogenicity Analyses												
Pharmacokinetics [b),j)]		Pre- & 0h, 2h, 24h, D-10	Pre-AZA	Pre-AZA & Post-ARGX (0h, 2h, 24h)	Pre-AZA	Pre-ARGX & Post (0h)	D3: Pre-AZA & Post-ARGX (0h)	Pre-ARGX & Post- (0h)	D3: Pre-AZA & Post-ARGX (0h)	Pre-ARGX & Post- (0h)	X	X
Immunogenicity/ADA[c),j)]		Pre-		Pre-AZA		Pre-ARGX	D3: Pre-AZA	Pre-	D3: Pre-AZA	Pre-	X	X
Blood Sample Collection for Disease Evaluation and Biomarkers												
Molecular Genetics [d)]		Pre-	Pre-				D1, Pre-		C_{odd}D1, Pre-		X	X
Gene expression [e)]		Pre-	Pre-				D1, Pre-		C_{odd}D1, Pre-		X	X
Flow cytometry [f)]		Pre-	Pre-				D1, Pre-		C_{odd}D1, Pre- [f),i)]		X	
Serum protein quantification [g)]		Pre-	Pre-				D1, Pre-		C_{odd}D1, Pre-		X	X
Stemness determination [h)]	X		Pre-								X	
Bone Marrow (BM) Collection for Pharmacokinetics, Immunogenicity, and Disease Evaluation and Biomarkers												
	Between Days -35 to -14	Day -14	Response assessment, monotherapy (C1D1 pre-AZA) [k)]			Response assessments, combo treatment [i)] (C_{odd}D1: every odd cycle D1 until CR/CRi; pre-AZA)					Within 7 days of EOT [a)]	30 & 60 days after EOT ± 7 days
Bone marrow aspirate/biopsy [i)]	X		X			C_{odd}D1, pre					X	
Molecular Genetics [d)]	X		X			C_{odd}D1, pre					X	
Gene expression [e)]	X		X			C_{odd}D1, pre					X	
Flow cytometry [f)]	X		X			C_{odd}D1, pre					X	
Stemness determination [h]	X		X			C_{odd}D1, pre					X	
Pharmacokinetics [j)]	X		X			C_{odd}D1, pre					X	
Immunogenicity/ADA [j)]	X		X			C_{odd}D1, pre					X	

Figure 6

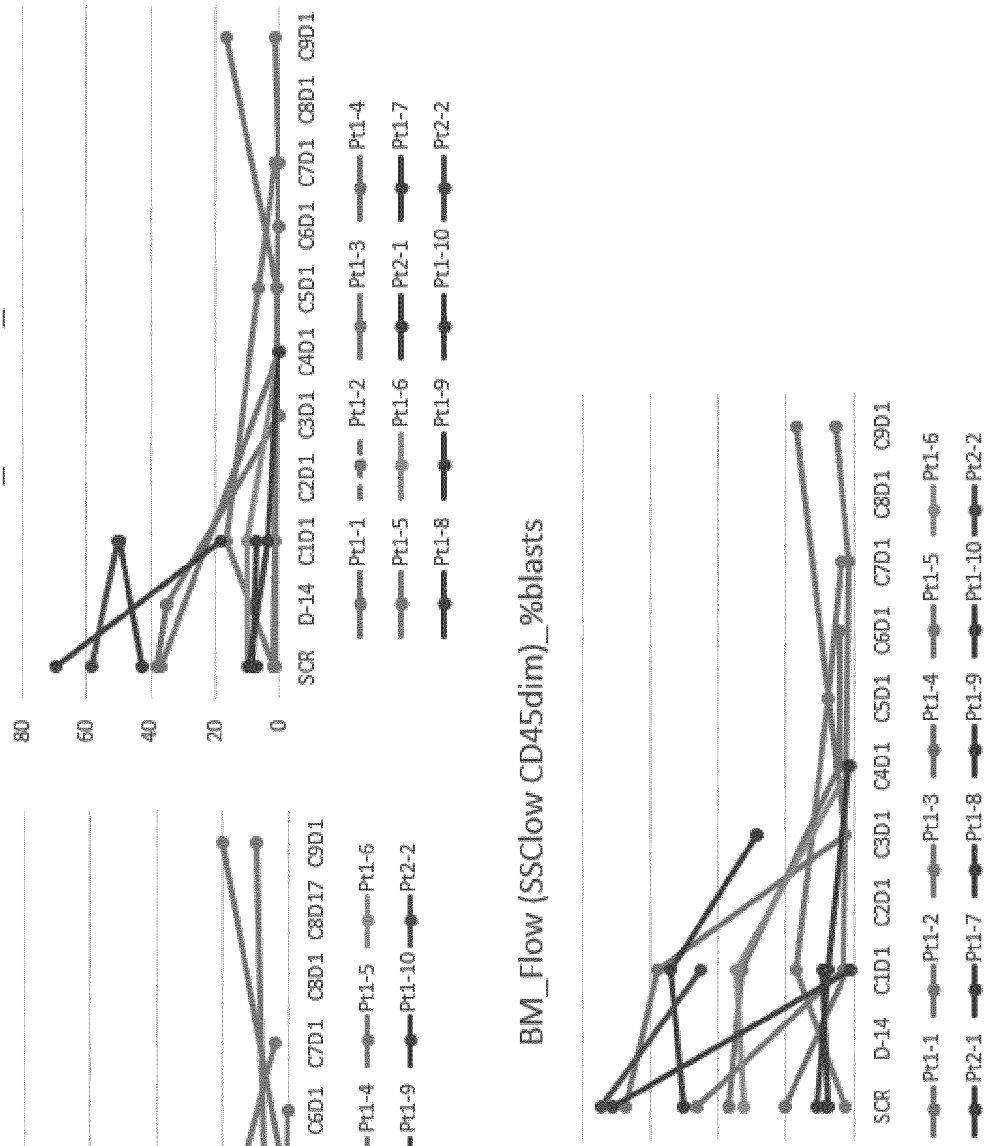

A.
BM_Cytomorphology_%blasts
80
60
40
20
0
SCR C1D1 C2D1 C3D1 C4D1 C5D1 C6D1 C7D1 C8D1 C8D17 C9D1
Pt1-1 Pt1-2 Pt1-3 Pt1-4 Pt1-5 Pt1-6
Pt2-1 Pt1-7 Pt1-8 Pt1-9 Pt1-10 Pt2-2
B.
BM_LAIP MRD_%blasts
80
60
40
20
0
SCR D-14 C1D1 C2D1 C3D1 C4D1 C5D1 C6D1 C7D1 C8D1 C9D1
Pt1-1 Pt1-2 Pt1-3 Pt1-4
Pt1-5 Pt1-6 Pt2-1 Pt1-7
Pt1-8 Pt1-9 Pt1-10 Pt2-2
C.
BM_Flow (SSClow CD45dim)_%blasts
80
60
40
20
0
SCR D-14 C1D1 C2D1 C3D1 C4D1 C5D1 C6D1 C7D1 C8D1 C9D1
Pt1-1 Pt1-2 Pt1-3 Pt1-4 Pt1-5 Pt1-6
Pt2-1 Pt1-7 Pt1-8 Pt1-9 Pt1-10 Pt2-2

Figure 7

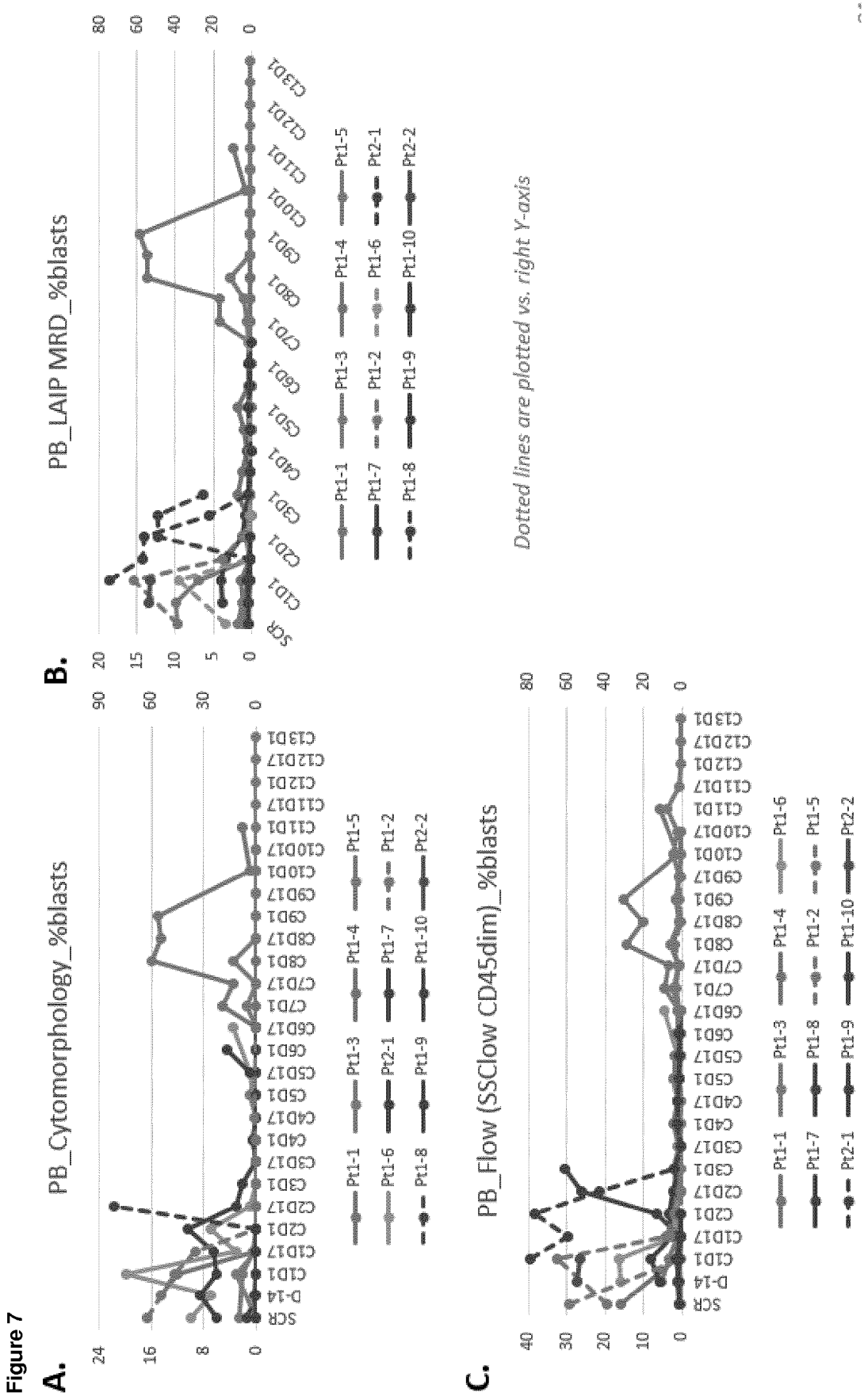
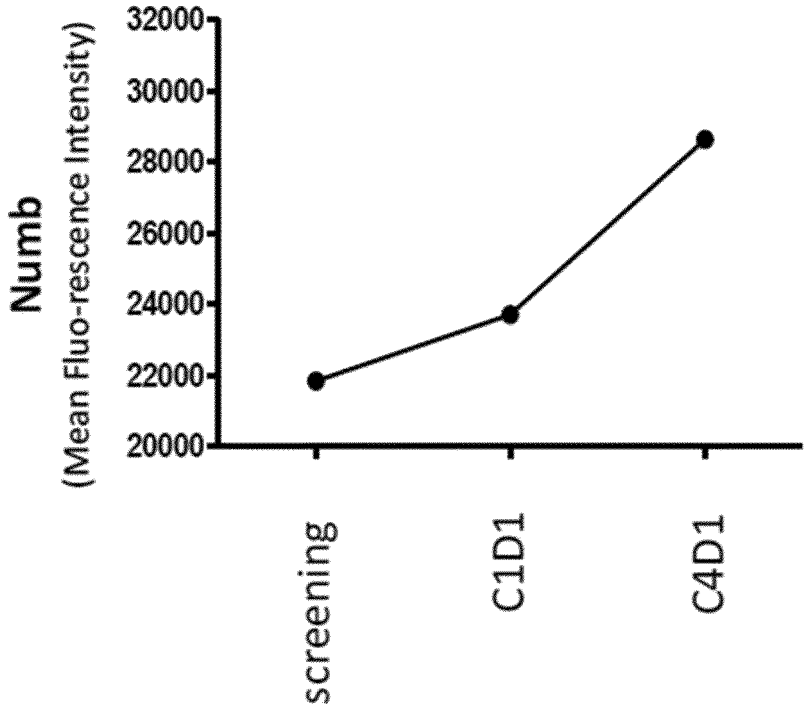

A.
PB_Cytomorphology_%blasts
B.
PB_LAIP MRD_%blasts
C.
PB_Flow (SSClow CD45dim)_%blasts
Dotted lines are plotted vs. right Y-axis
Pt1-1
Pt1-3
Pt1-4
Pt1-5
Pt1-6
Pt2-1
Pt1-7
Pt1-2
Pt1-8
Pt1-9
Pt1-10
Pt2-2

Figure 8

A


Numb
(Mean Fluo-rescence Intensity)
32000
30000
28000
26000
24000
22000
20000
screening
C1D1
C4D1

B

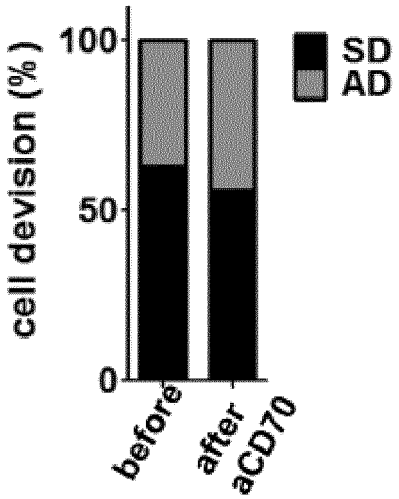

cell devision (%)
100
50
0
SD
AD
before
after aCD70

Figure 9

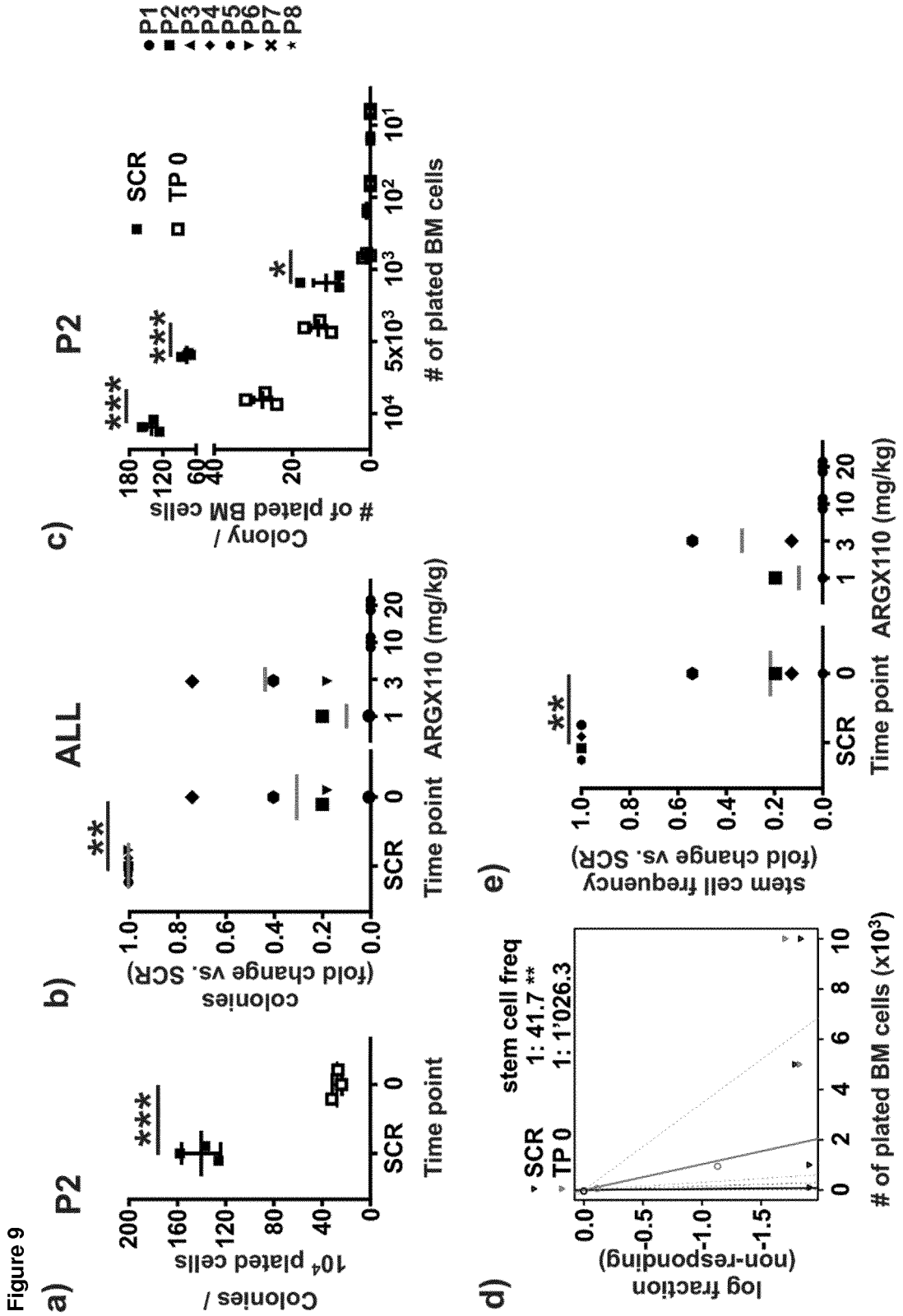
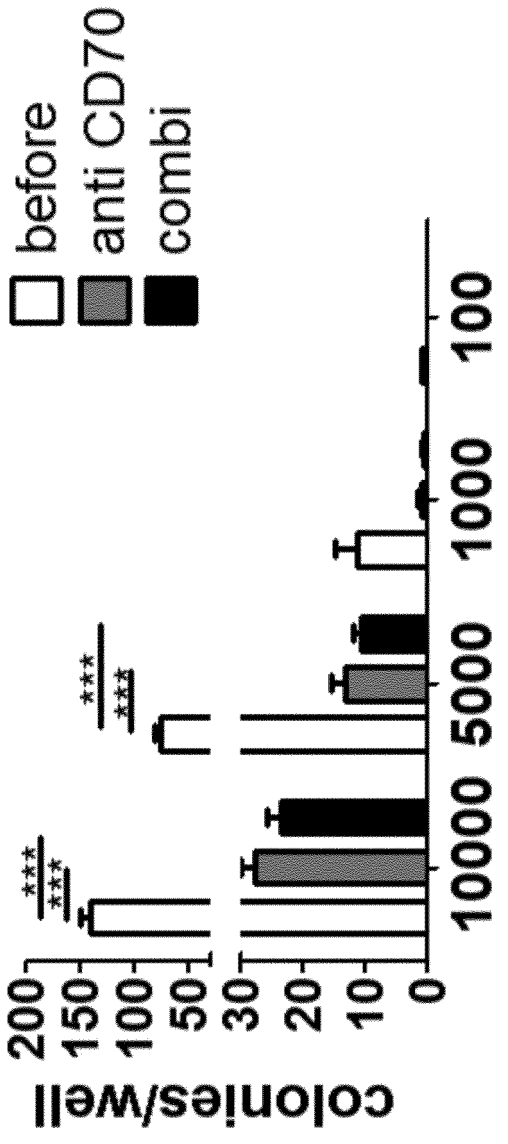

a)
P2
Colonies / 10⁴ plated cells
***
SCR
0
Time point
b)
ALL
colonies (fold change vs. SCR)
**
SCR
0
1
3
10
20
Time point ARGX110 (mg/kg)
c)
P2
Colony / # of plated BM cells
***
***
*
SCR
TP 0
# of plated BM cells
P1
P2
P3
P4
P5
P6
P7
P8
d)
stem cell freq
SCR 1: 41.7 **
TP 0 1: 1'026.3
log fraction (non-responding)
# of plated BM cells (x10³)
e)
stem cell frequency (fold change vs. SCR)
**
Time point ARGX110 (mg/kg)

Figure 9 (continued)

f)



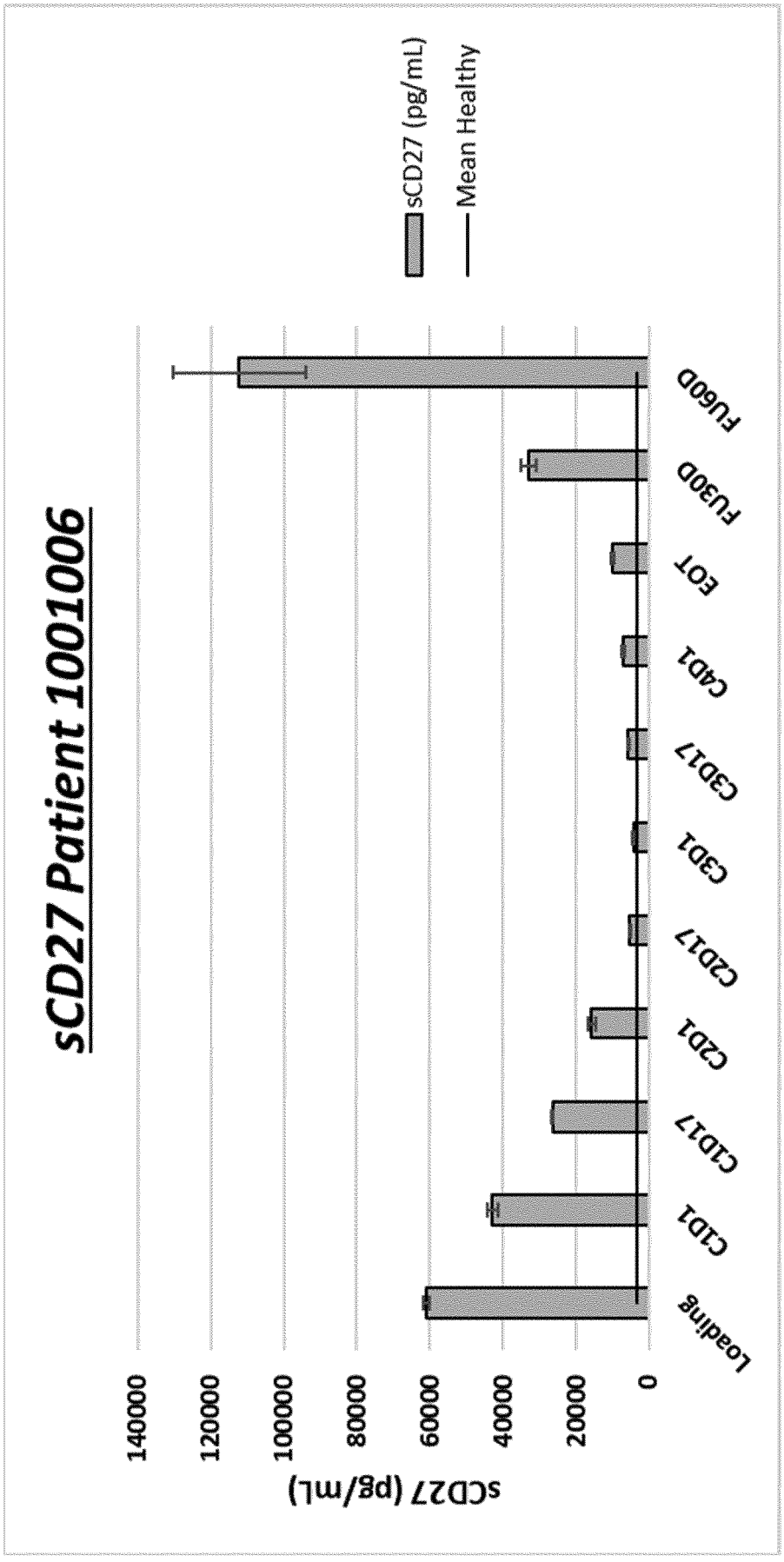
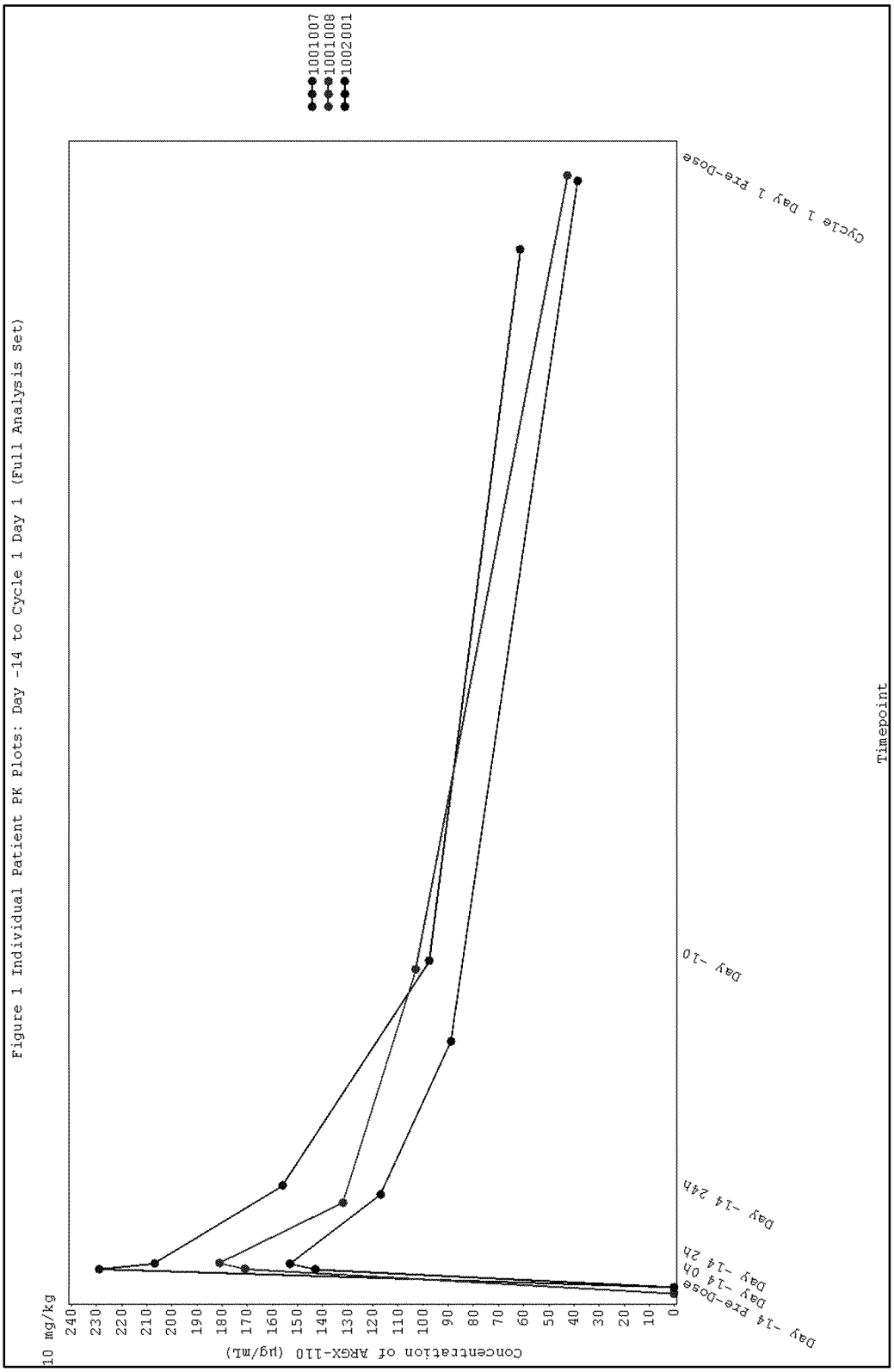

sCD27 Patient 1001006
sCD27 (pg/mL)
Mean Healthy
sCD27 (pg/mL)
140000
120000
100000
80000
60000
40000
20000
0
Loading
C1D1
C1D17
C2D1
C2D17
C3D1
C3D17
C4D1
EOT
FU30D
FU60D

Figure 10

Figure 11


Figure 1 Individual Patient PK Plots: Day -14 to Cycle 1 Day 1 (Full Analysis Set)
10 mg/kg
Concentration of AMGX-110 (µg/mL)
Timepoint
Day -14 Pre-Dose
Day -14 0h
Day -14 2h
Day -14 24h
Day -10
Cycle 1 Day 1 Pre-Dose
1001007
1001008
1002001