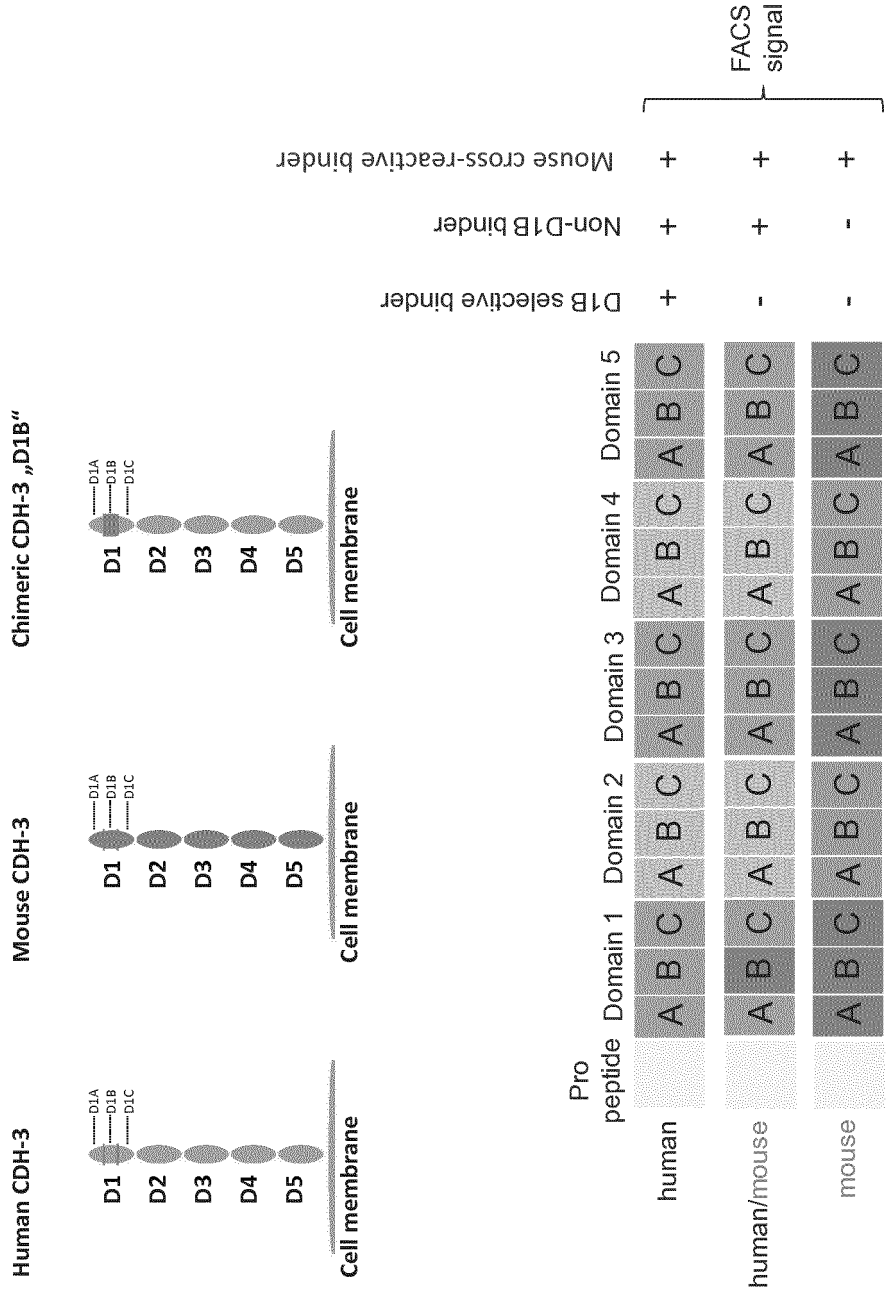

Human CDH-3
Mouse CDH-3
Chimeric CDH-3 „D1B"
D1
D1A
D1B
D1C
D2
D3
D4
D5
Cell membrane
Pro peptide
Domain 1
Domain 2
Domain 3
Domain 4
Domain 5
A B C
human
human/mouse
mouse
D1B selective binder
Non-D1B binder
Mouse cross-reactive binder
FACS signal
+
+
+
+
+
-
+
-
-

Figure 1

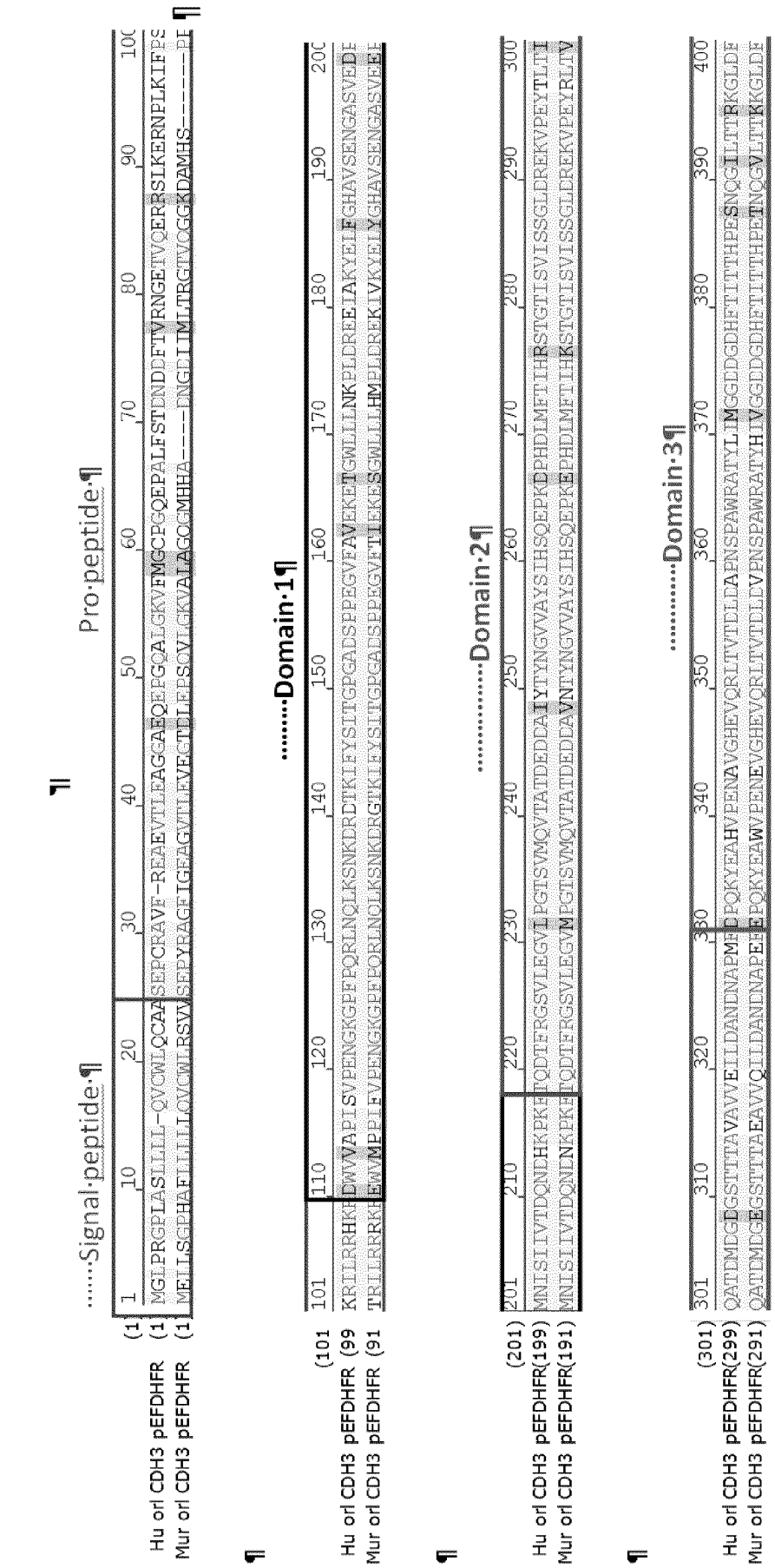

Signal peptide
Pro peptide
Domain 1
Domain 2
Domain 3
Hu orl CDH3 pEFDHFR
Mur orl CDH3 pEFDHFR
Hu orl CDH3 pEFDHFR(199)
Mur orl CDH3 pEFDHFR(191)
Hu orl CDH3 pEFDHFR(299)
Mur orl CDH3 pEFDHFR(291)

Figure 2(1)

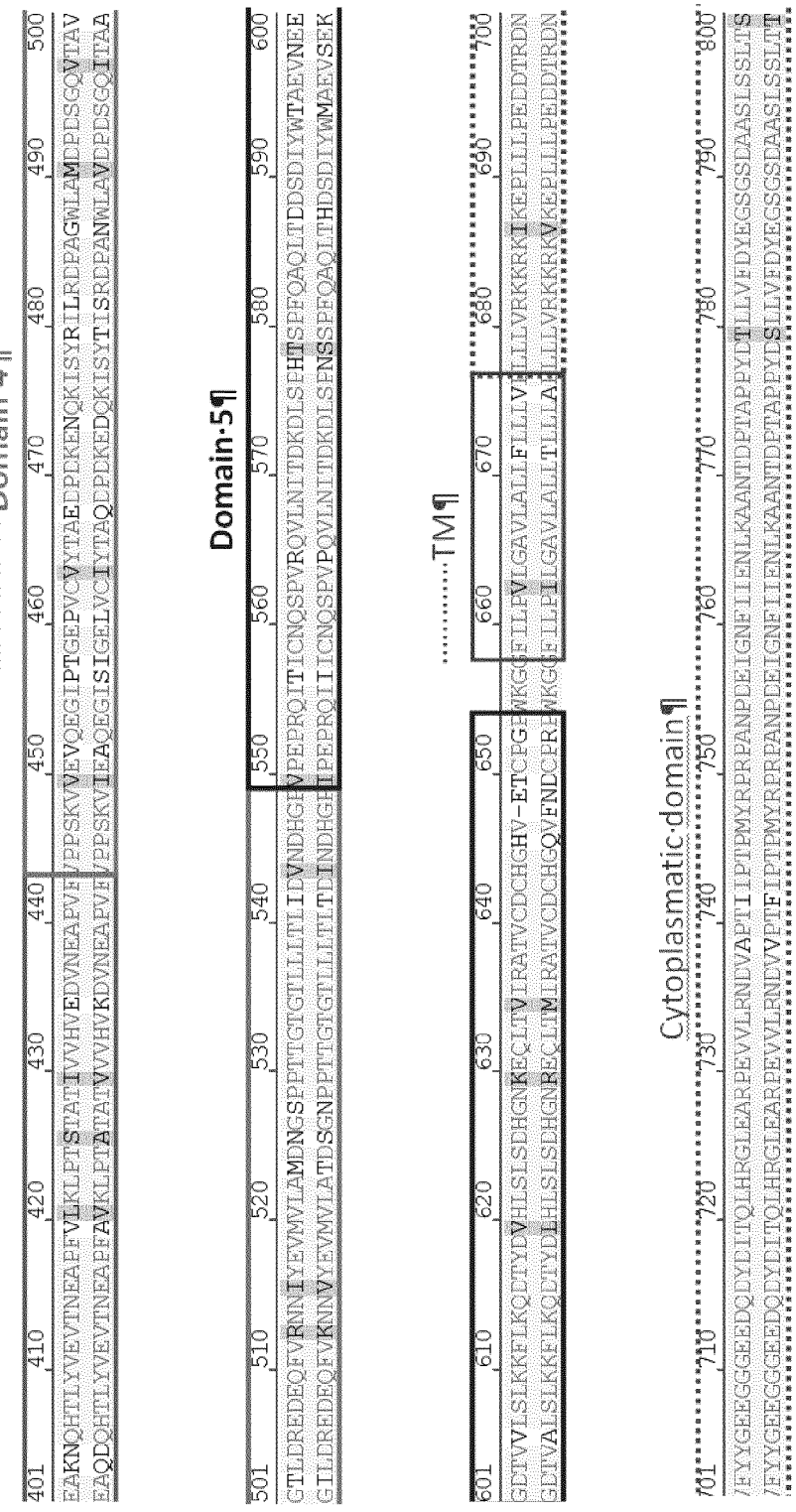
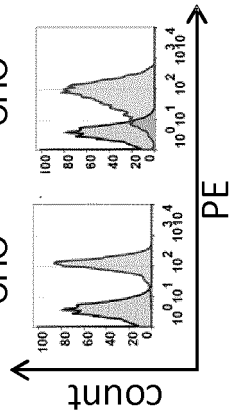

Domain·4¶
Domain·5¶
TM¶
Cytoplasmatic·domain¶
Hu orl CDH3 pEFDHFR(399)
Mur orl CDH3 pEFDHFR(391)
Hu orl CDH3 pEFDHFR(499)
Mur orl CDH3 pEFDHFR(491)
Hu orl CDH3 pEFDHFR(599)
Mur orl CDH3 pEFDHFR(591)
Hu orl CDH3 pEFDHFR(698)
Mur orl CDH3 pEFDHFR(691)
Hu orl CDH3 pEFDHFR(798)
Mur orl CDH3 pEFDHFR(791)

Figure 2(2)

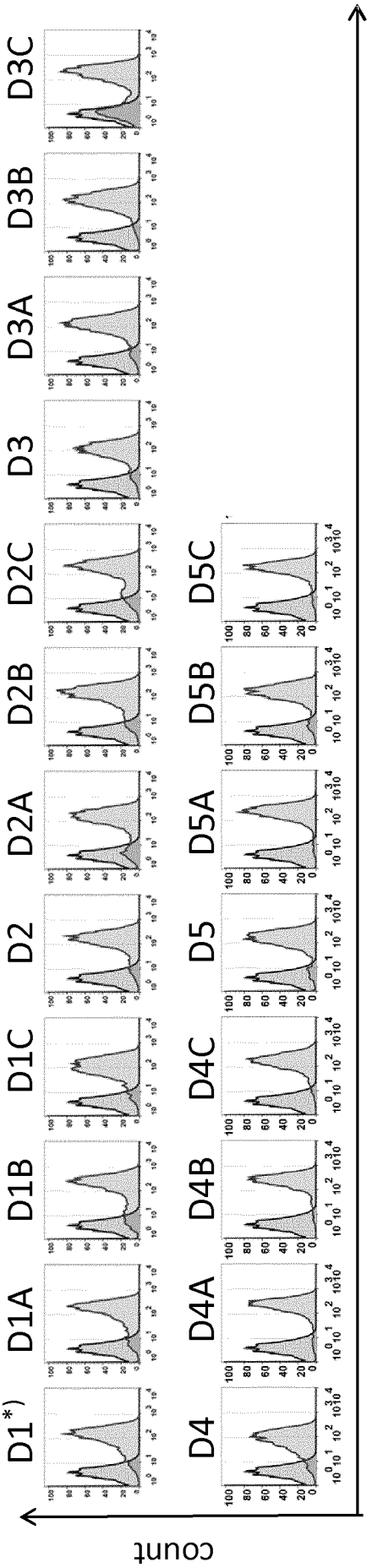
Figure 3

Epitope Mapping CDH3 Constructs

Expression of human and murine CDH3 on CHO cells (controls)



Expression of chimeric CDH3 molecules on CHO cells



D1*) : Hu CDH3 D1 mu -CHO

Antibody: 194-G09 mIgG1 λ

Figure 4A

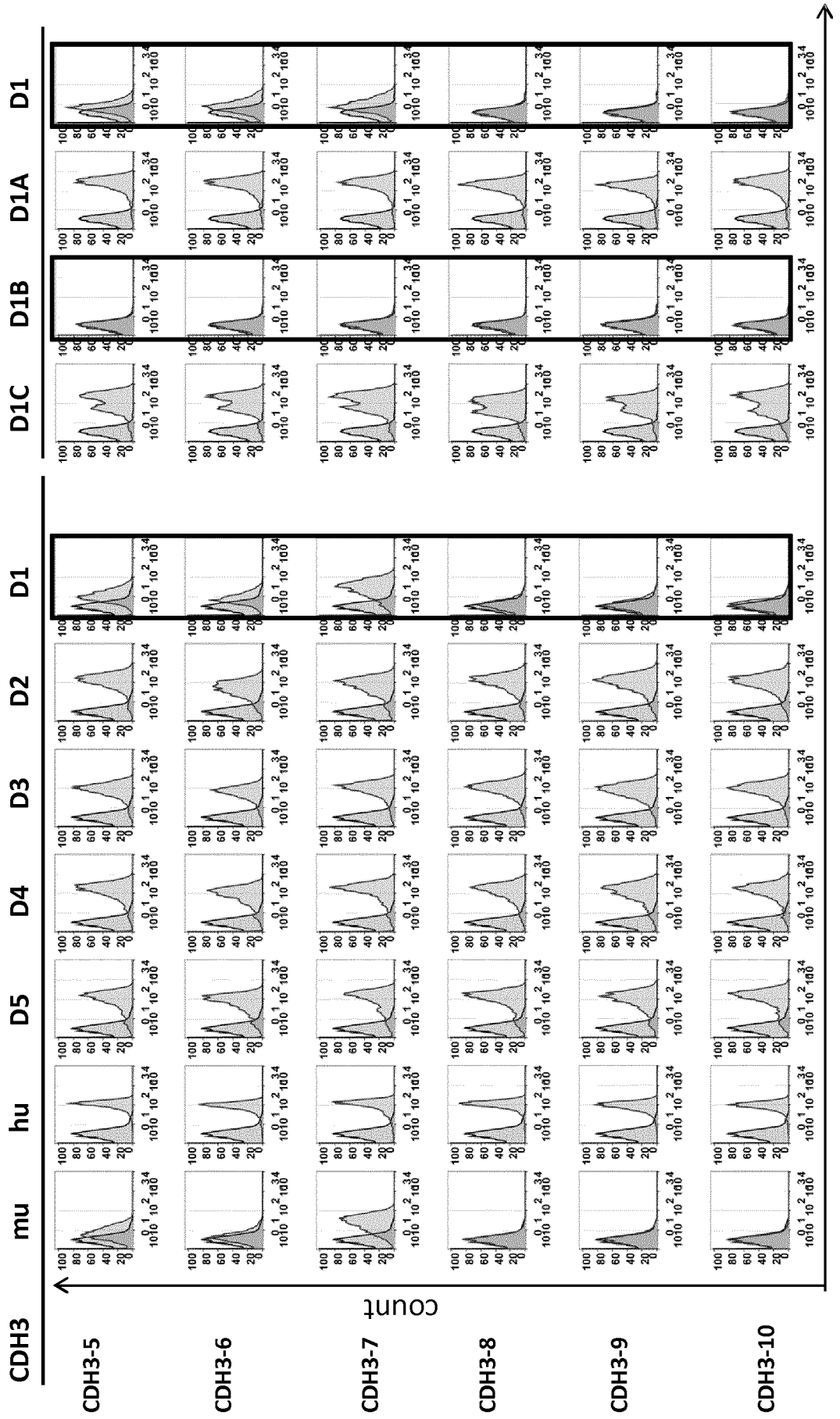

CDH3
mu
hu
D5
D4
D3
D2
D1
D1C
D1B
D1A
D1
CDH3-5
CDH3-6
CDH3-7
CDH3-8
CDH3-9
CDH3-10
count
PE

Figure 4B

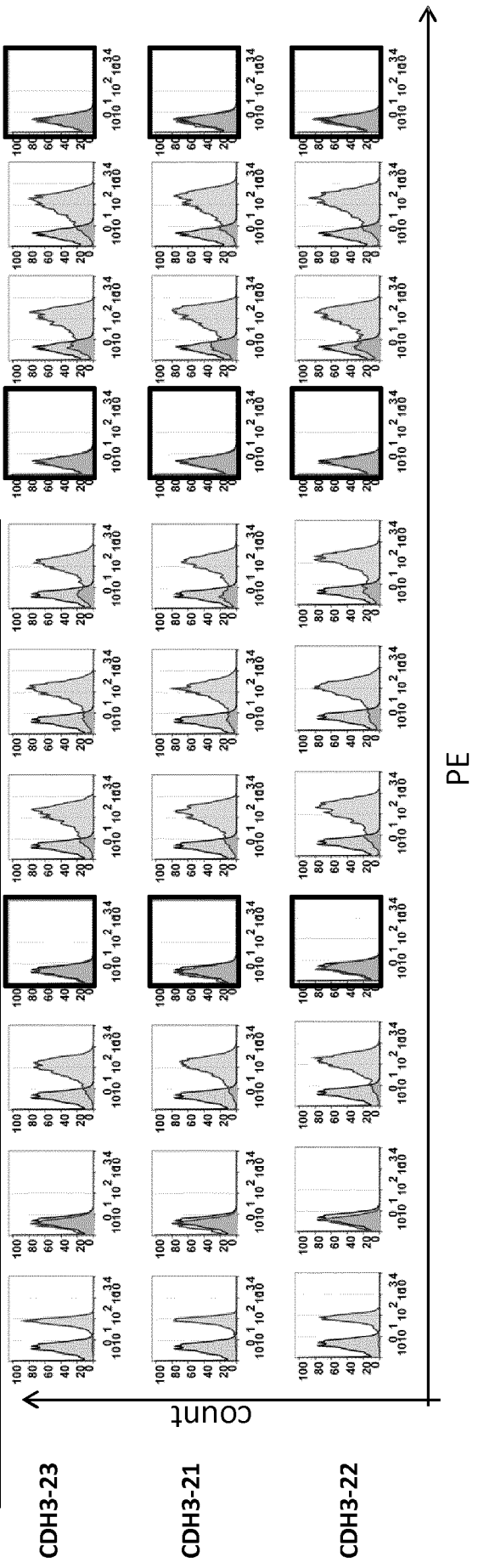
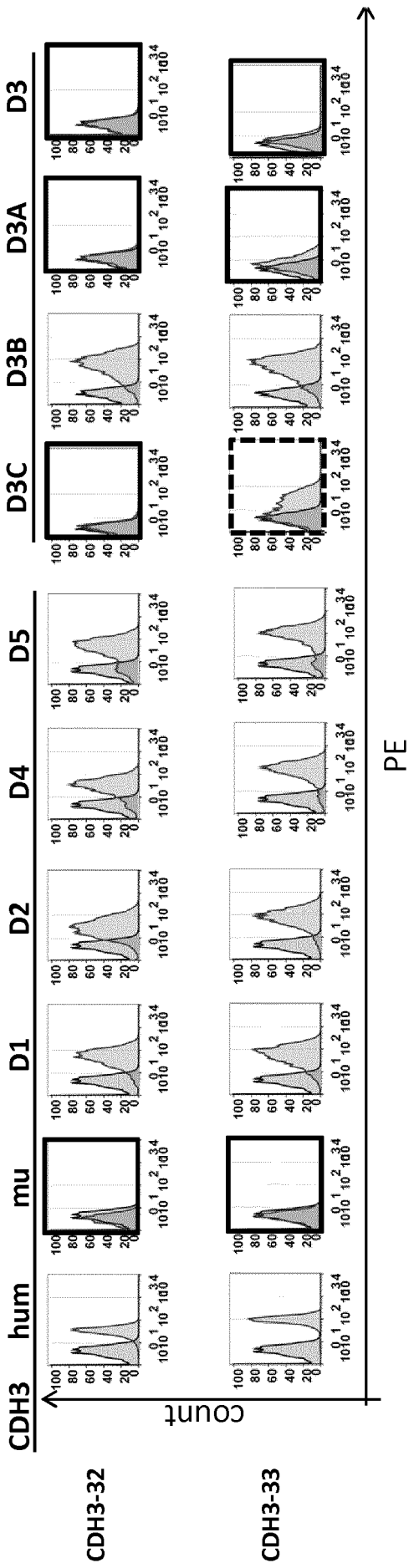

CDH3
hum
mu
D1
D2
D3
D4
D5
D2
D2A
D2B
D2C
CDH3-23
CDH3-21
CDH3-22
count
PE

Figure 4C



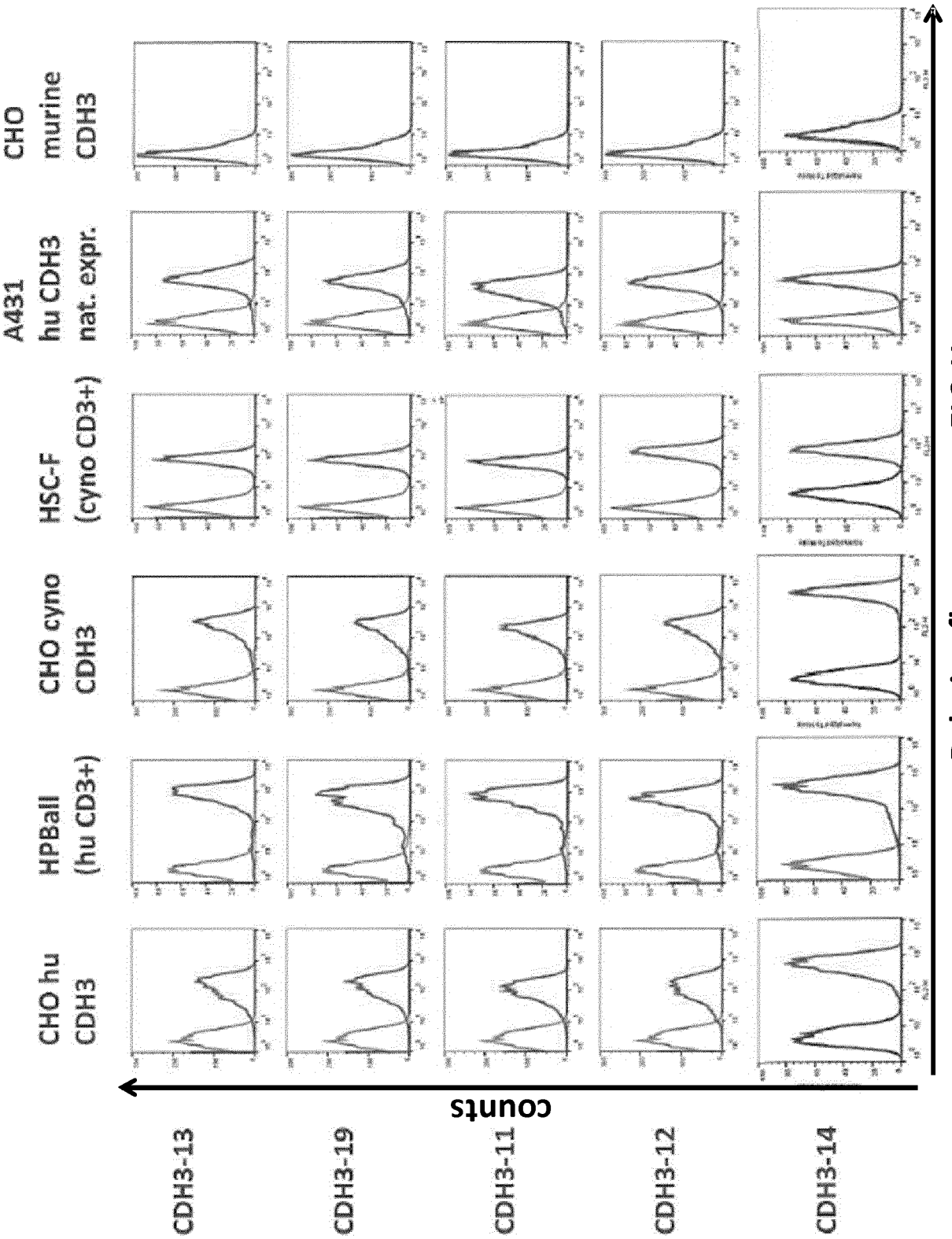

CHO hu CDH3
HPBall (hu CD3+)
CHO cyno CDH3
HSC-F (cyno CD3+)
A431 hu CDH3 nat. expr.
CHO murine CDH3
CDH3-13
CDH3-19
CDH3-11
CDH3-12
CDH3-14
counts
Relative fluorescence FL2-H

Figure 5A

Figure 5B

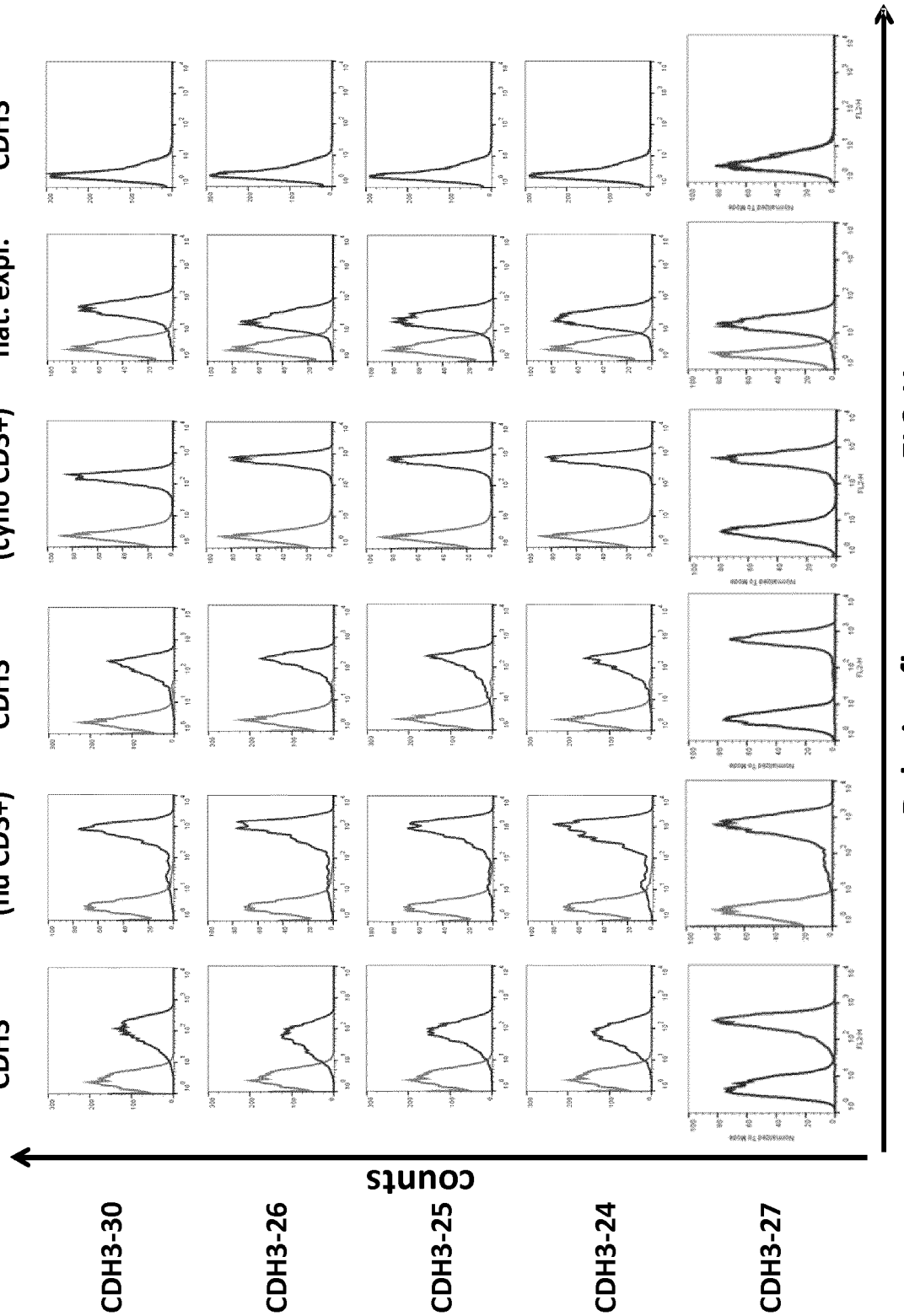

CHO hu CDH3
HPBall (hu CD3+)
CHO cyno CDH3
HSC-F (cyno CD3+)
A431 hu CDH3 nat. expr.
CHO murine CDH3
CDH3-30
CDH3-26
CDH3-25
CDH3-24
CDH3-27
counts
Relative fluorescence FL2-H

Figure 5C

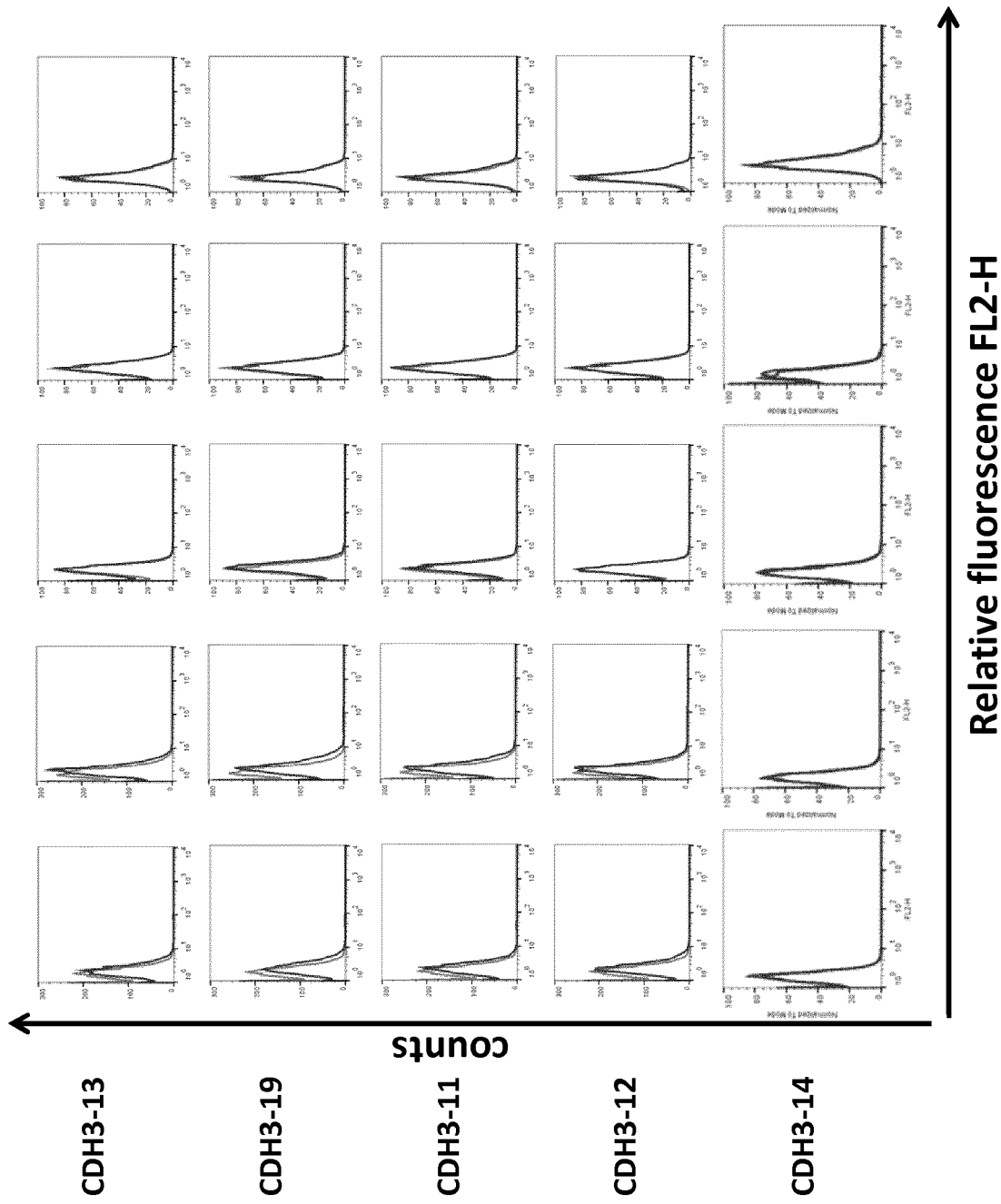
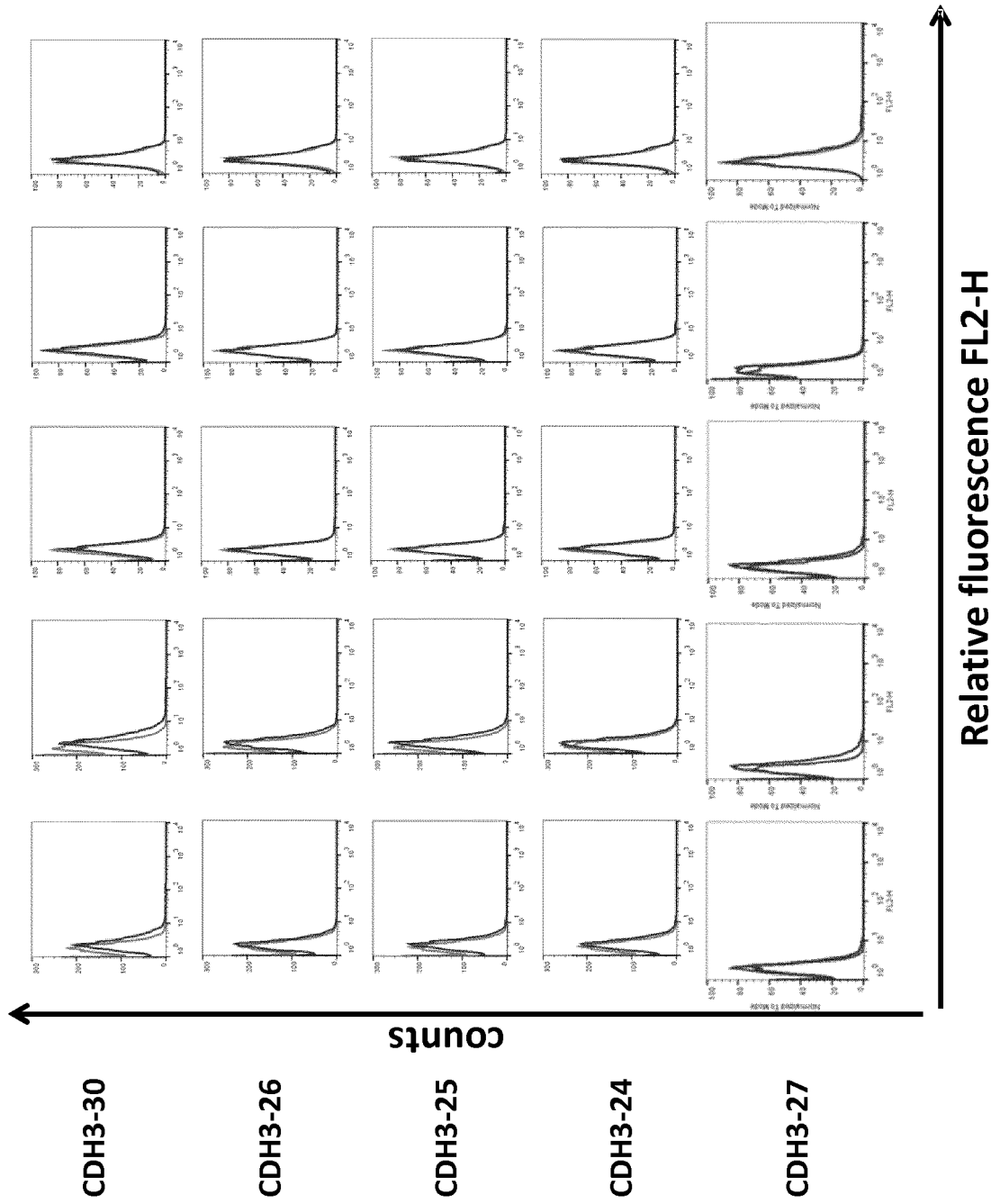

CHO hu CDH1
CHO hu CDH2
CHO hu CDH4
CHO hu CDH5
CHO dhfr-
CDH3-13
CDH3-19
CDH3-11
CDH3-12
CDH3-14
counts
Relative fluorescence FL2-H

Figure 5D


CHO hu CDH1
CHO hu CDH2
CHO hu CDH4
CHO hu CDH5
CHO dhfr-
CDH3-30
CDH3-26
CDH3-25
CDH3-24
CDH3-27
counts
Relative fluorescence FL2-H

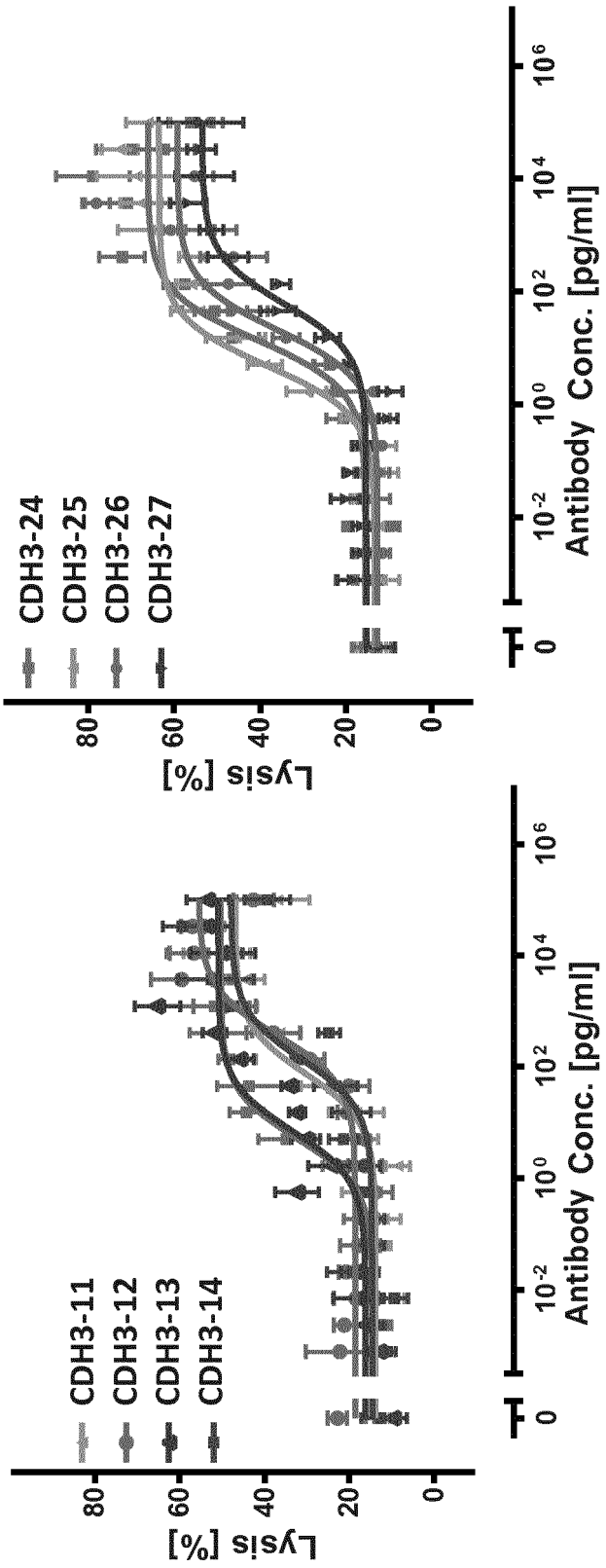


Figure 6A

Figure 6B

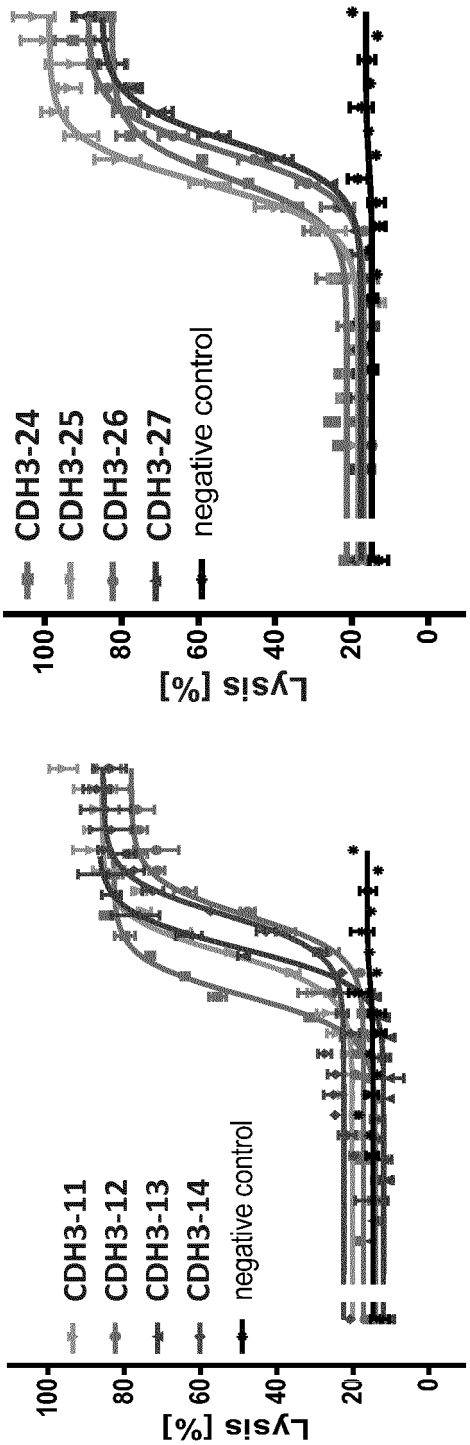


Figure 7A

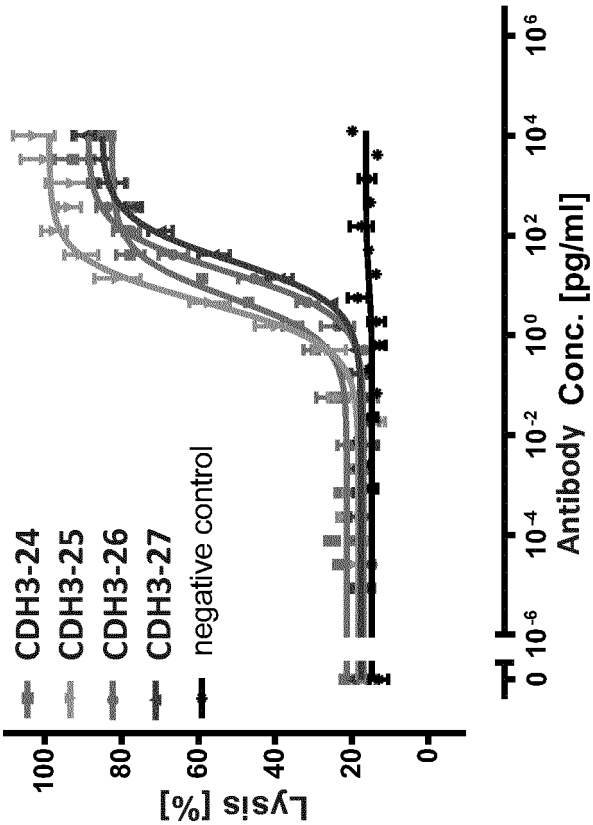


Figure 7B

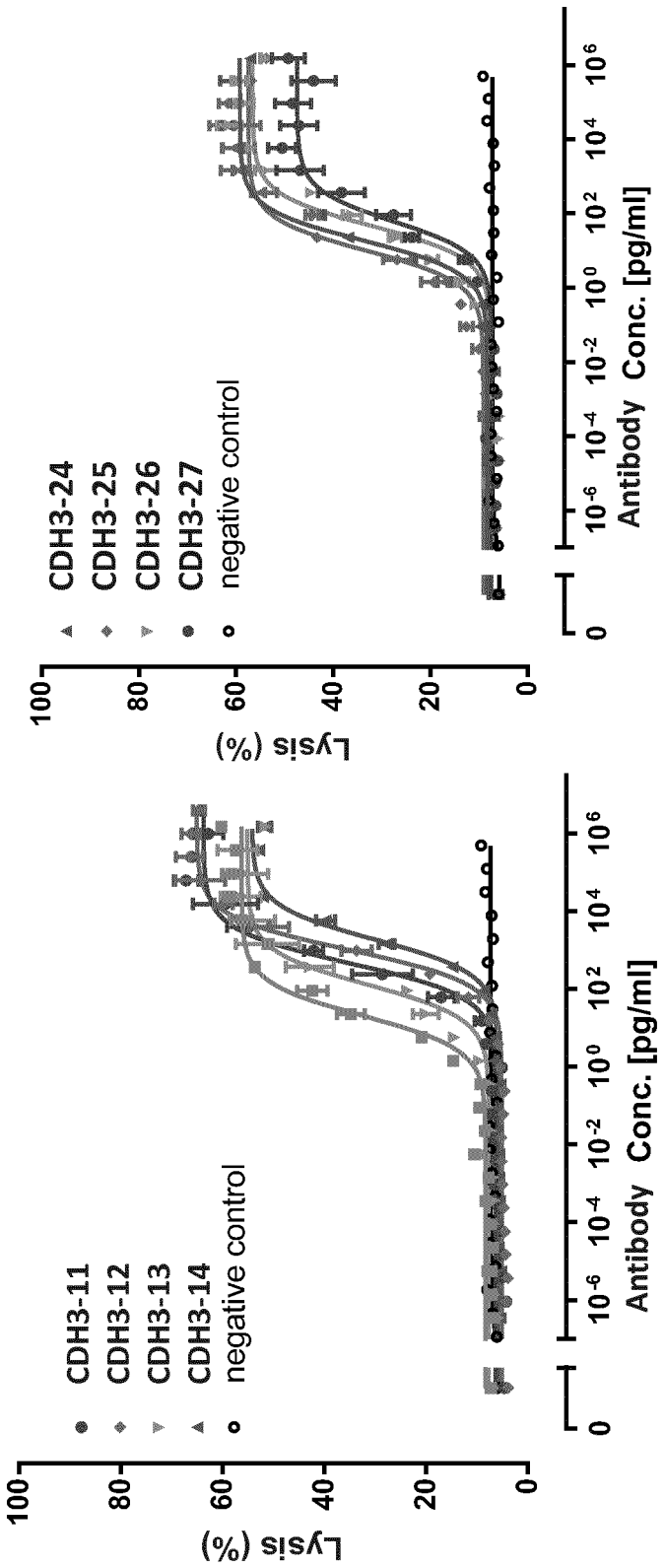


Figure 8A

Figure 8B

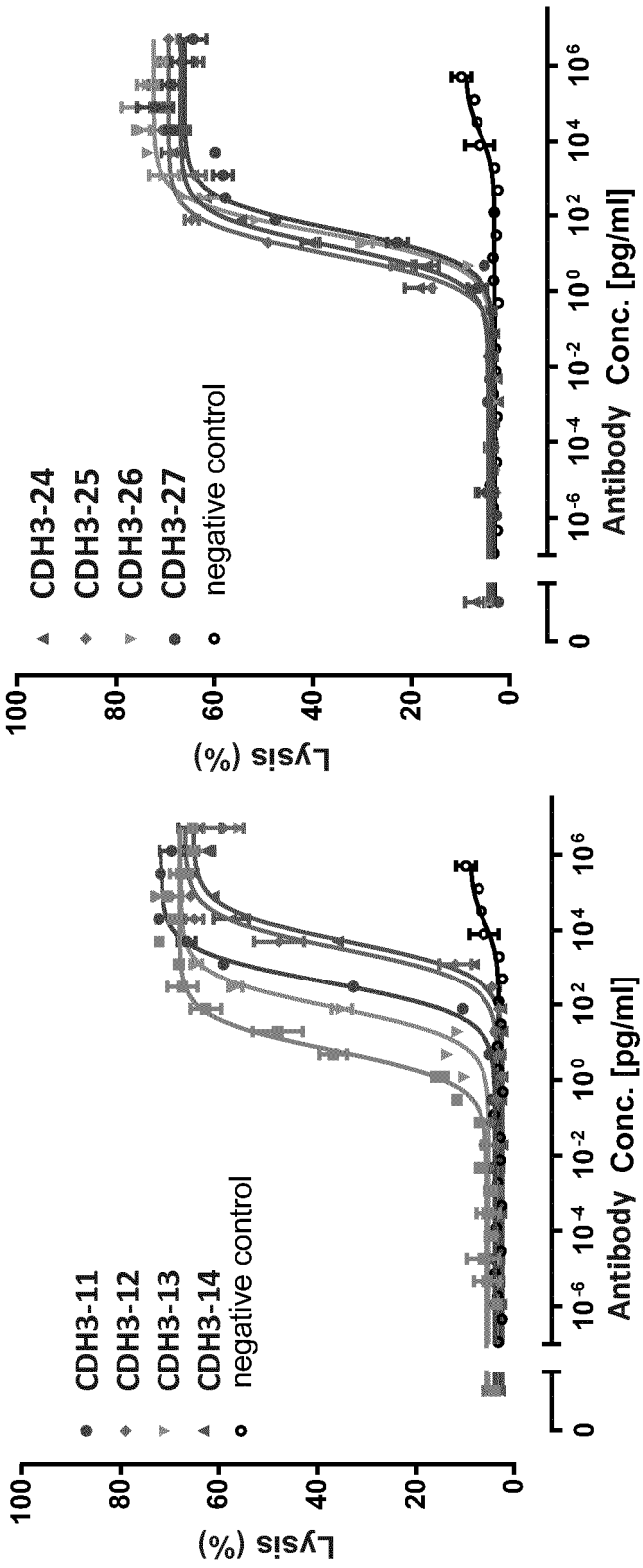


Figure 9A

Figure 9B

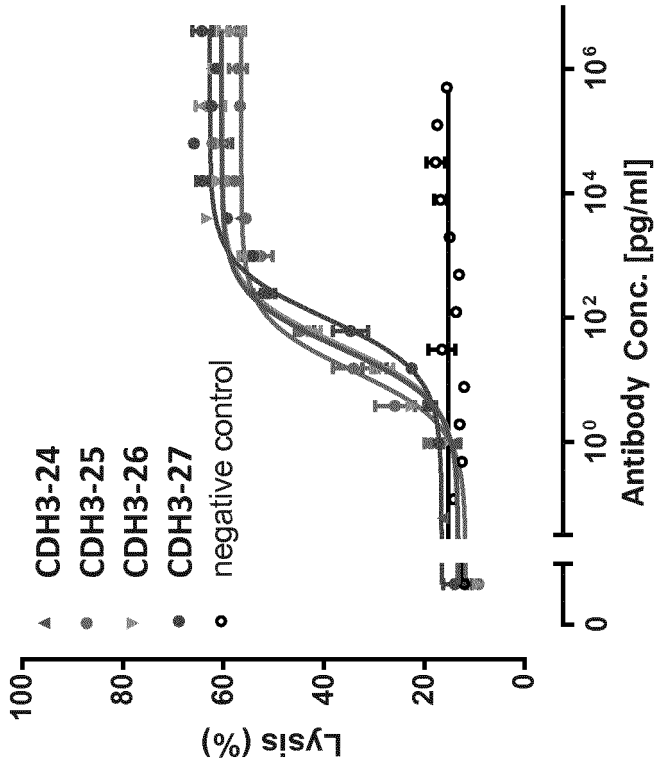


Figure 10B

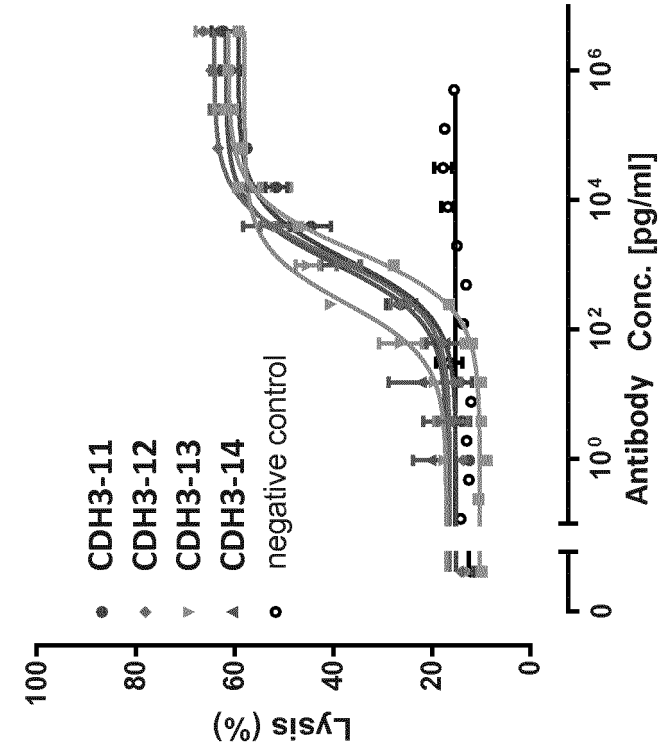


Figure 10A

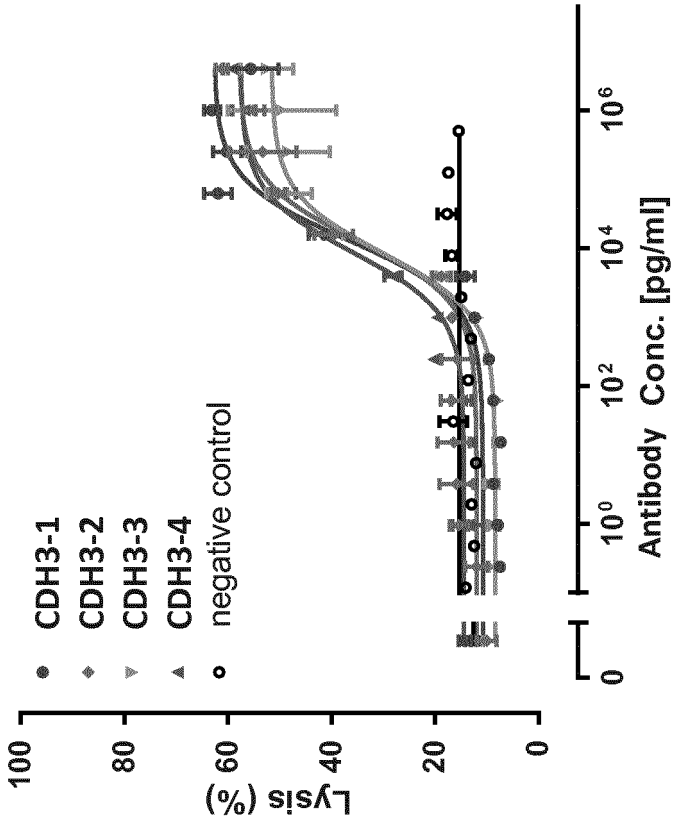

CDH3-1
CDH3-2
CDH3-3
CDH3-4
negative control
Lysis (%)
100
80
60
40
20
0
0
10^0
10^2
10^4
10^6
Antibody Conc. [pg/ml]

Figure 10C

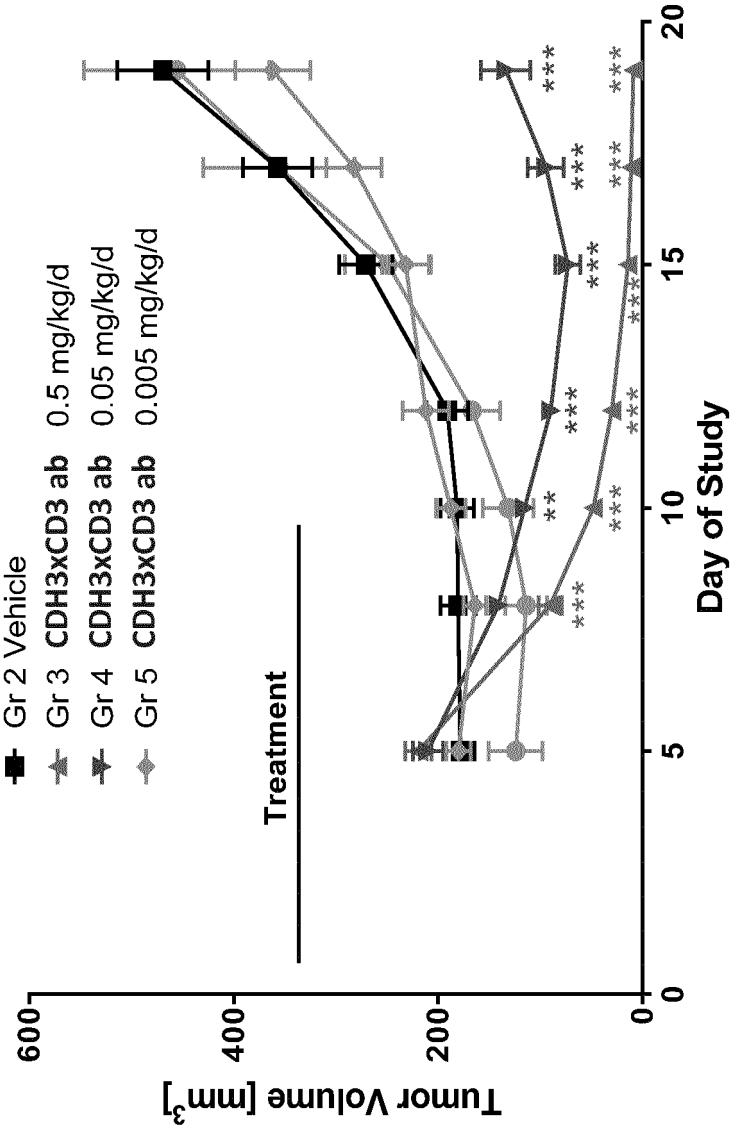
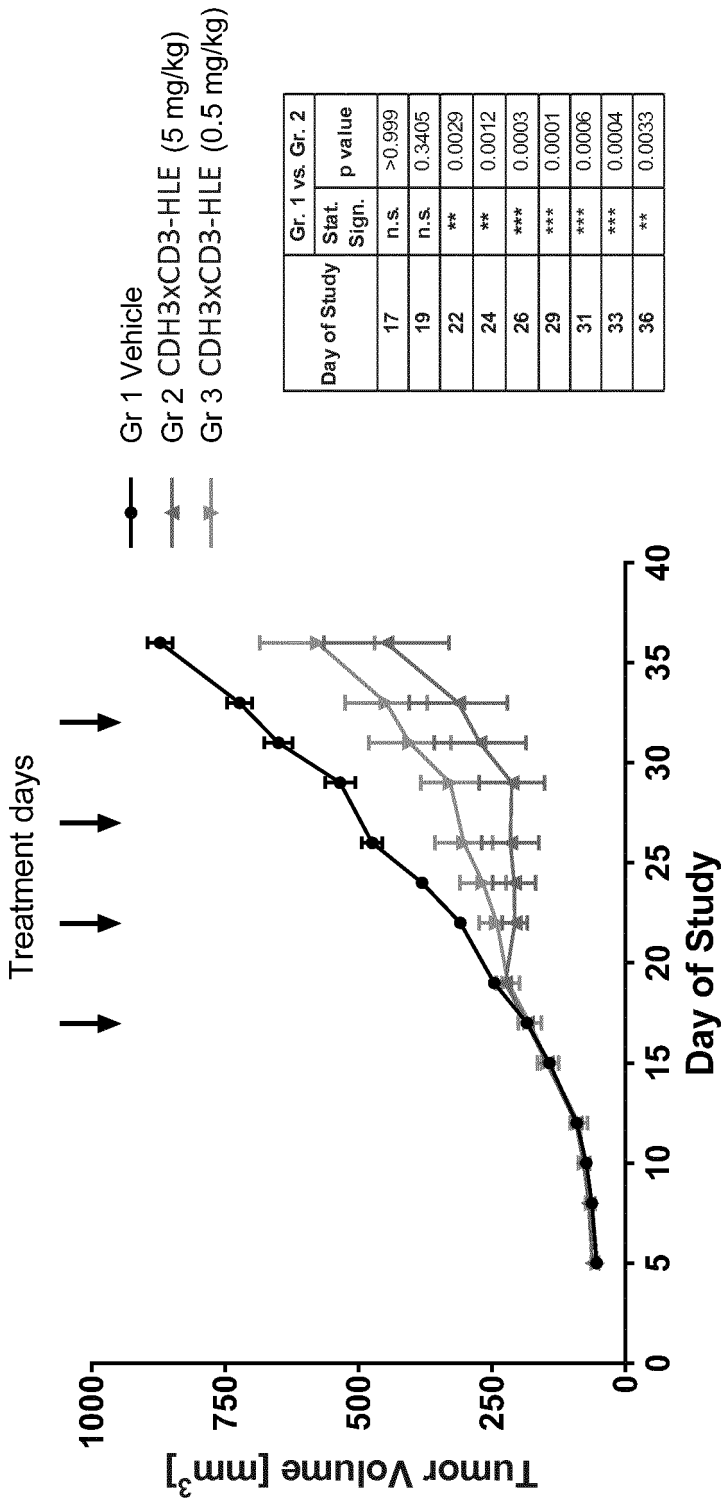

Gr 1 Vehicle w/o T cells
Gr 2 Vehicle
Gr 3 CDH3xCD3 ab 0.5 mg/kg/d
Gr 4 CDH3xCD3 ab 0.05 mg/kg/d
Gr 5 CDH3xCD3 ab 0.005 mg/kg/d
Treatment
Tumor Volume [mm³]
Day of Study
0
200
400
600
0
5
10
15
20

Figure 11



Day of Study	Gr. 1 vs. Gr. 2	
	Stat. Sign.	p value
17	n.s.	>0.999
19	n.s.	0.3405
22	**	0.0029
24	**	0.0012
26	***	0.0003
29	***	0.0001
31	***	0.0006
33	***	0.0004
36	**	0.0033

Figure 12 A

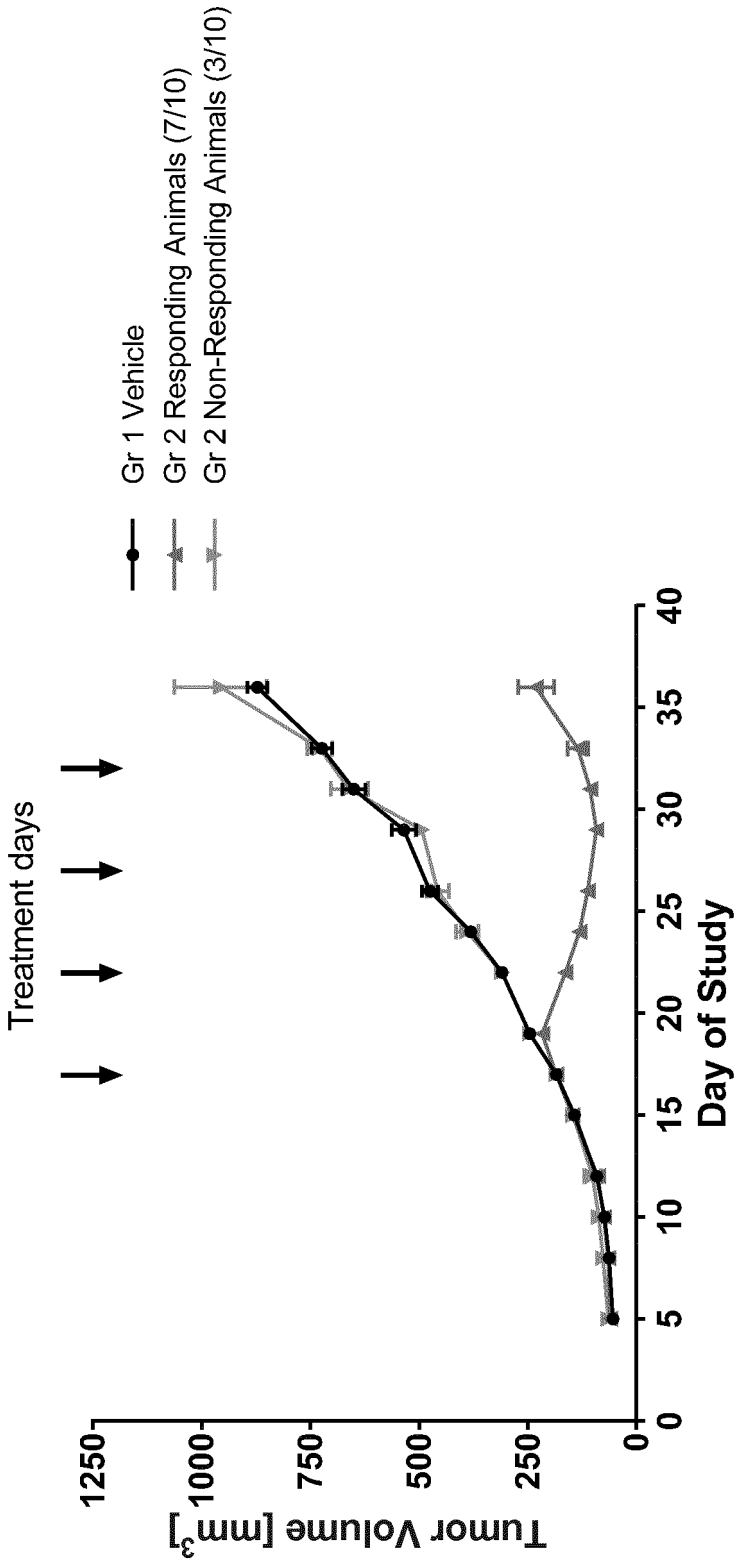

Gr 1 Vehicle
Gr 2 Responding Animals (7/10)
Gr 2 Non-Responding Animals (3/10)
Treatment days
Tumor Volume [mm3]
Day of Study
0
250
500
750
1000
1250
0
5
10
15
20
25
30
35
40

Figure 12 B

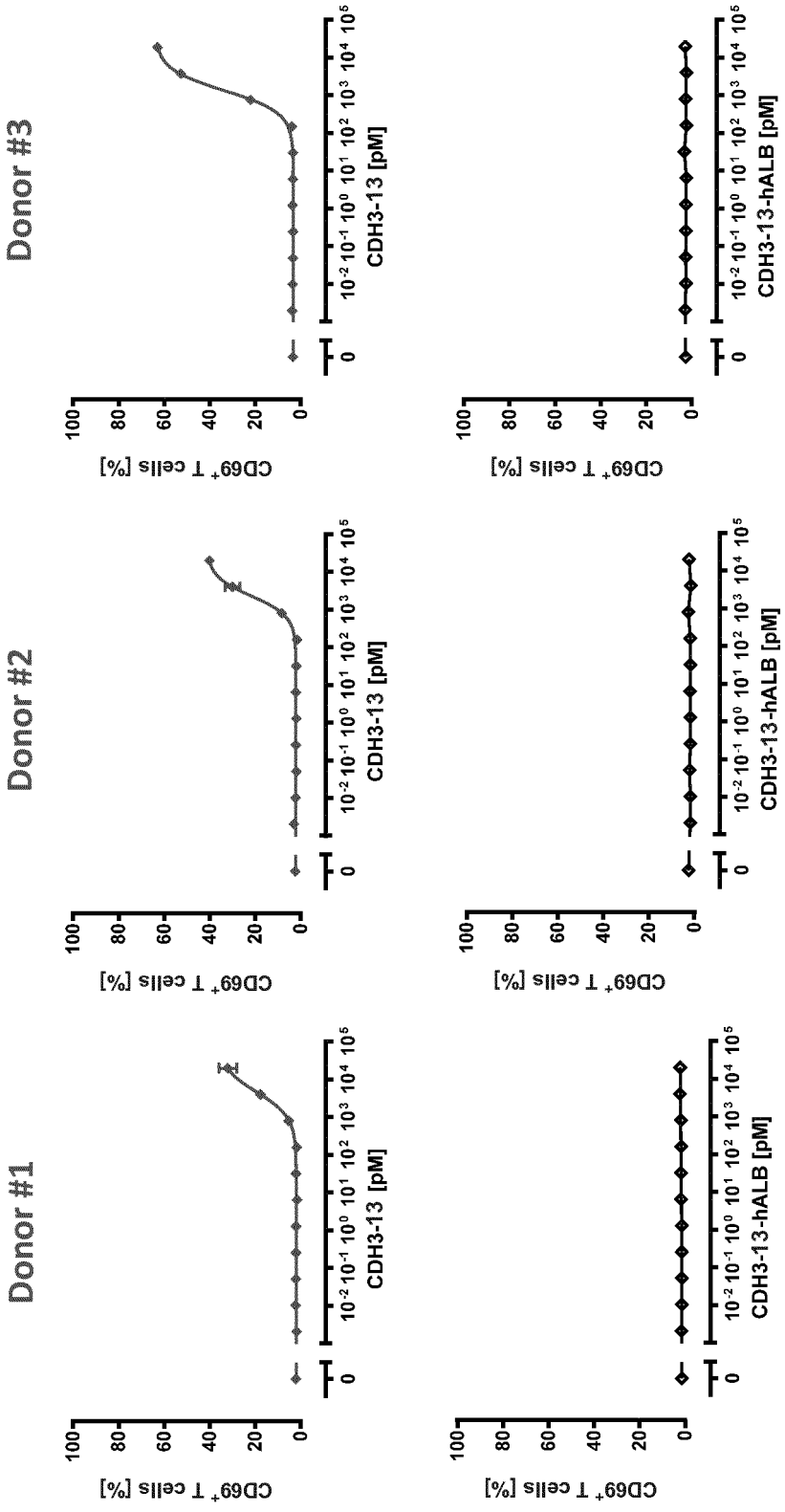


Figure 13