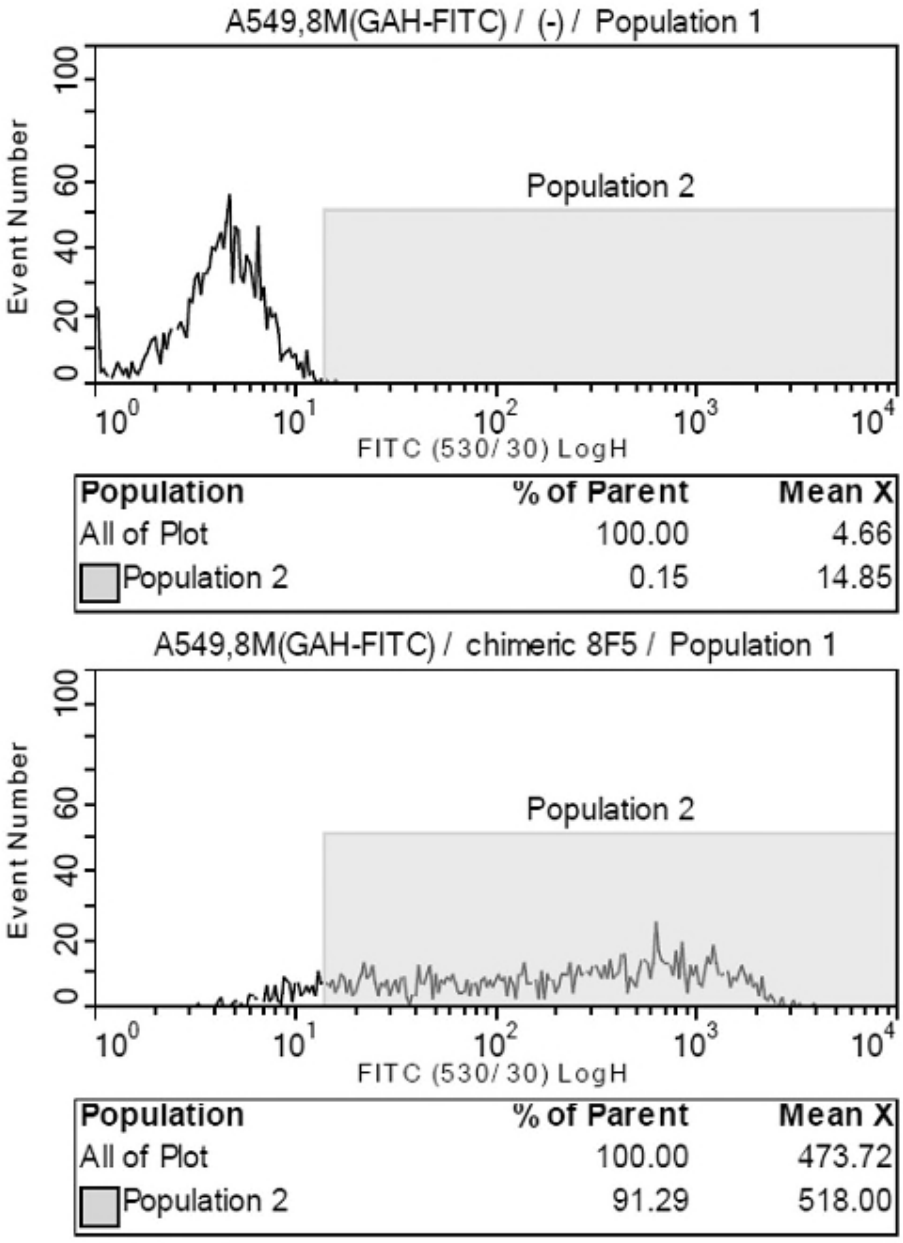
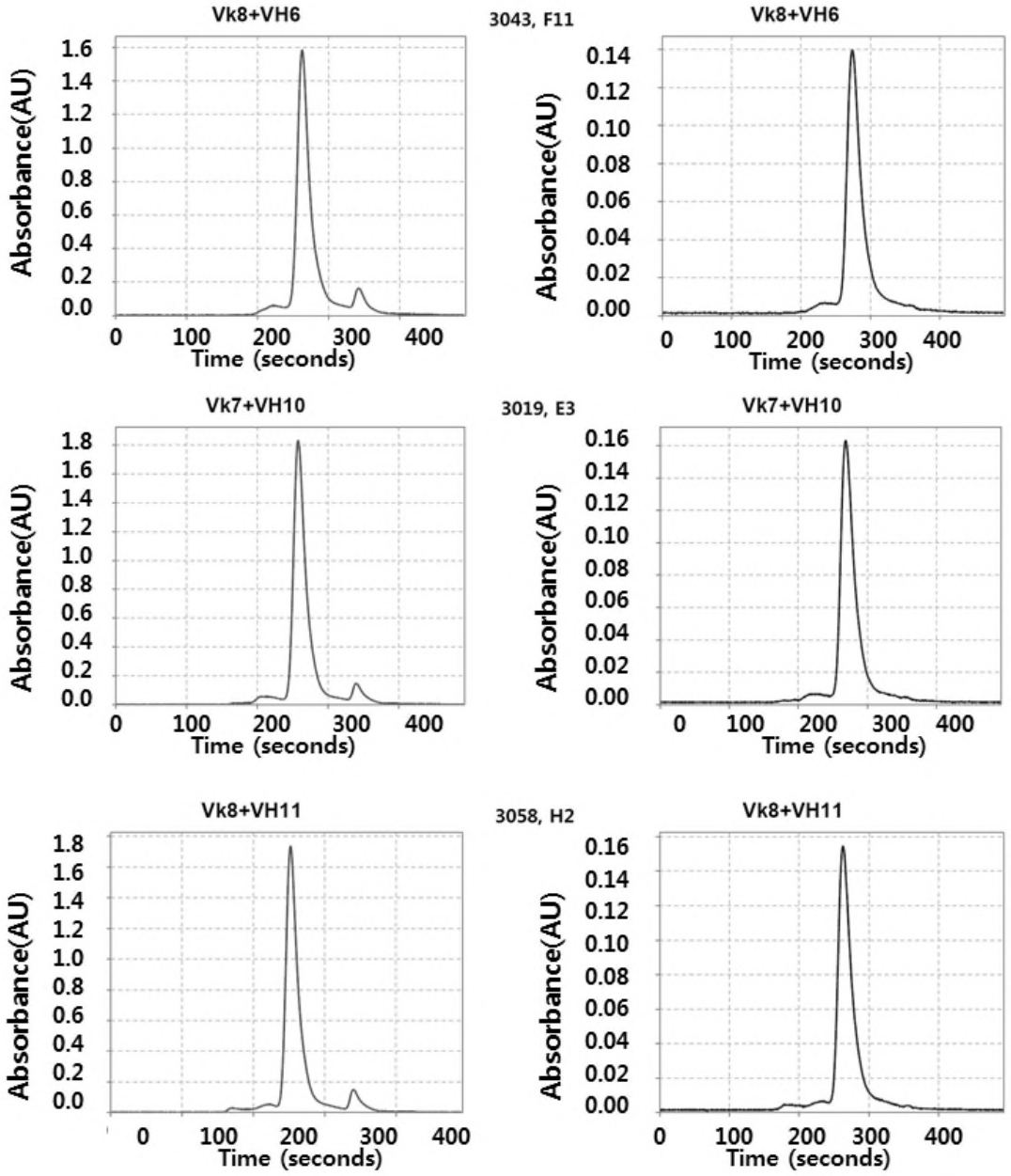
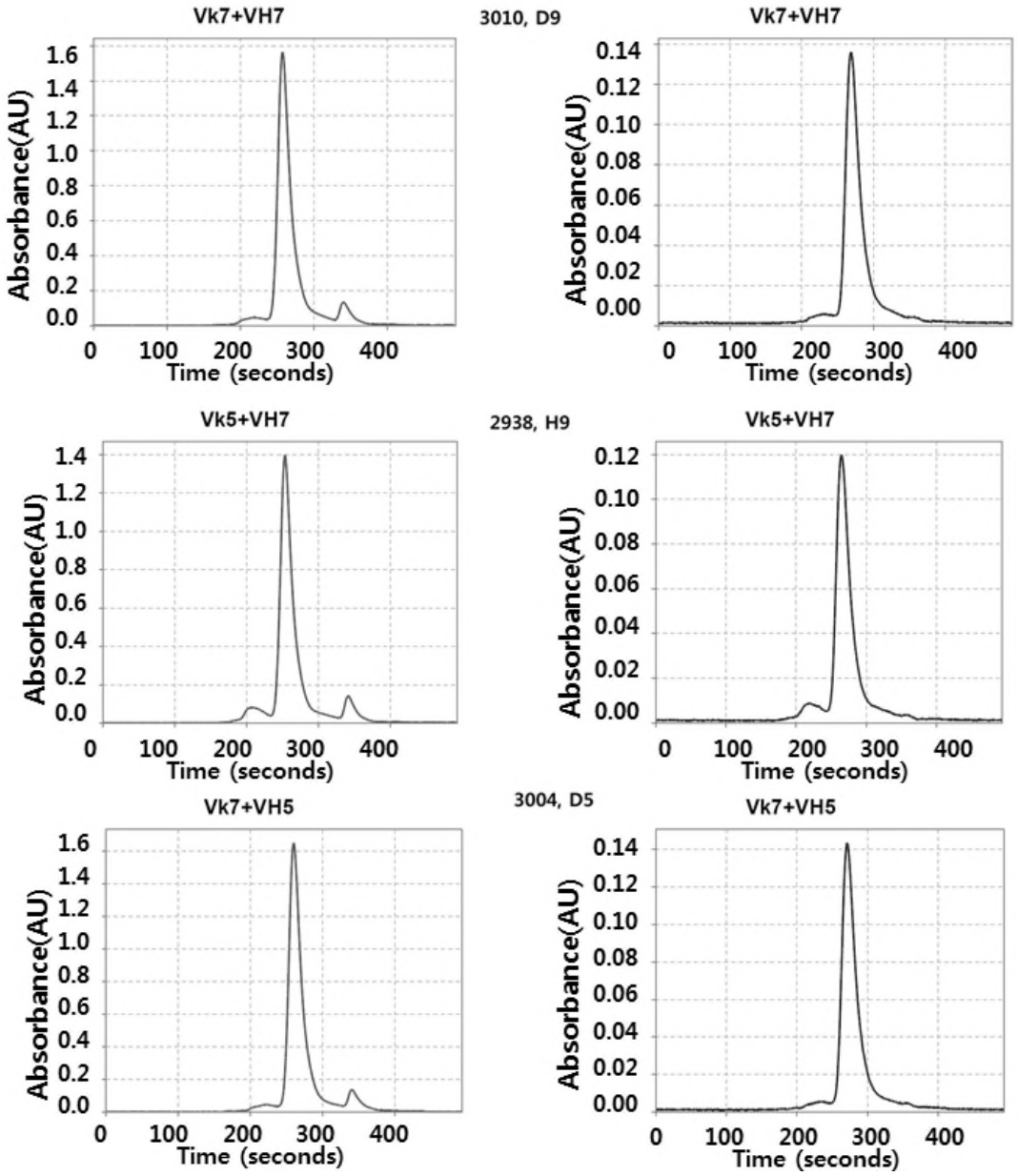
【FIG. 1】


A549,8M(GAH-FITC) / (-) / Population 1
Event Number
0
20
40
60
100
Population 2
10^0
10^1
10^2
10^3
10^4
FITC (530/30) LogH
Population | % of Parent | Mean X
All of Plot | 100.00 | 4.66
Population 2 | 0.15 | 14.85
A549,8M(GAH-FITC) / chimeric 8F5 / Population 1
Event Number
0
20
40
60
100
Population 2
10^0
10^1
10^2
10^3
10^4
FITC (530/30) LogH
Population | % of Parent | Mean X
All of Plot | 100.00 | 473.72
Population 2 | 91.29 | 518.00

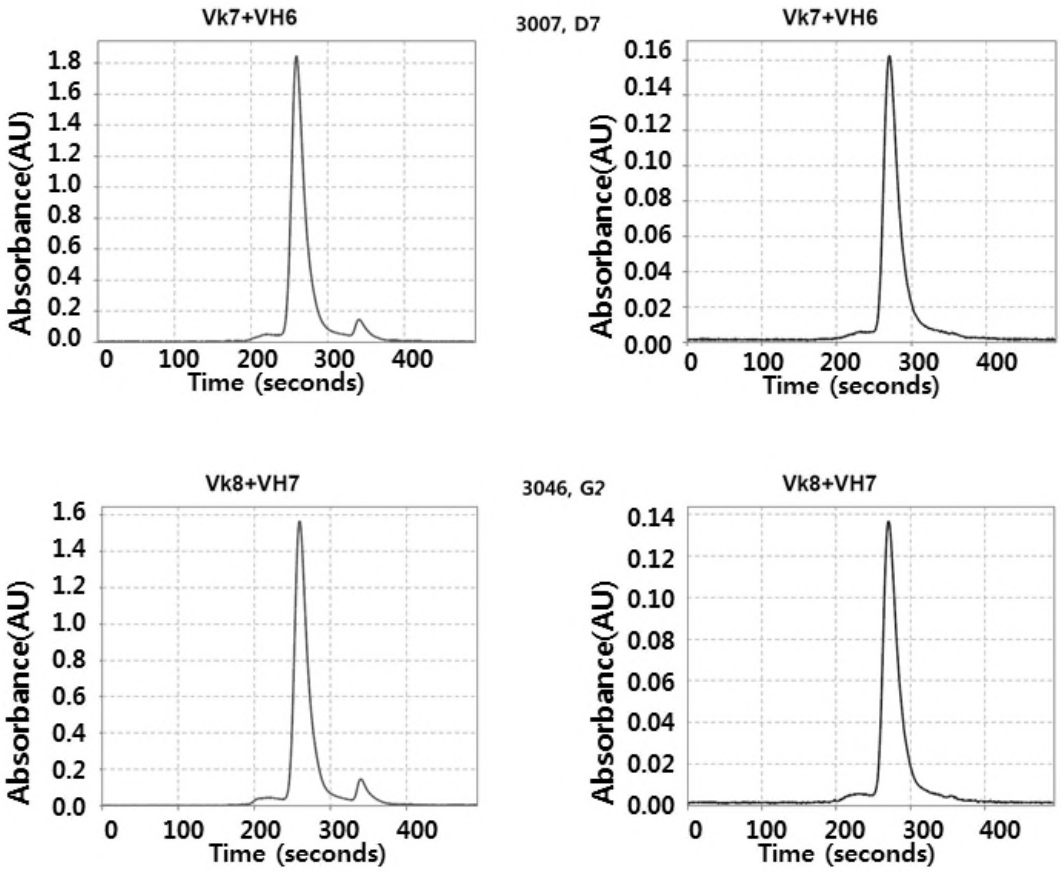
【FIG. 2a】


Vk8+VH6
Absorbance(AU)
Time (seconds)
3043, F11
Vk8+VH6
Absorbance(AU)
Time (seconds)
Vk7+VH10
Absorbance(AU)
Time (seconds)
3019, E3
Vk7+VH10
Absorbance(AU)
Time (seconds)
Vk8+VH11
Absorbance(AU)
Time (seconds)
3058, H2
Vk8+VH11
Absorbance(AU)
Time (seconds)

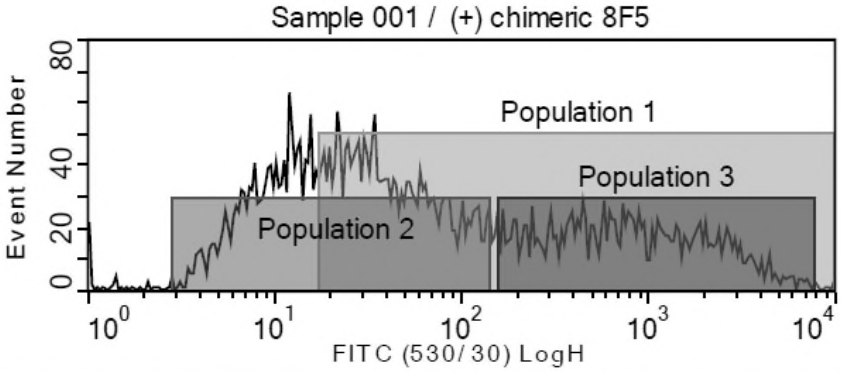
【FIG. 2b】


Vk7+VH7
3010, D9
Vk7+VH7
Vk5+VH7
2938, H9
Vk5+VH7
Vk7+VH5
3004, D5
Vk7+VH5
Absorbance(AU)
Time (seconds)

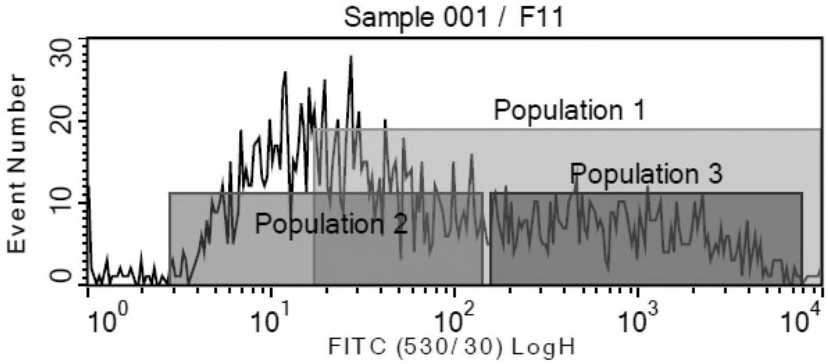
【FIG. 2c】


Vk7+VH6
Absorbance(AU)
Time (seconds)
3007, D7
Vk7+VH6
Absorbance(AU)
Time (seconds)
Vk8+VH7
Absorbance(AU)
Time (seconds)
3046, G2
Vk8+VH7
Absorbance(AU)
Time (seconds)

【FIG. 3a】

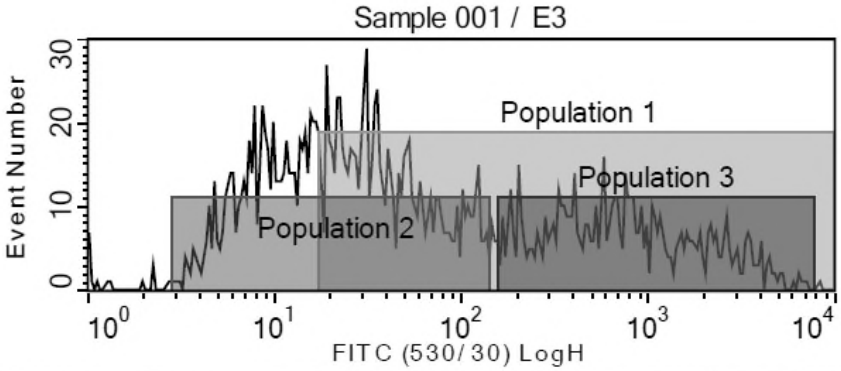


Population	% of Par...	Mean X	Med X
All of Plot	100.00	455.64	48.74
Population 1	73.10	619.74	120.16
Population 2	64.42	34.31	22.39
Population 3	33.48	1256.91	752.11

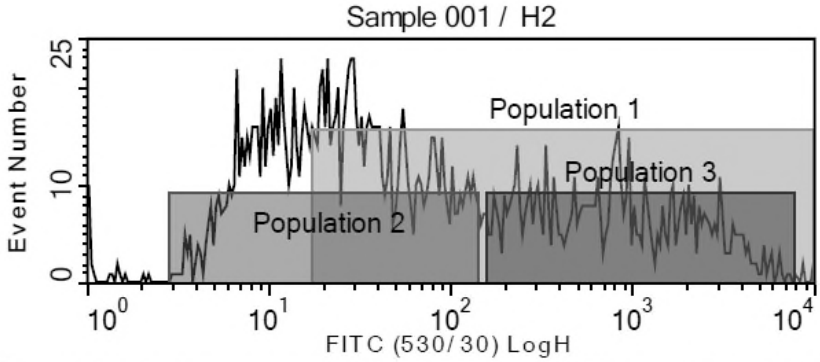


Population	% of Par...	Mean X	Med X
All of Plot	100.00	481.96	43.95
Population 1	69.80	686.41	140.91
Population 2	63.30	32.46	19.69
Population 3	33.65	1272.50	747.37

【FIG. 3b】

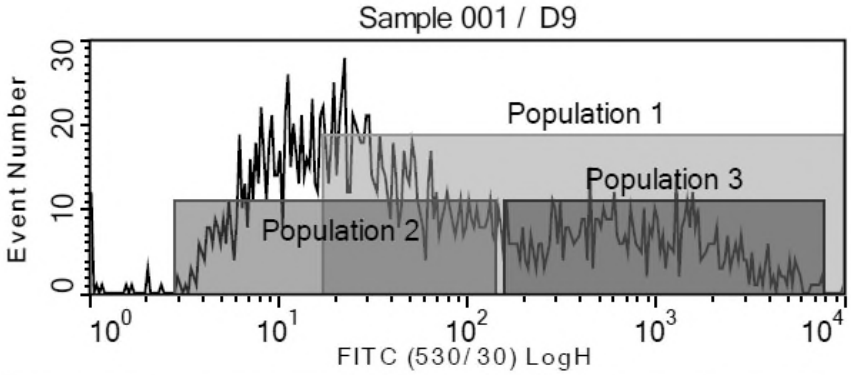


Population	% of Par...	Mean X	Med X
All of Plot	100.00	400.68	40.58
Population 1	70.80	561.98	113.44
Population 2	66.15	32.18	21.12
Population 3	32.10	1164.73	690.03

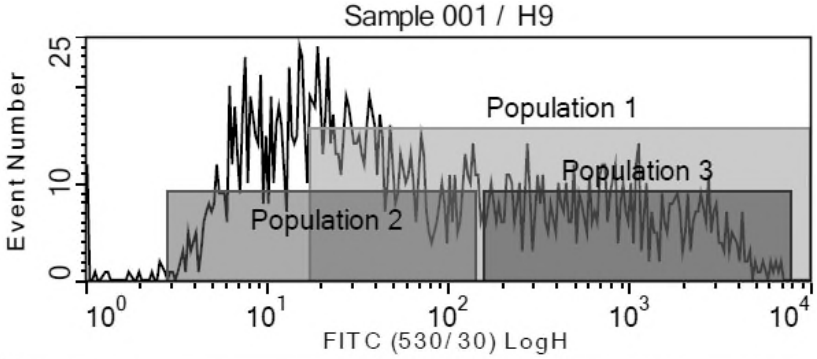


Population	% of Par...	Mean X	Med X
All of Plot	100.00	471.78	46.89
Population 1	72.65	645.83	125.53
Population 2	64.15	34.17	21.73
Population 3	33.55	1269.36	787.37

【FIG. 3c】

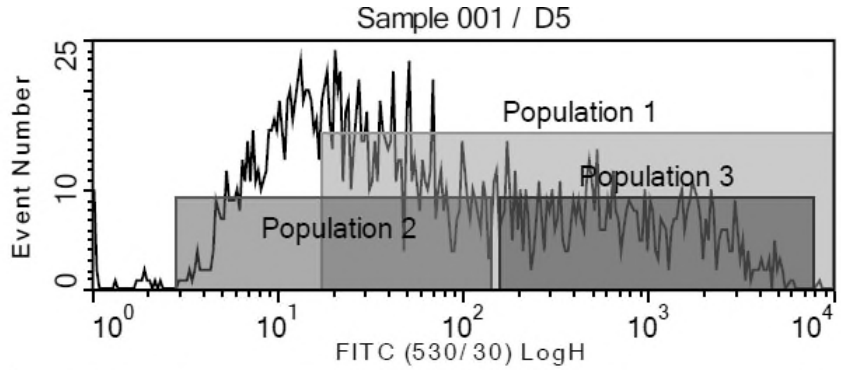


Population	% of Par...	Mean X	Med X
All of Plot	100.00	393.87	39.86
Population 1	70.55	554.33	103.74
Population 2	67.25	32.63	20.98
Population 3	30.45	1198.89	733.32

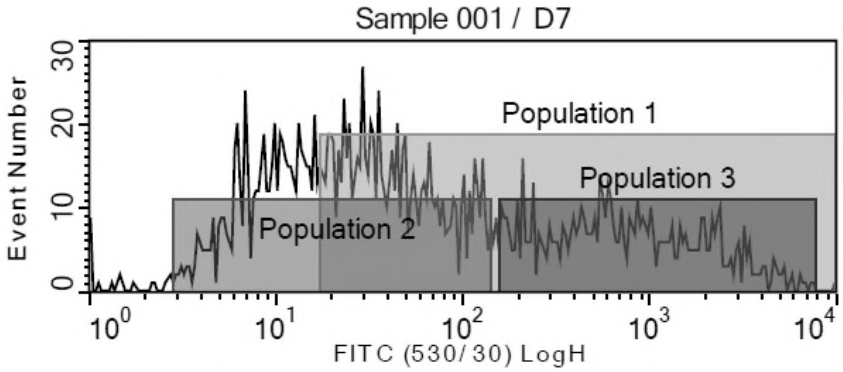


Population	% of Par...	Mean X	Med X
All of Plot	100.00	439.73	47.18
Population 1	71.45	611.67	138.96
Population 2	63.65	33.50	20.44
Population 3	34.15	1220.18	731.98

【FIG. 3d】

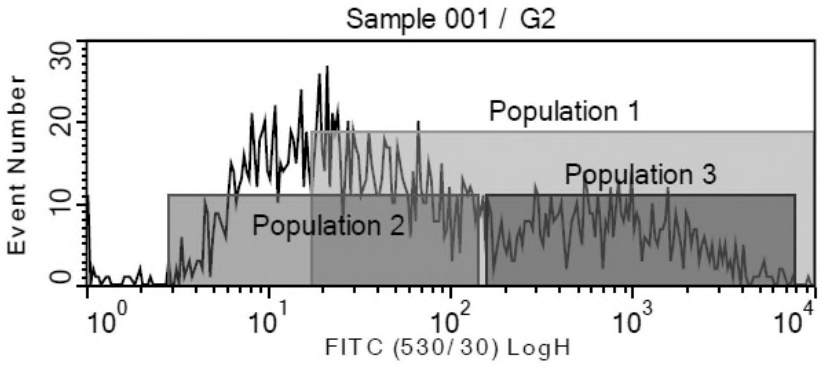


Population	% of Par...	Mean X	Med X
All of Plot	100.00	388.43	44.83
Population 1	71.20	541.61	115.45
Population 2	65.40	33.00	20.80
Population 3	32.15	1122.02	666.86



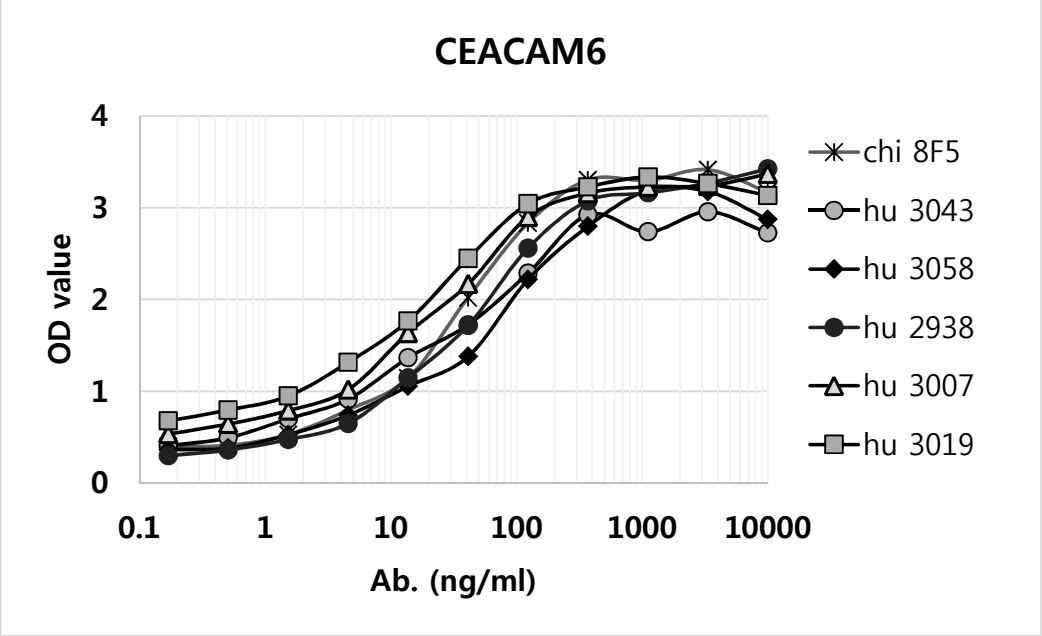
Population	% of Par...	Mean X	Med X
All of Plot	100.00	407.53	44.69
Population 1	71.55	565.88	116.80
Population 2	66.10	34.35	22.60
Population 3	31.90	1186.45	707.71

【FIG. 3e】

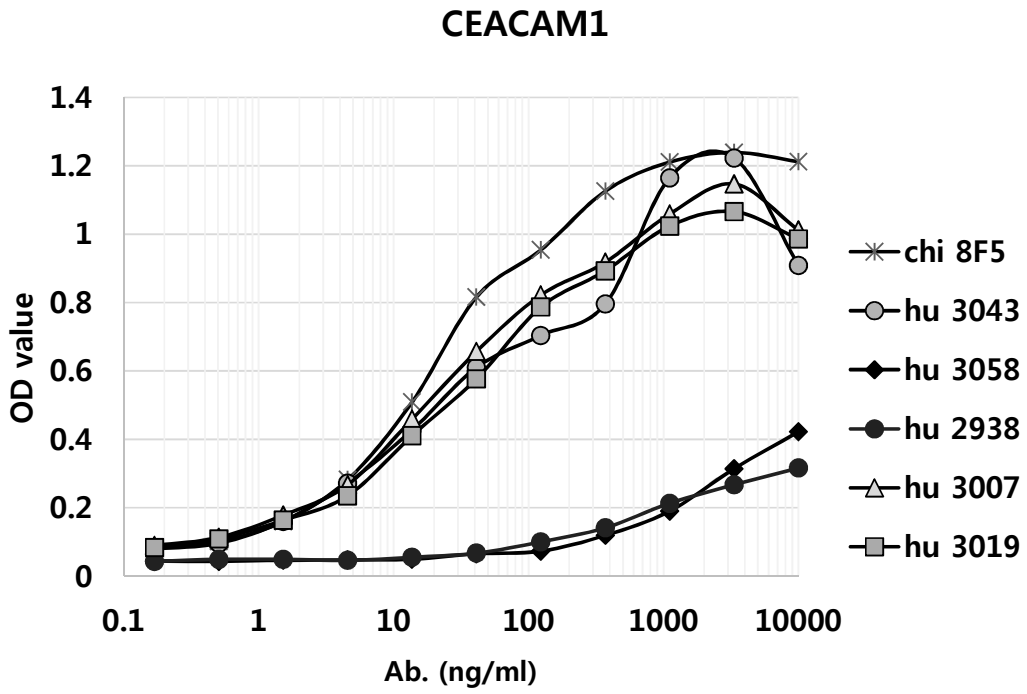


Population	% of Par...	Mean X	Med X
All of Plot	100.00	375.04	43.92
Population 1	71.10	523.64	110.33
Population 2	66.70	34.37	21.21
Population 3	30.90	1119.24	730.14

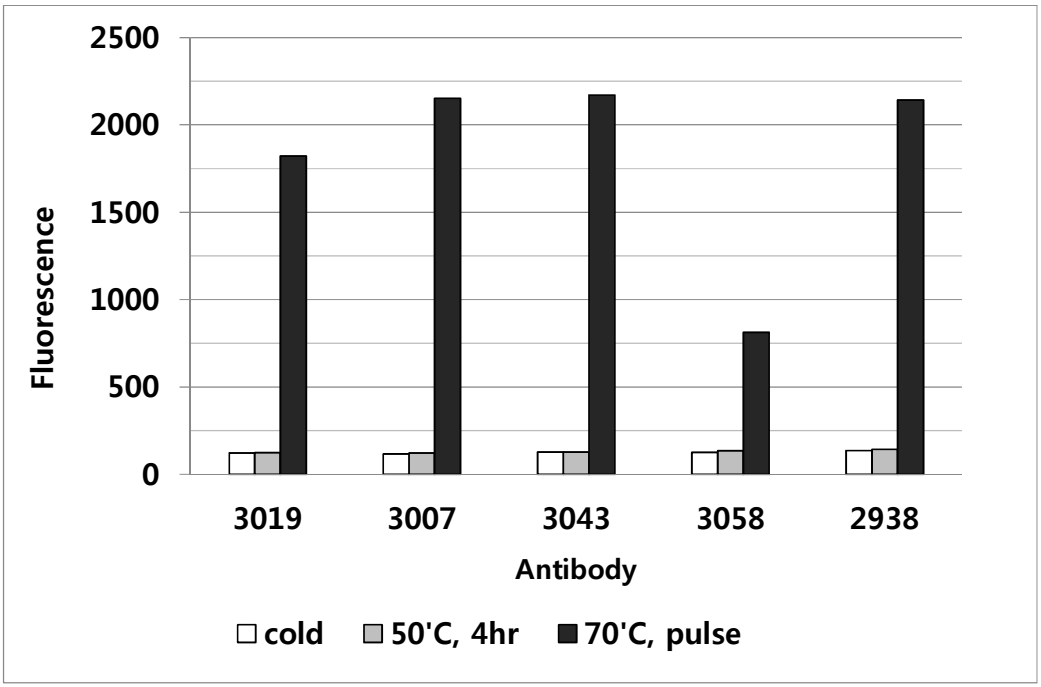
【FIG. 4a】


CEACAM6
OD value
4
3
2
1
0
0.1
1
10
100
1000
10000
Ab. (ng/ml)
chi 8F5
hu 3043
hu 3058
hu 2938
hu 3007
hu 3019

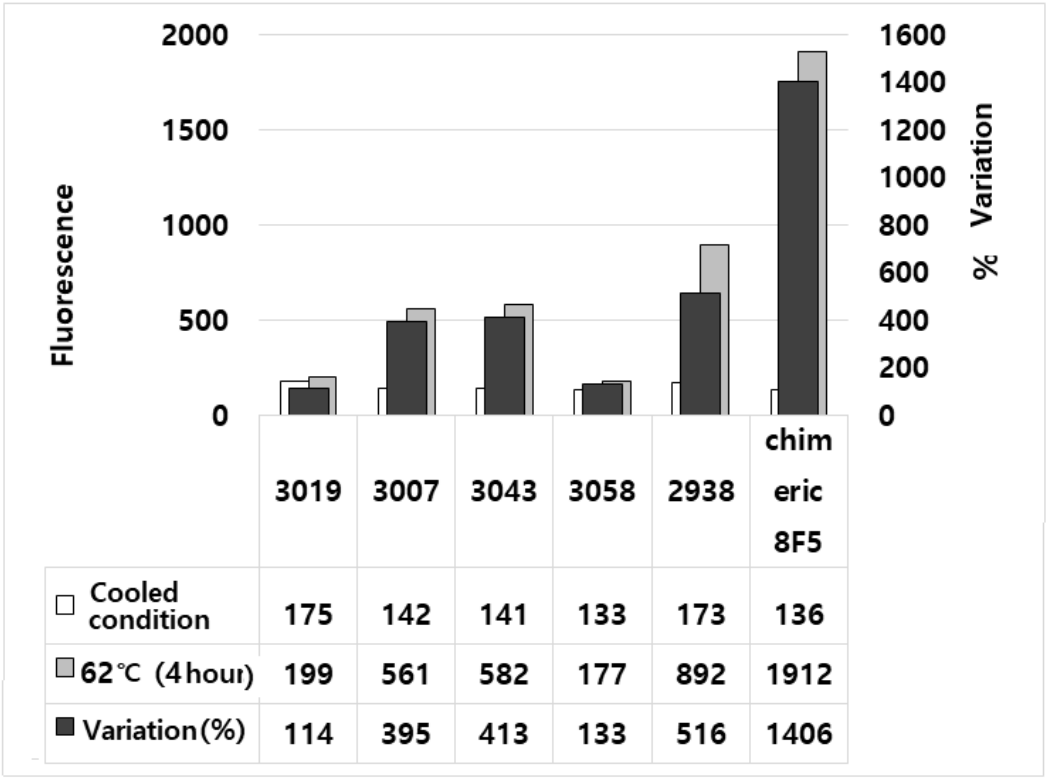
【FIG. 4b】


CEACAM1
OD value
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.1
1
10
100
1000
10000
Ab. (ng/ml)
chi 8F5
hu 3043
hu 3058
hu 2938
hu 3007
hu 3019

【FIG. 5a】

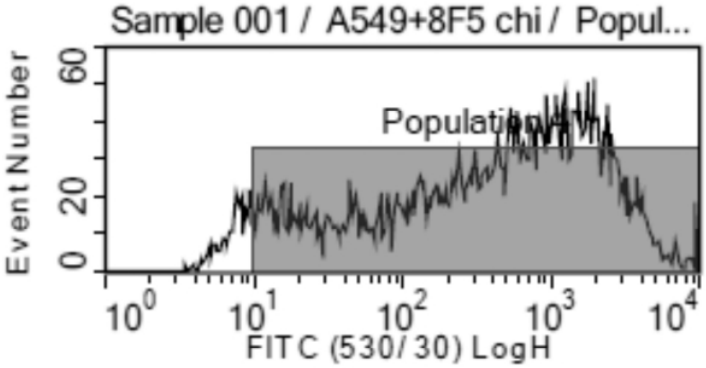


【FIG. 5b】



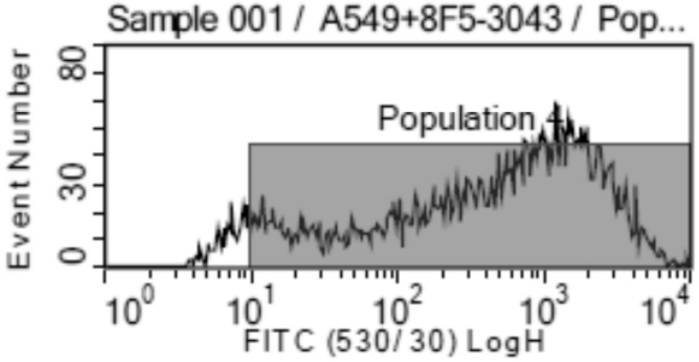
	3019	3007	3043	3058	2938	chimeric 8F5
Cooled condition	175	142	141	133	173	136
62℃ (4hour)	199	561	582	177	892	1912
Variation(%)	114	395	413	133	516	1406

【FIG. 6a】



Tube name: A549+8F5 chi
Total Events: 4387

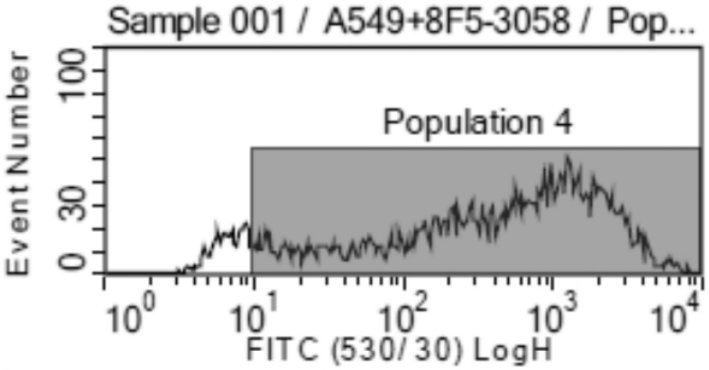
Population	% of Par...	Mean X
All of Plot	100.00	1003.20
Population 4	95.03	1055.29



Tube name: A549+8F5-3043
Total Events: 4606

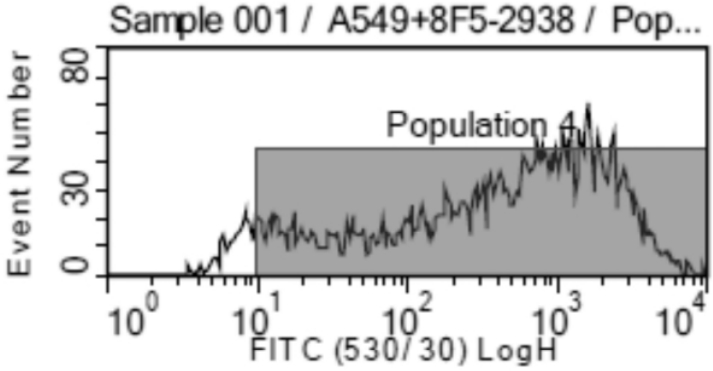
Population	% of Par...	Mean X
All of Plot	100.00	1010.37
Population 4	94.49	1068.94

【FIG. 6b】



Tube name: A549+8F5-3058
Total Events: 4108

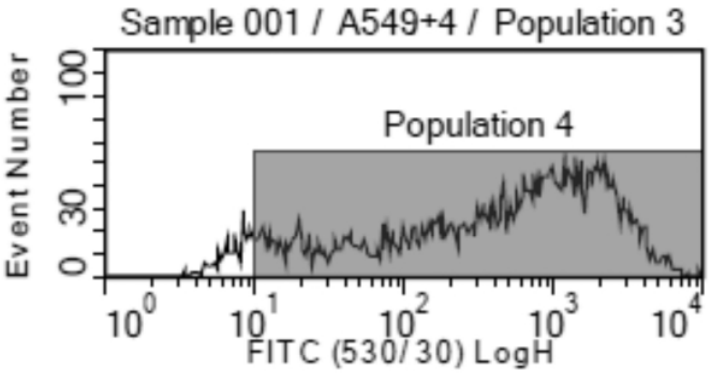
Population	% of Par...	Mean X
All of Plot	100.00	936.15
Population 4	91.38	1023.80



Tube name: A549+8F5-2938
Total Events: 4610

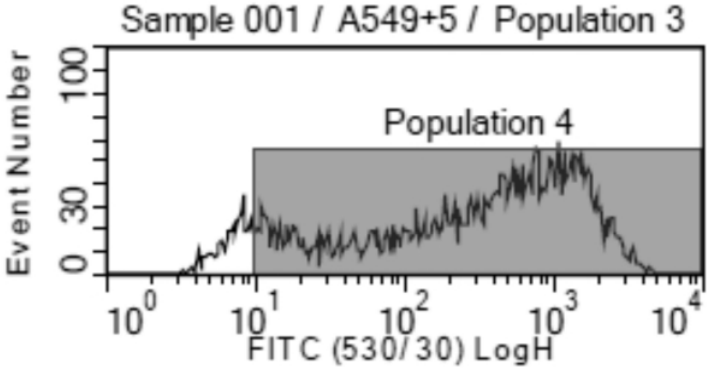
Population	% of Par...	Mean X
All of Plot	100.00	969.18
Population 4	94.40	1026.23

【FIG. 6c】



Tube name: A549+4
Total Events: 4597
Ab: 3007

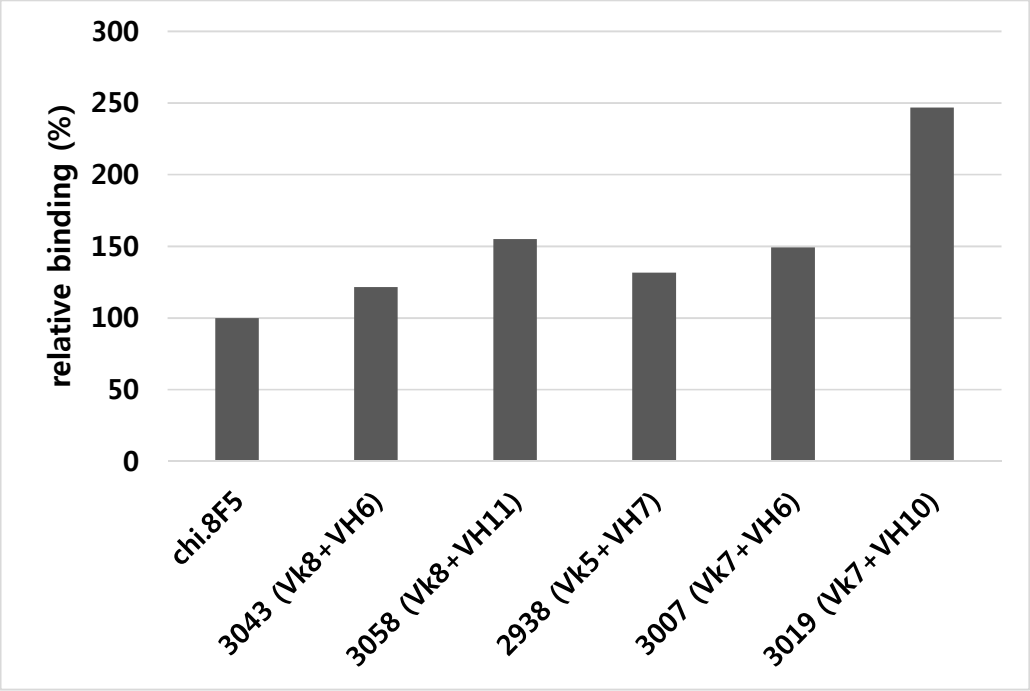
Population	% of Par...	Mean X
All of Plot	100.00	1000.71
Population 4	94.37	1060.04



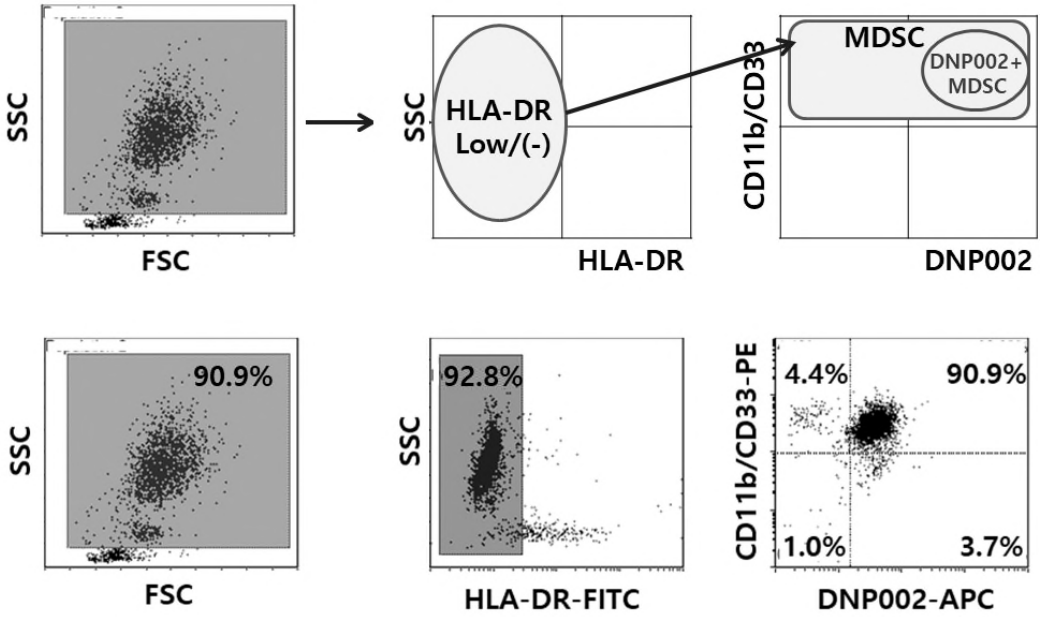
Tube name: A549+5
Total Events: 4576
Ab: 3019

Population	% of Par...	Mean X
All of Plot	100.00	657.05
Population 4	91.70	715.93

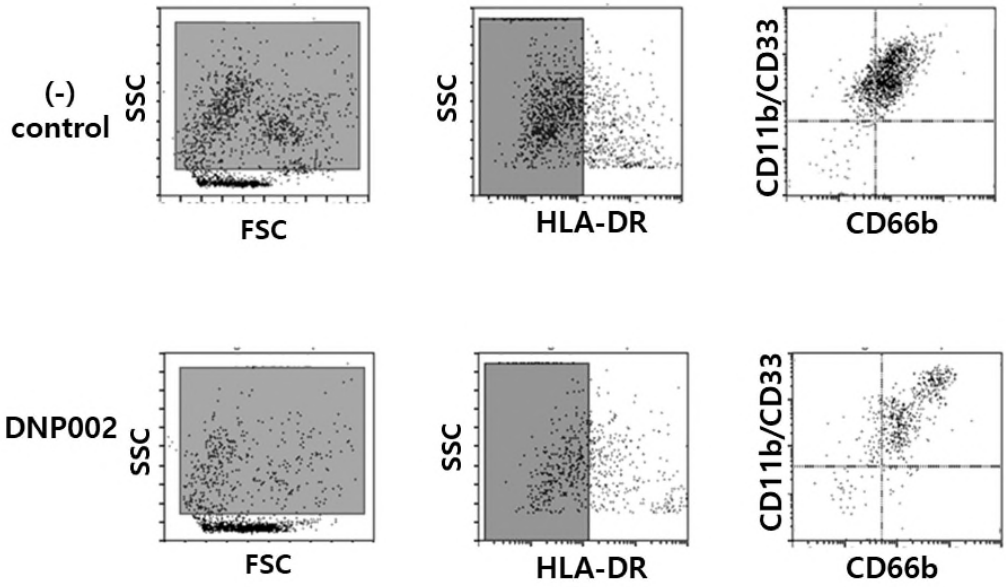
【FIG. 6d】


relative binding (%)
300
250
200
150
100
50
0
chi.8F5
3043 (Vk8+VH6)
3058 (Vk8+VH11)
2938 (Vk5+VH7)
3007 (Vk7+VH6)
3019 (Vk7+VH10)

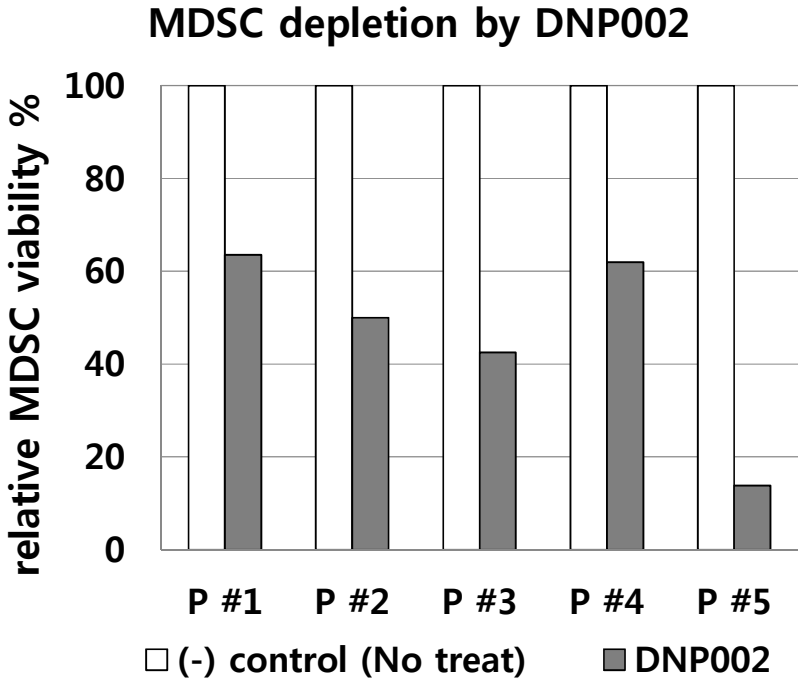
【FIG. 7】


SSC
FSC
HLA-DR Low/(-)
SSC
HLA-DR
MDSC
DNP002+ MDSC
CD11b/CD33
DNP002
90.9%
SSC
FSC
92.8%
SSC
HLA-DR-FITC
4.4%
90.9%
1.0%
3.7%
CD11b/CD33-PE
DNP002-APC

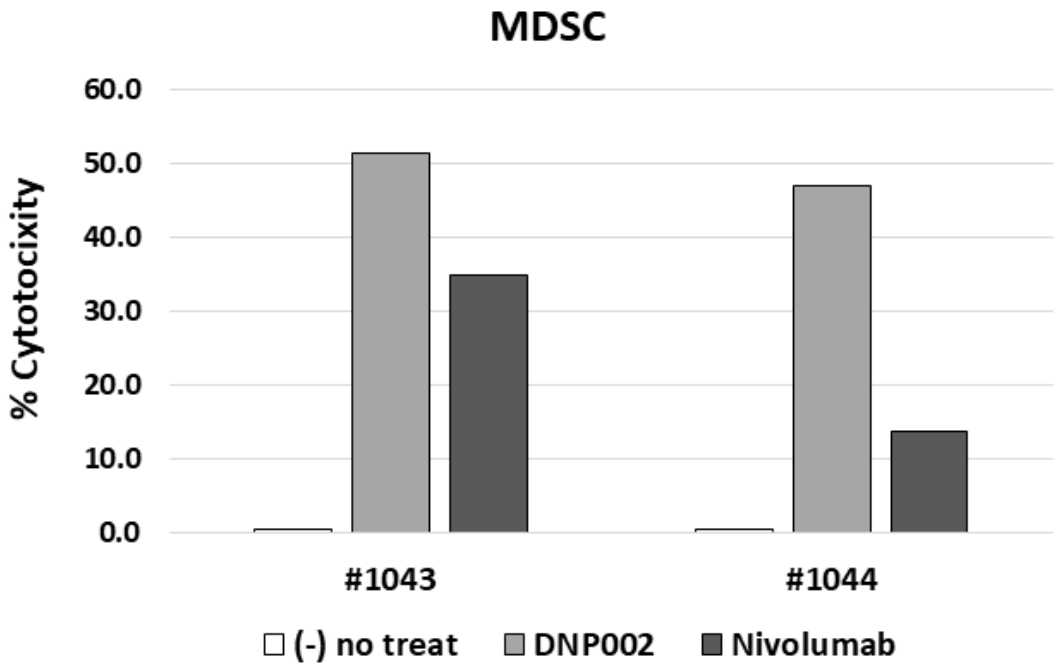
【FIG. 8】


(-) control
SSC
FSC
SSC
HLA-DR
CD11b/CD33
CD66b
DNP002
SSC
FSC
SSC
HLA-DR
CD11b/CD33
CD66b

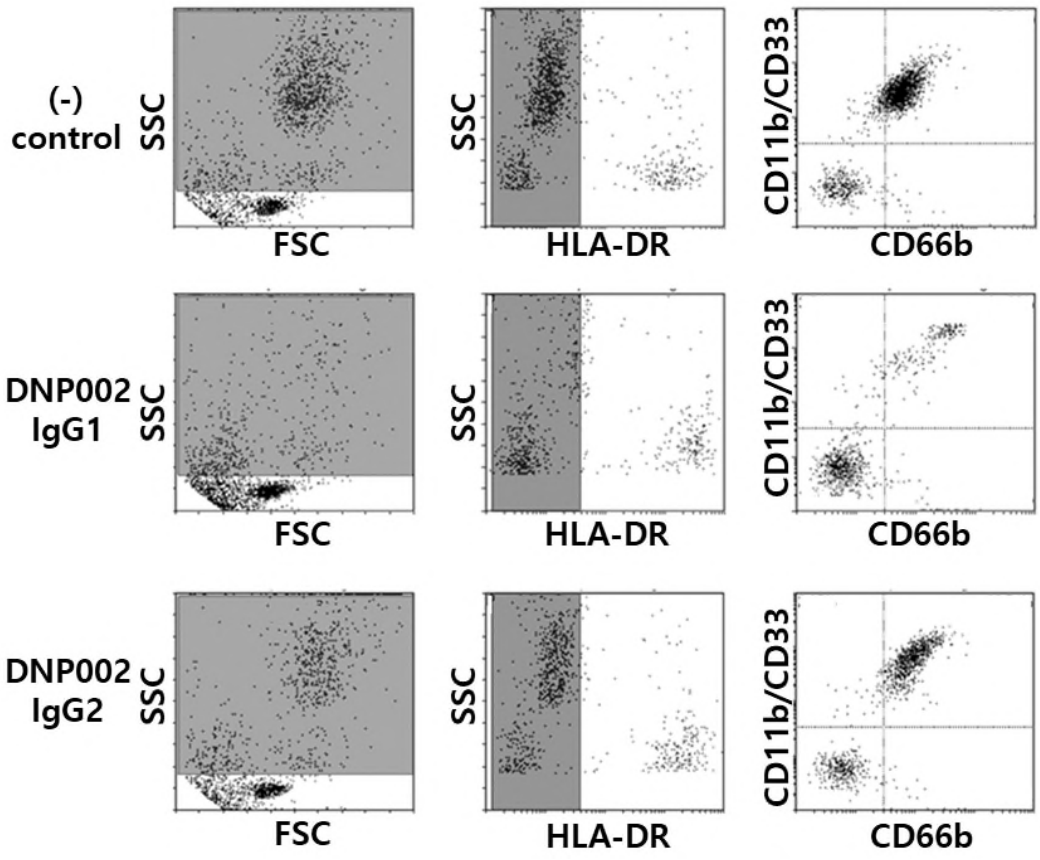
【FIG. 9】


MDSC depletion by DNP002
relative MDSC viability %
100
80
60
40
20
0
P #1
P #2
P #3
P #4
P #5
(-) control (No treat)
DNP002

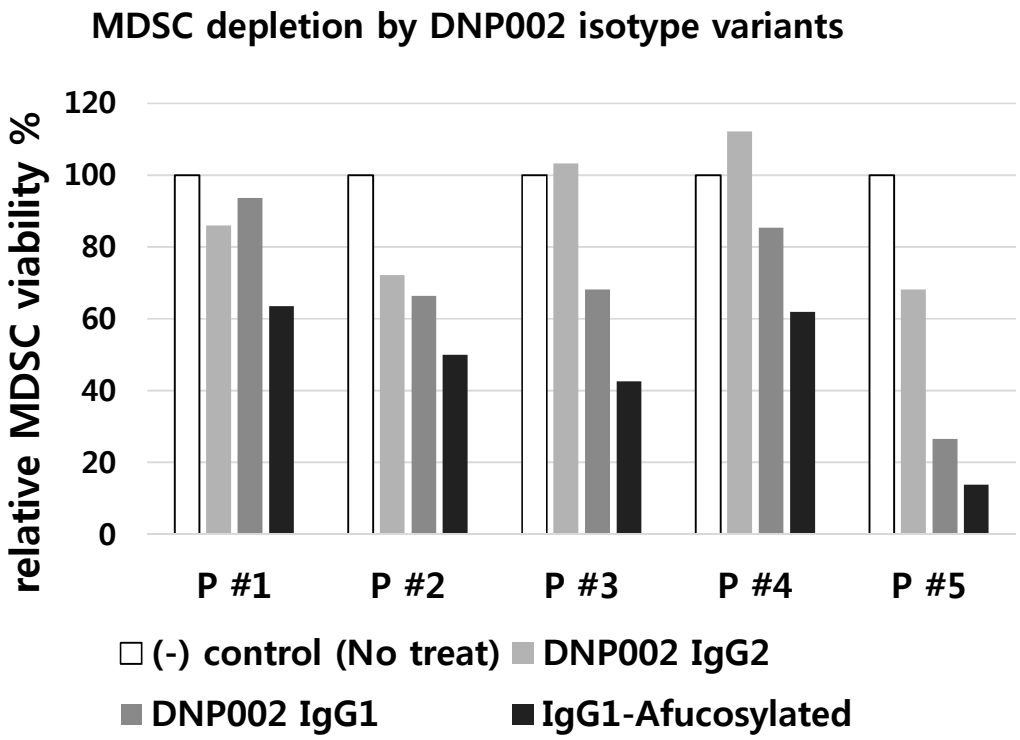
【FIG. 10】


MDSC
% Cytotocixity
60.0
50.0
40.0
30.0
20.0
10.0
0.0
#1043
#1044
(-) no treat
DNP002
Nivolumab

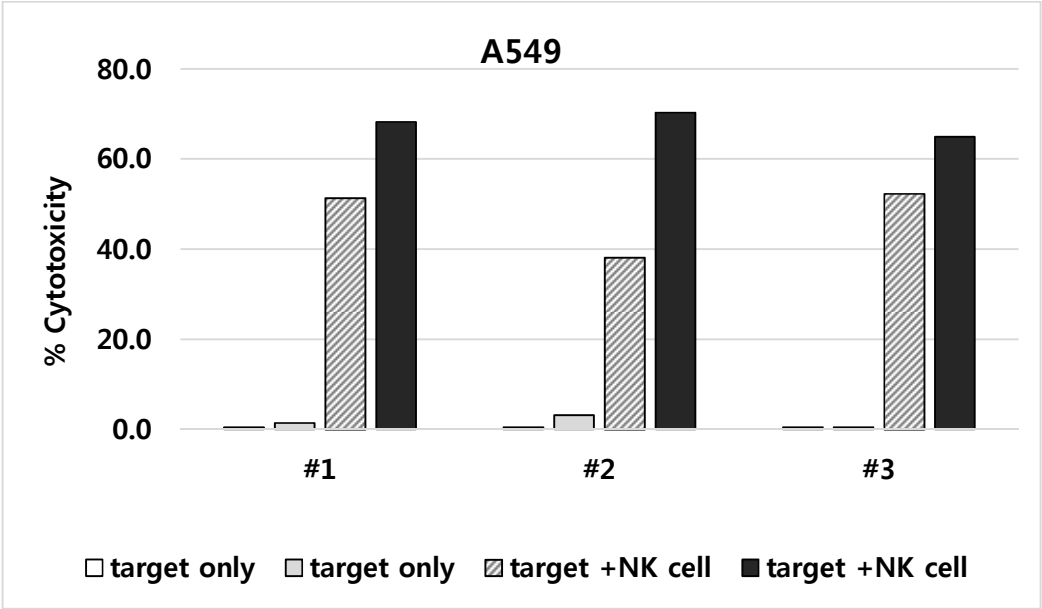
【FIG. 11a】


(-) control
DNP002 IgG1
DNP002 IgG2
SSC
FSC
HLA-DR
CD11b/CD33
CD66b

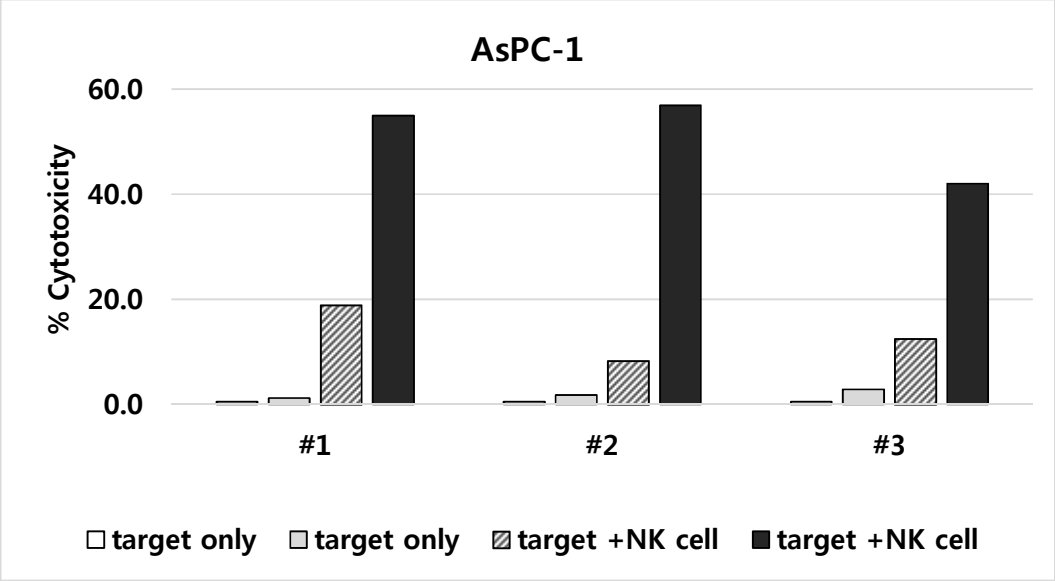
【FIG. 11b】



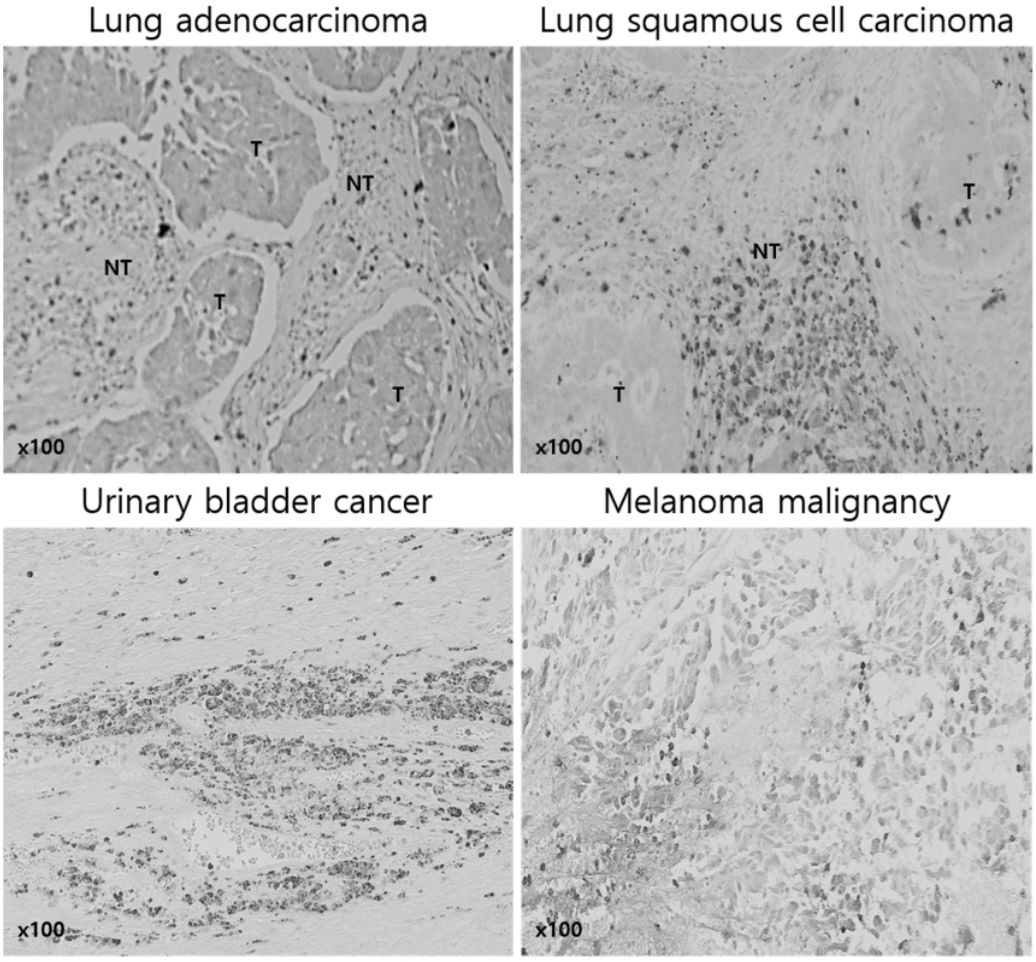
【FIG. 12a】



【FIG. 12b】


AsPC-1
60.0
40.0
20.0
0.0
% Cytotoxicity
#1
#2
#3
target only
target only
target +NK cell
target +NK cell

【FIG. 13】



* T : tumor region, NT : no tumor region.