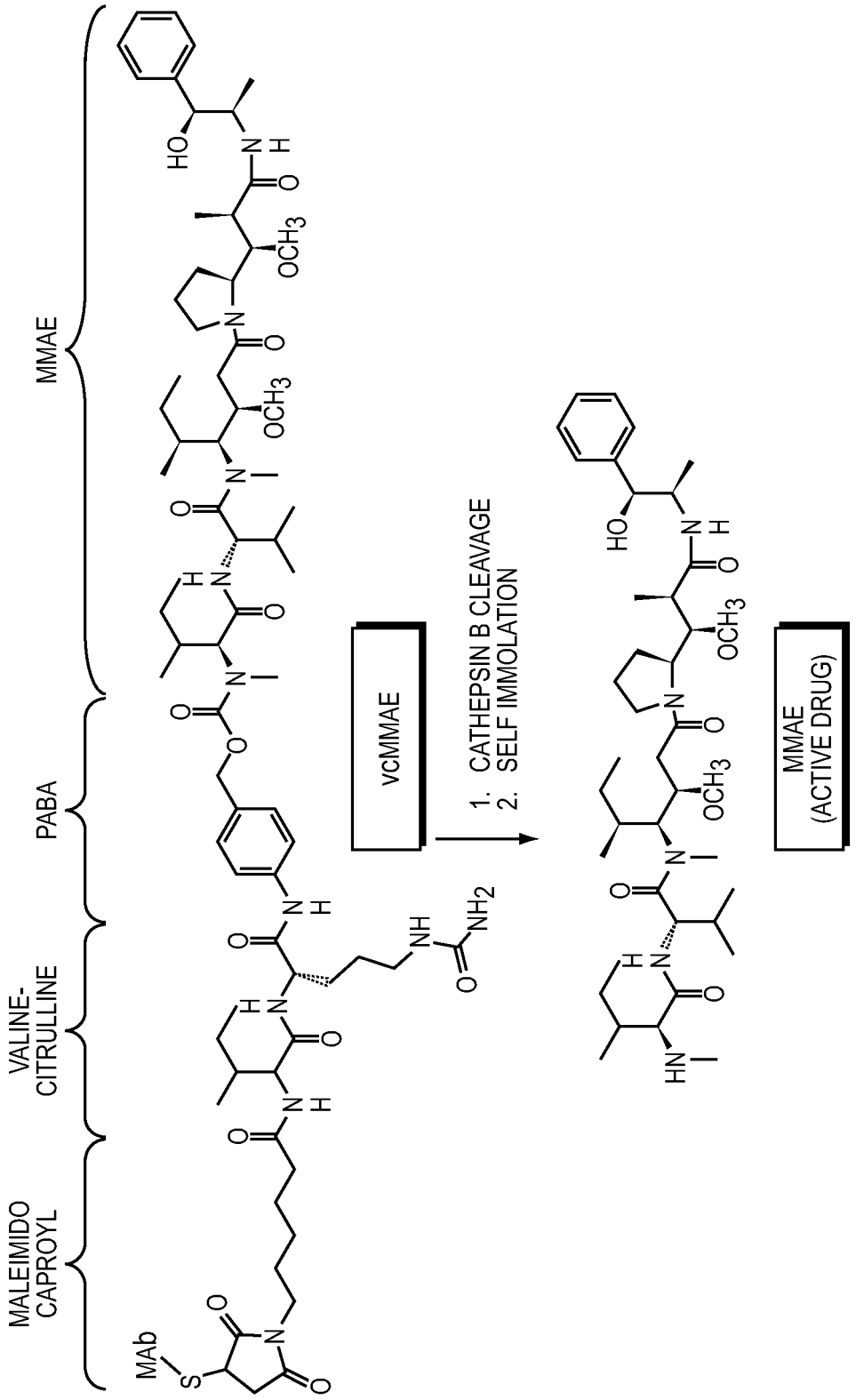

MALEIMIDO CAPROYL
VALINE-CITRULLINE
PABA
MMAE
MAb
vcMMAE
1. CATHEPSIN B CLEAVAGE
2. SELF IMMOLATION
MMAE (ACTIVE DRUG)

FIG. 1

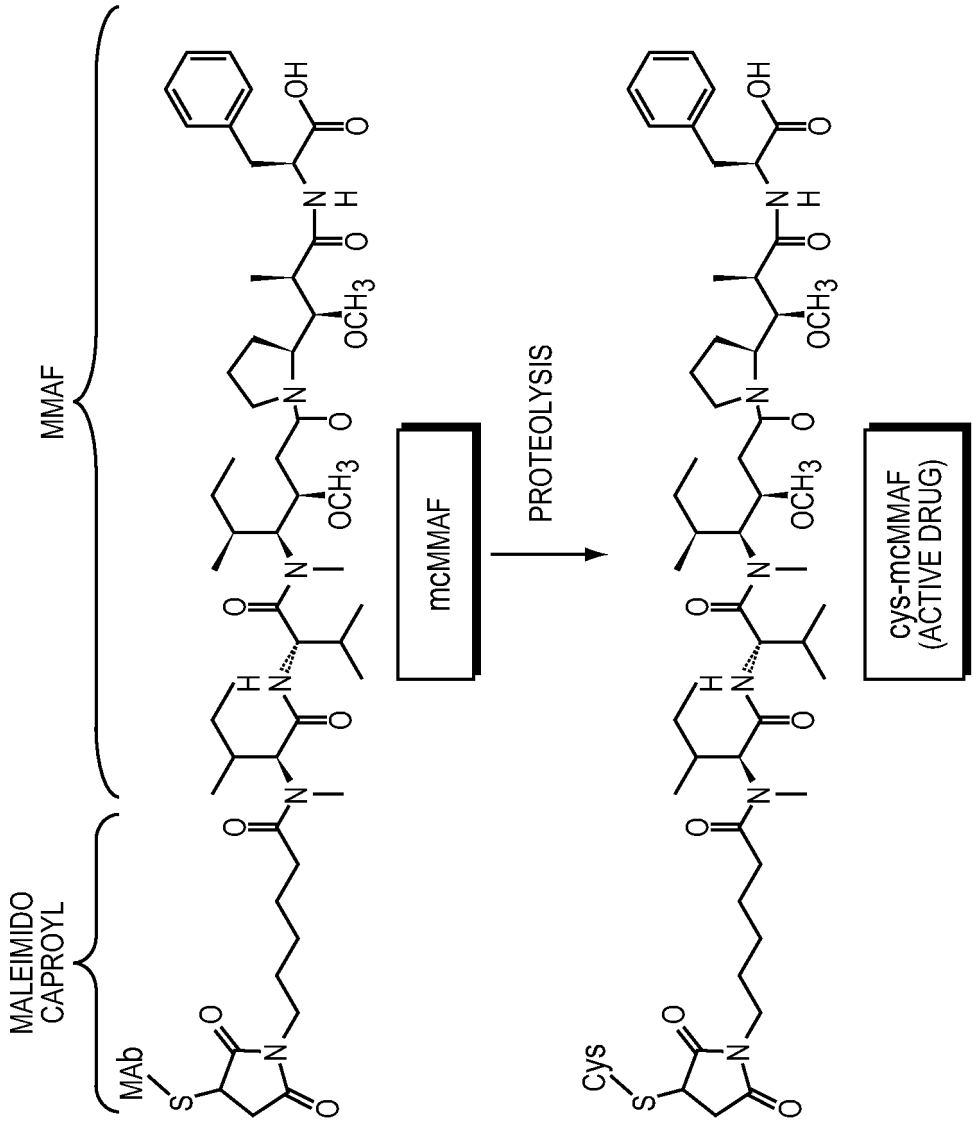

MALEIMIDO CAPROYL
MMAF
MAb
mcMMAF
PROTEOLYSIS
Cys
cys-mcMMAF (ACTIVE DRUG)

FIG. 2

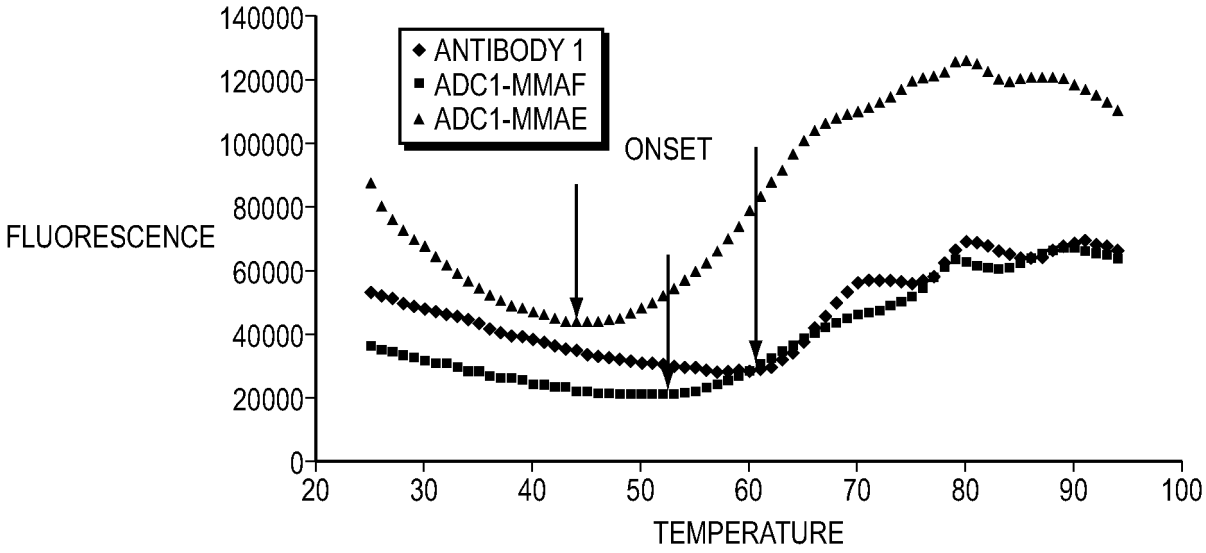

140000
120000
100000
80000
60000
40000
20000
0
FLUORESCENCE
ANTIBODY 1
ADC1-MMAF
ADC1-MMAE
ONSET
20
30
40
50
60
70
80
90
100
TEMPERATURE

FIG. 3A

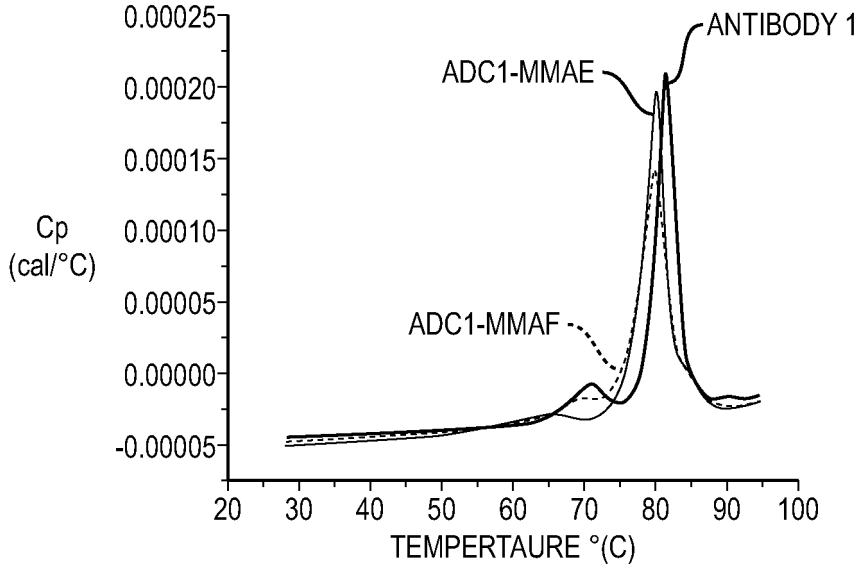
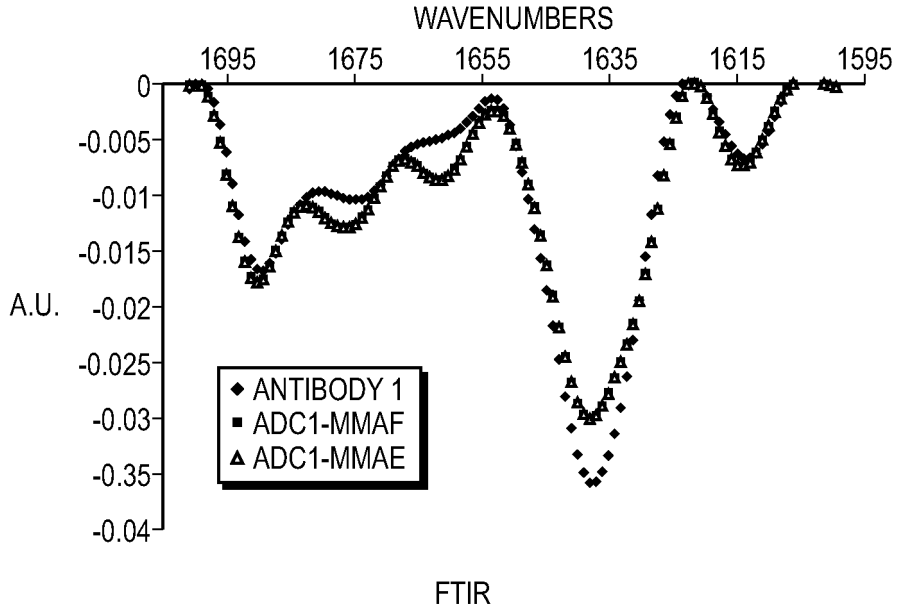
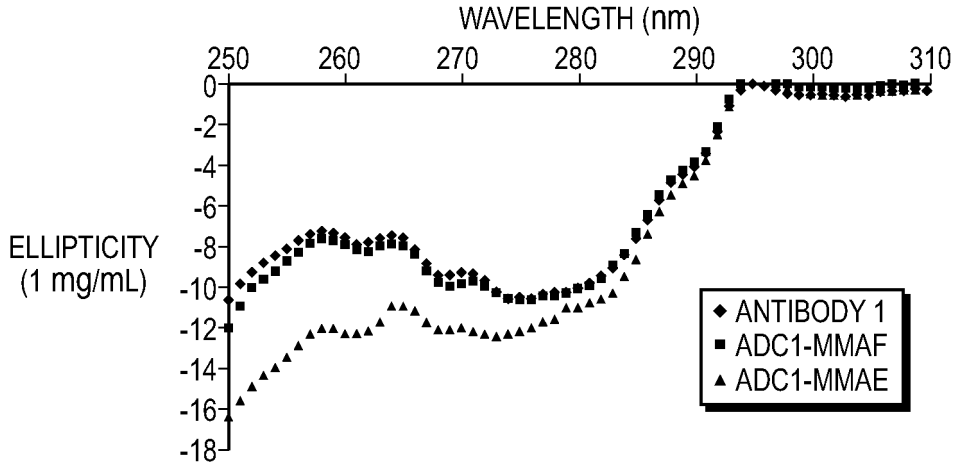

0.00025
0.00020
0.00015
0.00010
0.00005
0.00000
-0.00005
Cp
(cal/°C)
ANTIBODY 1
ADC1-MMAE
ADC1-MMAF
20
30
40
50
60
70
80
90
100
TEMPERTAURE °(C)

FIG. 3B



FTIR

FIG. 4A



NEAR UV CD

FIG. 4B

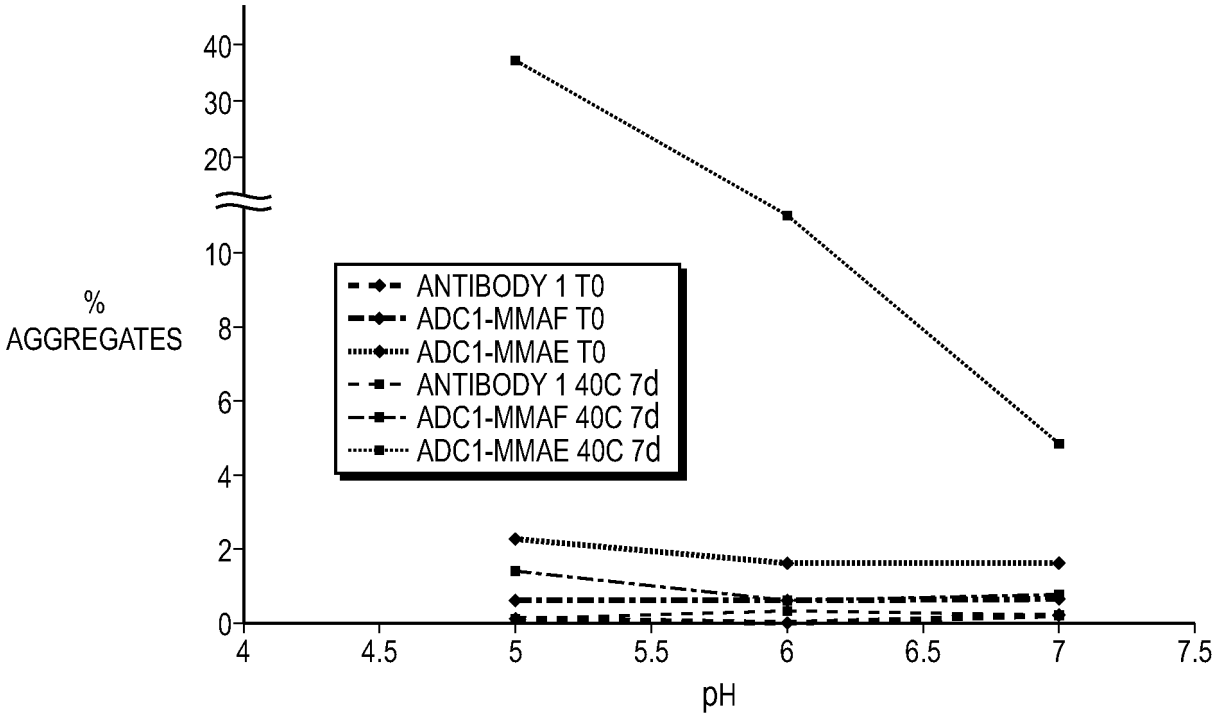

%
AGGREGATES
40
30
20
10
8
6
4
2
0
4
4.5
5
5.5
6
6.5
7
7.5
pH
ANTIBODY 1 T0
ADC1-MMAF T0
ADC1-MMAE T0
ANTIBODY 1 40C 7d
ADC1-MMAF 40C 7d
ADC1-MMAE 40C 7d

FIG. 5

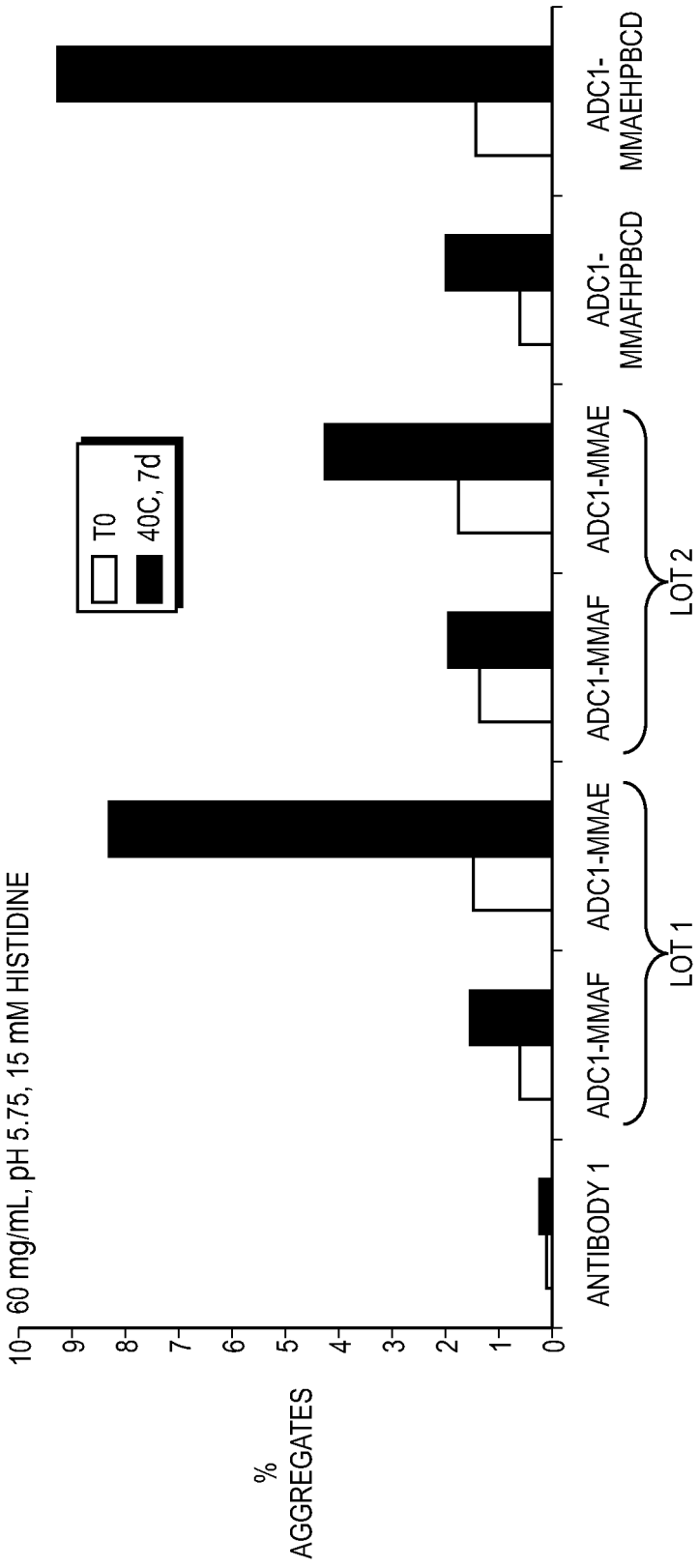

60 mg/mL, pH 5.75, 15 mM HISTIDINE
% AGGREGATES
0
1
2
3
4
5
6
7
8
9
10
T0
40C, 7d
ANTIBODY 1
ADC1-MMAF
ADC1-MMAE
ADC1-MMAF
ADC1-MMAE
ADC1-MMAFHPBCD
ADC1-MMAEHPBCD
LOT 1
LOT 2

FIG. 6

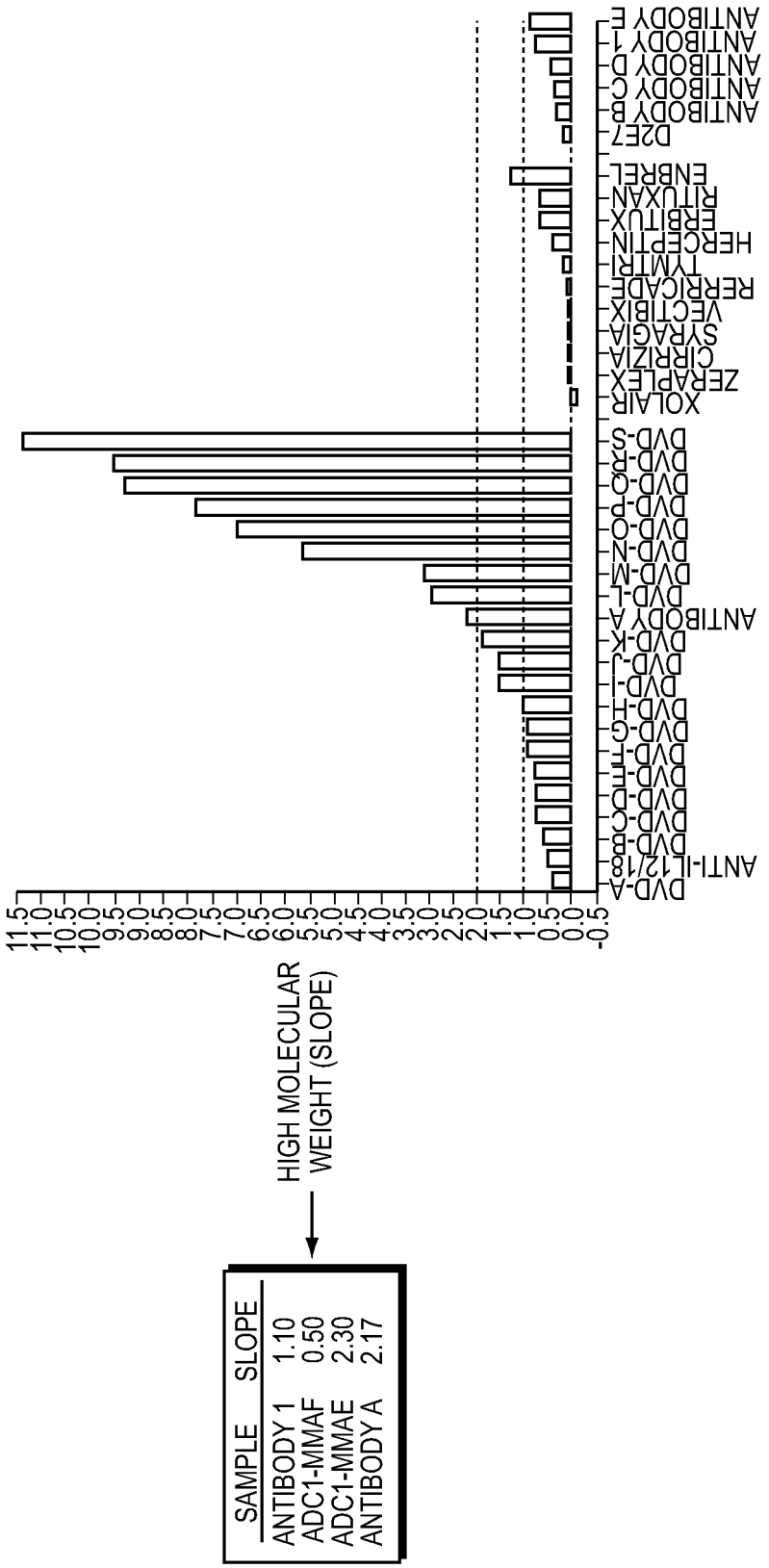

HIGH MOLECULAR WEIGHT (SLOPE)
SAMPLE SLOPE
ANTIBODY 1 1.10
ADC1-MMAF 0.50
ADC1-MMAE 2.30
ANTIBODY A 2.17
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
DVD-A
ANTI-IL12/18
DVD-B
DVD-C
DVD-D
DVD-E
DVD-F
DVD-G
DVD-H
DVD-I
DVD-J
DVD-K
ANTIBODY A
DVD-L
DVD-M
DVD-N
DVD-O
DVD-P
DVD-Q
DVD-R
DVD-S
XOLAIR
ZERAPLEX
CIRRIZIA
SYRAGIA
VECTIBIX
REPRICADE
TYMTRI
HERCEPTIN
ERBITUX
RITUXAN
ENBREL
D2E7
ANTIBODY B
ANTIBODY C
ANTIBODY D
ANTIBODY 1
ANTIBODY E

FIG. 7

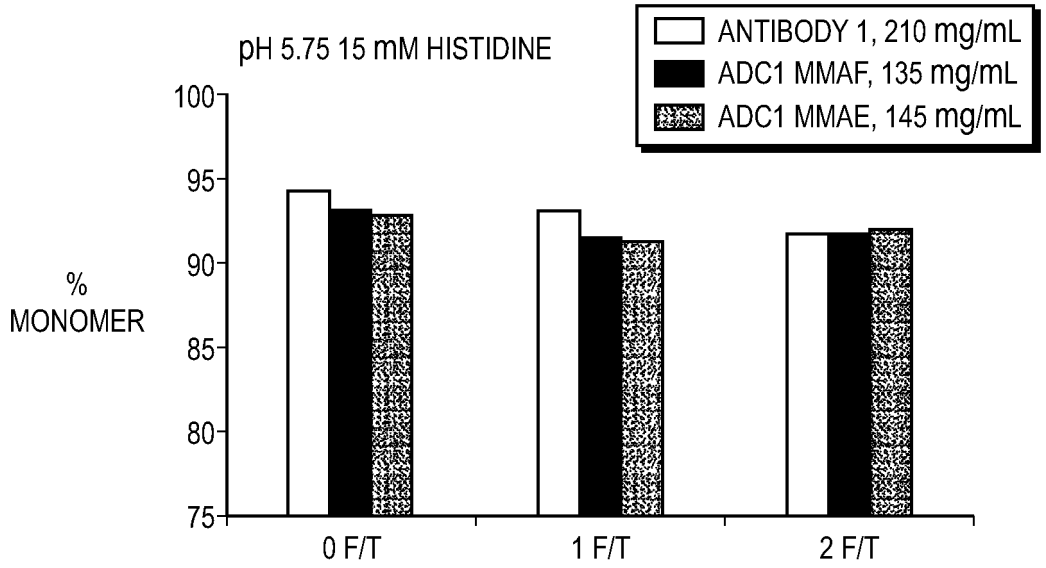

pH 5.75 15 mM HISTIDINE
ANTIBODY 1, 210 mg/mL
ADC1 MMAF, 135 mg/mL
ADC1 MMAE, 145 mg/mL
%
MONOMER
100
95
90
85
80
75
0 F/T
1 F/T
2 F/T

FIG. 8A

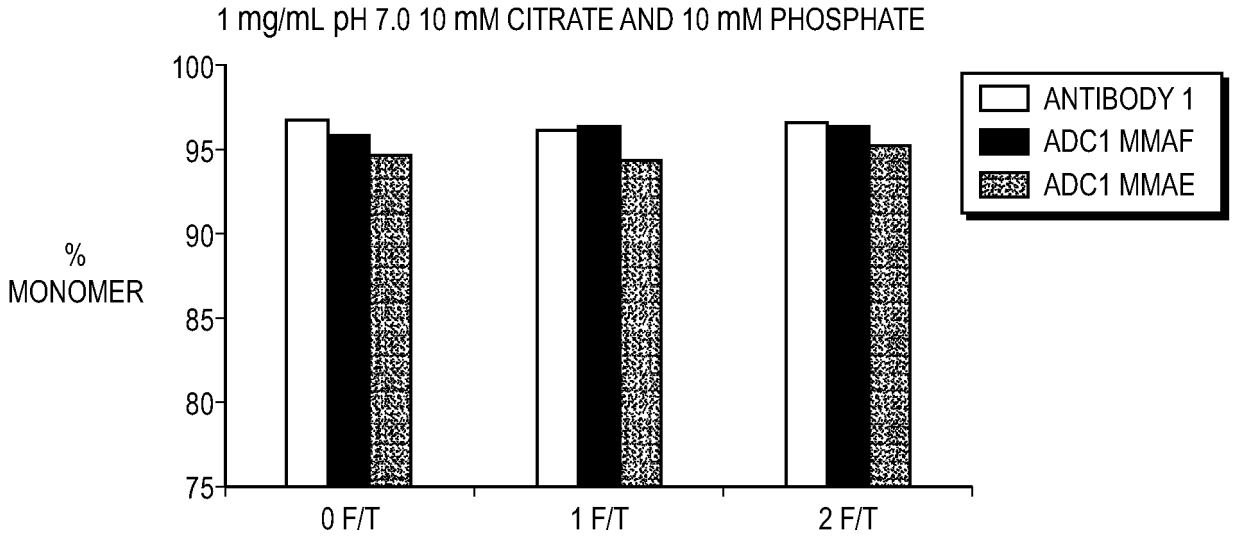

1 mg/mL pH 7.0 10 mM CITRATE AND 10 mM PHOSPHATE
ANTIBODY 1
ADC1 MMAF
ADC1 MMAE
%
MONOMER
100
95
90
85
80
75
0 F/T
1 F/T
2 F/T

FIG. 8B

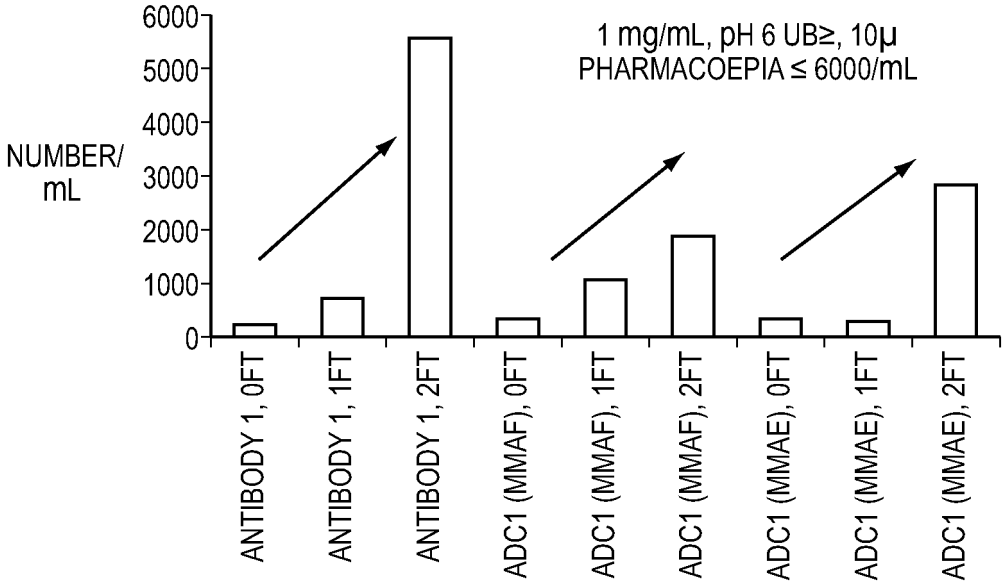

1 mg/mL, pH 6 UB≥, 10µ
PHARMACOEPIA ≤ 6000/mL
NUMBER/ mL
6000
5000
4000
3000
2000
1000
0
ANTIBODY 1, 0FT
ANTIBODY 1, 1FT
ANTIBODY 1, 2FT
ADC1 (MMAF), 0FT
ADC1 (MMAF), 1FT
ADC1 (MMAF), 2FT
ADC1 (MMAE), 0FT
ADC1 (MMAE), 1FT
ADC1 (MMAE), 2FT

FIG. 9A

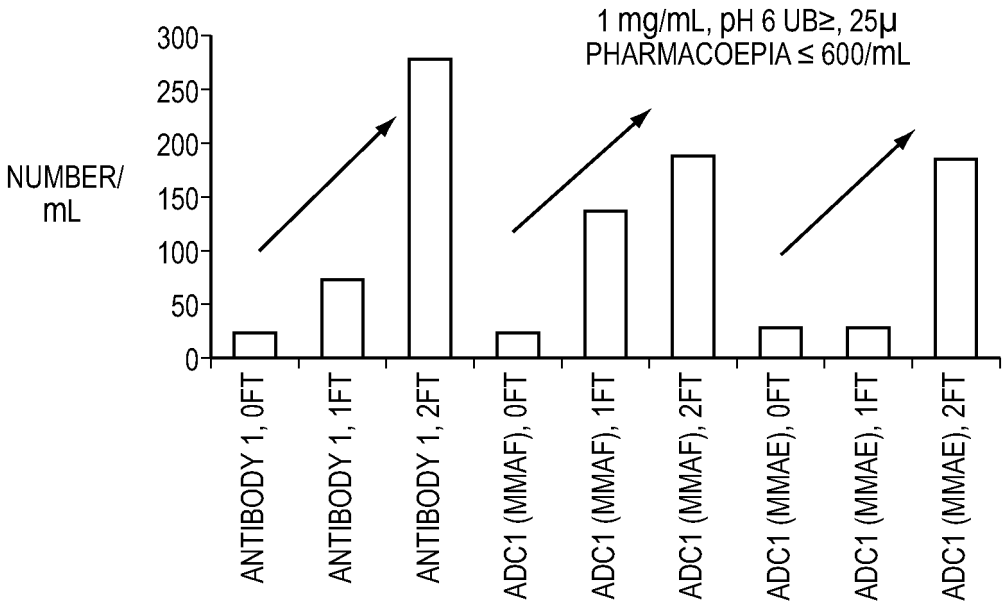

1 mg/mL, pH 6 UB≥, 25µ
PHARMACOEPIA ≤ 600/mL
NUMBER/ mL
300
250
200
150
100
50
0
ANTIBODY 1, 0FT
ANTIBODY 1, 1FT
ANTIBODY 1, 2FT
ADC1 (MMAF), 0FT
ADC1 (MMAF), 1FT
ADC1 (MMAF), 2FT
ADC1 (MMAE), 0FT
ADC1 (MMAE), 1FT
ADC1 (MMAE), 2FT

FIG. 9B