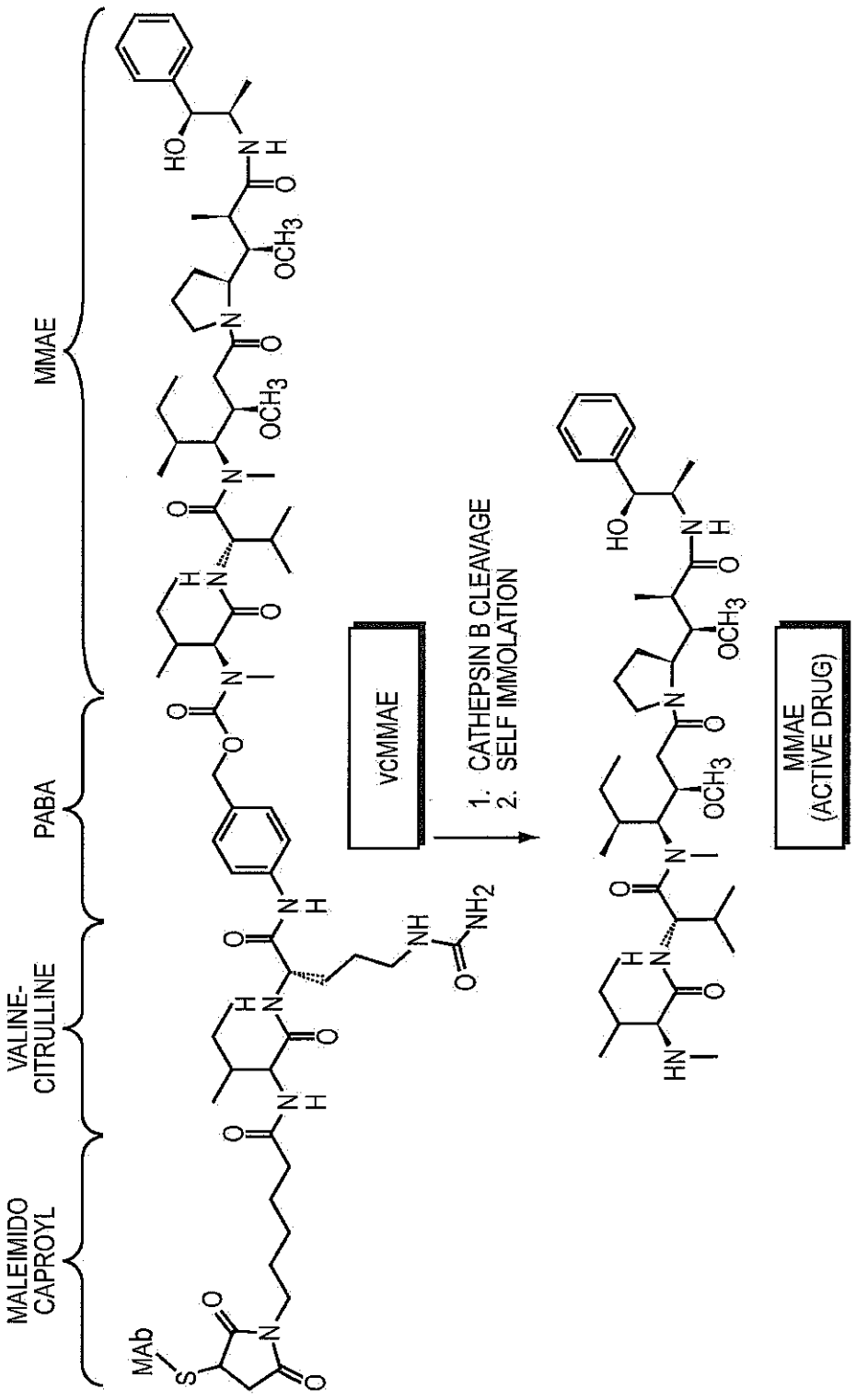

MALEIMIDO CAPROYL
VALINE-CITRULLINE
PABA
MMAE
MAb
VcMMAE
1. CATHEPSIN B CLEAVAGE
2. SELF IMMOLATION
MMAE (ACTIVE DRUG)

FIG. 1

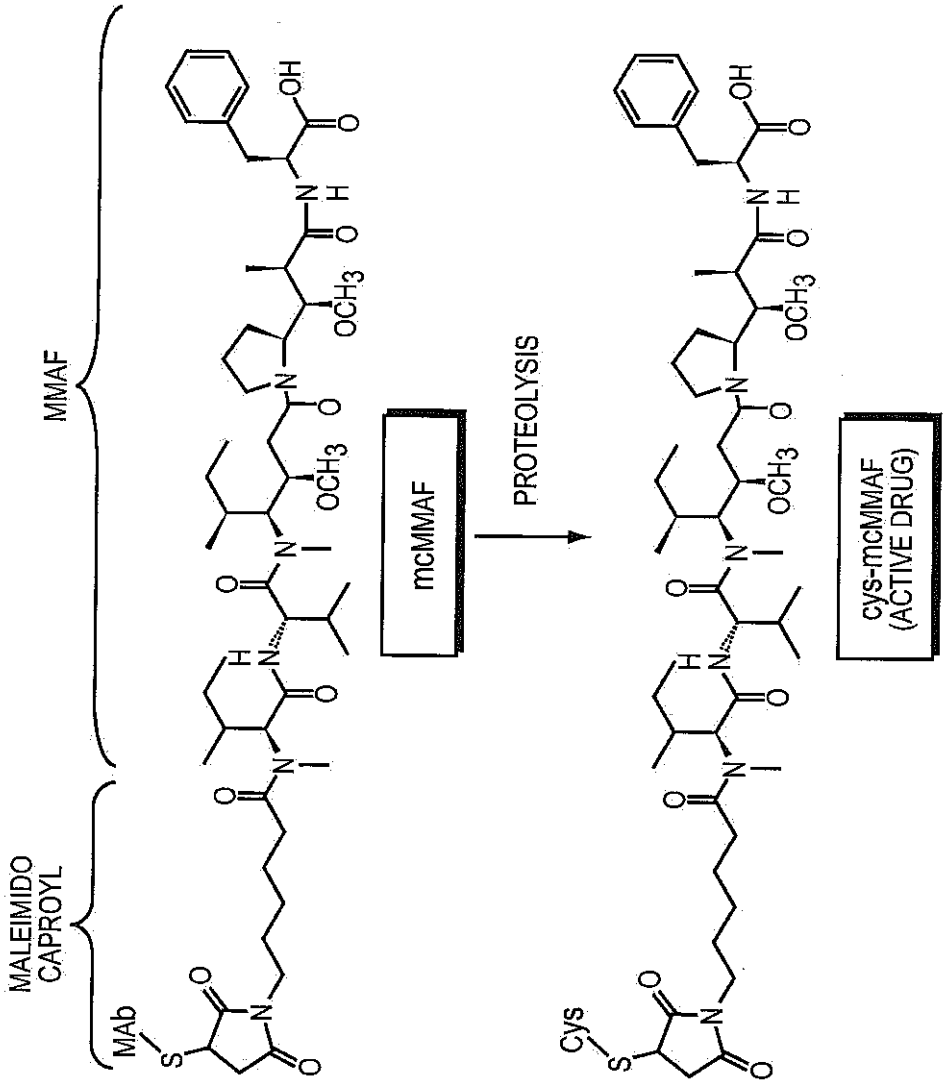

MALEIMIDO CAPROYL
MMAF
MAb
mcMMAF
PROTEOLYSIS
Cys
cys-mcMMAF (ACTIVE DRUG)

FIG. 2

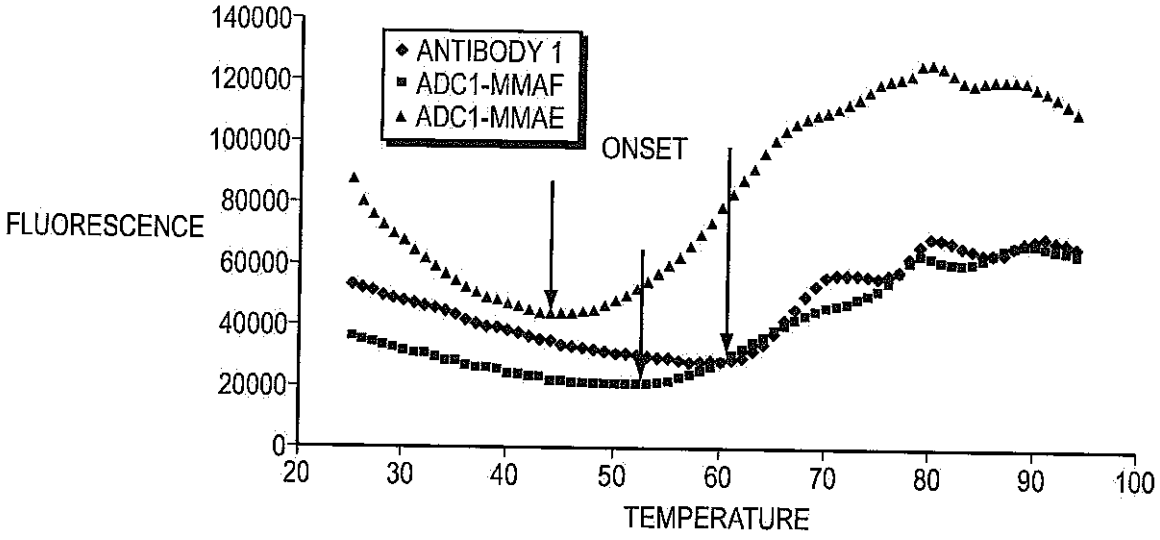

140000
120000
100000
80000
60000
40000
20000
0
FLUORESCENCE
ANTIBODY 1
ADC1-MMAF
ADC1-MMAE
ONSET
20
30
40
50
60
70
80
90
100
TEMPERATURE

FIG. 3A

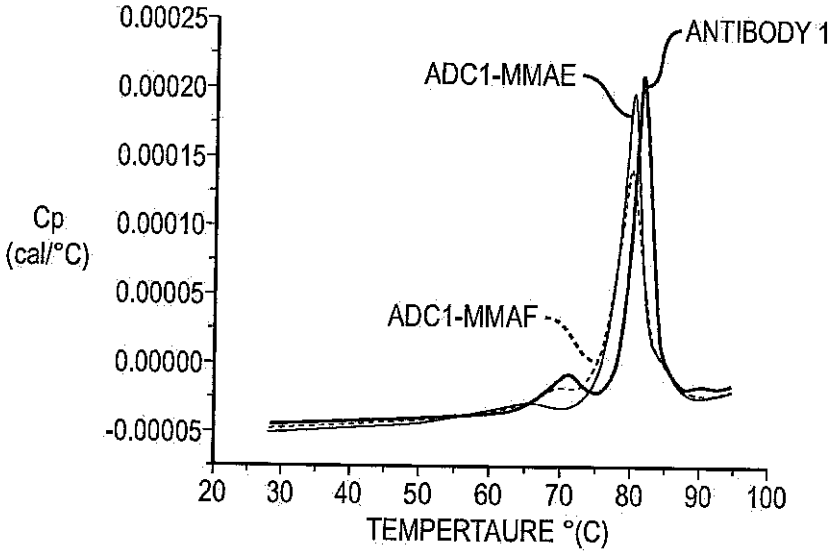
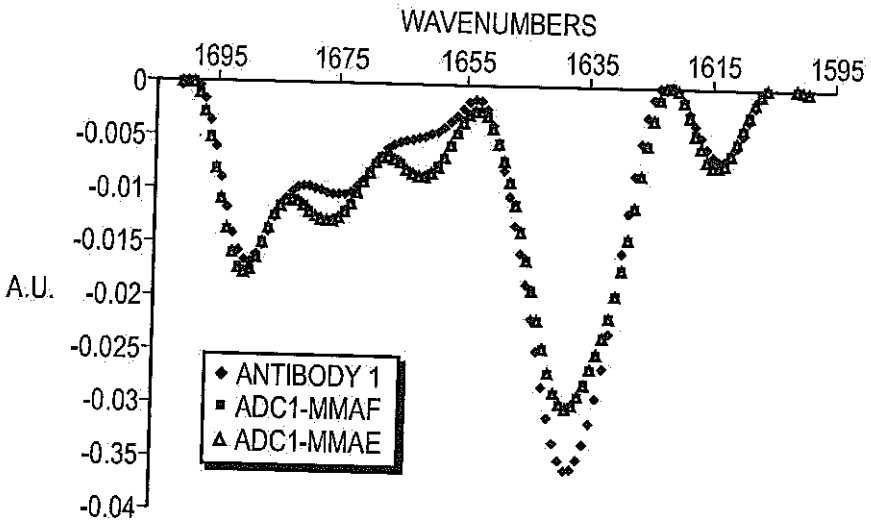
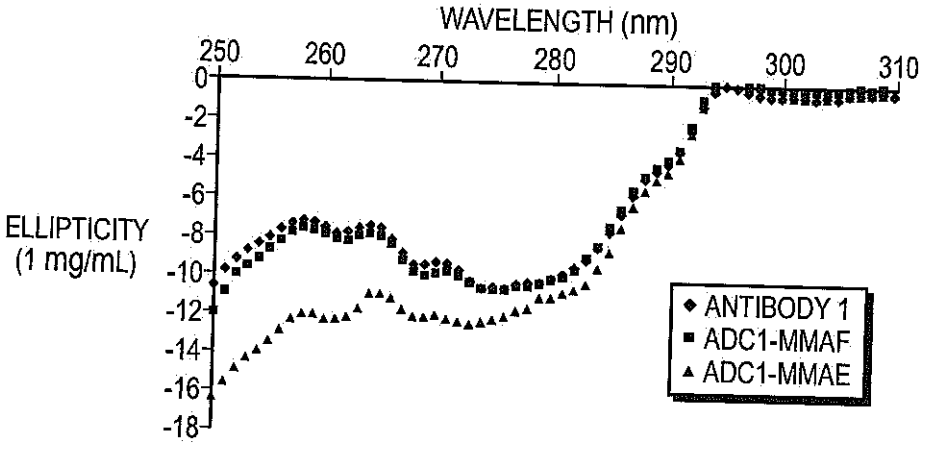

0.00025
0.00020
0.00015
0.00010
0.00005
0.00000
-0.00005
Cp
(cal/°C)
ANTIBODY 1
ADC1-MMAE
ADC1-MMAF
20
30
40
50
60
70
80
90
100
TEMPERTAURE °(C)

FIG. 3B



FTIR

FIG. 4A



NEAR UV CD

FIG. 4B

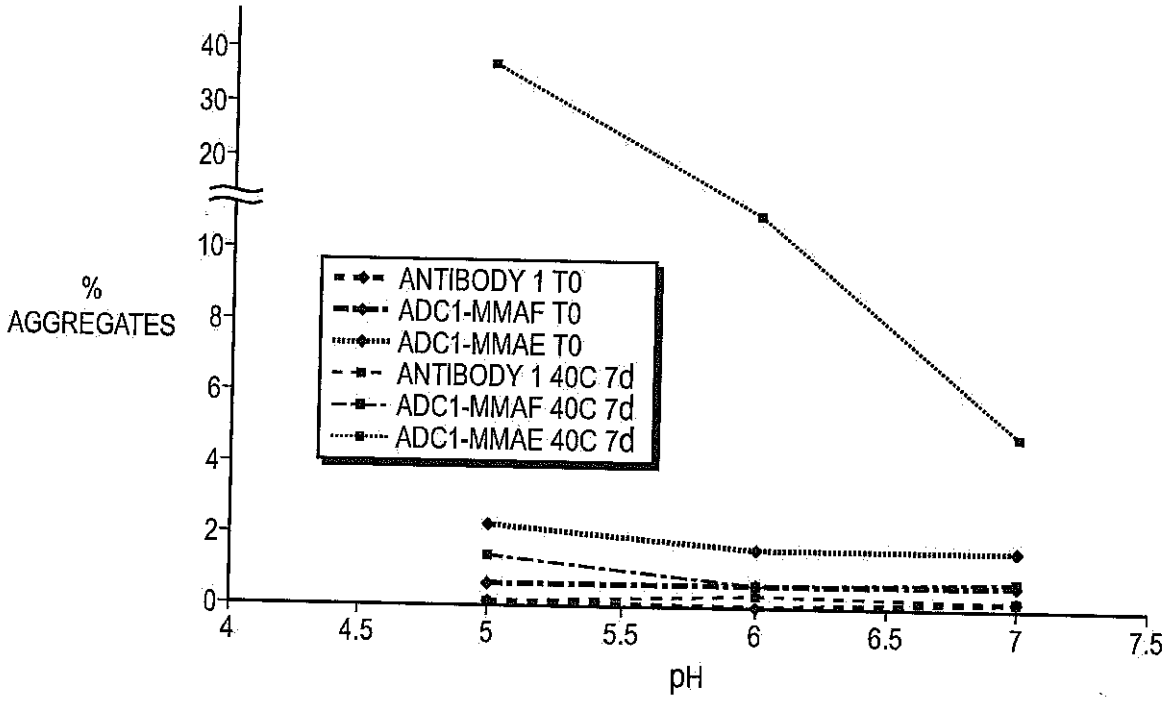

%
AGGREGATES
40
30
20
10
8
6
4
2
0
4
4.5
5
5.5
6
6.5
7
7.5
pH
ANTIBODY 1 T0
ADC1-MMAF T0
ADC1-MMAE T0
ANTIBODY 1 40C 7d
ADC1-MMAF 40C 7d
ADC1-MMAE 40C 7d

FIG. 5

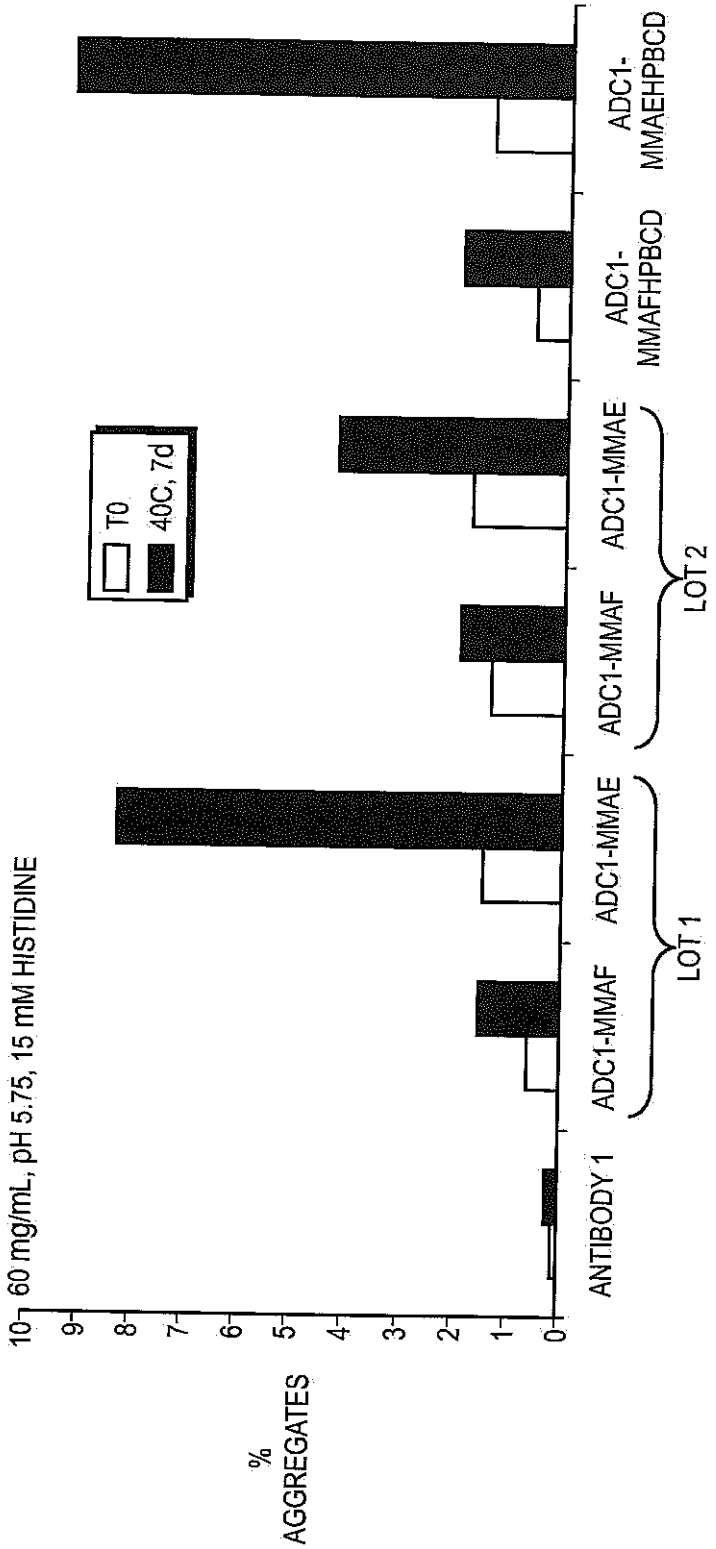

60 mg/mL, pH 5.75, 15 mM HISTIDINE
% AGGREGATES
0
1
2
3
4
5
6
7
8
9
10
T0
40C, 7d
ANTIBODY 1
ADC1-MMAF
ADC1-MMAE
ADC1-MMAF
ADC1-MMAE
ADC1-MMAFHPBCD
ADC1-MMAEHPBCD
LOT 1
LOT 2

FIG. 6

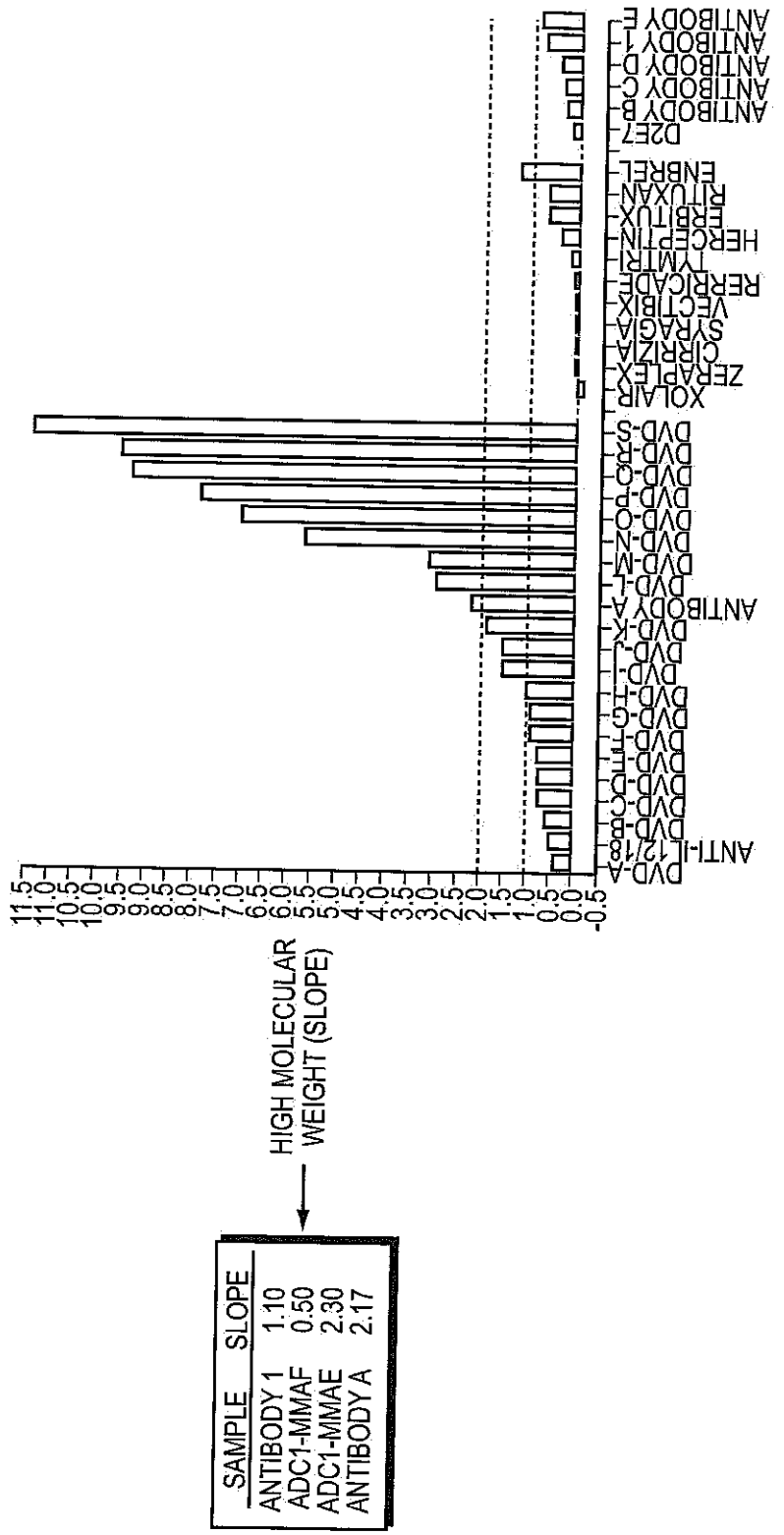

HIGH MOLECULAR WEIGHT (SLOPE)
SAMPLE SLOPE
ANTIBODY 1 1.10
ADC1-MMAF 0.50
ADC1-MMAE 2.30
ANTIBODY A 2.17
DVD-A
ANTI-IL12/18
DVD-B
DVD-C
DVD-D
DVD-E
DVD-F
DVD-G
DVD-H
DVD-I
DVD-J
DVD-K
ANTIBODY A
DVD-L
DVD-M
DVD-N
DVD-O
DVD-P
DVD-Q
DVD-R
DVD-S
XOLAIR
ZERAPLEX
CIMZIA
SYRAGIA
VECTIBIX
REMICADE
TYMTRI
HERCEPTIN
ERBITUX
RITUXAN
ENBREL
D2E7
ANTIBODY B
ANTIBODY C
ANTIBODY D
ANTIBODY 1
ANTIBODY E

FIG. 7

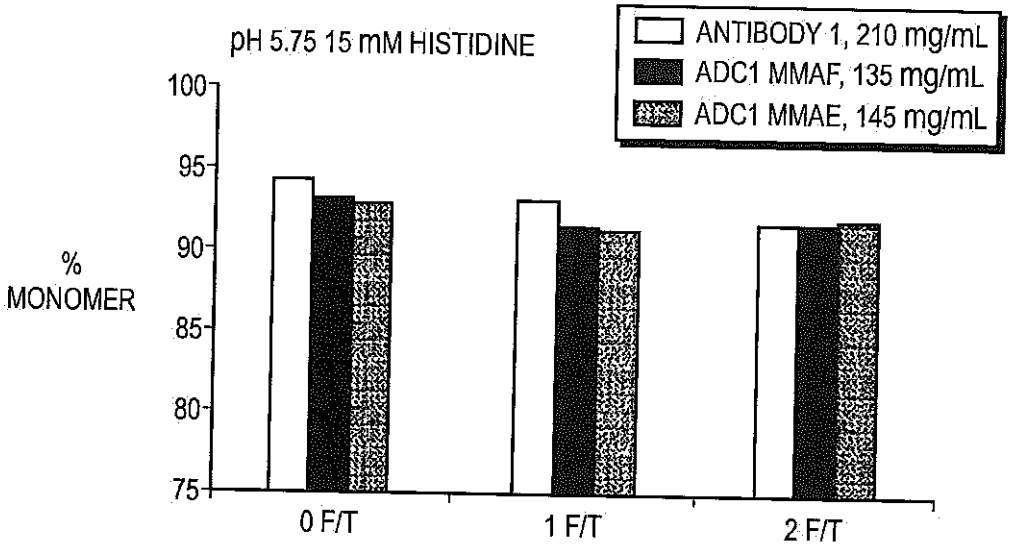

pH 5.75 15 mM HISTIDINE
ANTIBODY 1, 210 mg/mL
ADC1 MMAF, 135 mg/mL
ADC1 MMAE, 145 mg/mL
%
MONOMER
100
95
90
85
80
75
0 F/T
1 F/T
2 F/T

FIG. 8A

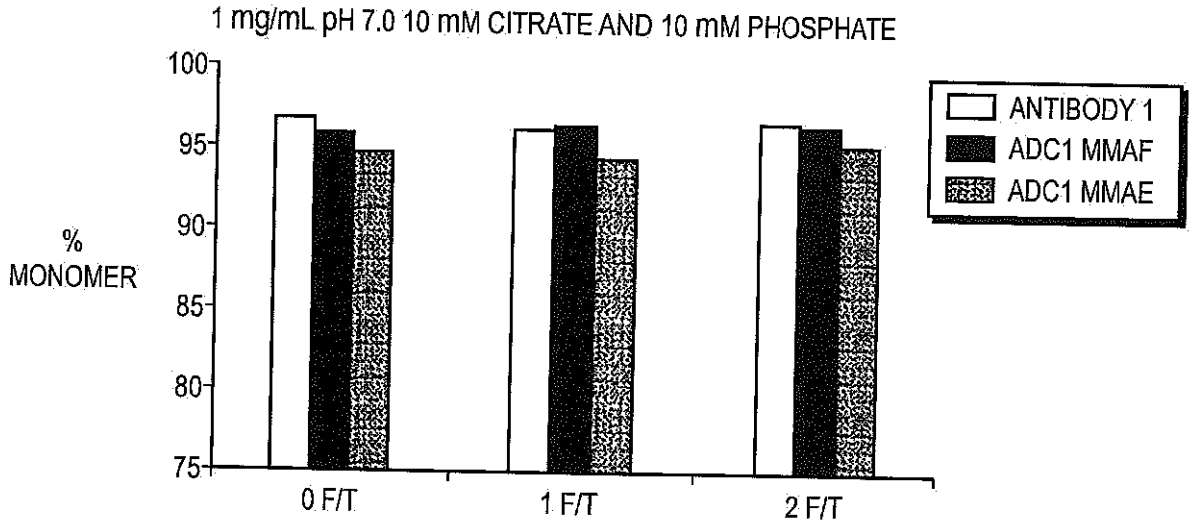

1 mg/mL pH 7.0 10 mM CITRATE AND 10 mM PHOSPHATE
ANTIBODY 1
ADC1 MMAF
ADC1 MMAE
%
MONOMER
100
95
90
85
80
75
0 F/T
1 F/T
2 F/T

FIG. 8B

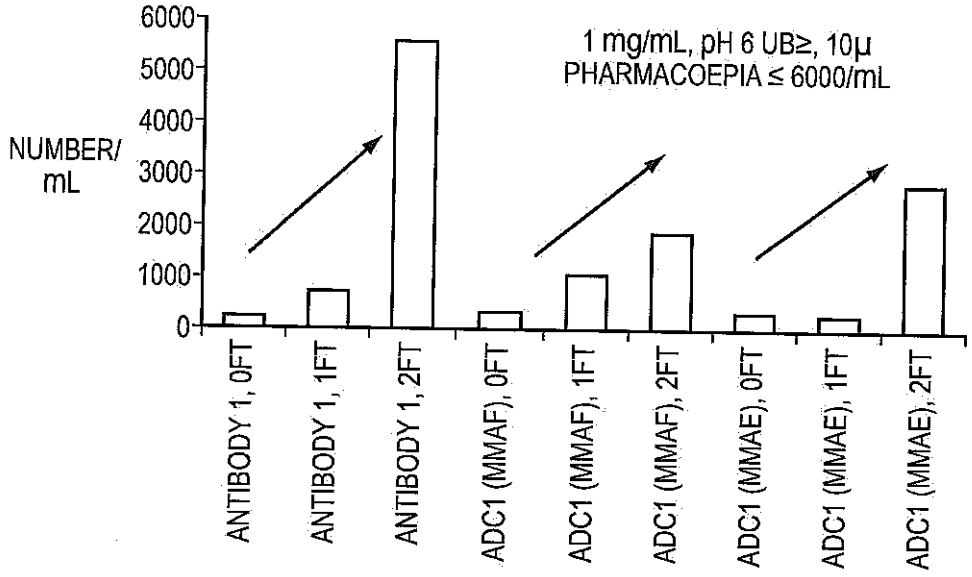

6000
5000
4000
3000
2000
1000
0
NUMBER/
mL
1 mg/mL, pH 6 UB≥, 10μ
PHARMACOEPIA ≤ 6000/mL
ANTIBODY 1, 0FT
ANTIBODY 1, 1FT
ANTIBODY 1, 2FT
ADC1 (MMAF), 0FT
ADC1 (MMAF), 1FT
ADC1 (MMAF), 2FT
ADC1 (MMAE), 0FT
ADC1 (MMAE), 1FT
ADC1 (MMAE), 2FT

FIG. 9A

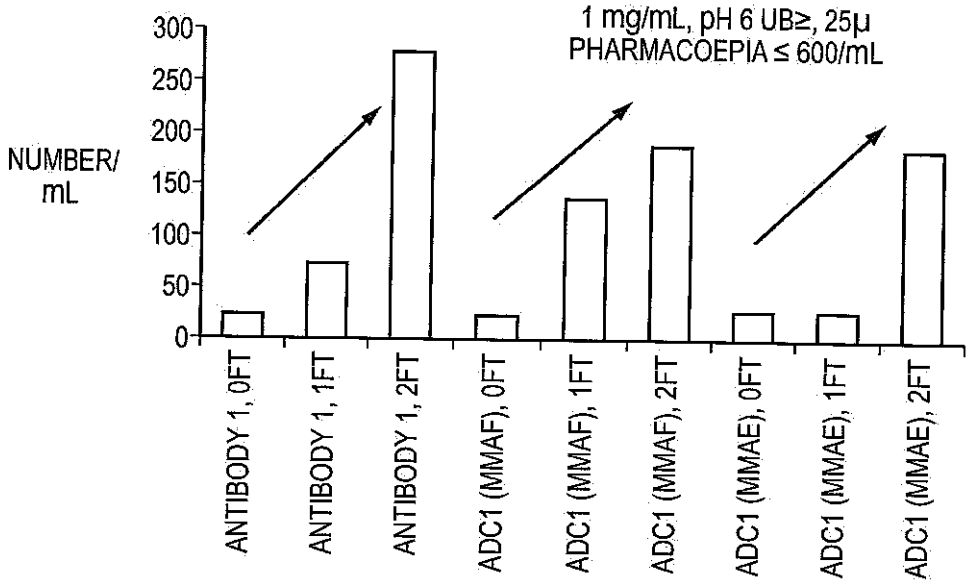

300
250
200
150
100
50
0
NUMBER/
mL
1 mg/mL, pH 6 UB≥, 25μ
PHARMACOEPIA ≤ 600/mL
ANTIBODY 1, 0FT
ANTIBODY 1, 1FT
ANTIBODY 1, 2FT
ADC1 (MMAF), 0FT
ADC1 (MMAF), 1FT
ADC1 (MMAF), 2FT
ADC1 (MMAE), 0FT
ADC1 (MMAE), 1FT
ADC1 (MMAE), 2FT

FIG. 9B