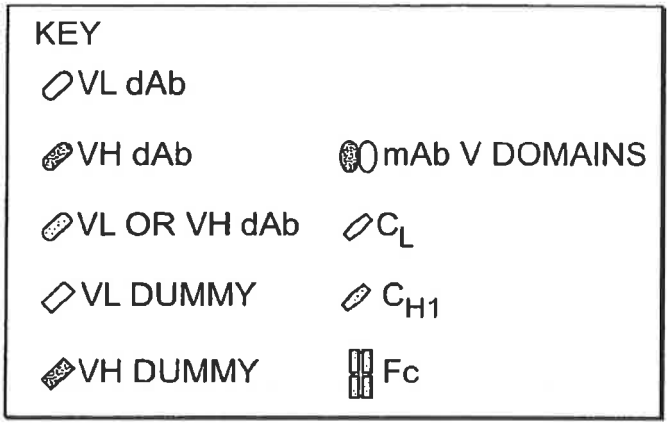

KEY
VL dAb
VH dAb
mAb V DOMAINS
VL OR VH dAb
C_L
VL DUMMY
C_{H1}
VH DUMMY
Fc

FIG. 1

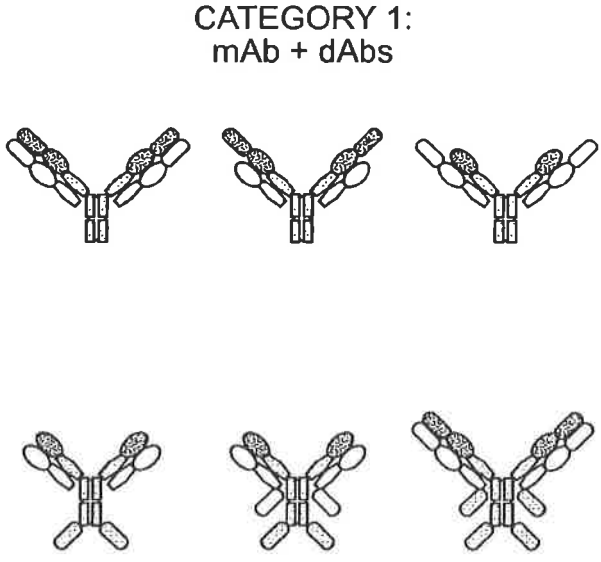

CATEGORY 1:
mAb + dAbs

FIG. 2

CATEGORY 2:
DUMMY IgG + VARIABLE DOMAINS (Fv AND/OR dAbs)

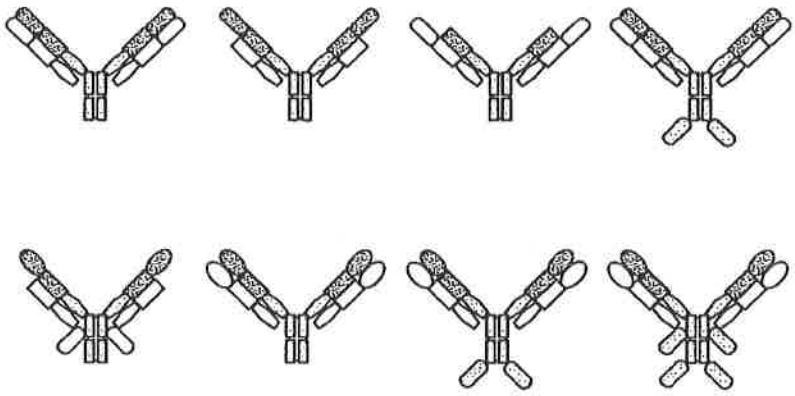


FIG. 3

CATEGORY 3:
PORTION OF DUMMY IgG + VARIABLE DOMAINS (Fv AND/OR dAbs)

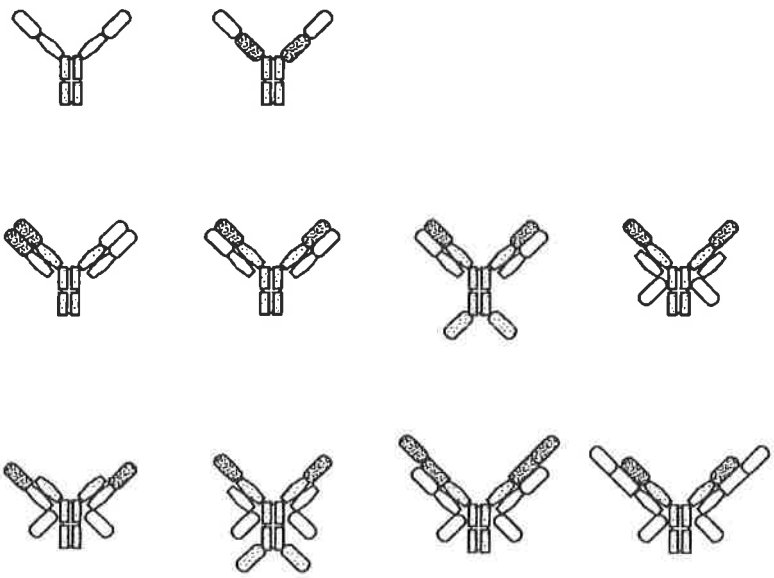


FIG. 4

CATEGORY 4:
VARIABLE AND/OR CONSTANT DOMAINS SWAPPED

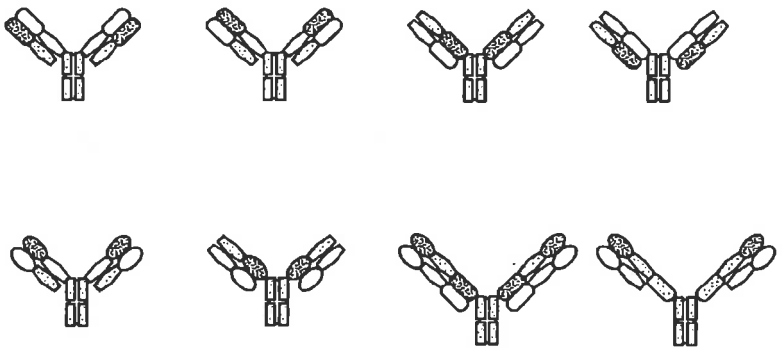


FIG. 5

CATEGORY 5:
CONSTANT DOMAINS DUPLICATED

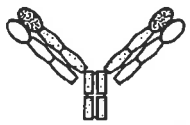


FIG. 6

CATEGORY 6:
AlbudAbs



FIG. 7

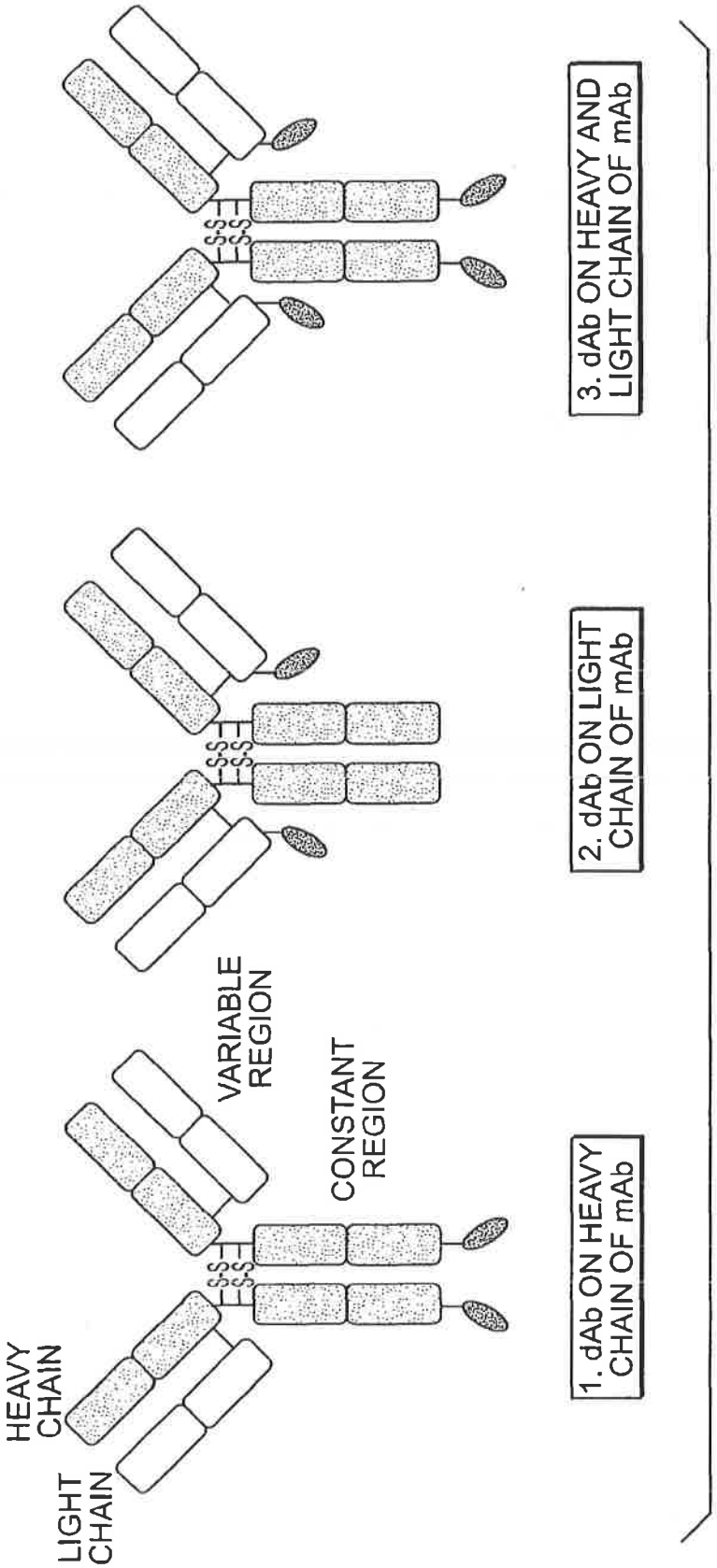

HEAVY CHAIN
LIGHT CHAIN
VARIABLE REGION
CONSTANT REGION
1. dAb ON HEAVY CHAIN OF mAb
2. dAb ON LIGHT CHAIN OF mAb
3. dAb ON HEAVY AND LIGHT CHAIN OF mAb

FIG. 8

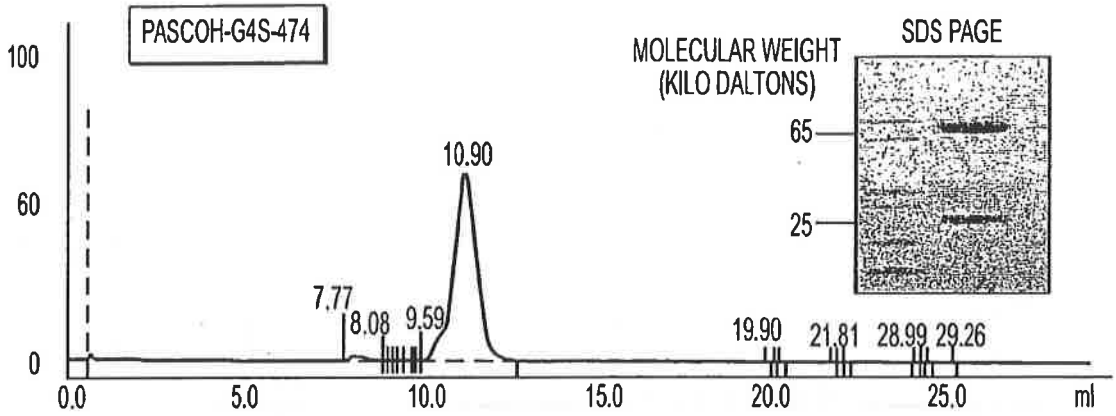


FIG. 9

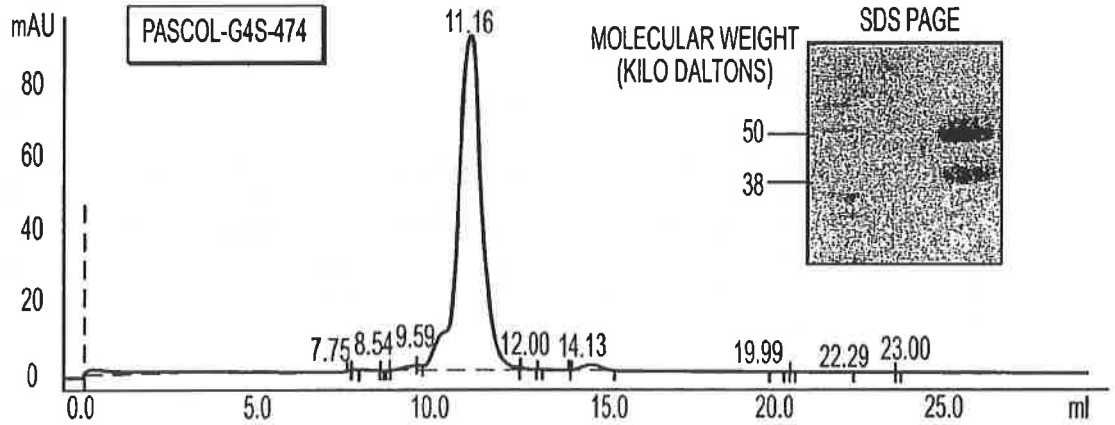


FIG. 10

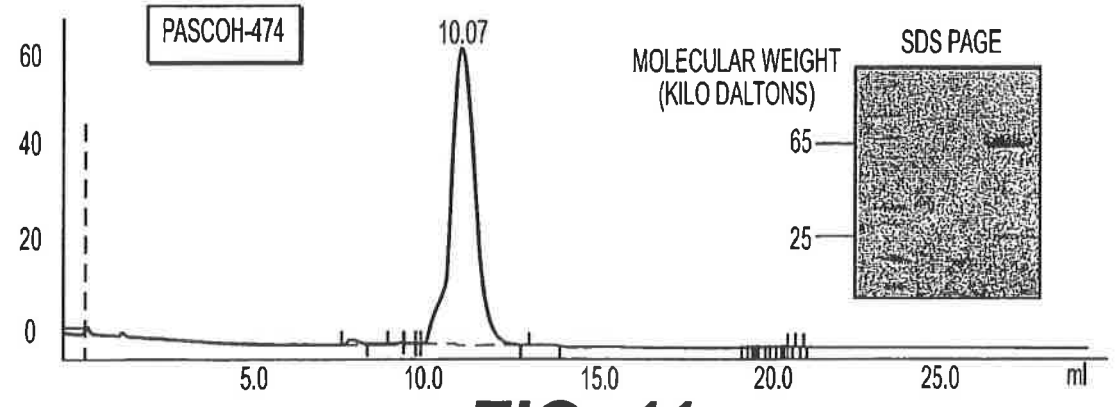


FIG. 11

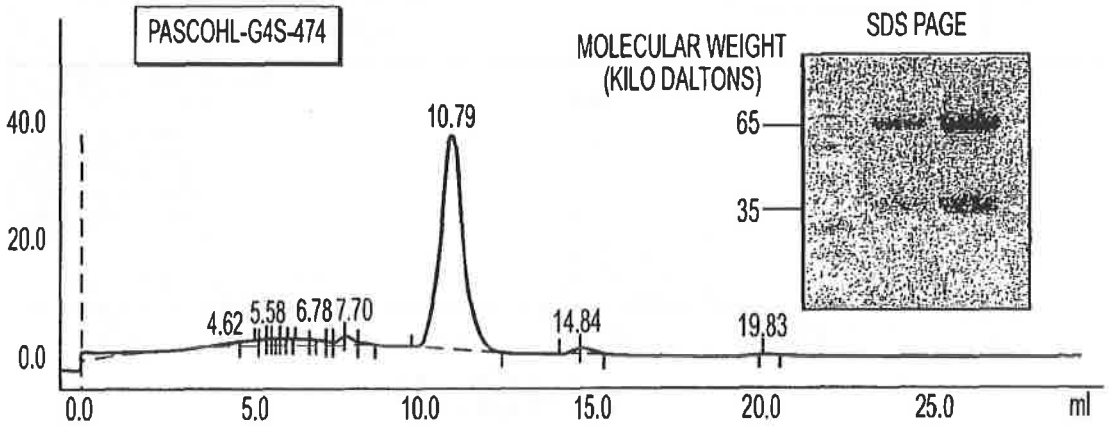

PASCOHL-G4S-474
MOLECULAR WEIGHT
(KILO DALTONS)
SDS PAGE
65
35
40.0
20.0
0.0
10.79
4.62
5.58
6.78
7.70
14.84
19.83
0.0
5.0
10.0
15.0
20.0
25.0
ml

FIG. 12

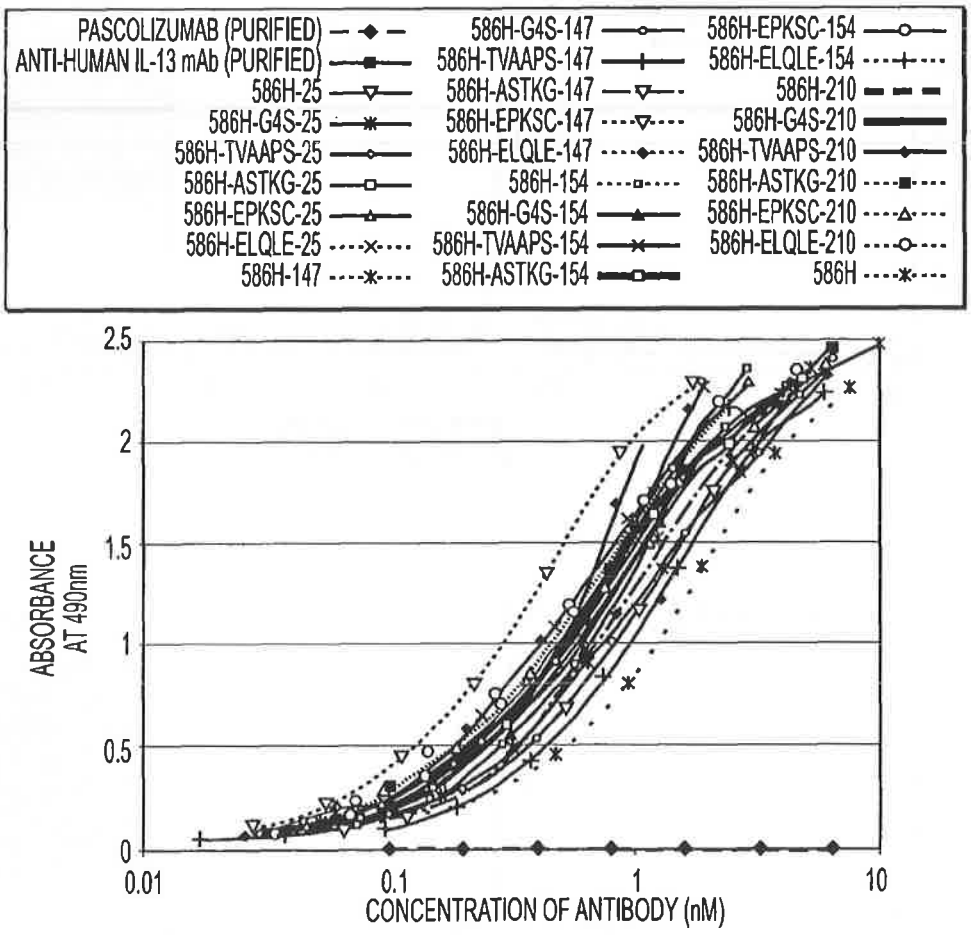

PASCOLIZUMAB (PURIFIED)
ANTI-HUMAN IL-13 mAb (PURIFIED)
586H-25
586H-G4S-25
586H-TVAAPS-25
586H-ASTKG-25
586H-EPKSC-25
586H-ELQLE-25
586H-147
586H-G4S-147
586H-TVAAPS-147
586H-ASTKG-147
586H-EPKSC-147
586H-ELQLE-147
586H-154
586H-G4S-154
586H-TVAAPS-154
586H-ASTKG-154
586H-EPKSC-154
586H-ELQLE-154
586H-210
586H-G4S-210
586H-TVAAPS-210
586H-ASTKG-210
586H-EPKSC-210
586H-ELQLE-210
586H
ABSORBANCE AT 490nm
2.5
2
1.5
1
0.5
0
0.01
0.1
1
10
CONCENTRATION OF ANTIBODY (nM)

FIG. 13

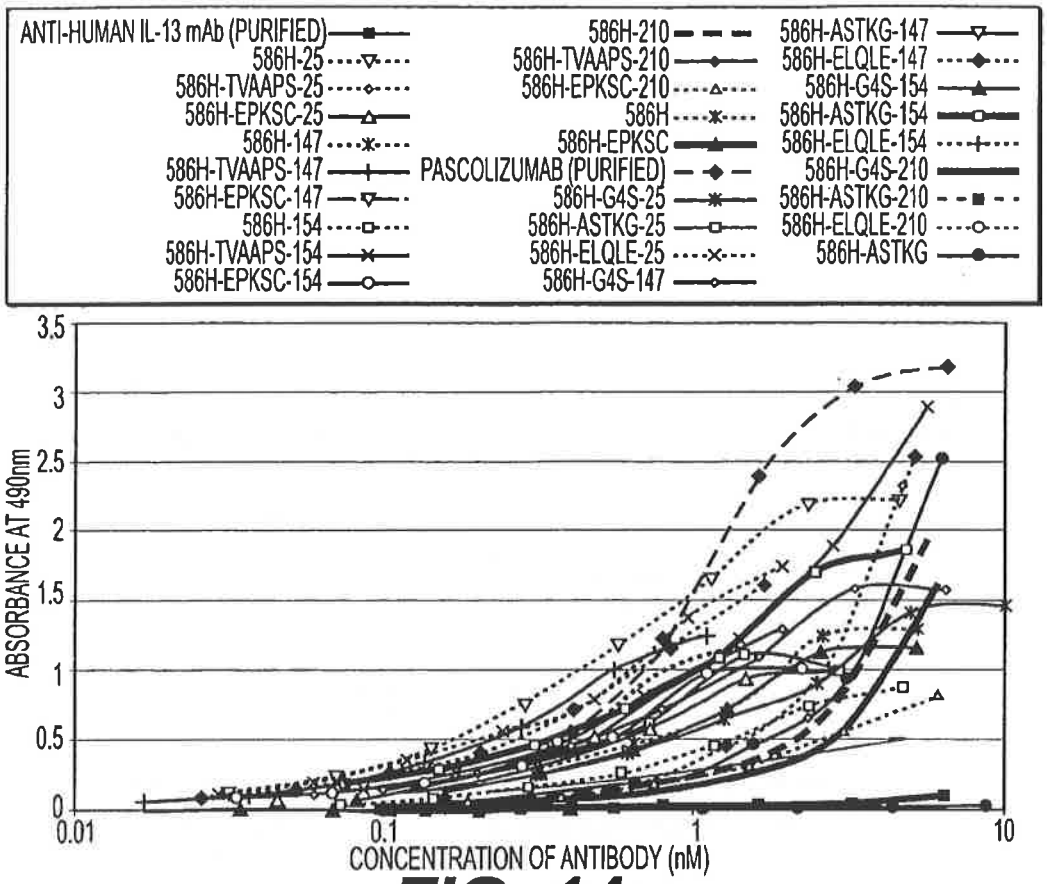

ANTI-HUMAN IL-13 mAb (PURIFIED)
586H-25
586H-TVAAPS-25
586H-EPKSC-25
586H-147
586H-TVAAPS-147
586H-EPKSC-147
586H-154
586H-TVAAPS-154
586H-EPKSC-154
586H-210
586H-TVAAPS-210
586H-EPKSC-210
586H
586H-EPKSC
PASCOLIZUMAB (PURIFIED)
586H-G4S-25
586H-ASTKG-25
586H-ELQLE-25
586H-G4S-147
586H-ASTKG-147
586H-ELQLE-147
586H-G4S-154
586H-ASTKG-154
586H-ELQLE-154
586H-G4S-210
586H-ASTKG-210
586H-ELQLE-210
586H-ASTKG
ABSORBANCE AT 490nm
3.5
3
2.5
2
1.5
1
0.5
0
0.01
0.1
1
10
CONCENTRATION OF ANTIBODY (nM)

FIG. 14

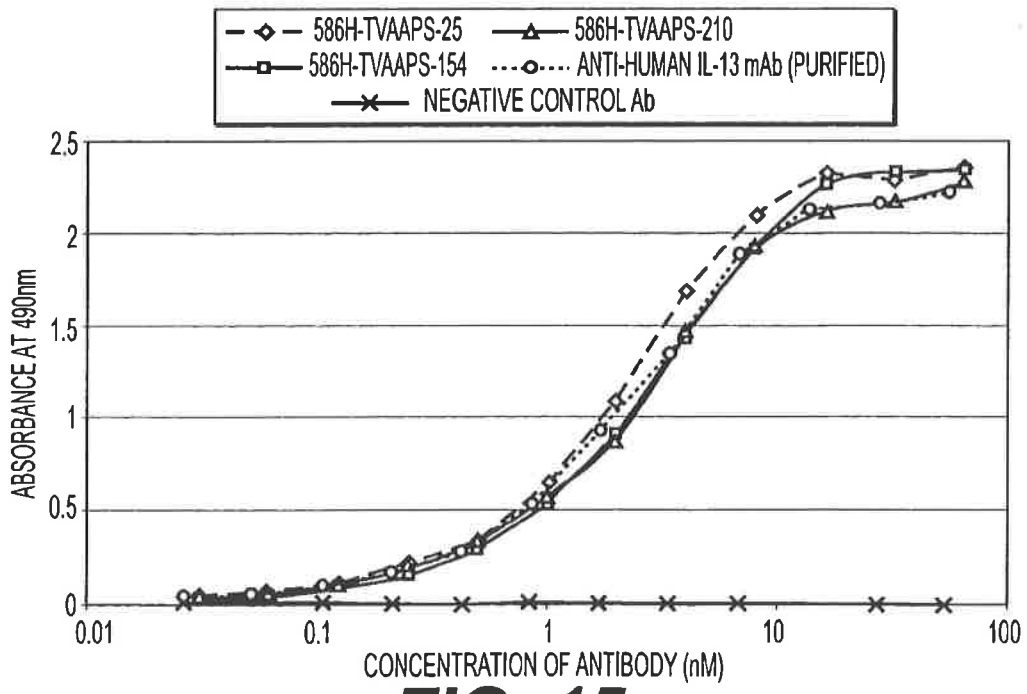

586H-TVAAPS-25
586H-TVAAPS-210
586H-TVAAPS-154
ANTI-HUMAN IL-13 mAb (PURIFIED)
NEGATIVE CONTROL Ab
ABSORBANCE AT 490nm
2.5
2
1.5
1
0.5
0
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)

FIG. 15

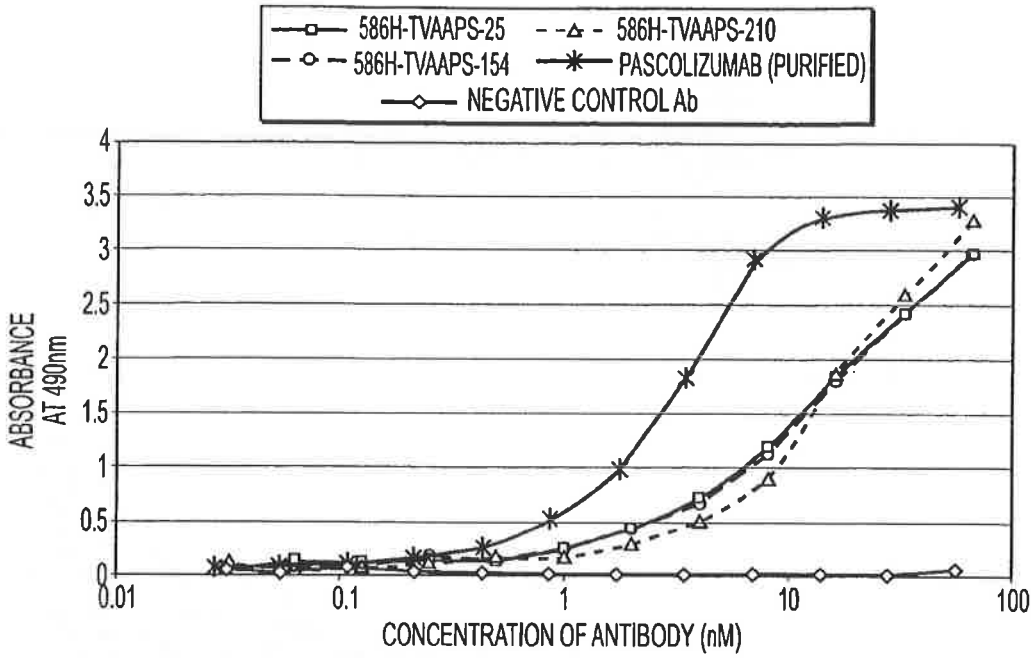

586H-TVAAPS-25
586H-TVAAPS-210
586H-TVAAPS-154
PASCOLIZUMAB (PURIFIED)
NEGATIVE CONTROL Ab
ABSORBANCE AT 490nm
4
3.5
3
2.5
2
1.5
1
0.5
0
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)

FIG. 16

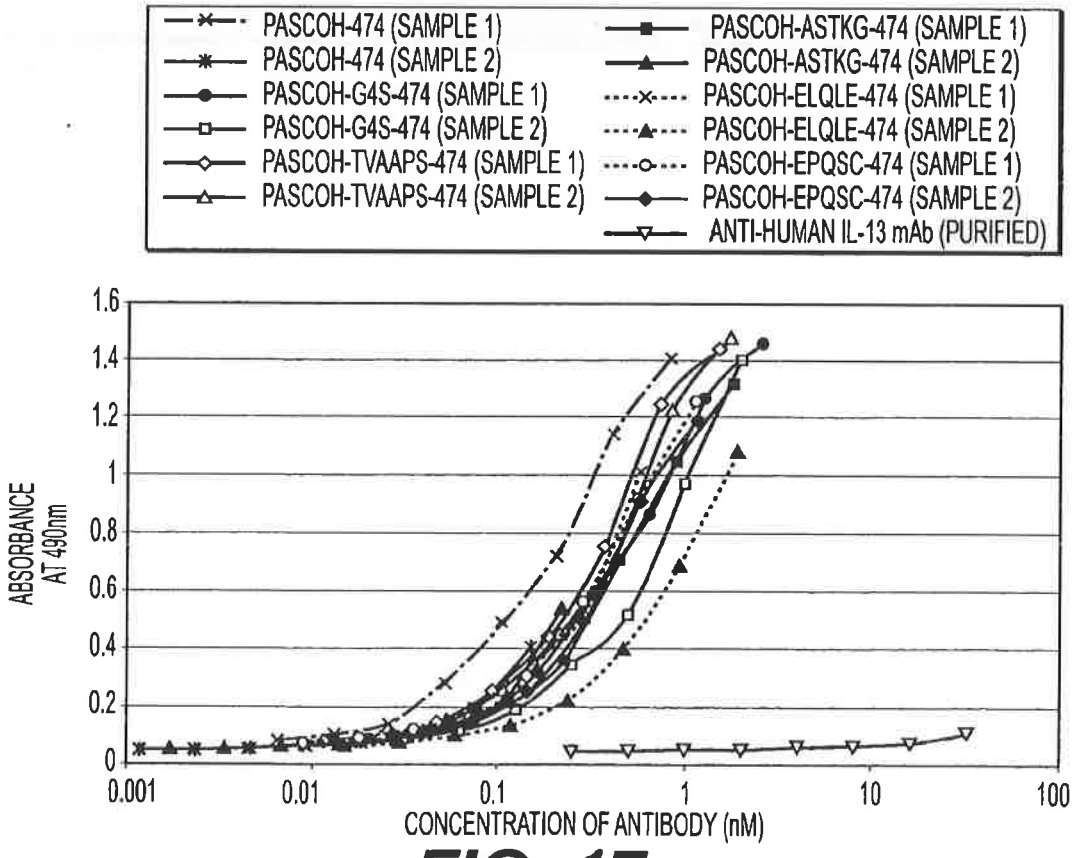

PASCOH-474 (SAMPLE 1)
PASCOH-474 (SAMPLE 2)
PASCOH-G4S-474 (SAMPLE 1)
PASCOH-G4S-474 (SAMPLE 2)
PASCOH-TVAAPS-474 (SAMPLE 1)
PASCOH-TVAAPS-474 (SAMPLE 2)
PASCOH-ASTKG-474 (SAMPLE 1)
PASCOH-ASTKG-474 (SAMPLE 2)
PASCOH-ELQLE-474 (SAMPLE 1)
PASCOH-ELQLE-474 (SAMPLE 2)
PASCOH-EPQSC-474 (SAMPLE 1)
PASCOH-EPQSC-474 (SAMPLE 2)
ANTI-HUMAN IL-13 mAb (PURIFIED)
ABSORBANCE AT 490nm
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)

FIG. 17

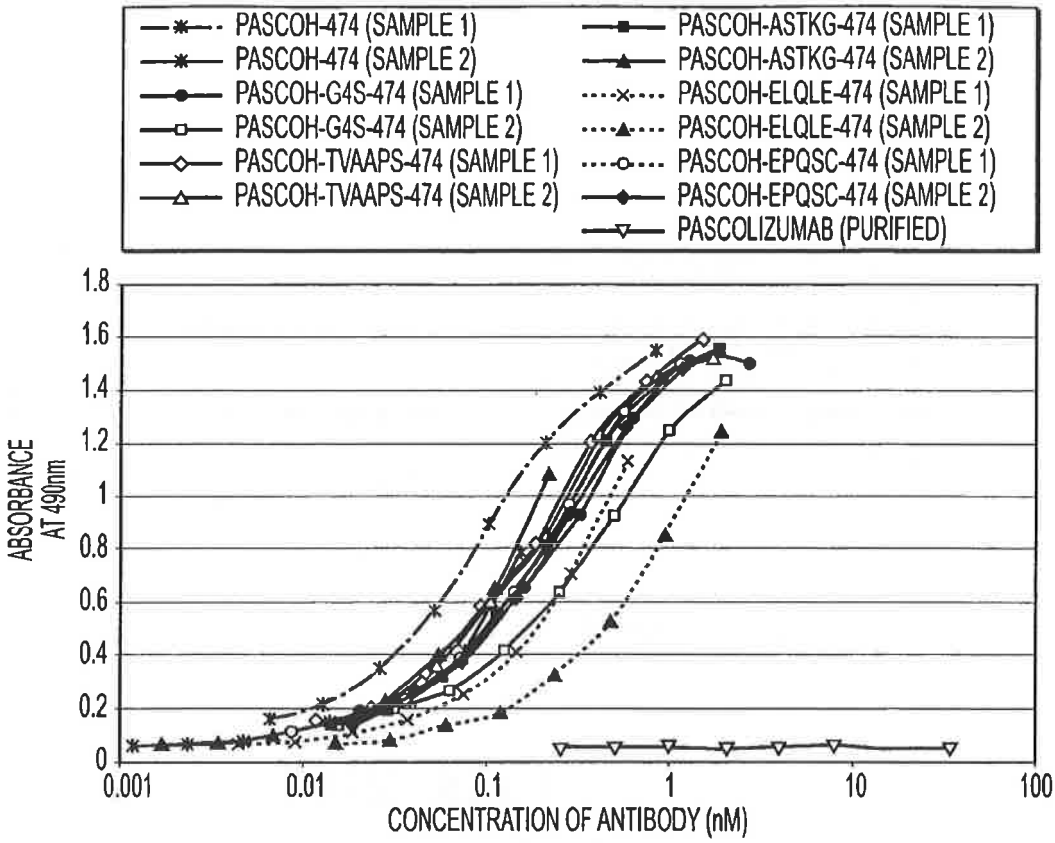

PASCOH-474 (SAMPLE 1)
PASCOH-474 (SAMPLE 2)
PASCOH-G4S-474 (SAMPLE 1)
PASCOH-G4S-474 (SAMPLE 2)
PASCOH-TVAAPS-474 (SAMPLE 1)
PASCOH-TVAAPS-474 (SAMPLE 2)
PASCOH-ASTKG-474 (SAMPLE 1)
PASCOH-ASTKG-474 (SAMPLE 2)
PASCOH-ELQLE-474 (SAMPLE 1)
PASCOH-ELQLE-474 (SAMPLE 2)
PASCOH-EPQSC-474 (SAMPLE 1)
PASCOH-EPQSC-474 (SAMPLE 2)
PASCOLIZUMAB (PURIFIED)
ABSORBANCE AT 490nm
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)

FIG. 18

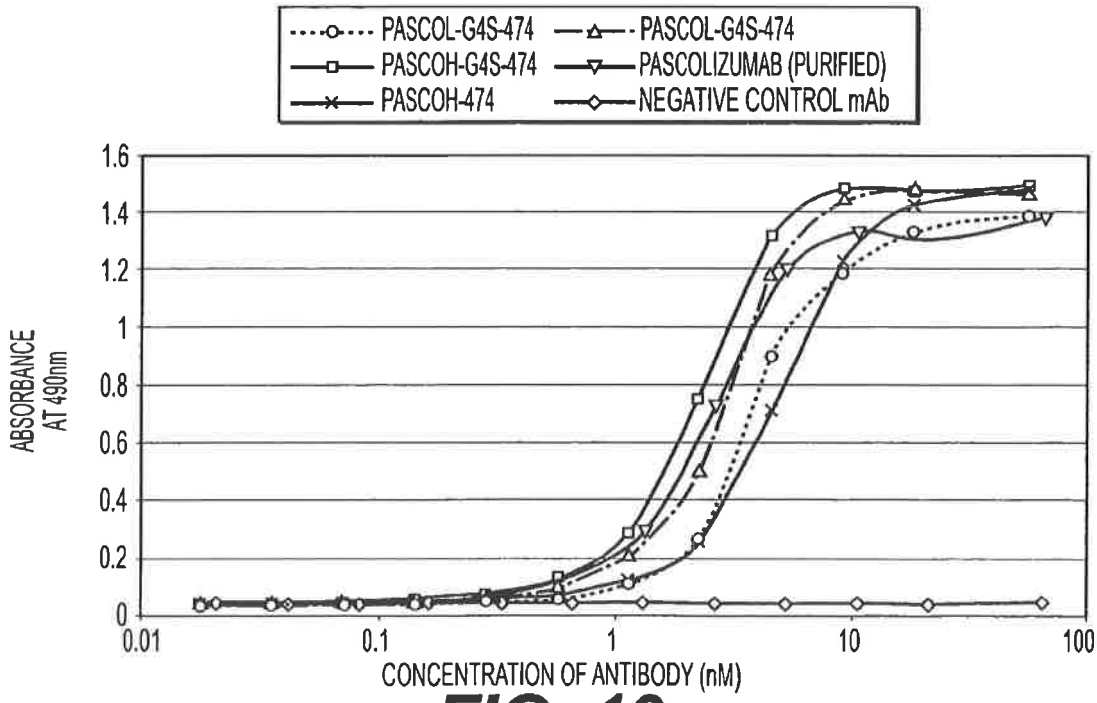

PASCOL-G4S-474
PASCOL-G4S-474
PASCOH-G4S-474
PASCOLIZUMAB (PURIFIED)
PASCOH-474
NEGATIVE CONTROL mAb
ABSORBANCE AT 490nm
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)

FIG. 19

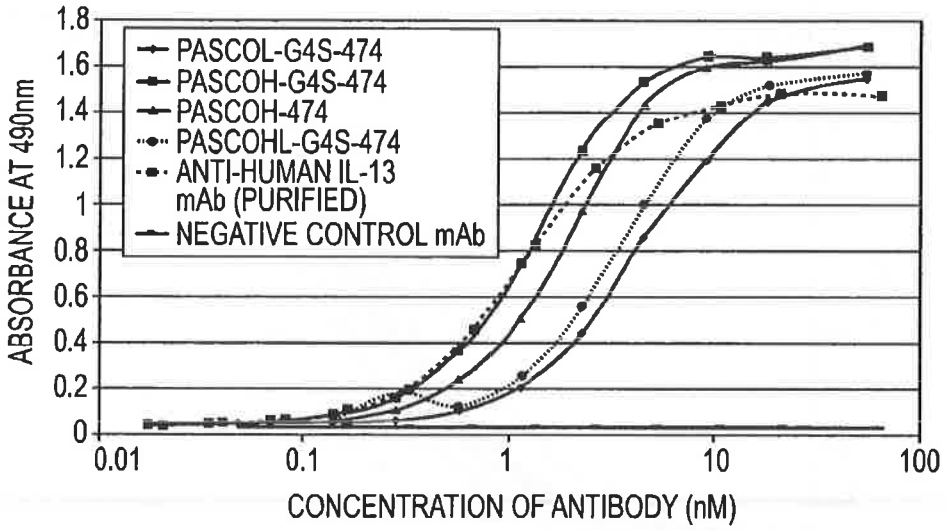


FIG. 20A

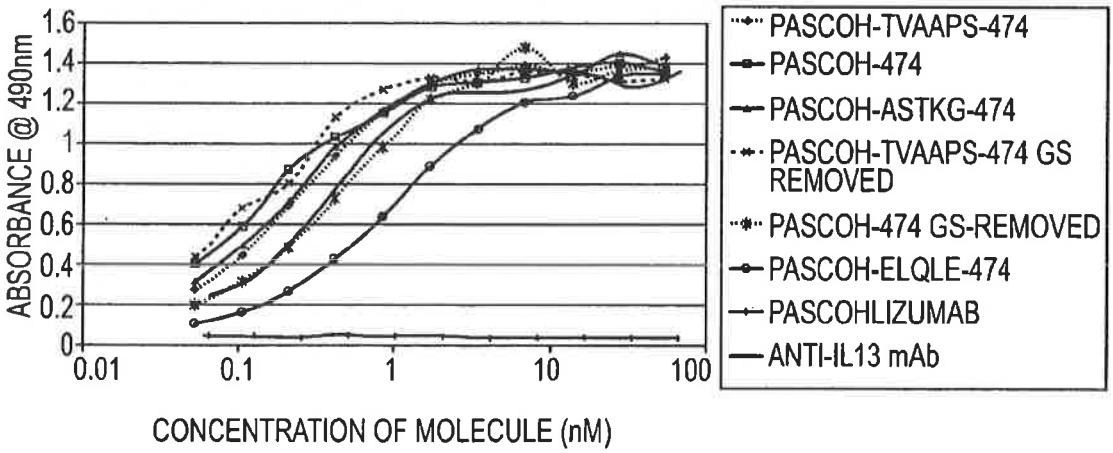


FIG. 20B

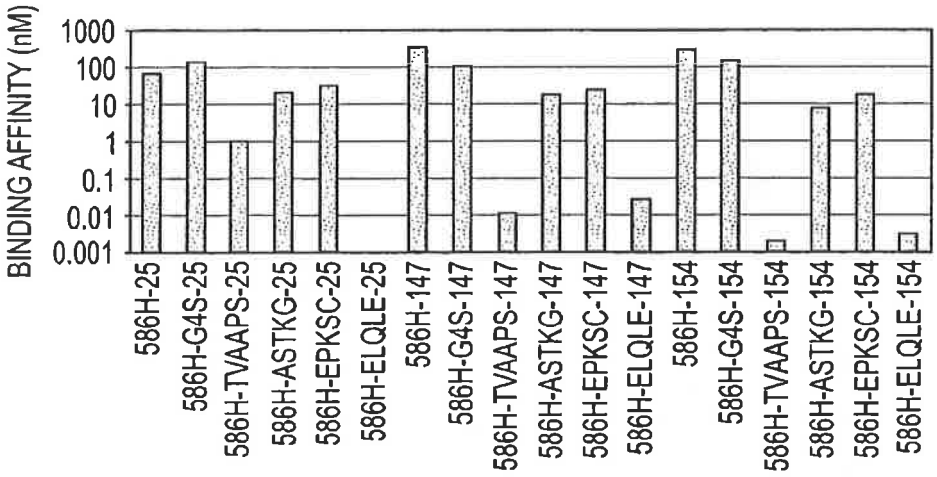

BINDING AFFINITY (nM)
1000
100
10
1
0.1
0.01
0.001
586H-25
586H-G4S-25
586H-TVAAPS-25
586H-ASTKG-25
586H-EPKSC-25
586H-ELQLE-25
586H-147
586H-G4S-147
586H-TVAAPS-147
586H-ASTKG-147
586H-EPKSC-147
586H-ELQLE-147
586H-154
586H-G4S-154
586H-TVAAPS-154
586H-ASTKG-154
586H-EPKSC-154
586H-ELQLE-154

FIG. 21

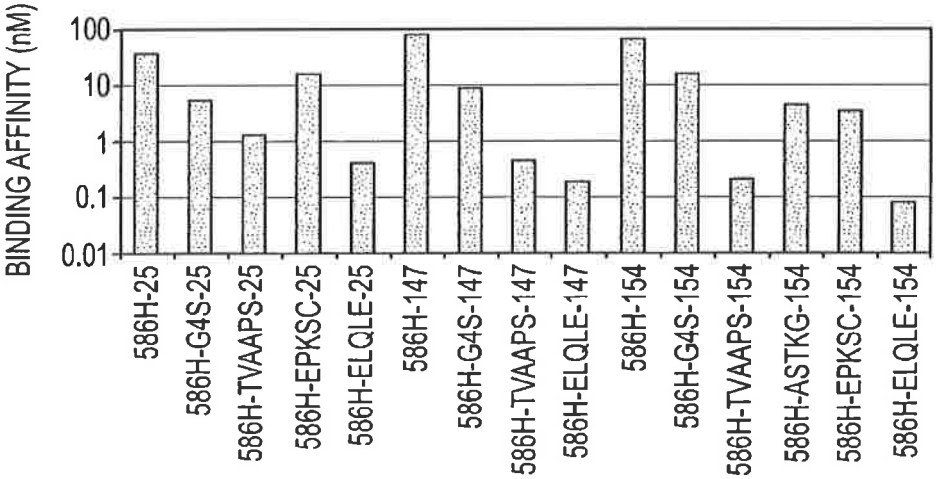

BINDING AFFINITY (nM)
100
10
1
0.1
0.01
586H-25
586H-G4S-25
586H-TVAAPS-25
586H-EPKSC-25
586H-ELQLE-25
586H-147
586H-G4S-147
586H-TVAAPS-147
586H-ELQLE-147
586H-154
586H-G4S-154
586H-TVAAPS-154
586H-ASTKG-154
586H-EPKSC-154
586H-ELQLE-154

FIG. 22

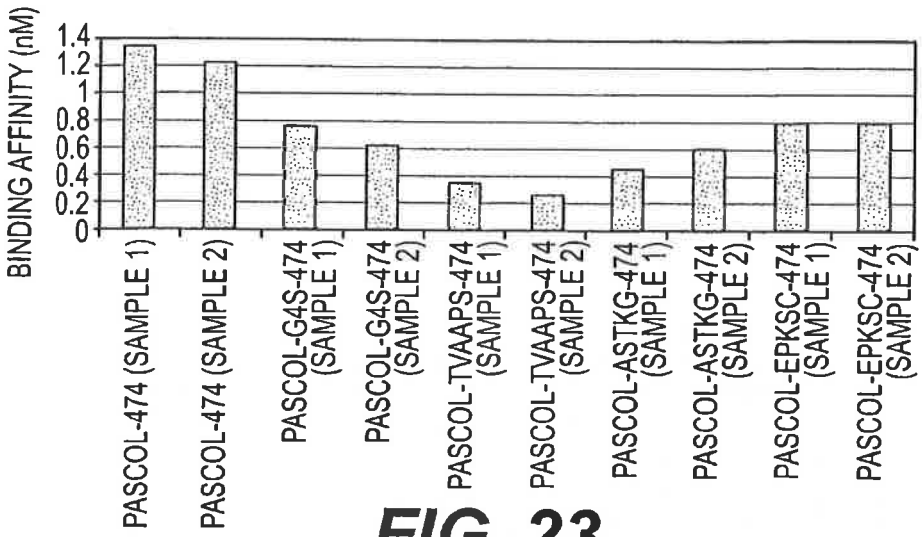


FIG. 23

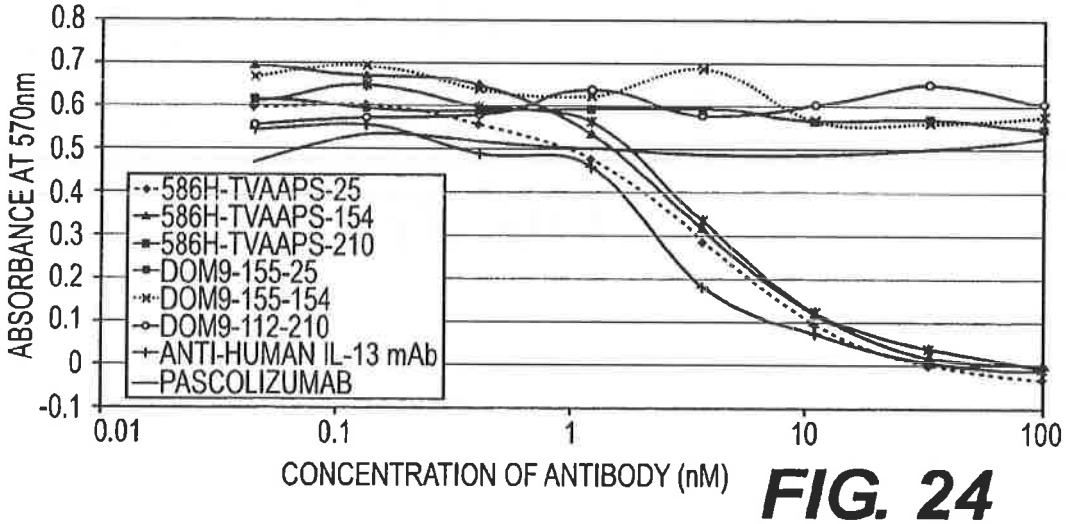


FIG. 24

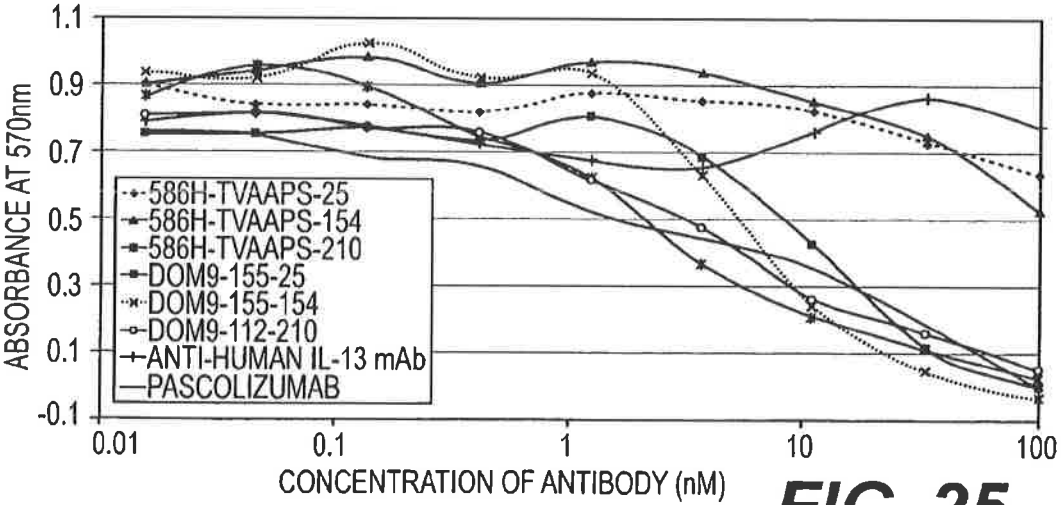


FIG. 25

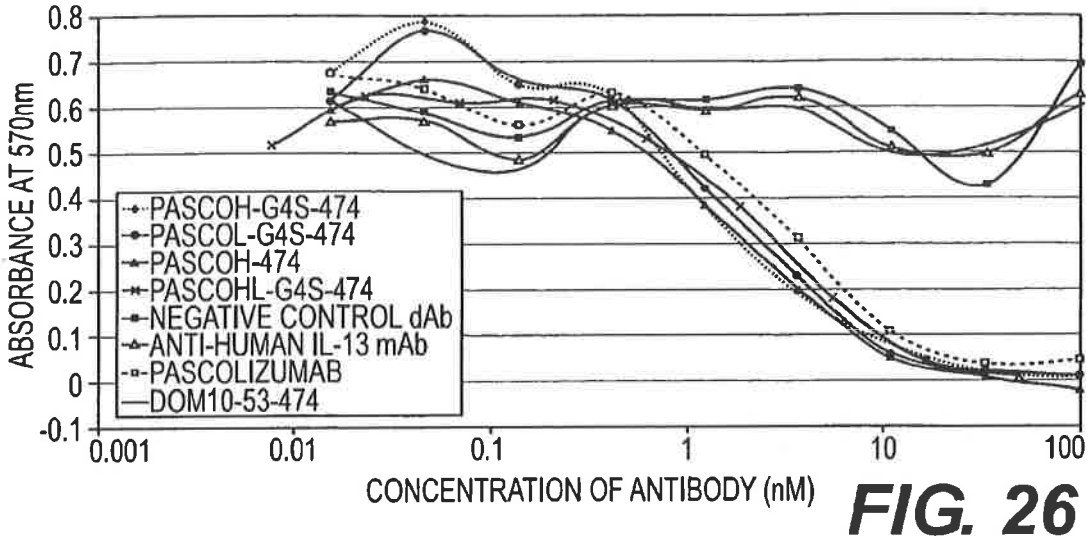


FIG. 26

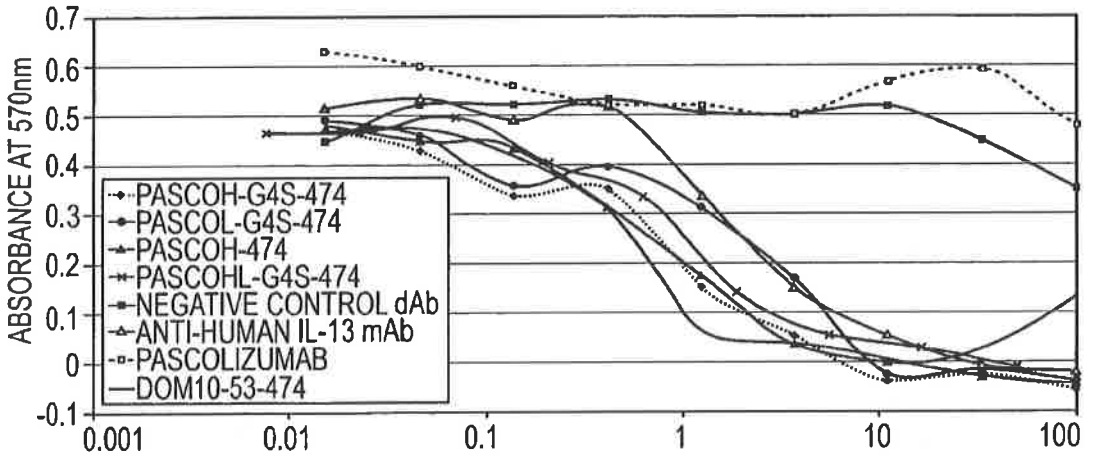


FIG. 27

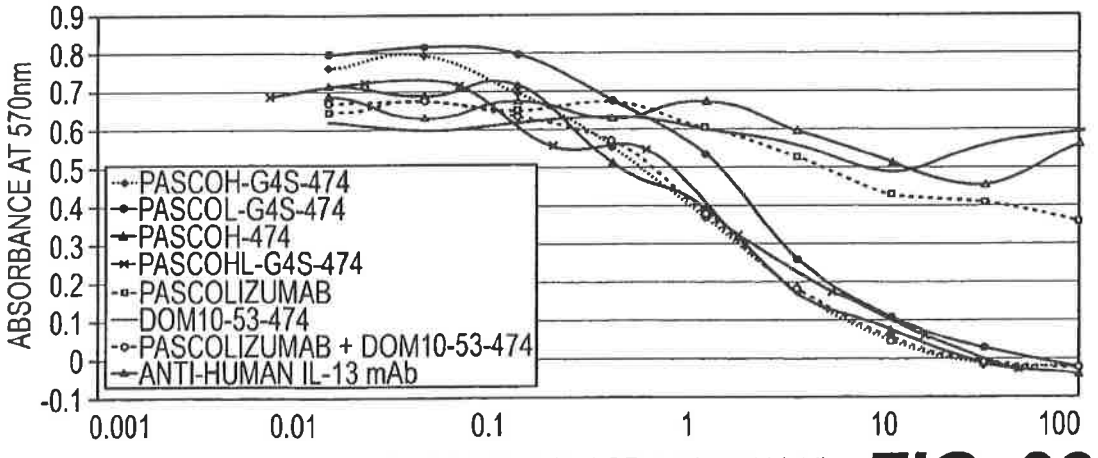


FIG. 28

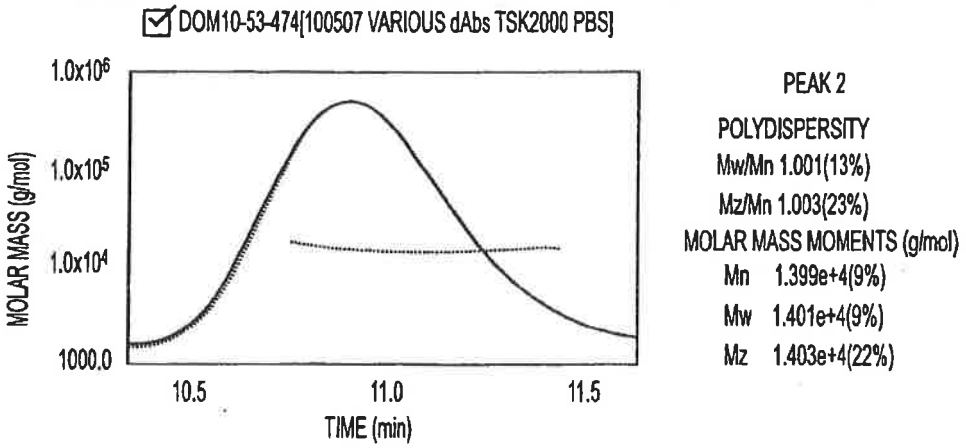

DOM10-53-474[100507 VARIOUS dAbs TSK2000 PBS]
MOLAR MASS (g/mol)
1.0x10^6
1.0x10^5
1.0x10^4
1000.0
10.5
11.0
11.5
TIME (min)
PEAK 2
POLYDISPERSITY
Mw/Mn 1.001(13%)
Mz/Mn 1.003(23%)
MOLAR MASS MOMENTS (g/mol)
Mn 1.399e+4(9%)
Mw 1.401e+4(9%)
Mz 1.403e+4(22%)

FIG. 29

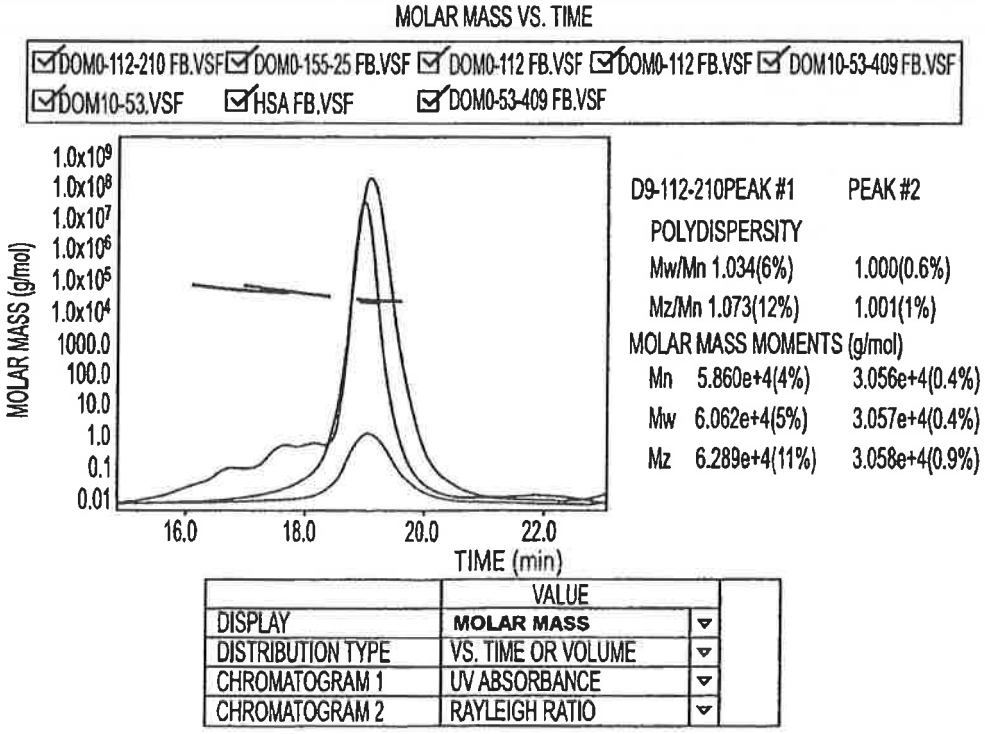
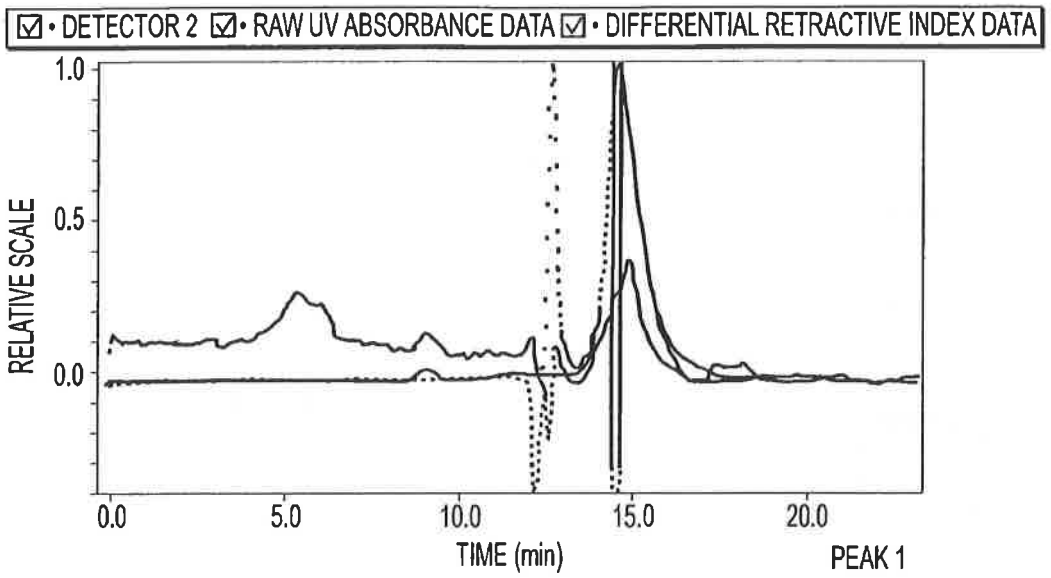

MOLAR MASS VS. TIME
DOM0-112-210 FB.VSF
DOM0-155-25 FB.VSF
DOM0-112 FB.VSF
DOM0-112 FB.VSF
DOM10-53-409 FB.VSF
DOM10-53.VSF
HSA FB.VSF
DOM0-53-409 FB.VSF
MOLAR MASS (g/mol)
1.0x10^9
1.0x10^8
1.0x10^7
1.0x10^6
1.0x10^5
1.0x10^4
1000.0
100.0
10.0
1.0
0.1
0.01
16.0
18.0
20.0
22.0
TIME (min)
D9-112-210PEAK #1
PEAK #2
POLYDISPERSITY
Mw/Mn 1.034(6%)
1.000(0.6%)
Mz/Mn 1.073(12%)
1.001(1%)
MOLAR MASS MOMENTS (g/mol)
Mn 5.860e+4(4%)
3.056e+4(0.4%)
Mw 6.062e+4(5%)
3.057e+4(0.4%)
Mz 6.289e+4(11%)
3.058e+4(0.9%)
VALUE
DISPLAY
MOLAR MASS
DISTRIBUTION TYPE
VS. TIME OR VOLUME
CHROMATOGRAM 1
UV ABSORBANCE
CHROMATOGRAM 2
RAYLEIGH RATIO

FIG. 30



POLY DISPERSITY
Mw/Mn 1.000 (20%)
Mz/Mn 1.000 (34%)
MOLAR MASS MOMENTS (g/mol)
Mn 2.800e+4 (14%)
Mw 2.801e+4 (14%)
Mz 2.802e+4 (31%)

FIG. 31

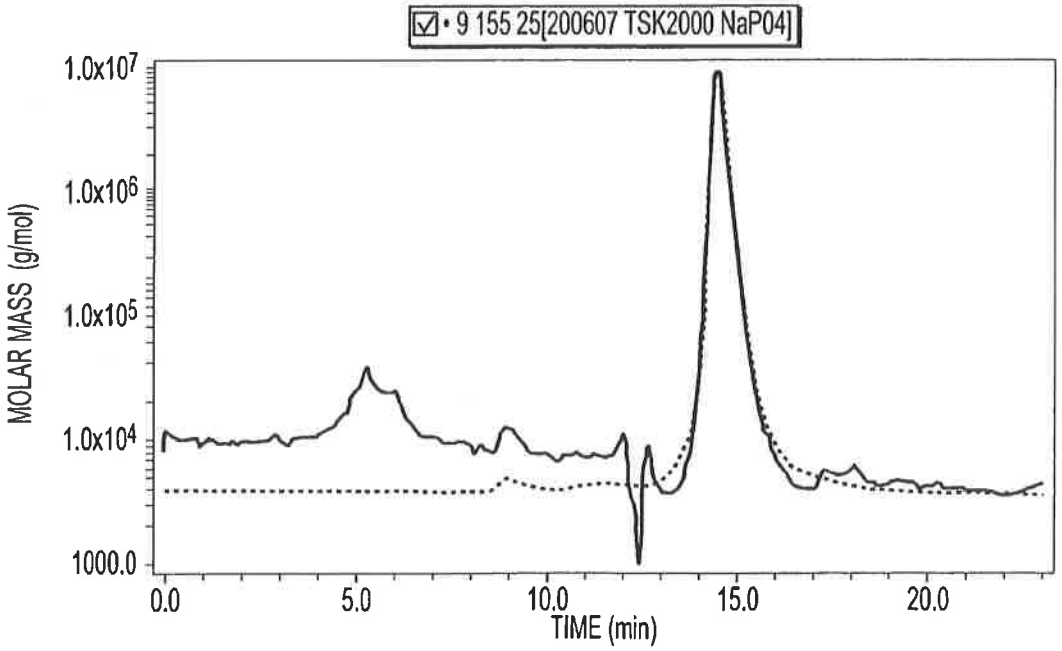
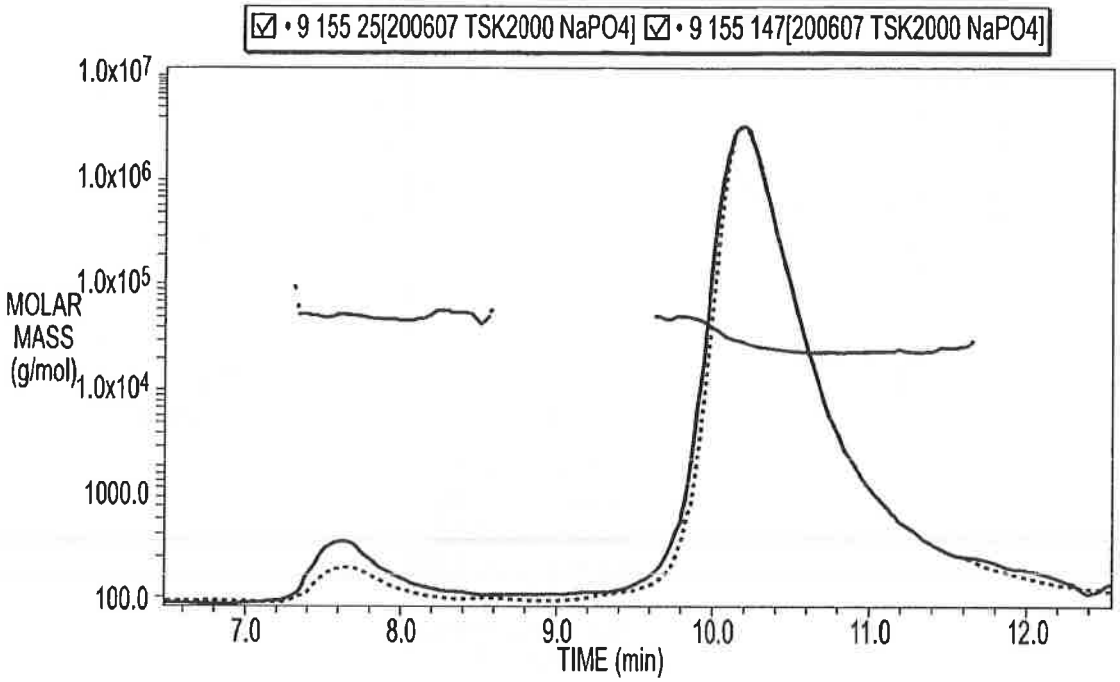


FIG. 32



	PEAK 1	PEAK 2 (ALL)
POLYDISPERSITY		
Mw/Mn	1.002 (6%)	1.039 (9%)
Mz/Mn	1.003 (10%)	1.092 (19%)
MOLAR MASS MOMENTS (g/mol)		
Mn	5.041e+4 (4%)	2.942e+4 (5%)
Mw	5.049e+4 (4%)	3.058e+4 (7%)
Mz	5.057e+4 (9%)	3.214e+4 (18%)

PEAK 2 (RIGHT PART)	
POLYDISPERSITY	
Mw/Mn	1.001 (4%)
Mz/Mn	1.002 (7%)
MOLAR MASS MOMENTS (g/mol)	
Mn	2.589e+4 (3%)
Mw	2.591e+4 (3%)
Mz	2.593e+4 (6%)

FIG. 33

PEAK 3

POLYDISPERSITY

Mw/Mn 1.011 (10%)
Mz/Mn 1.022 (19%)

MOLAR MASS MOMENTS (g/mol)

Mn 2.740e+4 (7%)
Mw 2.769e+4 (7%)
Mz 2.801e+4 (17%)

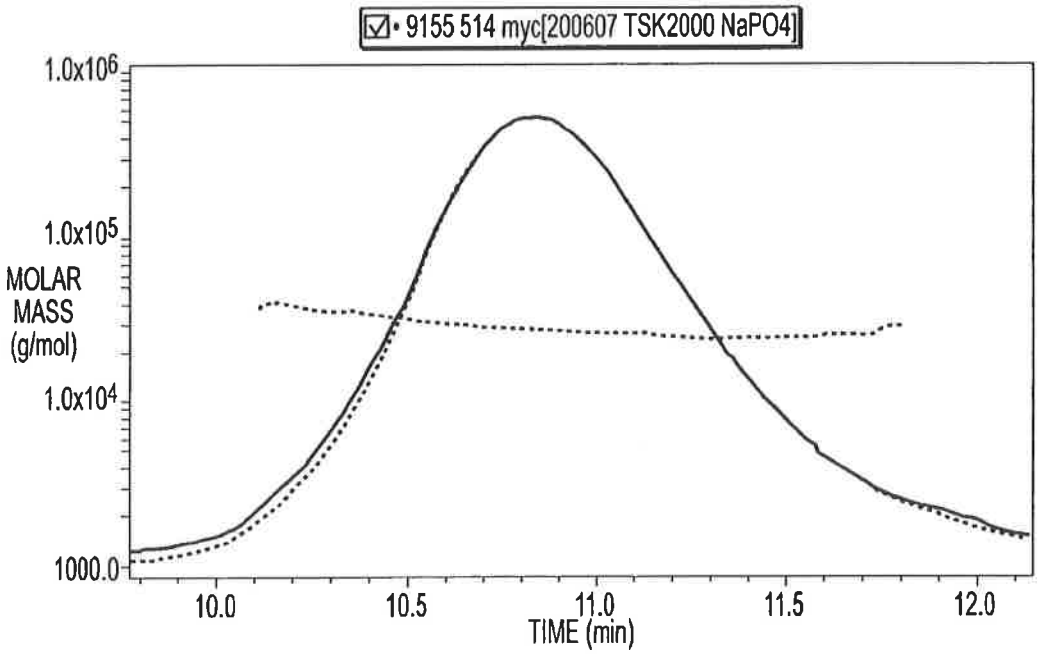
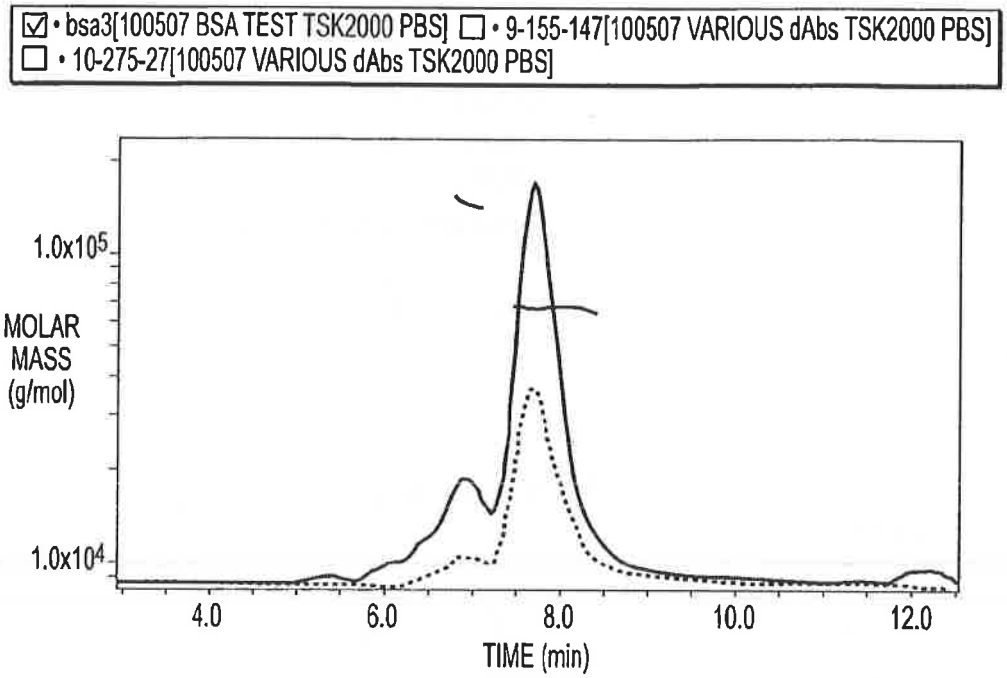


FIG. 34



	PEAK 2	PEAK 3
POLYDISPERSITY		
Mw/Mn	1.000 (2%)	1.001 (3%)
Mz/Mn	1.000 (3%)	1.001 (6%)
MOLAR MASS MOMENTS (g/mol)		
Mn	6.735e+4 (1%)	1.449e+5 (2%)
Mw	6.736e+4 (1%)	1.450e+5 (2%)
Mz	6.737e+4 (3%)	1.451e+5 (5%)

FIG. 35

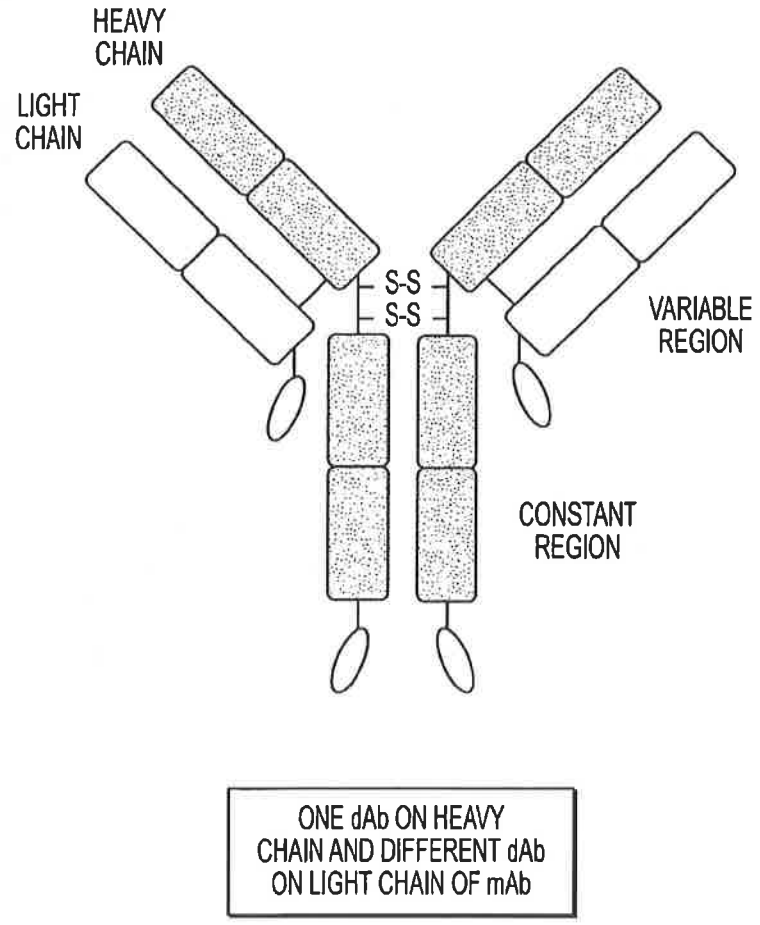

HEAVY CHAIN
LIGHT CHAIN
S-S
S-S
VARIABLE REGION
CONSTANT REGION
ONE dAb ON HEAVY CHAIN AND DIFFERENT dAb ON LIGHT CHAIN OF mAb

FIG. 36

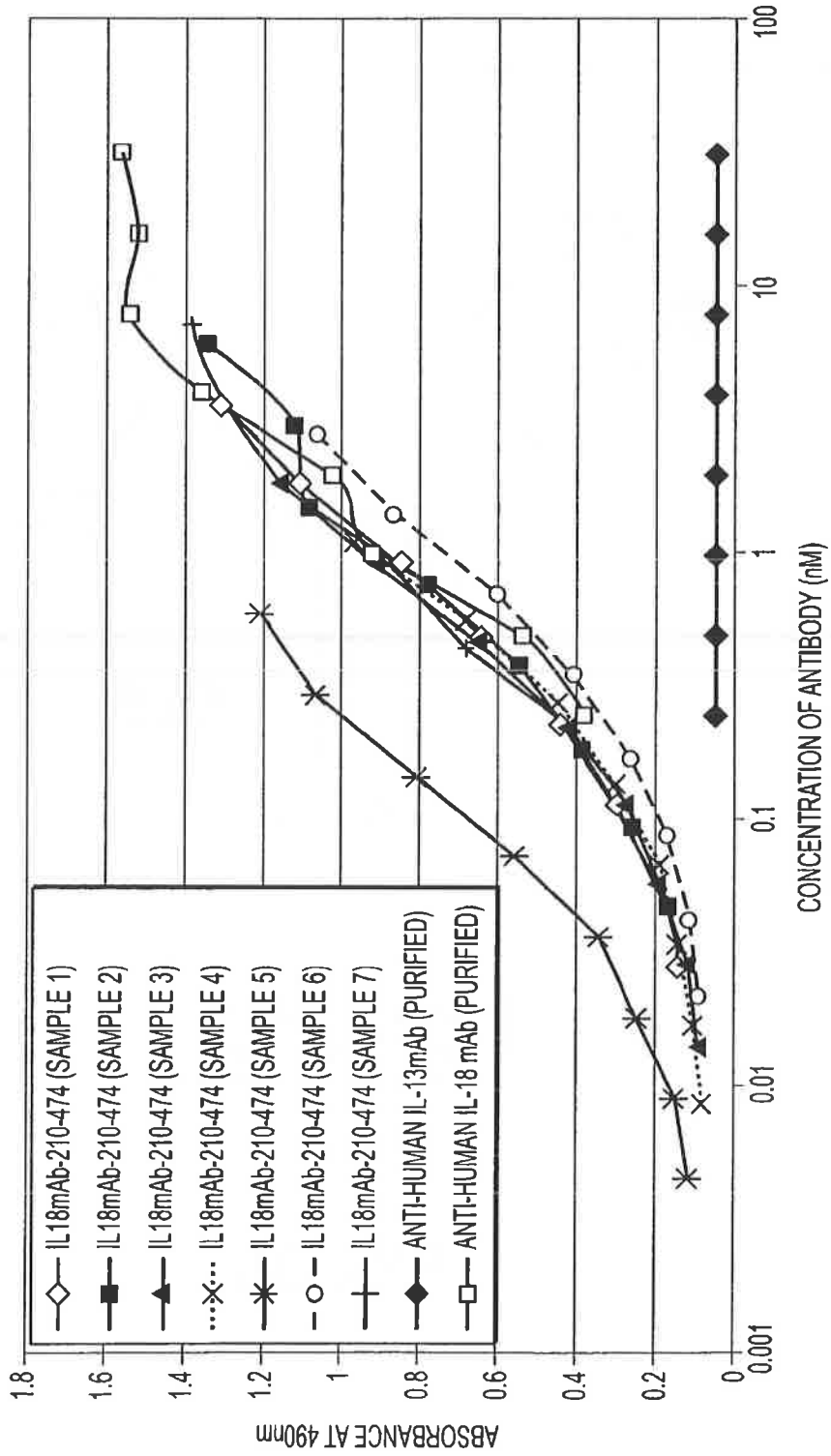

ABSORBANCE AT 490nm
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)
IL18mAb-210-474 (SAMPLE 1)
IL18mAb-210-474 (SAMPLE 2)
IL18mAb-210-474 (SAMPLE 3)
IL18mAb-210-474 (SAMPLE 4)
IL18mAb-210-474 (SAMPLE 5)
IL18mAb-210-474 (SAMPLE 6)
IL18mAb-210-474 (SAMPLE 7)
ANTI-HUMAN IL-13mAb (PURIFIED)
ANTI-HUMAN IL-18 mAb (PURIFIED)

FIG. 37

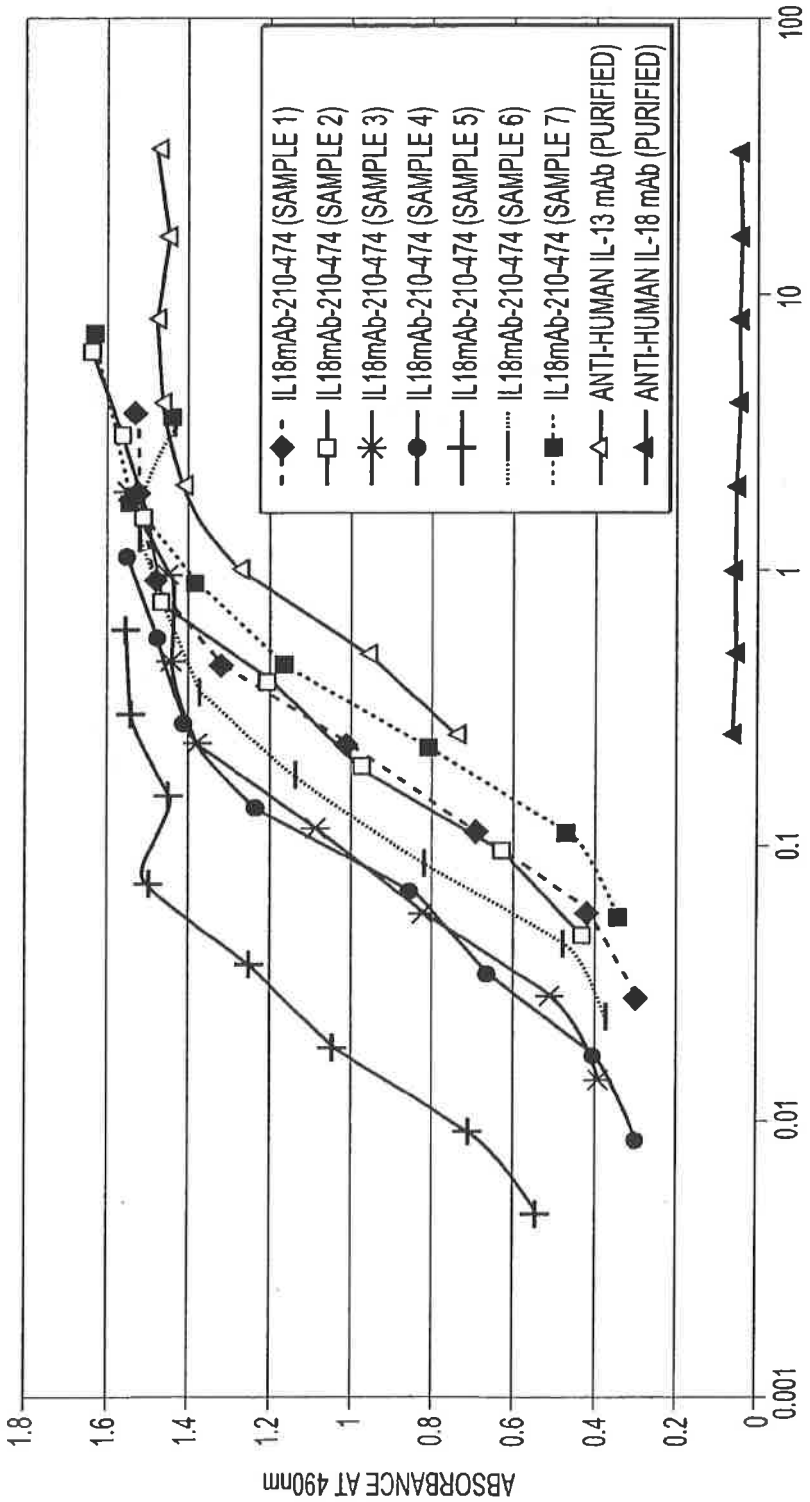

ABSORBANCE AT 490nm
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)
IL18mAb-210-474 (SAMPLE 1)
IL18mAb-210-474 (SAMPLE 2)
IL18mAb-210-474 (SAMPLE 3)
IL18mAb-210-474 (SAMPLE 4)
IL18mAb-210-474 (SAMPLE 5)
IL18mAb-210-474 (SAMPLE 6)
IL18mAb-210-474 (SAMPLE 7)
ANTI-HUMAN IL-13 mAb (PURIFIED)
ANTI-HUMAN IL-18 mAb (PURIFIED)

FIG. 38

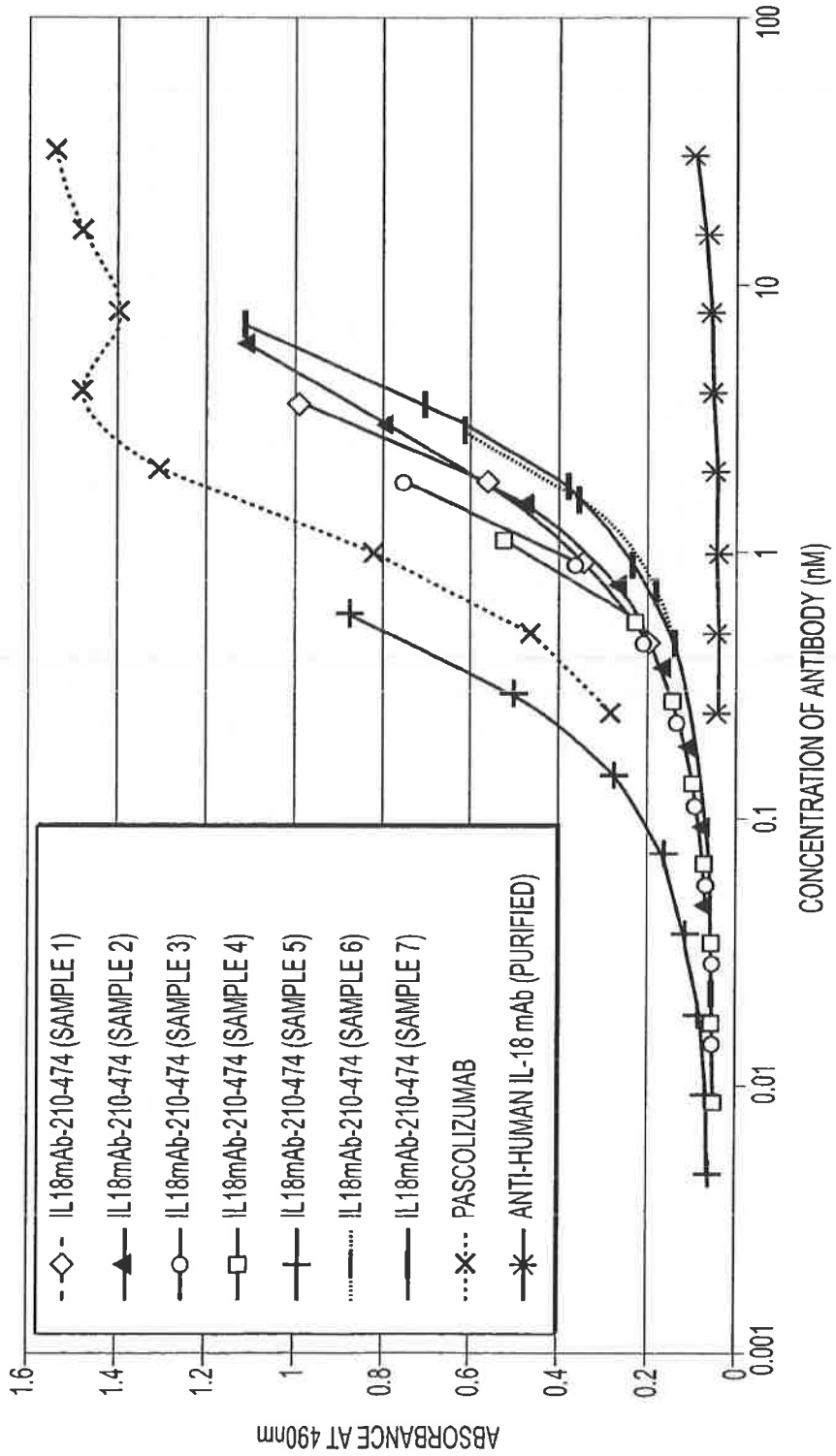

ABSORBANCE AT 490nm
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)
IL18mAb-210-474 (SAMPLE 1)
IL18mAb-210-474 (SAMPLE 2)
IL18mAb-210-474 (SAMPLE 3)
IL18mAb-210-474 (SAMPLE 4)
IL18mAb-210-474 (SAMPLE 5)
IL18mAb-210-474 (SAMPLE 6)
IL18mAb-210-474 (SAMPLE 7)
PASCOLIZUMAB
ANTI-HUMAN IL-18 mAb (PURIFIED)

FIG. 39

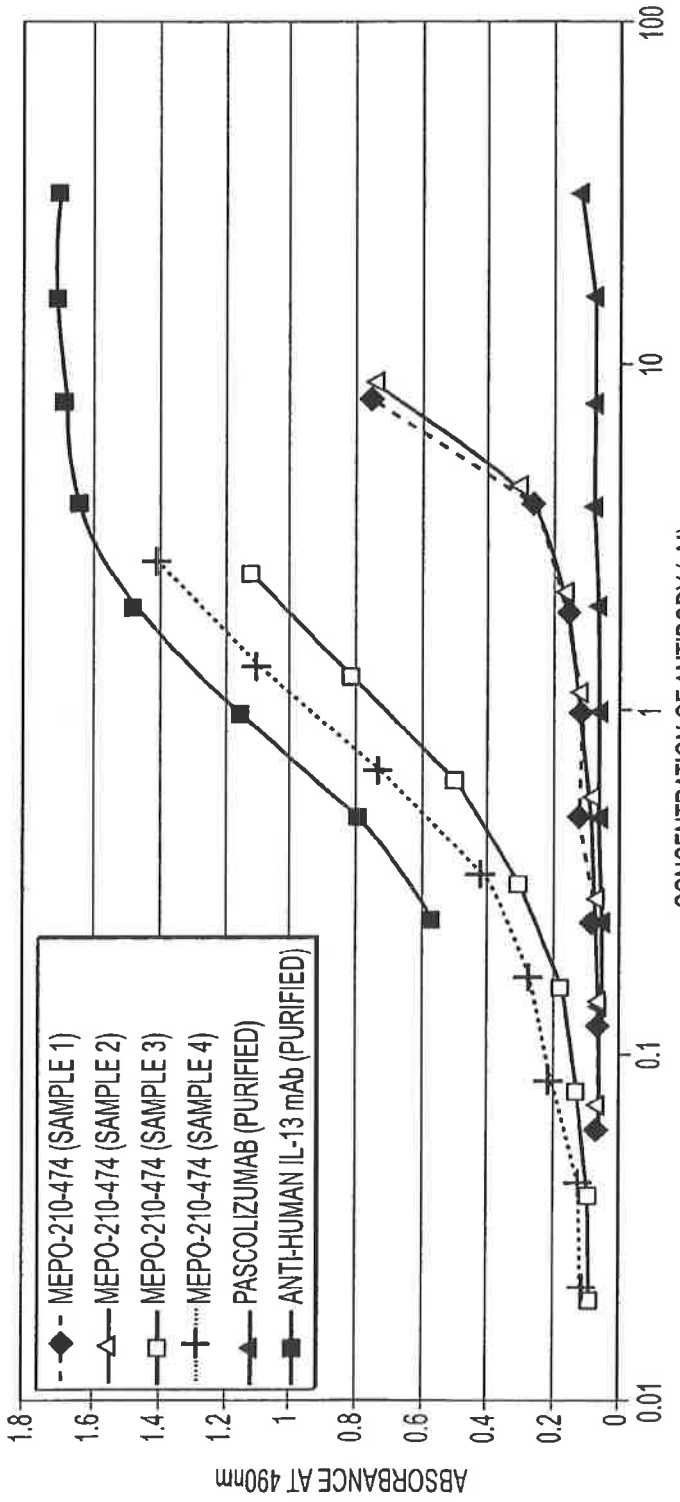

ABSORBANCE AT 490nm
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.01
0.1
1
10
100
CONCENTRATION OF ANTIBODY (nM)
MEPO-210-474 (SAMPLE 1)
MEPO-210-474 (SAMPLE 2)
MEPO-210-474 (SAMPLE 3)
MEPO-210-474 (SAMPLE 4)
PASCOLIZUMAB (PURIFIED)
ANTI-HUMAN IL-13 mAb (PURIFIED)

FIG. 40

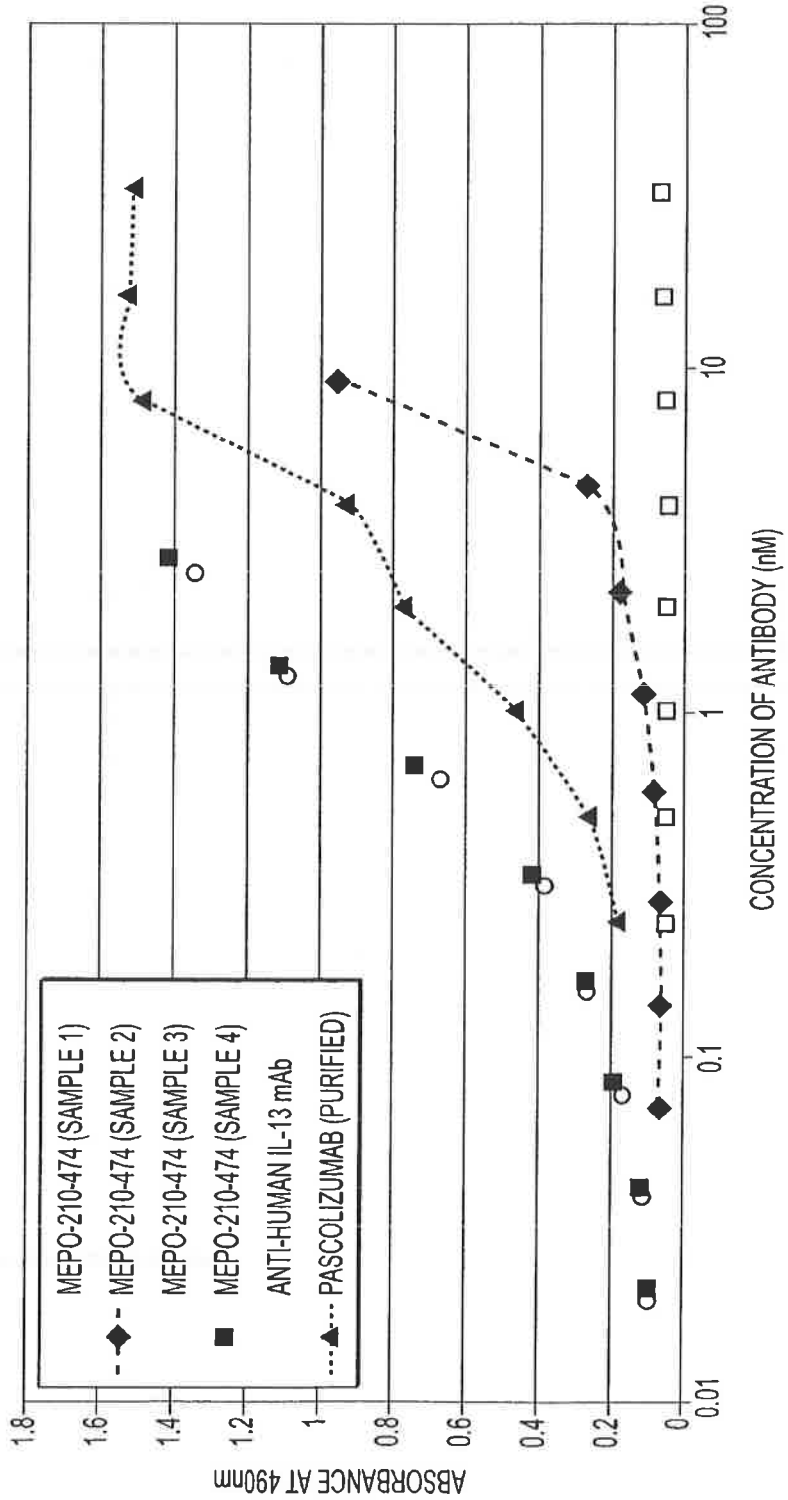
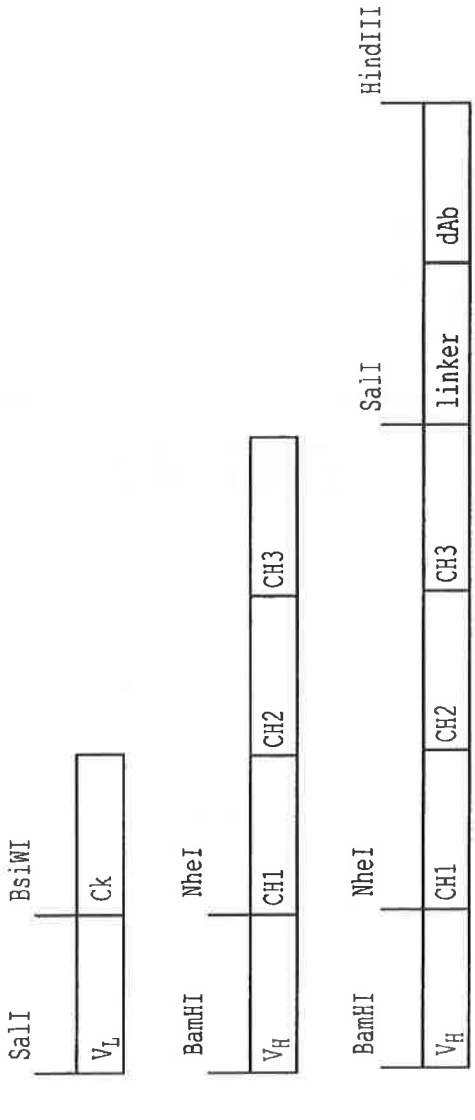

MEPO-210-474 (SAMPLE 1)
MEPO-210-474 (SAMPLE 2)
MEPO-210-474 (SAMPLE 3)
MEPO-210-474 (SAMPLE 4)
ANTI-HUMAN IL-13 mAb
PASCOLIZUMAB (PURIFIED)
ABSORBANCE AT 490nm
CONCENTRATION OF ANTIBODY (nM)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
0.01
0.1
1
10
100

FIG. 41



CLONING OF THE ANTI-TNF/ANTI-EGFR mAb-dAb (EXAMPLE 10)

FIG. 42

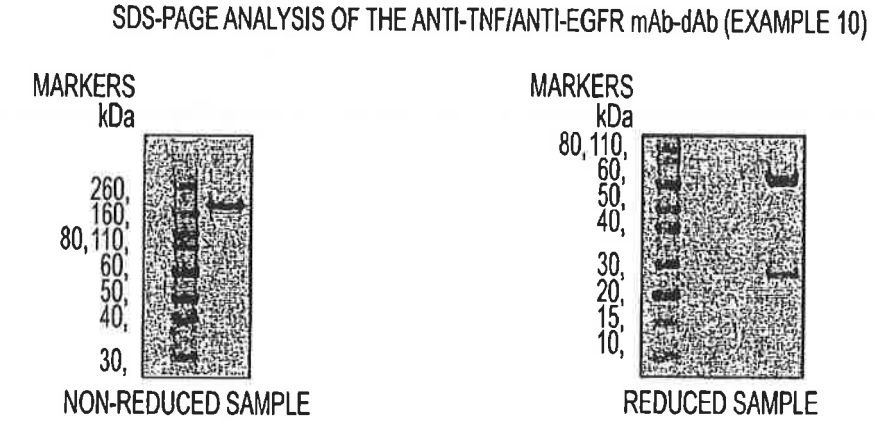


FIG. 43

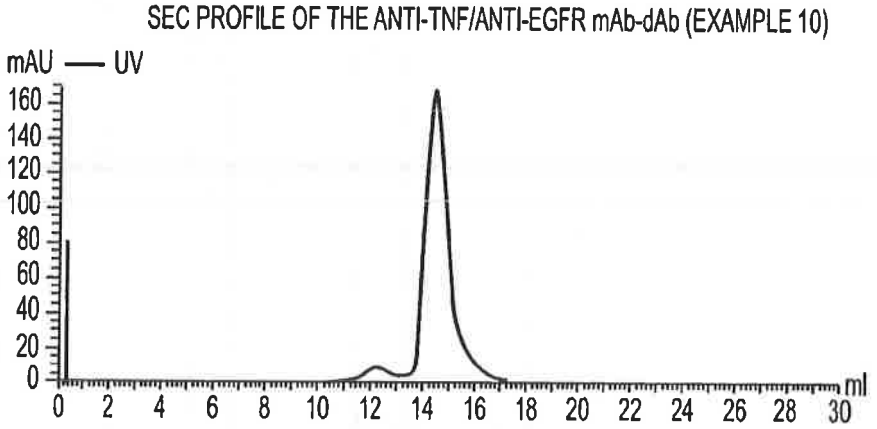


FIG. 44

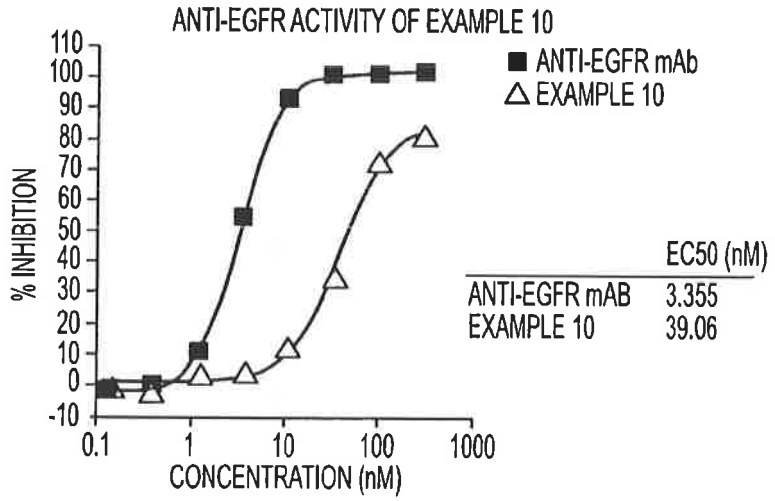


FIG. 45

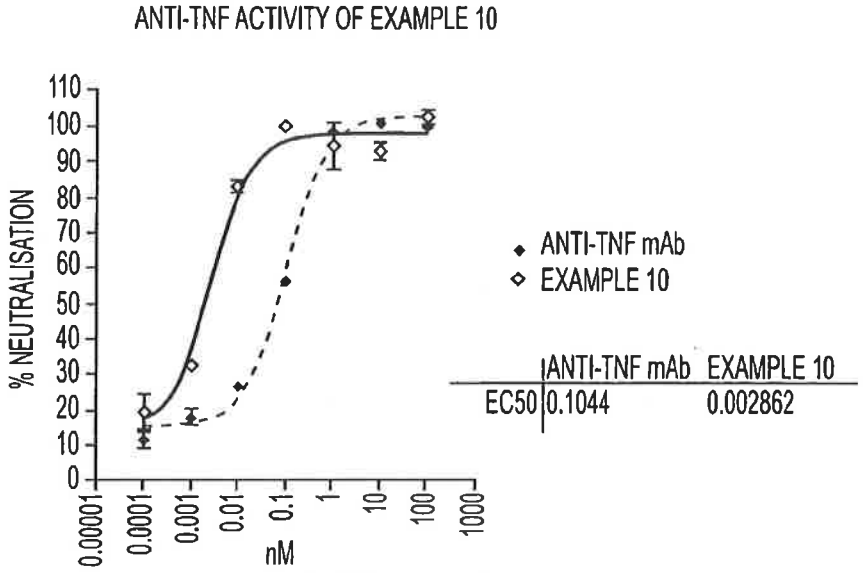


FIG. 46

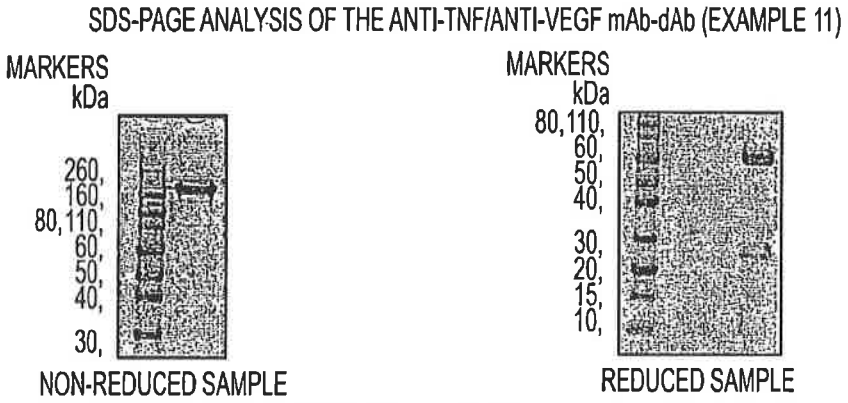


FIG. 47

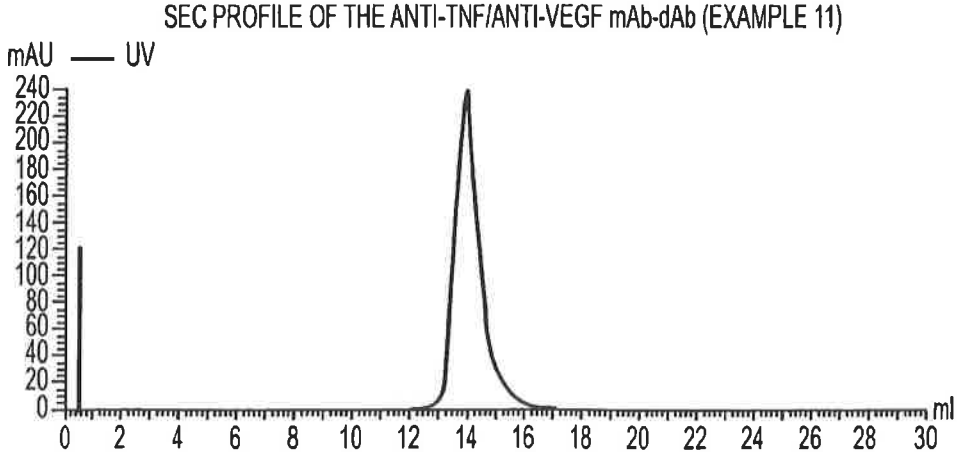


FIG. 48

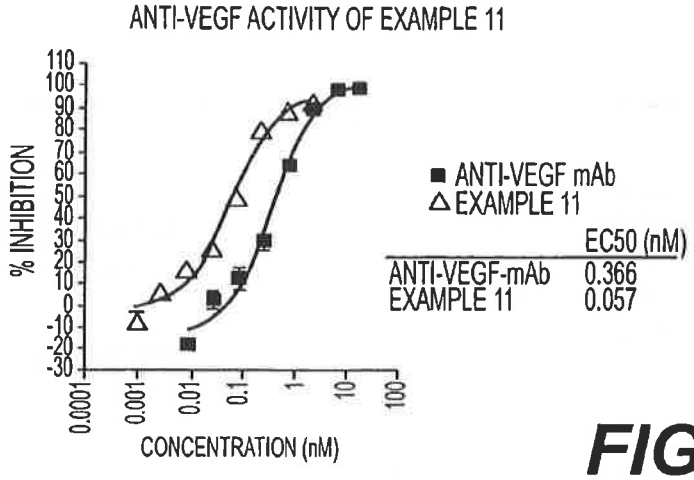


FIG. 49

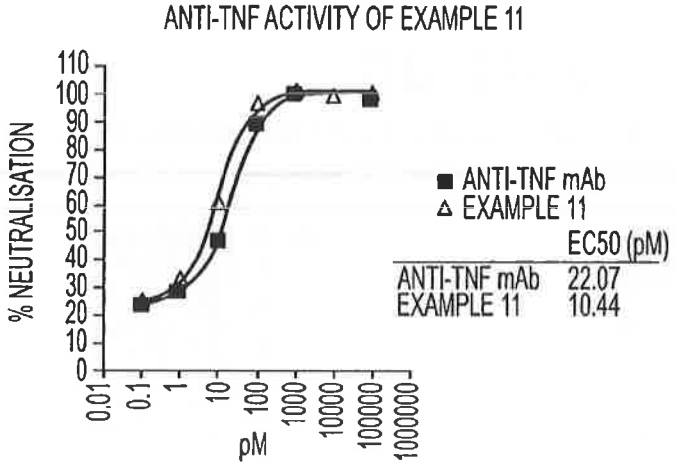


FIG. 50

CLONING OF THE ANTI-VEGF/ANTI-IL1R1 dAb-EXTENDED-IgG (EXAMPLE 12)

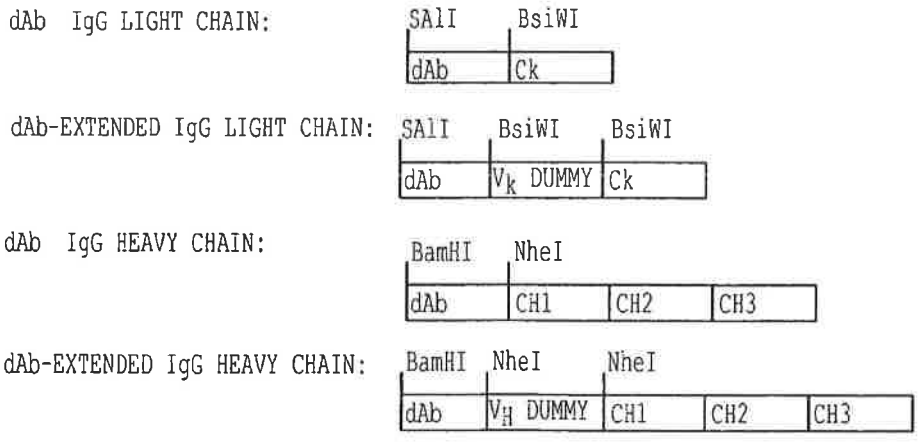


FIG. 51

SDS-PAGE ANALYSIS OF THE ANTI-TNF/ANTI-VEGF dAb-EXTENDED IgG A (EXAMPLE 12)

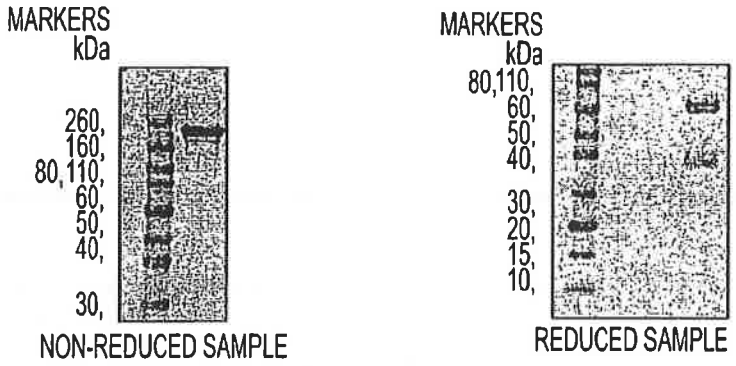
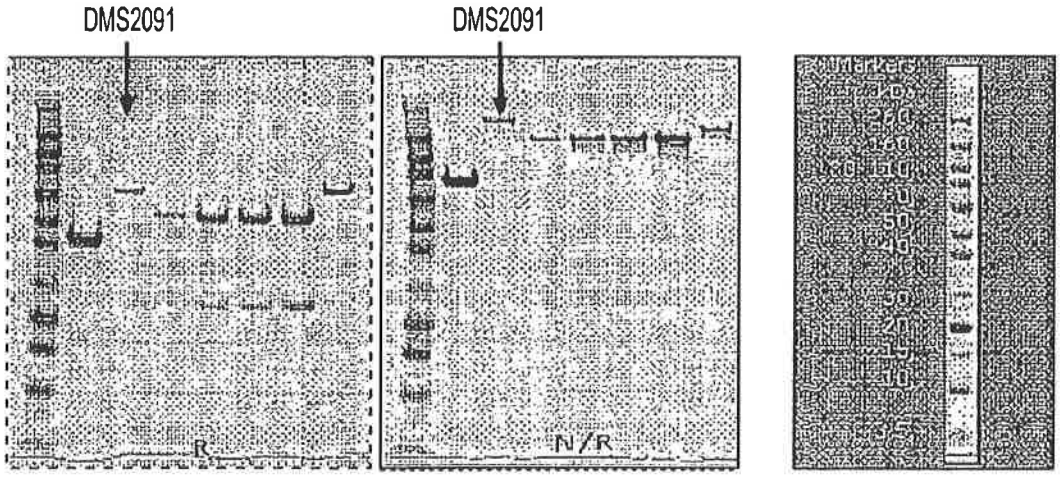


FIG. 52

SDS-PAGE ANALYSIS OF THE ANTI-TNF/ANTI-VEGF dAb-EXTENDED IgG B (EXAMPLE 12)



N/R=NON-REDUCED; R=REDUCED

FIG. 53

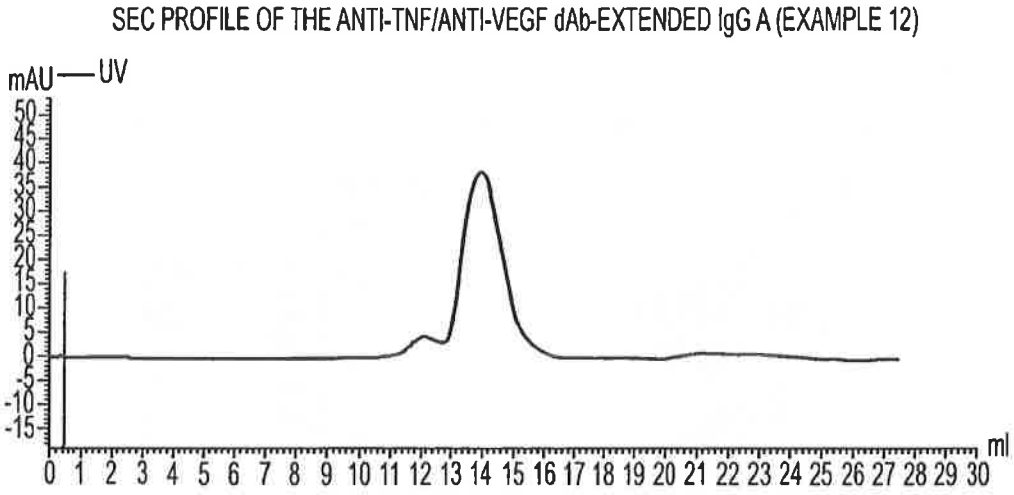


FIG. 54

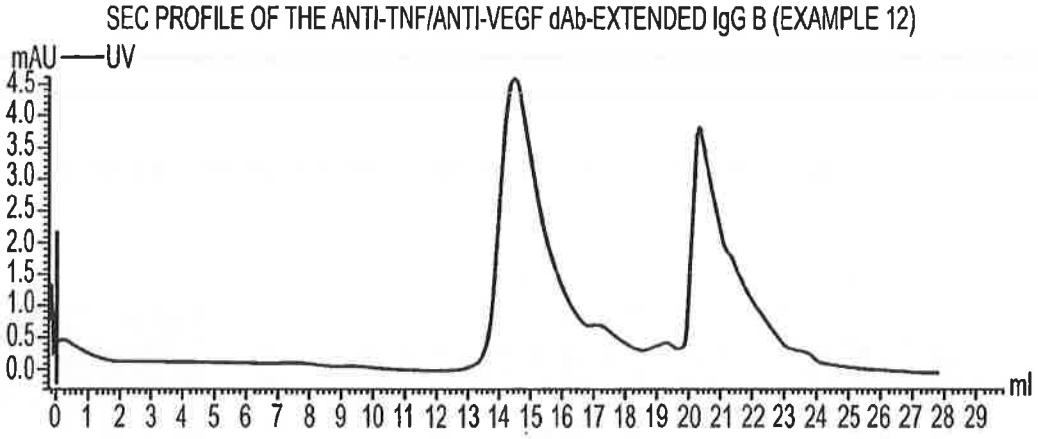


FIG. 55

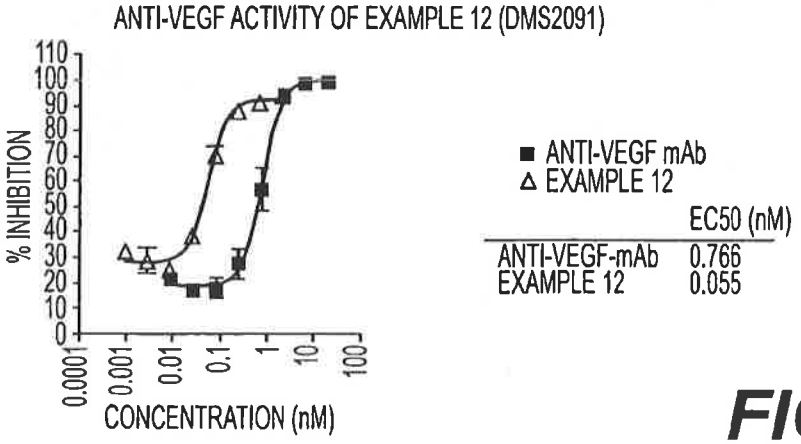


FIG. 56

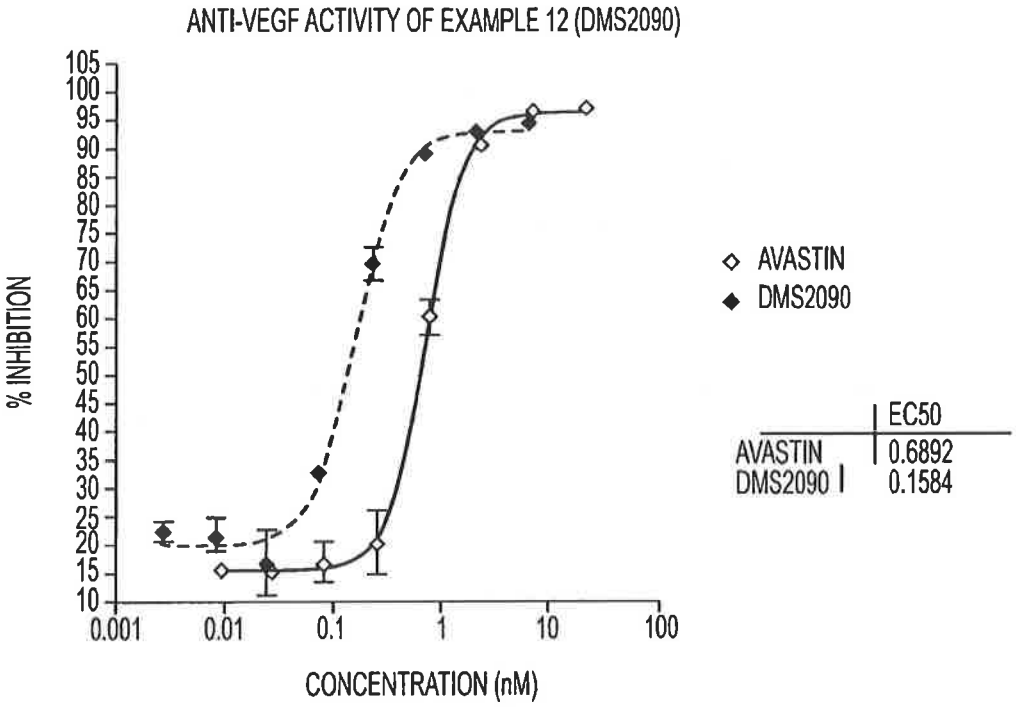

ANTI-VEGF ACTIVITY OF EXAMPLE 12 (DMS2090)
% INHIBITION
CONCENTRATION (nM)
AVASTIN
DMS2090
EC50
AVASTIN 0.6892
DMS2090 0.1584

FIG. 57

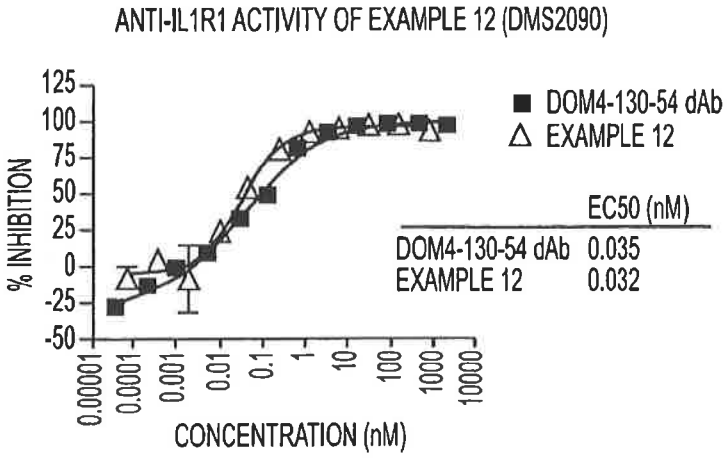

ANTI-IL1R1 ACTIVITY OF EXAMPLE 12 (DMS2090)
% INHIBITION
CONCENTRATION (nM)
DOM4-130-54 dAb
EXAMPLE 12
EC50 (nM)
DOM4-130-54 dAb 0.035
EXAMPLE 12 0.032

FIG. 58

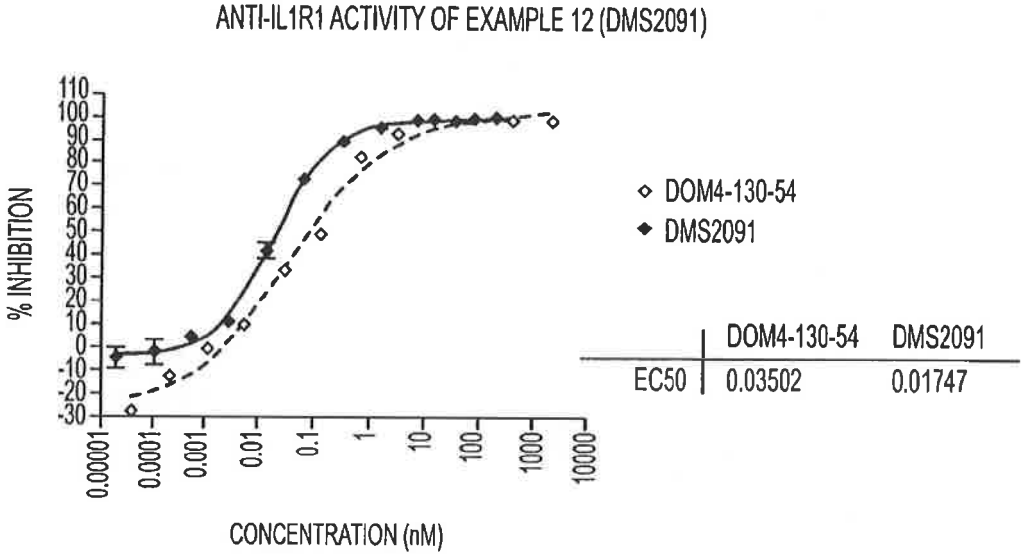

ANTI-IL1R1 ACTIVITY OF EXAMPLE 12 (DMS2091)
% INHIBITION
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
0.00001
0.0001
0.001
0.01
0.1
1
10
100
1000
10000
CONCENTRATION (nM)
DOM4-130-54
DMS2091
DOM4-130-54 DMS2091
EC50 0.03502 0.01747

FIG. 59

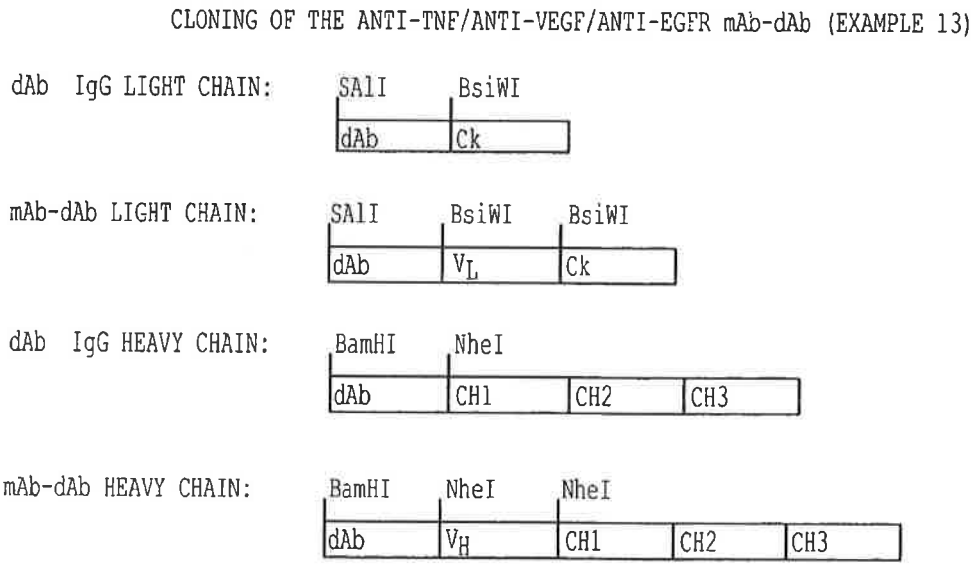

CLONING OF THE ANTI-TNF/ANTI-VEGF/ANTI-EGFR mAb-dAb (EXAMPLE 13)
dAb IgG LIGHT CHAIN:
SAlI
BsiWI
dAb
Ck
mAb-dAb LIGHT CHAIN:
SAlI
BsiWI
BsiWI
dAb
VL
Ck
dAb IgG HEAVY CHAIN:
BamHI
NheI
dAb
CH1
CH2
CH3
mAb-dAb HEAVY CHAIN:
BamHI
NheI
NheI
dAb
VH
CH1
CH2
CH3

FIG. 60

SDS-PAGE ANALYSIS OF THE ANTI-TNF/ANTI-VEGF/ANTI-EGFR mAb-dAb (EXAMPLE 13)

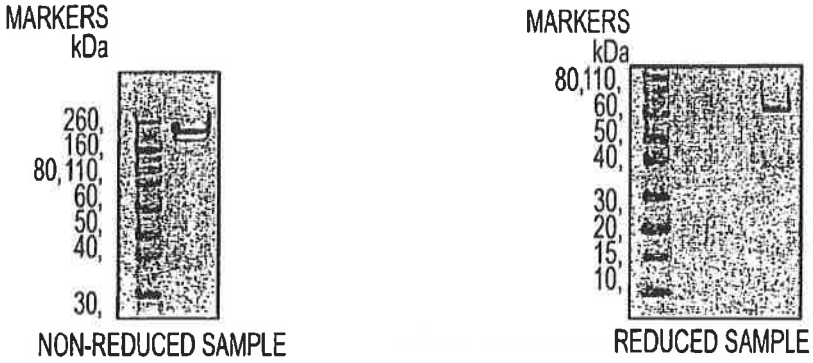


FIG. 61

ANTI-VEGF ACTIVITY OF EXAMPLE 13

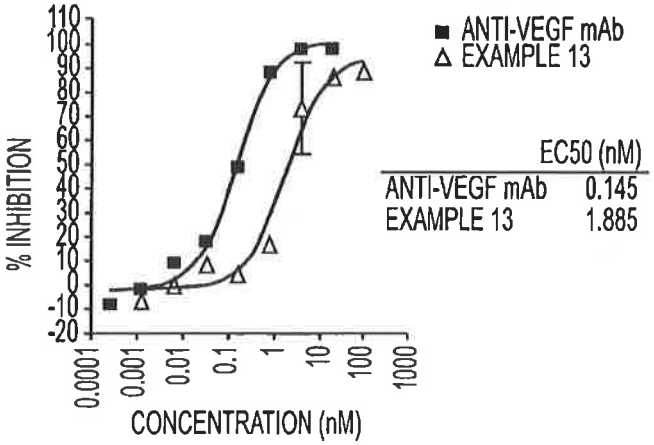


FIG. 62

ANTI-TNF ACTIVITY OF EXAMPLE 13

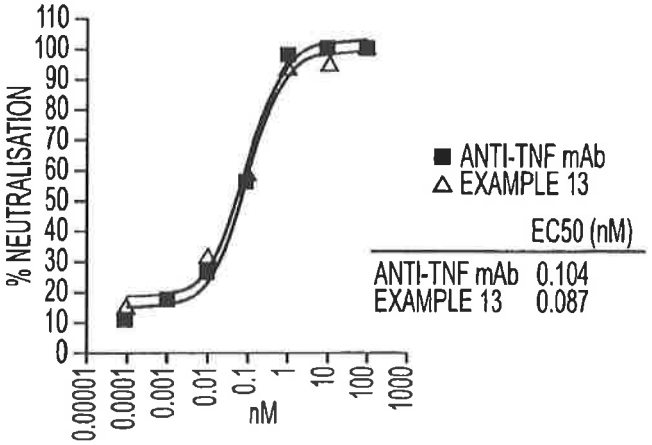


FIG. 63

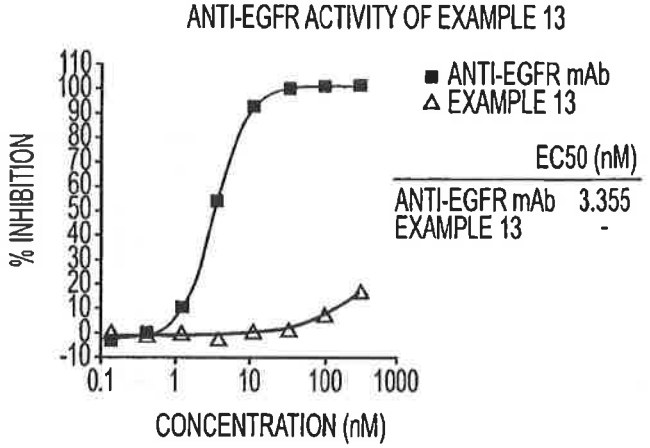


FIG. 64

SEC ANALYSIS OF PURIFIED BISPECIFIC ANTIBODIES, BPC1603 (A), BPC1604 (B), BPC1605 (C), BPC1606 (D)

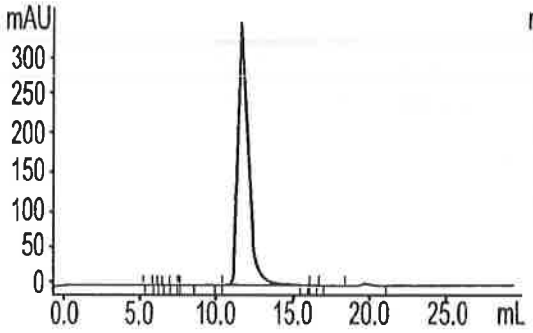


FIG. 65A

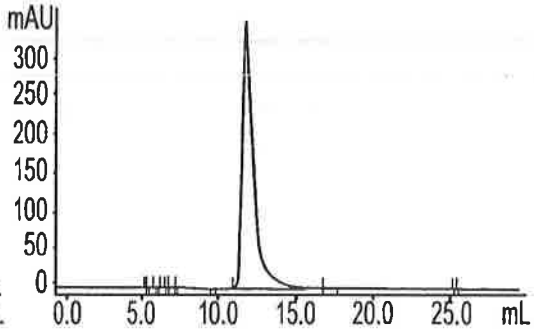


FIG. 65B

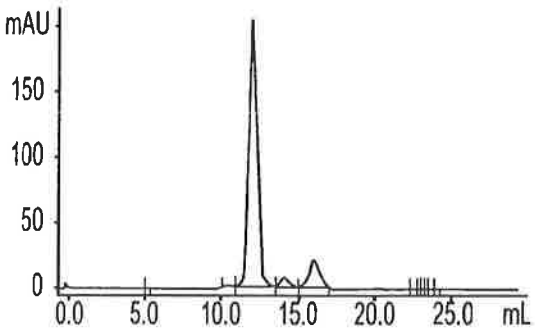


FIG. 65C

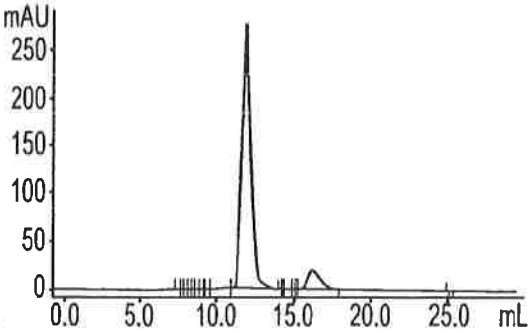


FIG. 65D

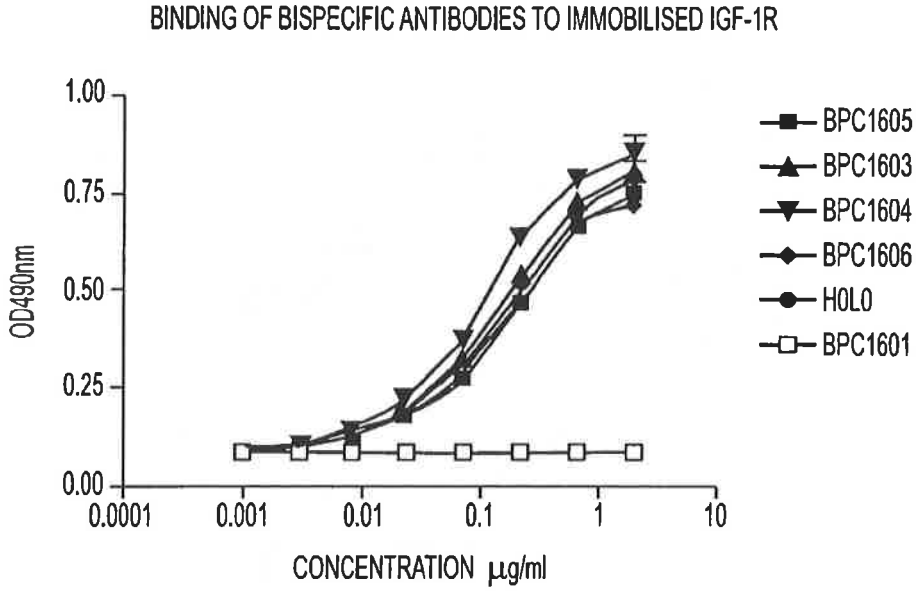

BINDING OF BISPECIFIC ANTIBODIES TO IMMOBILISED IGF-1R
OD490nm
1.00
0.75
0.50
0.25
0.00
0.0001
0.001
0.01
0.1
1
10
CONCENTRATION µg/ml
BPC1605
BPC1603
BPC1604
BPC1606
HOLO
BPC1601

FIG. 66

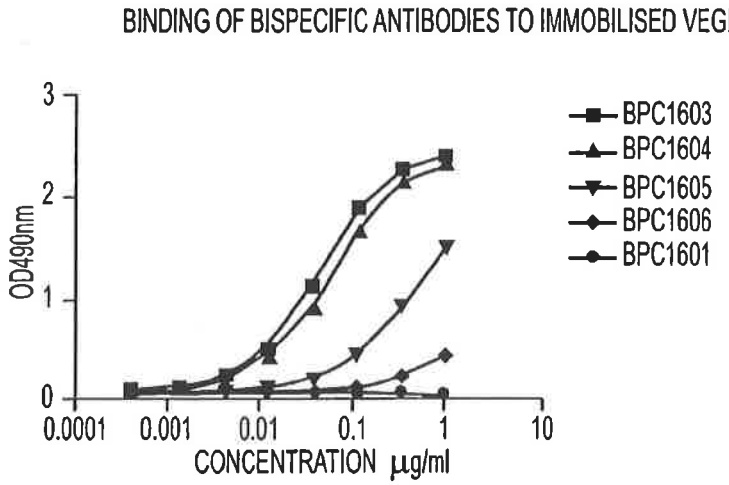

BINDING OF BISPECIFIC ANTIBODIES TO IMMOBILISED VEGF
OD490nm
3
2
1
0
0.0001
0.001
0.01
0.1
1
10
CONCENTRATION µg/ml
BPC1603
BPC1604
BPC1605
BPC1606
BPC1601

FIG. 67

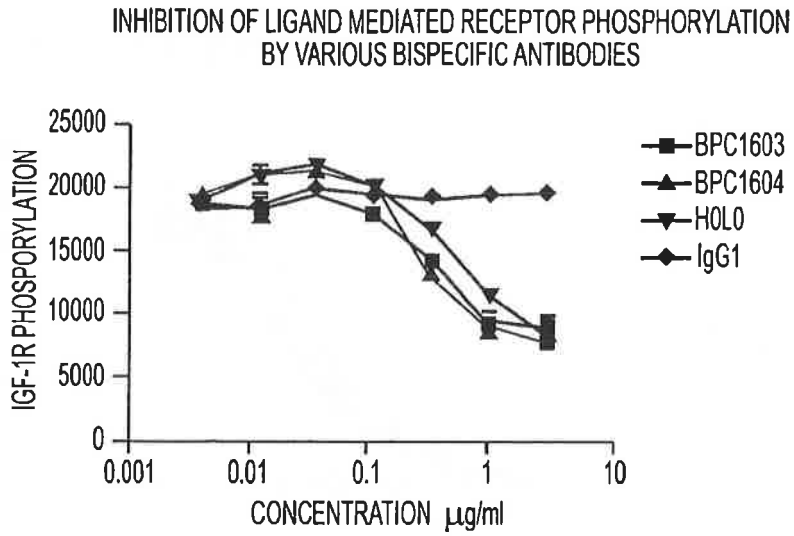

INHIBITION OF LIGAND MEDIATED RECEPTOR PHOSPHORYLATION
BY VARIOUS BISPECIFIC ANTIBODIES
IGF-1R PHOSPORYLATION
25000
20000
15000
10000
5000
0
0.001
0.01
0.1
1
10
CONCENTRATION µg/ml
BPC1603
BPC1604
HOLO
IgG1

FIG. 68

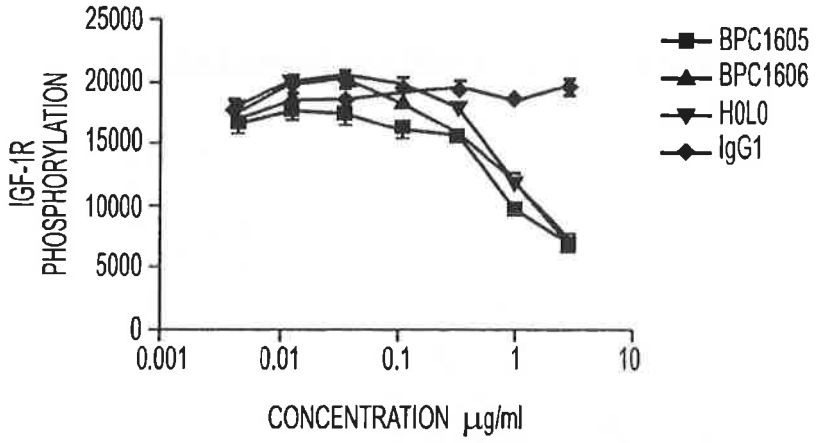

IGF-1R PHOSPHORYLATION
25000
20000
15000
10000
5000
0
0.001
0.01
0.1
1
10
CONCENTRATION µg/ml
BPC1605
BPC1606
HOLO
IgG1

FIG. 69

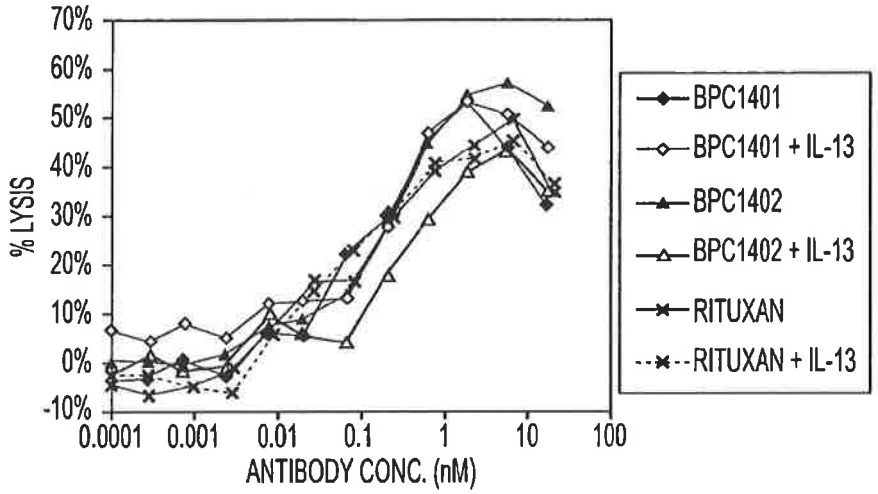

70%
60%
50%
40%
30%
20%
10%
0%
-10%
% LYSIS
0.0001
0.001
0.01
0.1
1
10
100
ANTIBODY CONC. (nM)
BPC1401
BPC1401 + IL-13
BPC1402
BPC1402 + IL-13
RITUXAN
RITUXAN + IL-13

FIG. 70

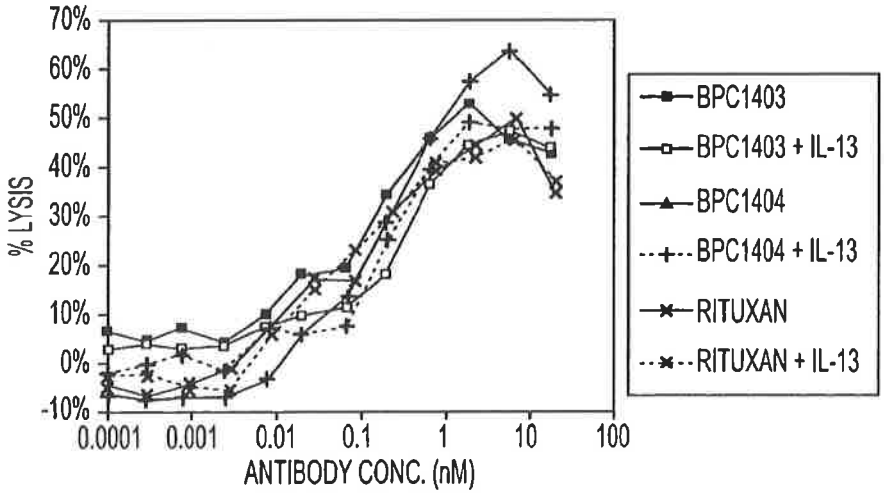

70%
60%
50%
40%
30%
20%
10%
0%
-10%
% LYSIS
0.0001
0.001
0.01
0.1
1
10
100
ANTIBODY CONC. (nM)
BPC1403
BPC1403 + IL-13
BPC1404
BPC1404 + IL-13
RITUXAN
RITUXAN + IL-13

FIG. 71

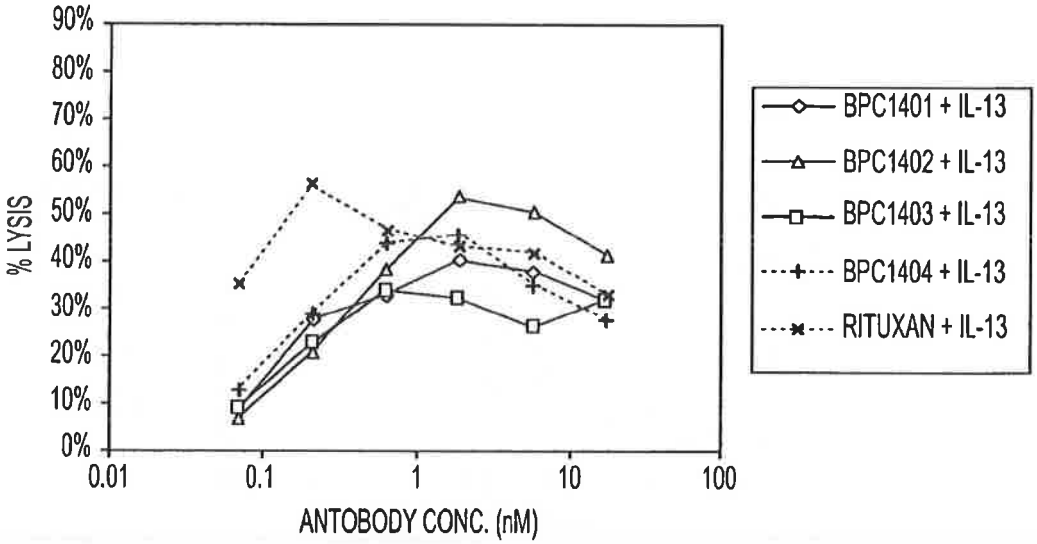

90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
% LYSIS
0.01
0.1
1
10
100
ANTOBODY CONC. (nM)
BPC1401 + IL-13
BPC1402 + IL-13
BPC1403 + IL-13
BPC1404 + IL-13
RITUXAN + IL-13

FIG. 72

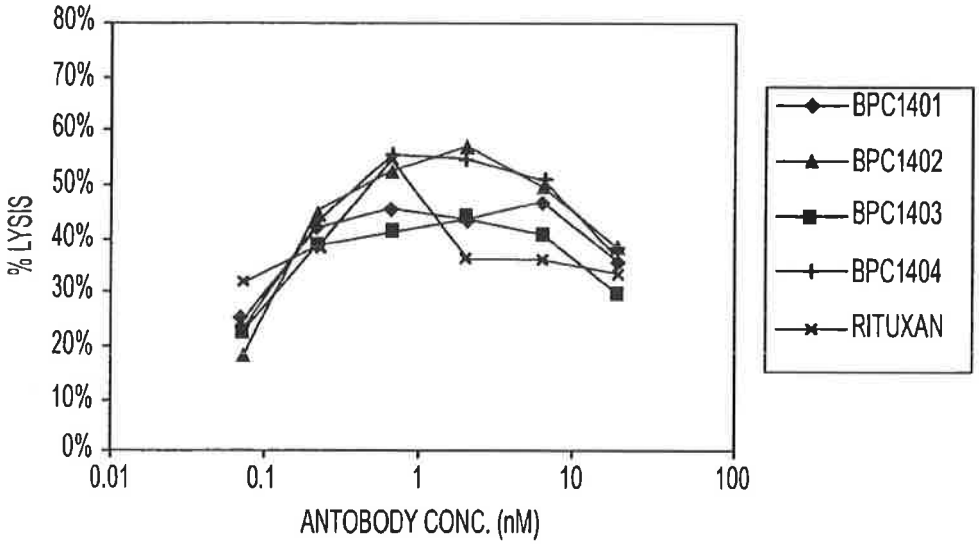

80%
70%
60%
50%
40%
30%
20%
10%
0%
% LYSIS
0.01
0.1
1
10
100
ANTOBODY CONC. (nM)
BPC1401
BPC1402
BPC1403
BPC1404
RITUXAN

FIG. 73

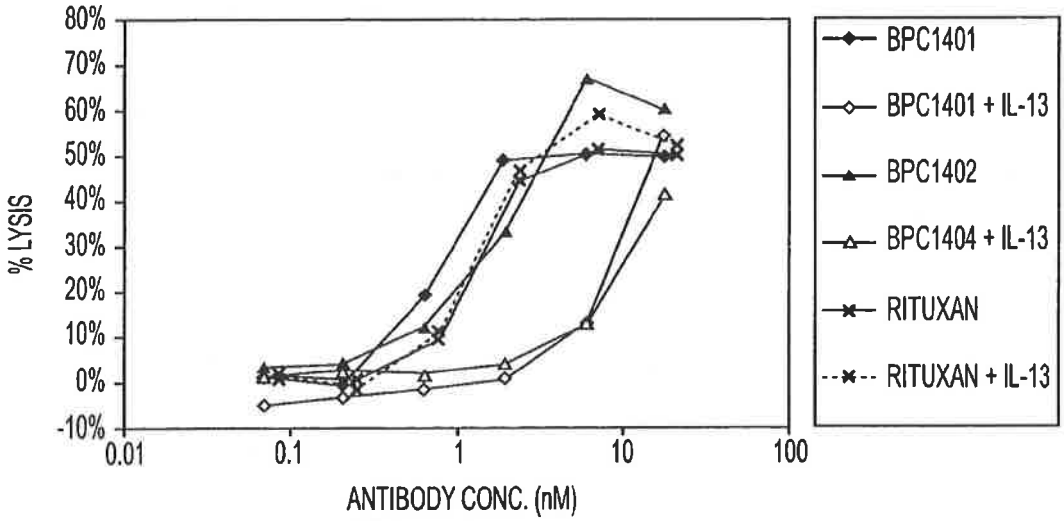

80%
70%
60%
50%
40%
30%
20%
10%
0%
-10%
% LYSIS
0.01
0.1
1
10
100
ANTIBODY CONC. (nM)
BPC1401
BPC1401 + IL-13
BPC1402
BPC1404 + IL-13
RITUXAN
RITUXAN + IL-13

FIG. 74

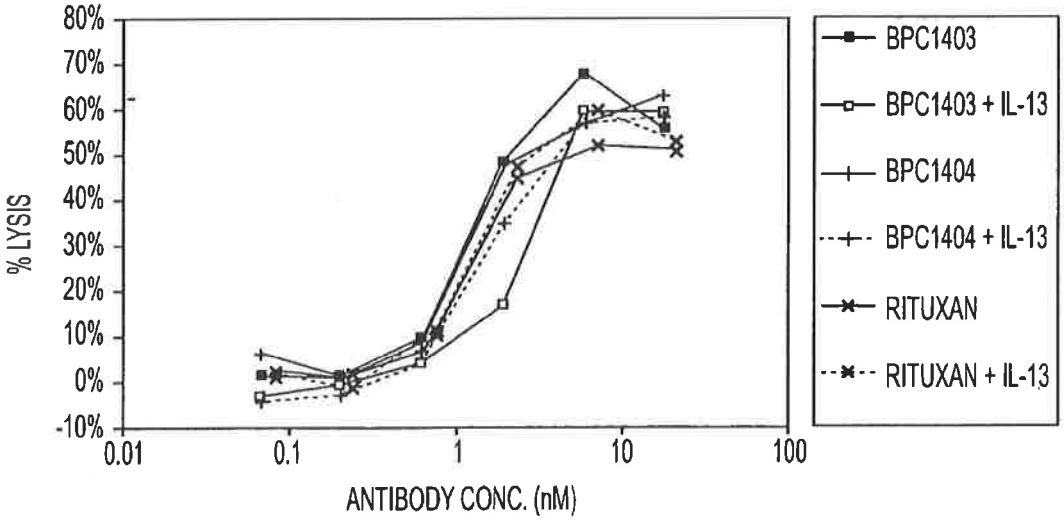

80%
70%
60%
50%
40%
30%
20%
10%
0%
-10%
% LYSIS
0.01
0.1
1
10
100
ANTIBODY CONC. (nM)
BPC1403
BPC1403 + IL-13
BPC1404
BPC1404 + IL-13
RITUXAN
RITUXAN + IL-13

FIG. 75

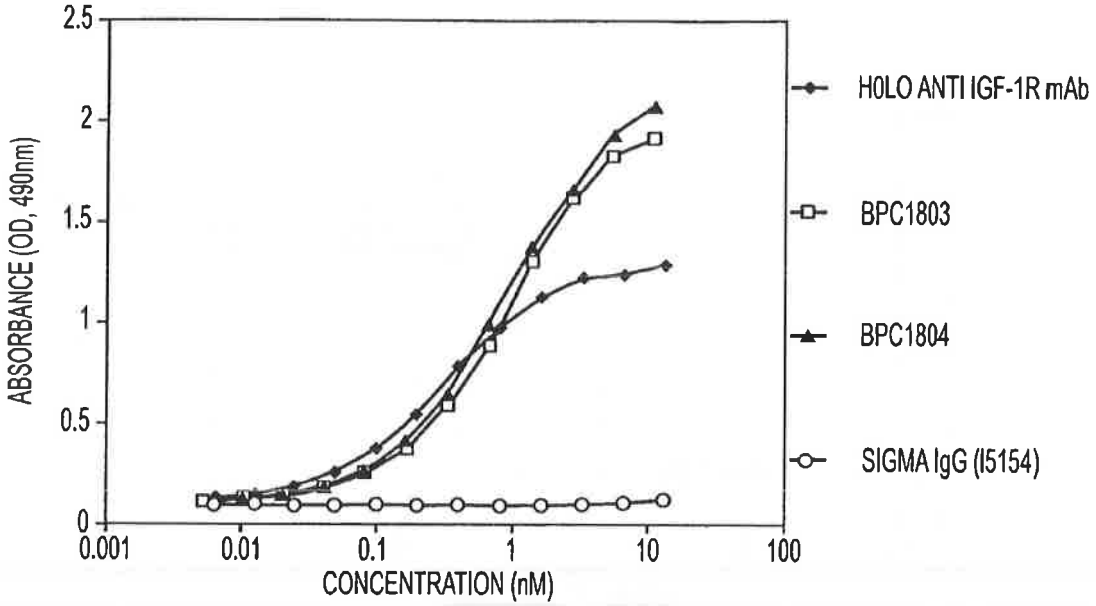

2.5
2
1.5
1
0.5
0
ABSORBANCE (OD, 490nm)
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
H0LO ANTI IGF-1R mAb
BPC1803
BPC1804
SIGMA IgG (I5154)

FIG. 76

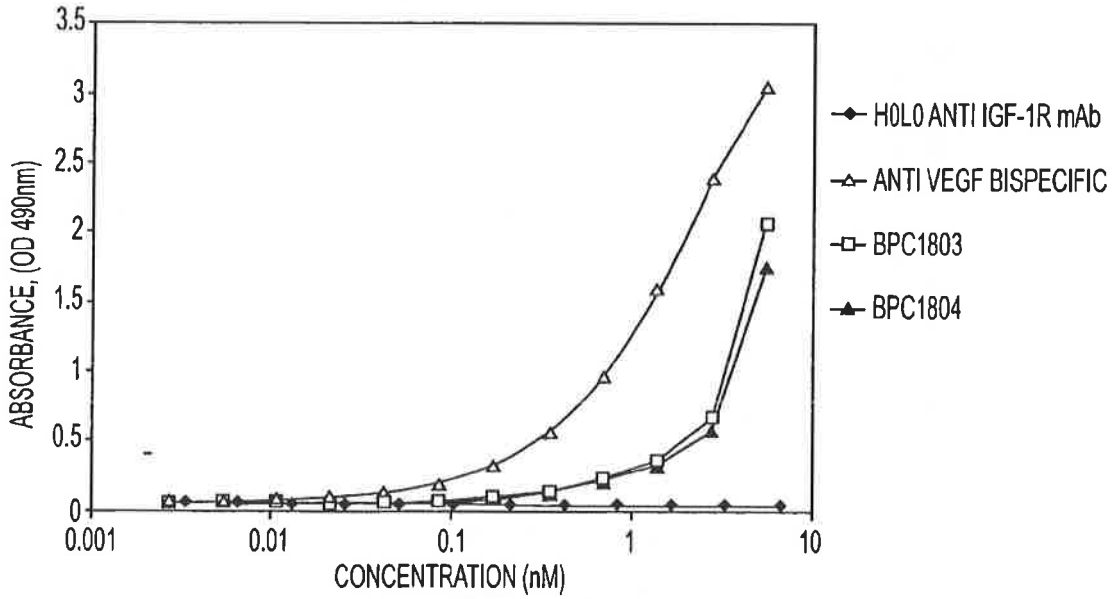

3.5
3
2.5
2
1.5
1
0.5
0
ABSORBANCE, (OD 490nm)
0.001
0.01
0.1
1
10
CONCENTRATION (nM)
H0L0 ANTI IGF-1R mAb
ANTI VEGF BISPECIFIC
BPC1803
BPC1804

FIG. 77

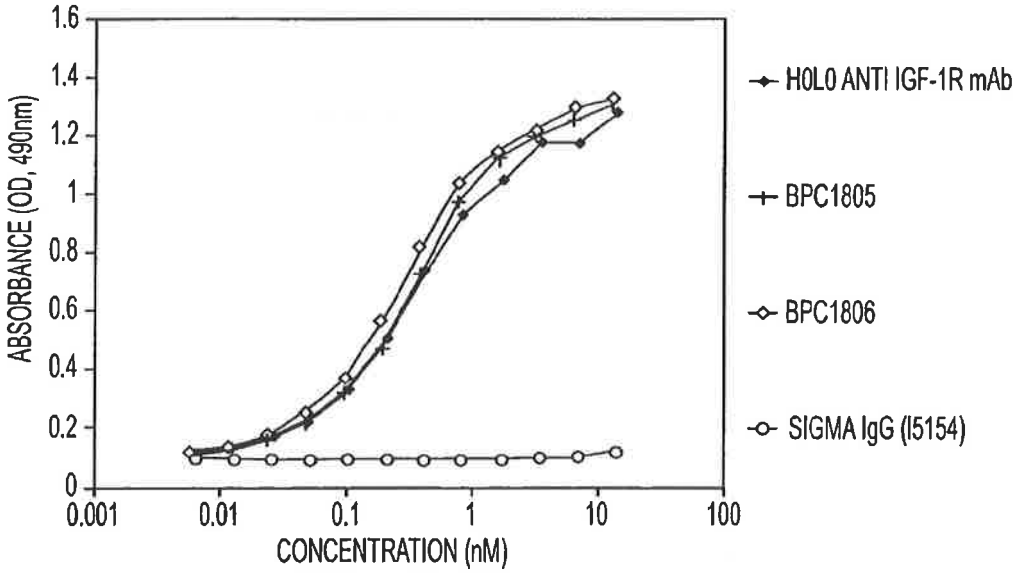

ABSORBANCE (OD, 490nm)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
H0L0 ANTI IGF-1R mAb
BPC1805
BPC1806
SIGMA IgG (I5154)

FIG. 78

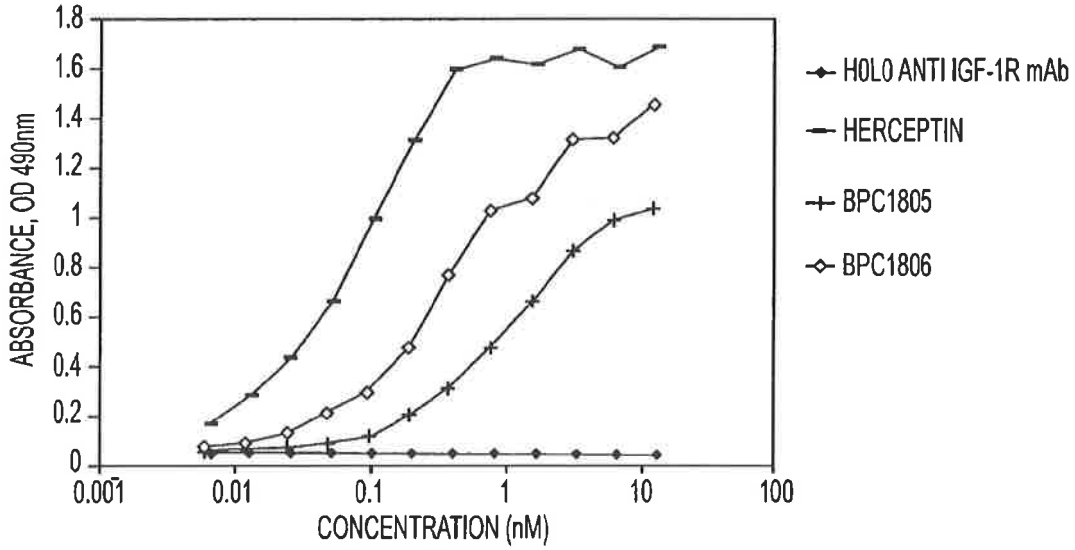

ABSORBANCE, OD 490nm
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
H0L0 ANTI IGF-1R mAb
HERCEPTIN
BPC1805
BPC1806

FIG. 79

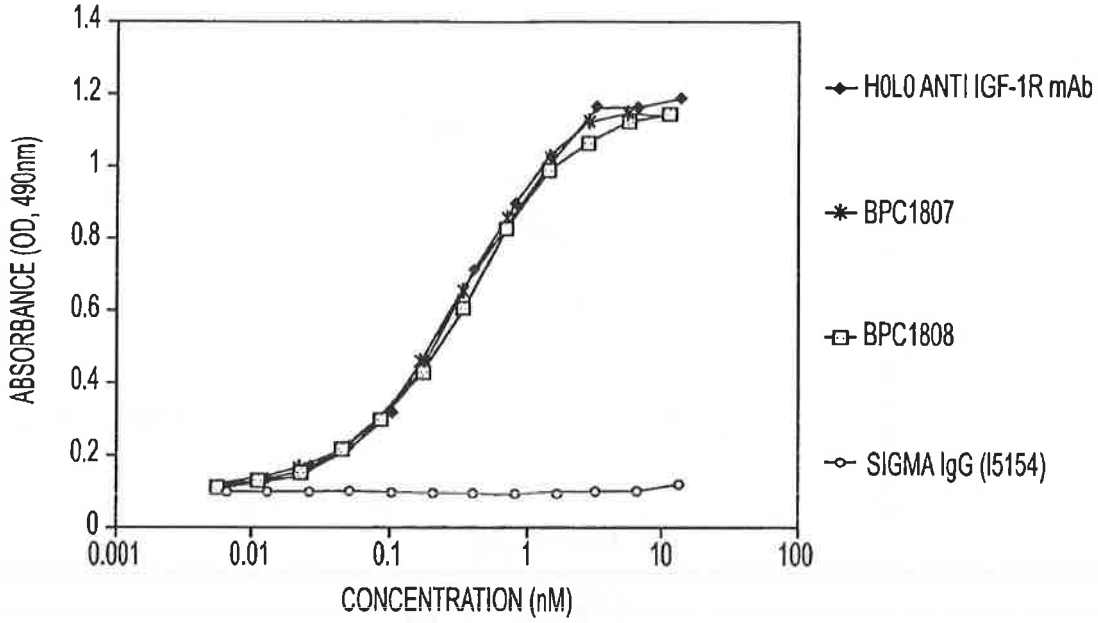

ABSORBANCE (OD, 490nm)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
H0L0 ANTI IGF-1R mAb
BPC1807
BPC1808
SIGMA IgG (I5154)

FIG. 80

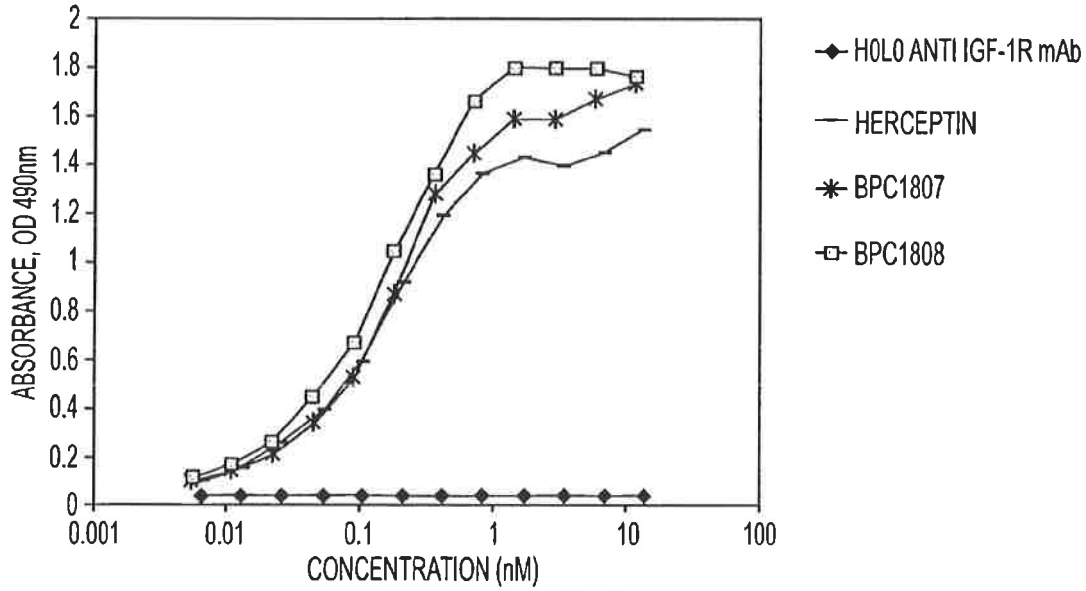

ABSORBANCE, OD 490nm
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
H0L0 ANTI IGF-1R mAb
HERCEPTIN
BPC1807
BPC1808

FIG. 81

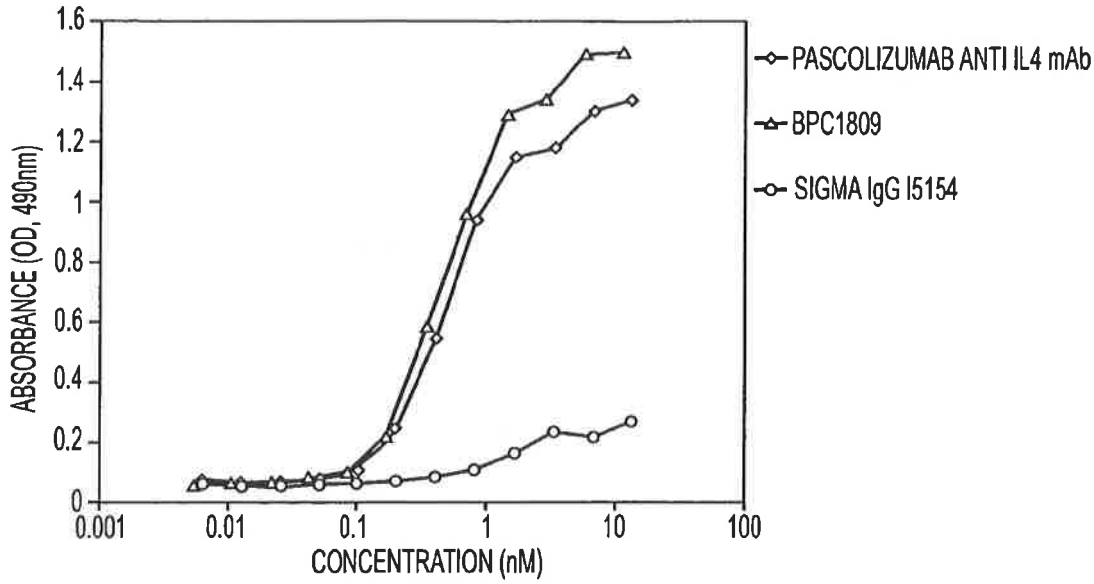

1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
ABSORBANCE (OD, 490nm)
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
PASCOLIZUMAB ANTI IL4 mAb
BPC1809
SIGMA IgG I5154

FIG. 82

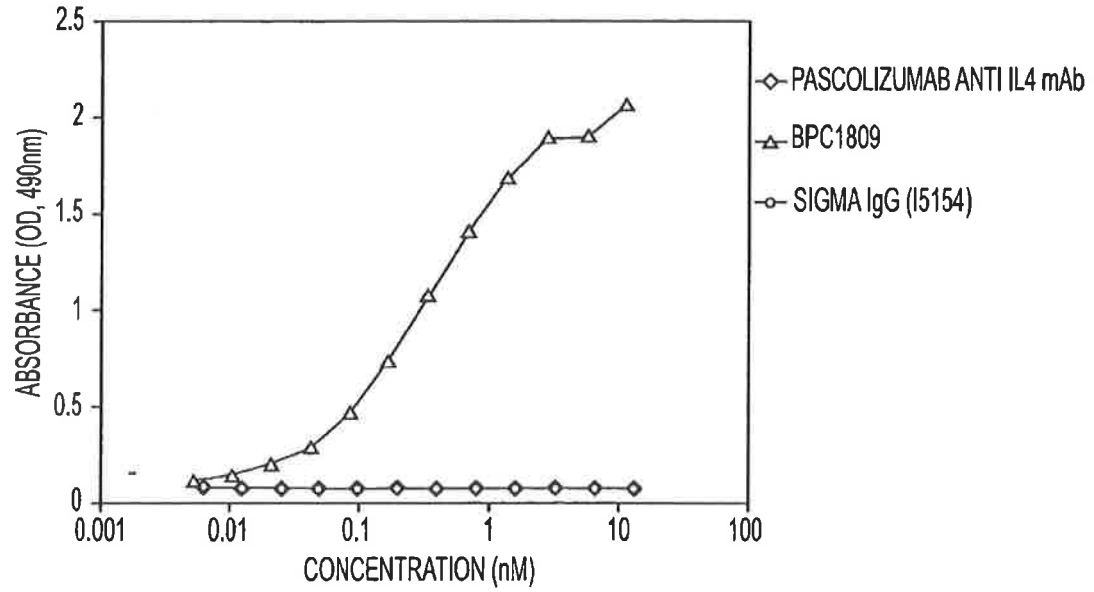

2.5
2
1.5
1
0.5
0
ABSORBANCE (OD, 490nm)
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
PASCOLIZUMAB ANTI IL4 mAb
BPC1809
SIGMA IgG (I5154)

FIG. 83

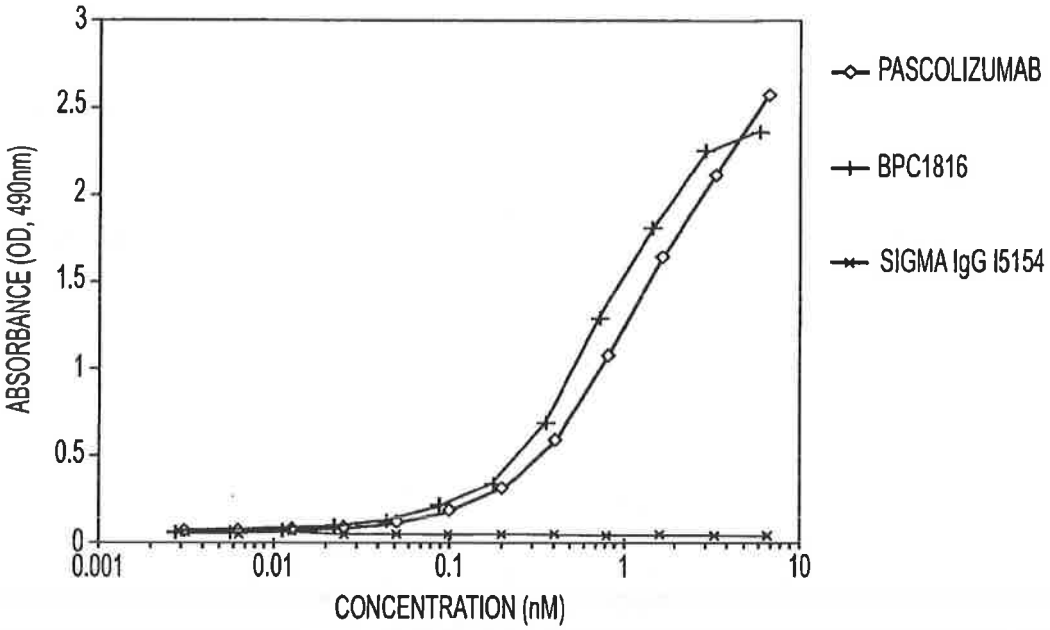

ABSORBANCE (OD, 490nm)
3
2.5
2
1.5
1
0.5
0
0.001
0.01
0.1
1
10
CONCENTRATION (nM)
PASCOLIZUMAB
BPC1816
SIGMA IgG I5154

FIG. 84

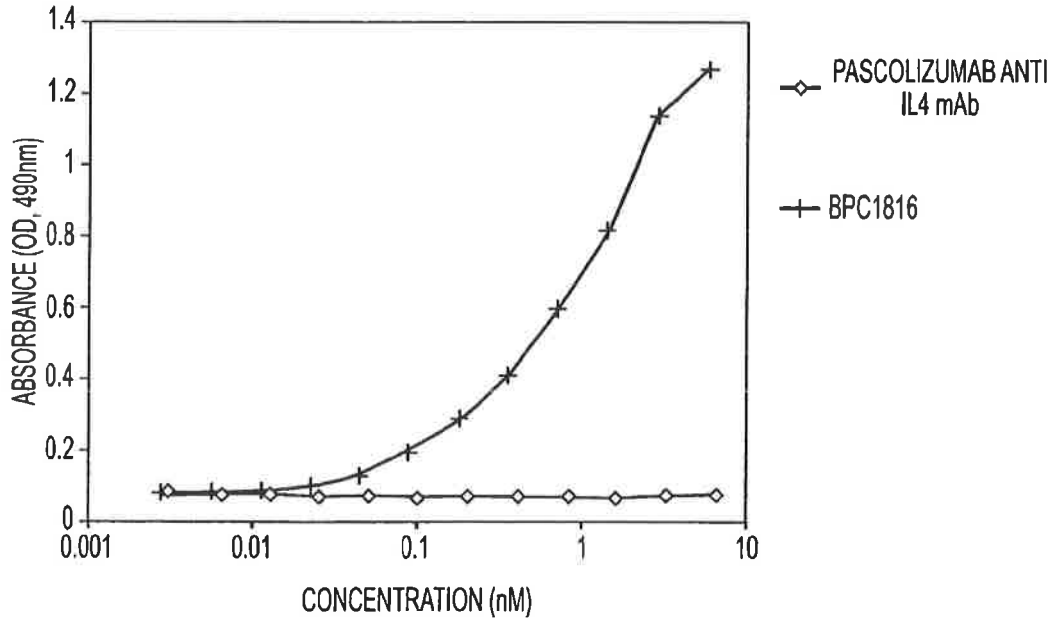

ABSORBANCE (OD, 490nm)
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.001
0.01
0.1
1
10
CONCENTRATION (nM)
PASCOLIZUMAB ANTI IL4 mAb
BPC1816

FIG. 85

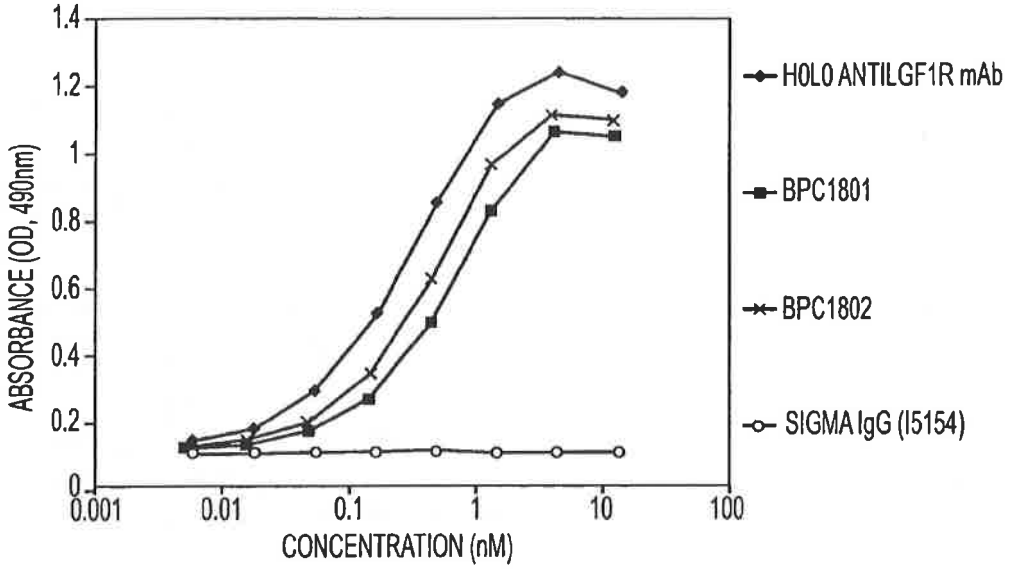

1.4
1.2
1
0.8
0.6
0.4
0.2
0
ABSORBANCE (OD, 490nm)
0.001
0.01
0.1
1
10
100
CONCENTRATION (nM)
H0L0 ANTILGF1R mAb
BPC1801
BPC1802
SIGMA IgG (I5154)

FIG. 86

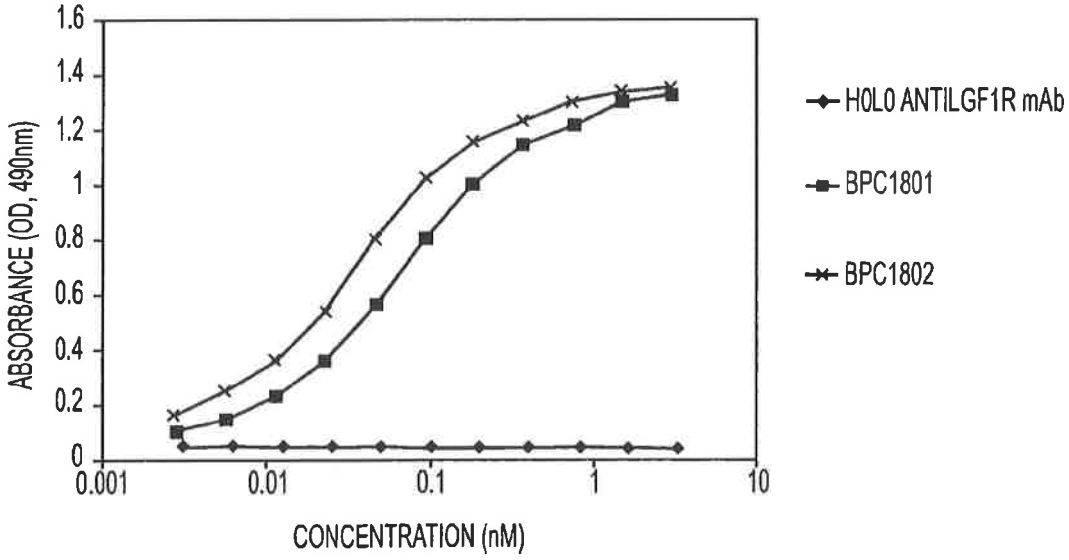

1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
ABSORBANCE (OD, 490nm)
0.001
0.01
0.1
1
10
CONCENTRATION (nM)
H0L0 ANTILGF1R mAb
BPC1801
BPC1802

FIG. 87

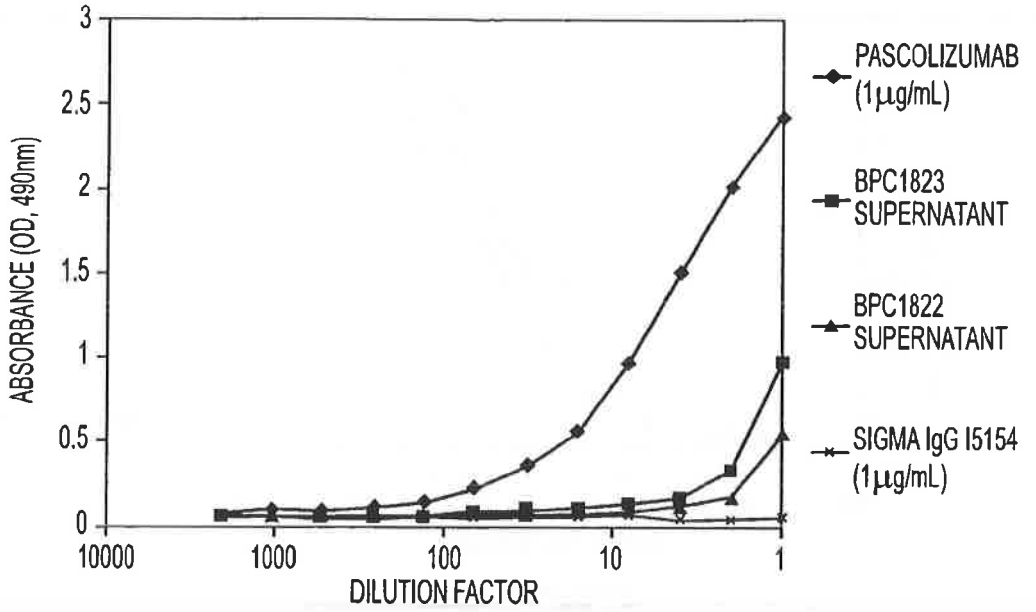


FIG. 88a

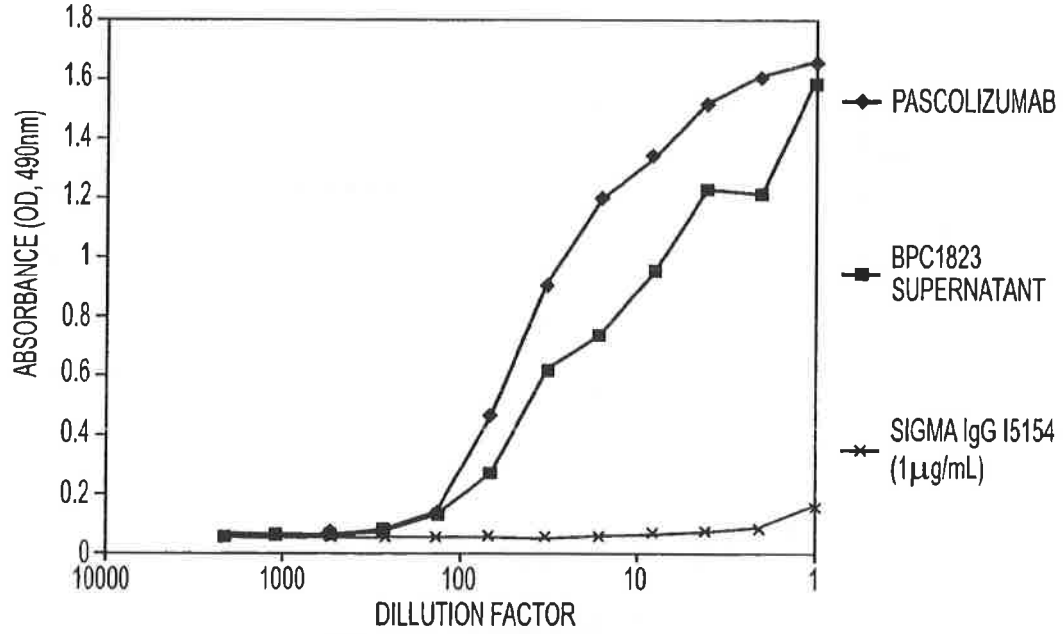


FIG. 88b

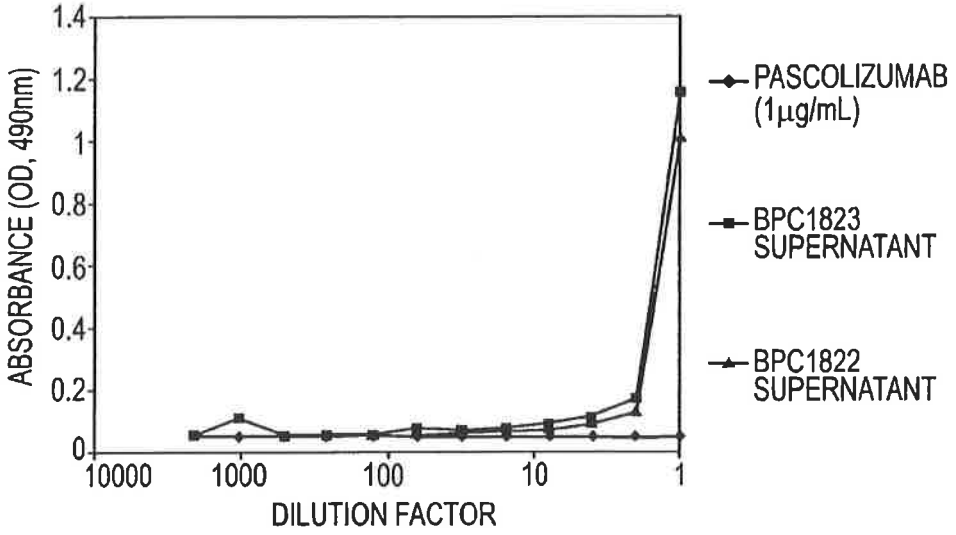


FIG. 89a

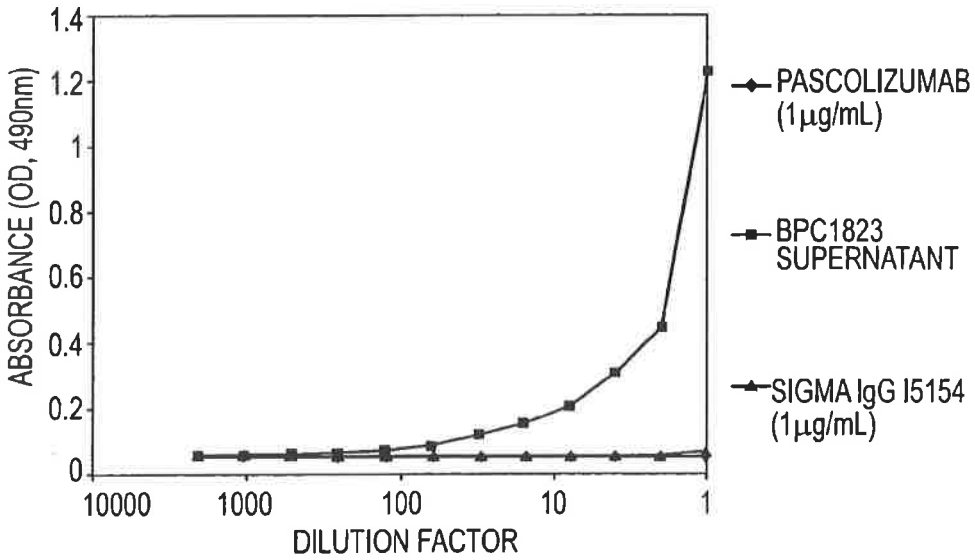


FIG. 89b

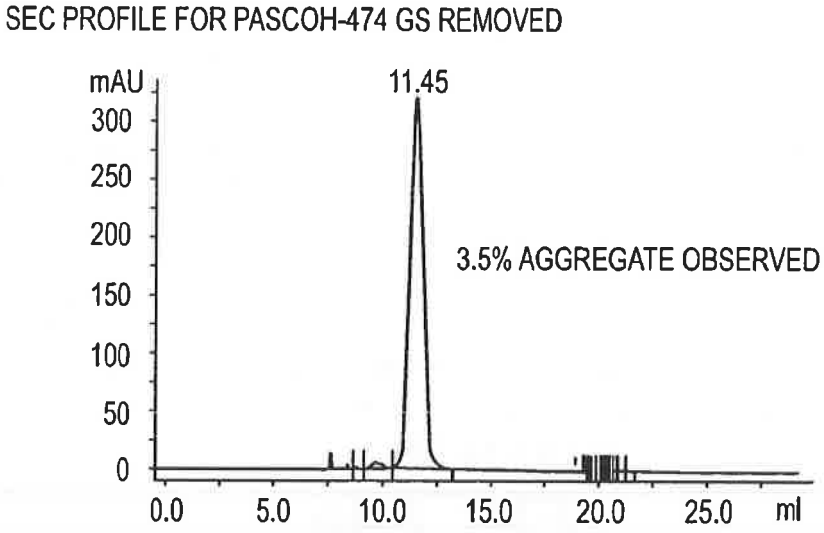

SEC PROFILE FOR PASCOH-474 GS REMOVED
mAU
300
250
200
150
100
50
0
11.45
3.5% AGGREGATE OBSERVED
0.0
5.0
10.0
15.0
20.0
25.0
ml

FIG. 90

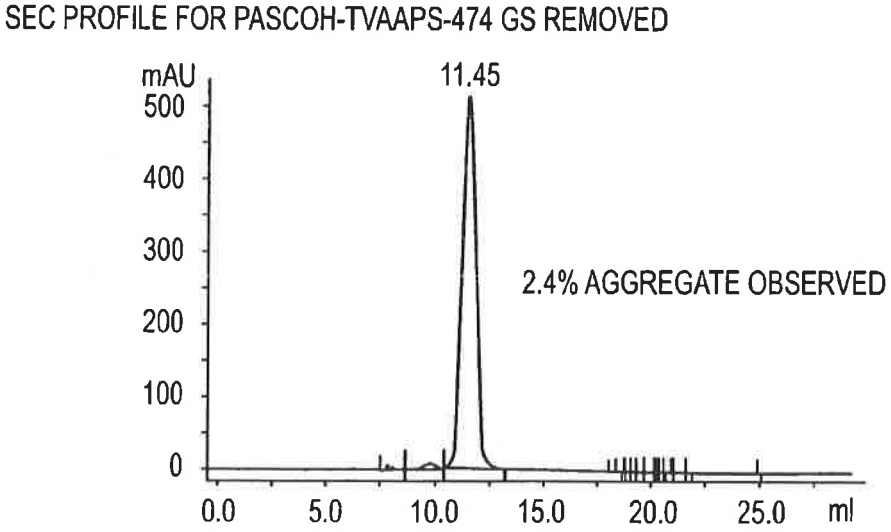

SEC PROFILE FOR PASCOH-TVAAPS-474 GS REMOVED
mAU
500
400
300
200
100
0
11.45
2.4% AGGREGATE OBSERVED
0.0
5.0
10.0
15.0
20.0
25.0
ml

FIG. 91

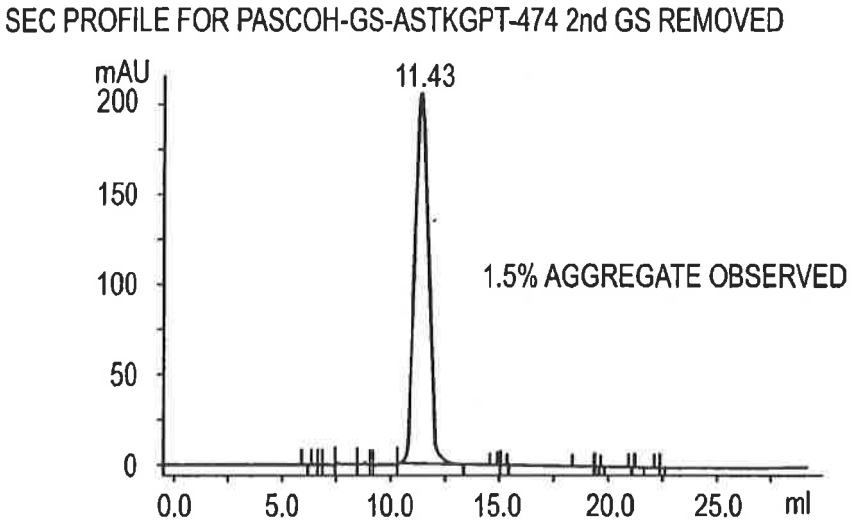

SEC PROFILE FOR PASCOH-GS-ASTKGPT-474 2nd GS REMOVED
mAU
200
150
100
50
0
11.43
1.5% AGGREGATE OBSERVED
0.0
5.0
10.0
15.0
20.0
25.0
ml

FIG. 92

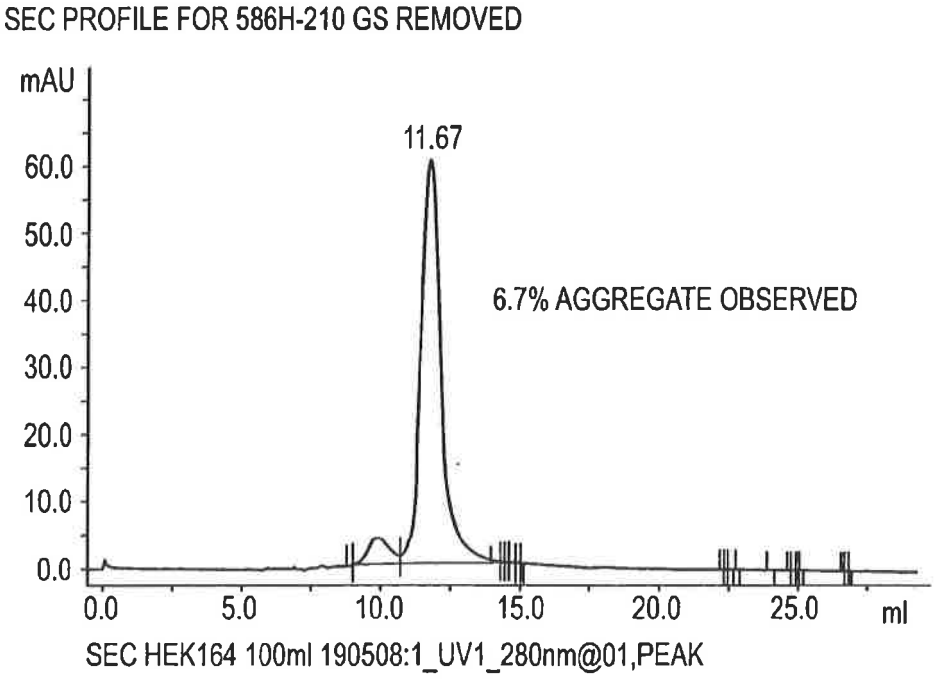

SEC PROFILE FOR 586H-210 GS REMOVED
mAU
60.0
50.0
40.0
30.0
20.0
10.0
0.0
11.67
6.7% AGGREGATE OBSERVED
0.0
5.0
10.0
15.0
20.0
25.0
ml
SEC HEK164 100ml 190508:1_UV1_280nm@01,PEAK

FIG. 93

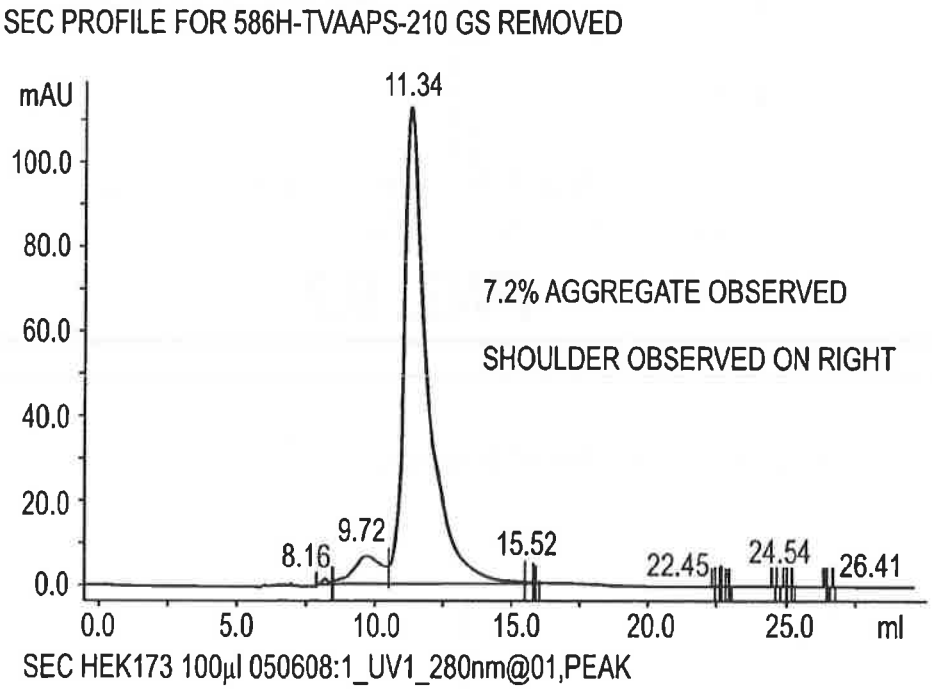

SEC PROFILE FOR 586H-TVAAPS-210 GS REMOVED
mAU
100.0
80.0
60.0
40.0
20.0
0.0
11.34
9.72
8.16
15.52
22.45
24.54
26.41
7.2% AGGREGATE OBSERVED
SHOULDER OBSERVED ON RIGHT
0.0
5.0
10.0
15.0
20.0
25.0
ml
SEC HEK173 100µl 050608:1_UV1_280nm@01,PEAK

FIG. 94

SDS PAGE FOR PASCOH-474 GS REMOVED (LANE B) AND
PASCOH-TVAAPS-474 GS REMOVED (LANE A)

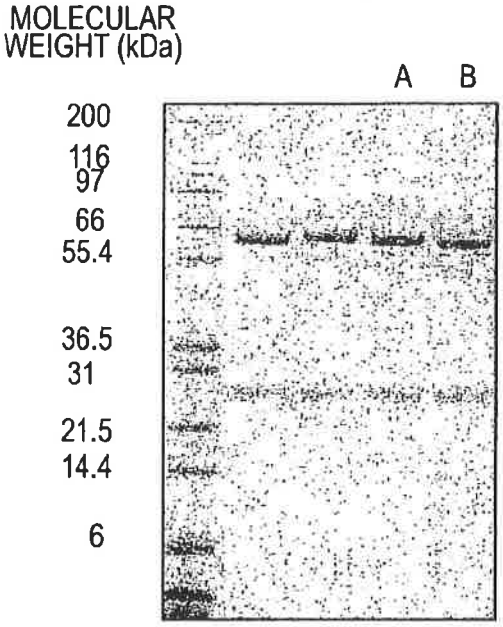


FIG. 95

SDS PAGE FOR PASCOH-GS-ASTKGPT-474 2nd GS REMOVED
[A = NON-REDUCING CONDITIONS, B = REDUCING CONDITIONS]

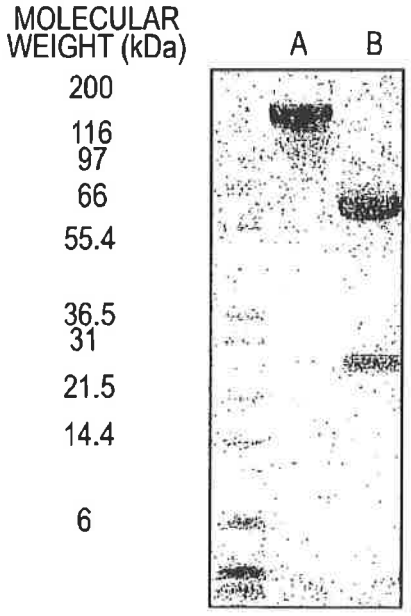


FIG. 96

SDS PAGE FOR 586H-210 GS REMOVED (LANE A)

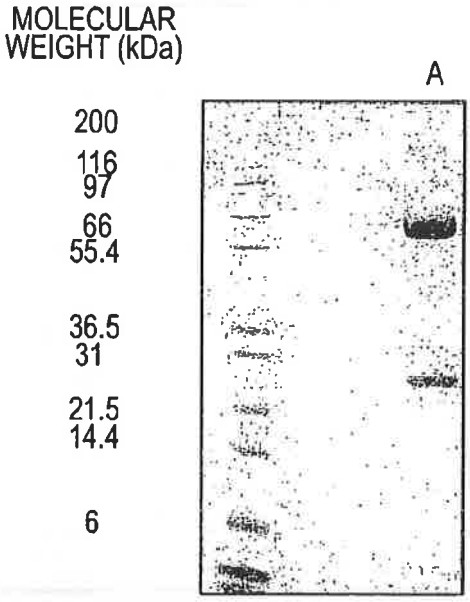


FIG. 97

SDS PAGE FOR 586H-TVAAPS-210 GS REMOVED (LANE A)

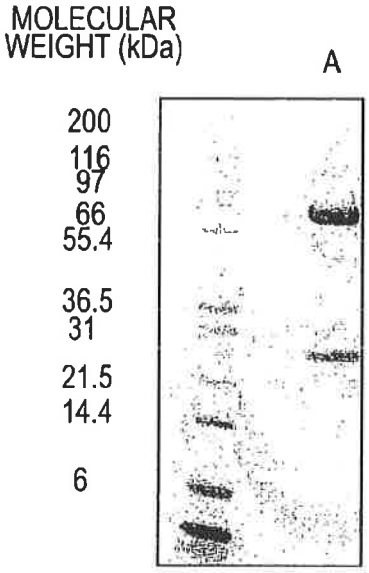


FIG. 98

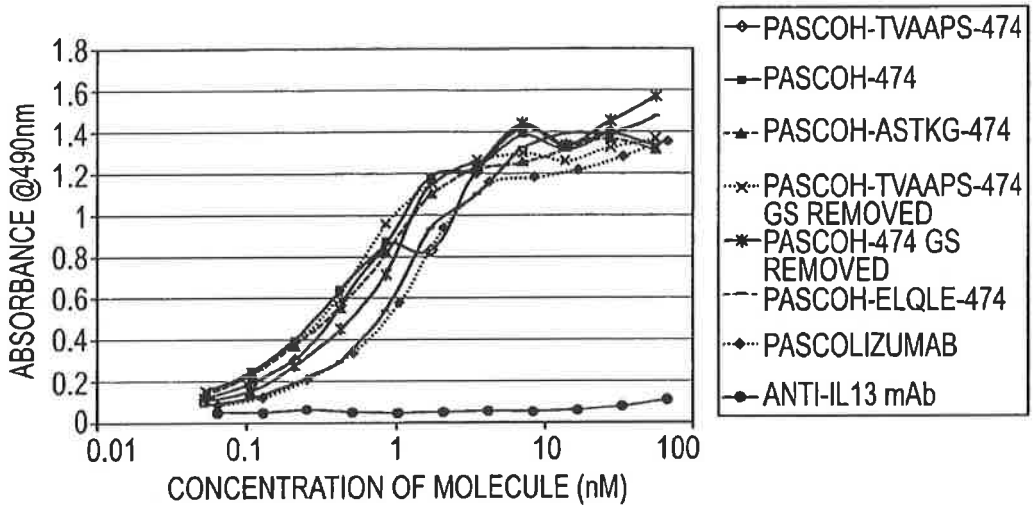


FIG. 99

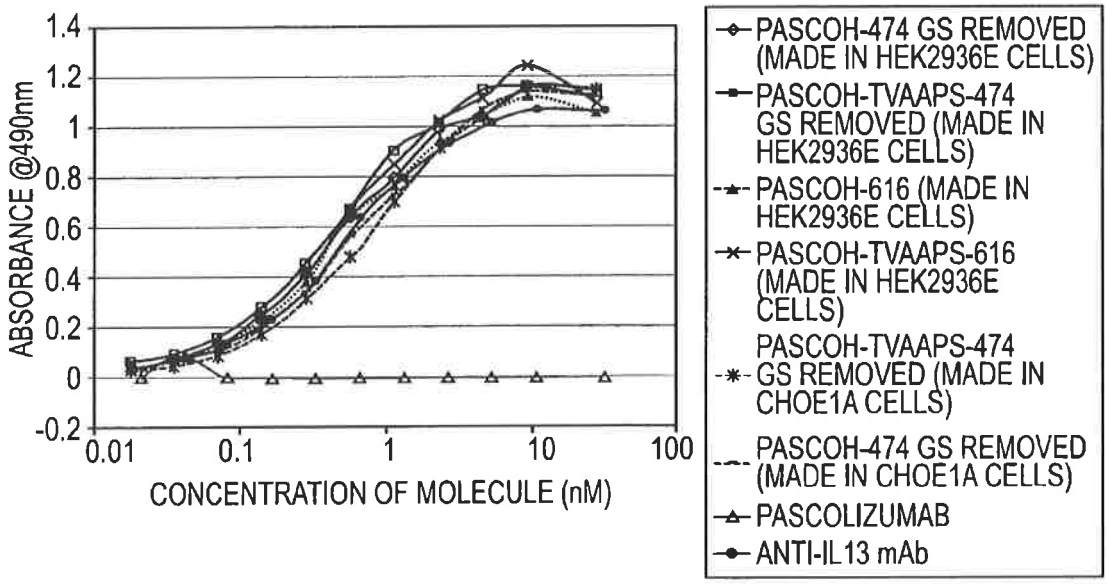


FIG. 100

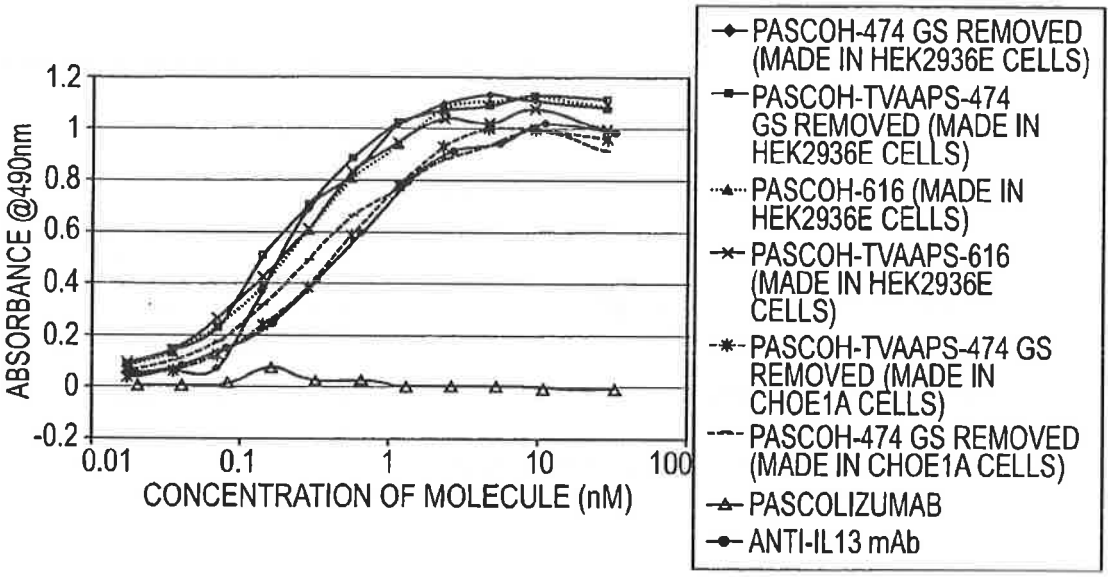


FIG. 101

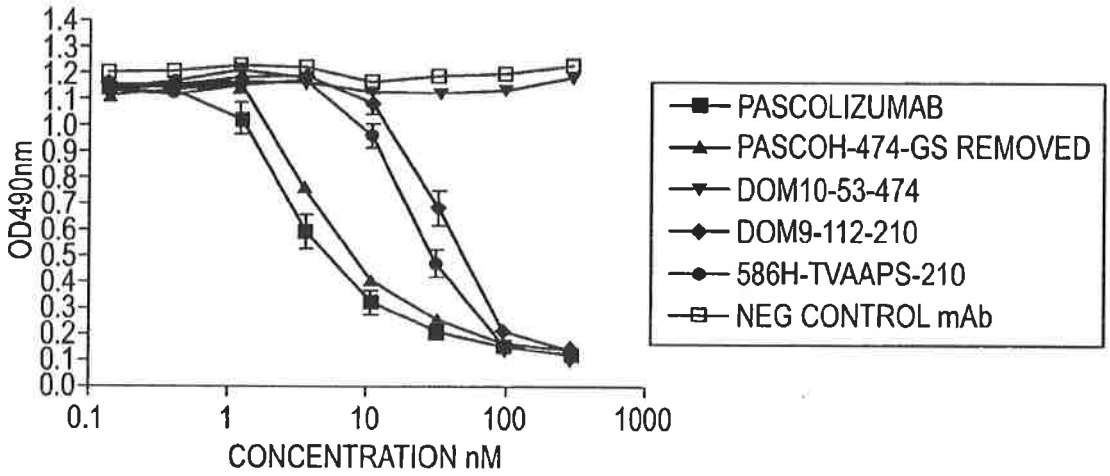


FIG. 102

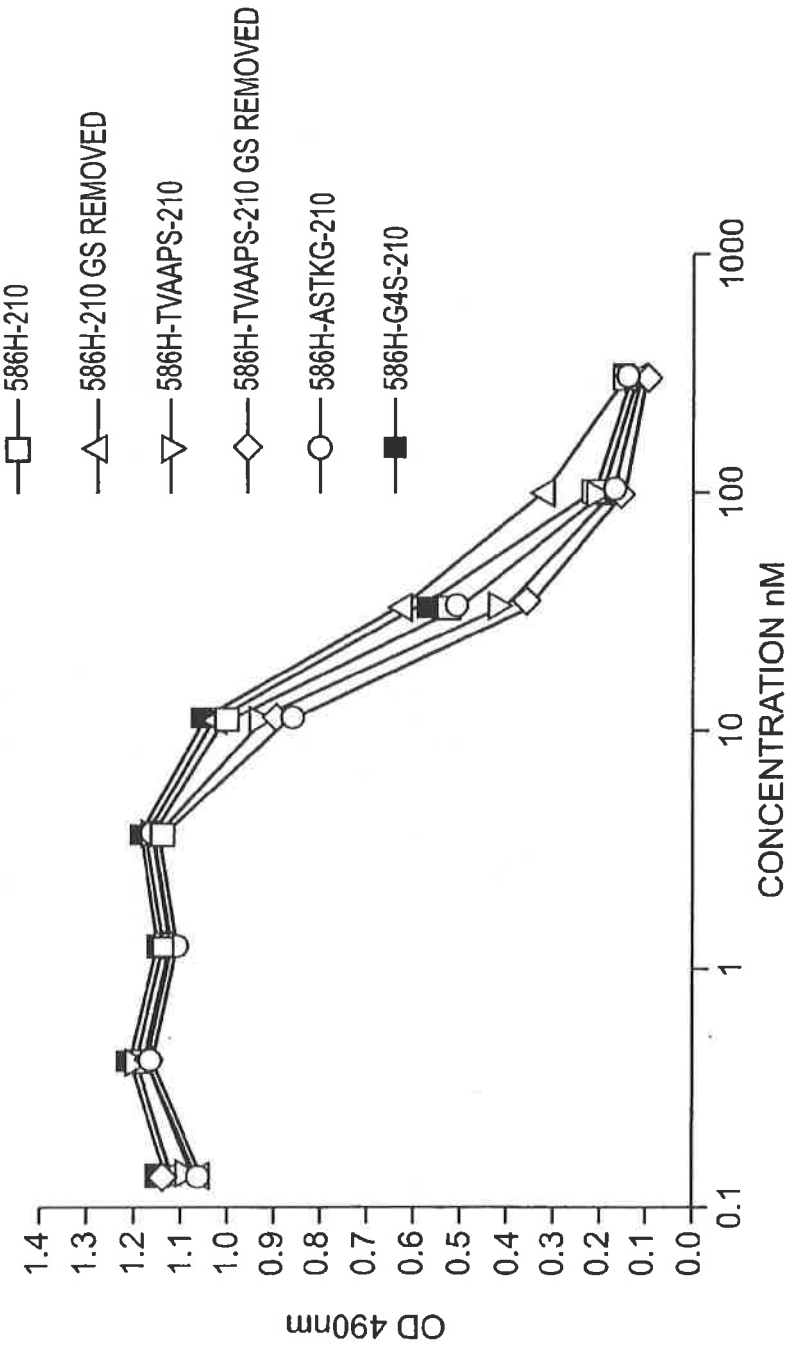

586H-210
586H-210 GS REMOVED
586H-TVAAPS-210
586H-TVAAPS-210 GS REMOVED
586H-ASTKG-210
586H-G4S-210
OD 490nm
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
0.1
1
10
100
1000
CONCENTRATION nM

FIG. 103

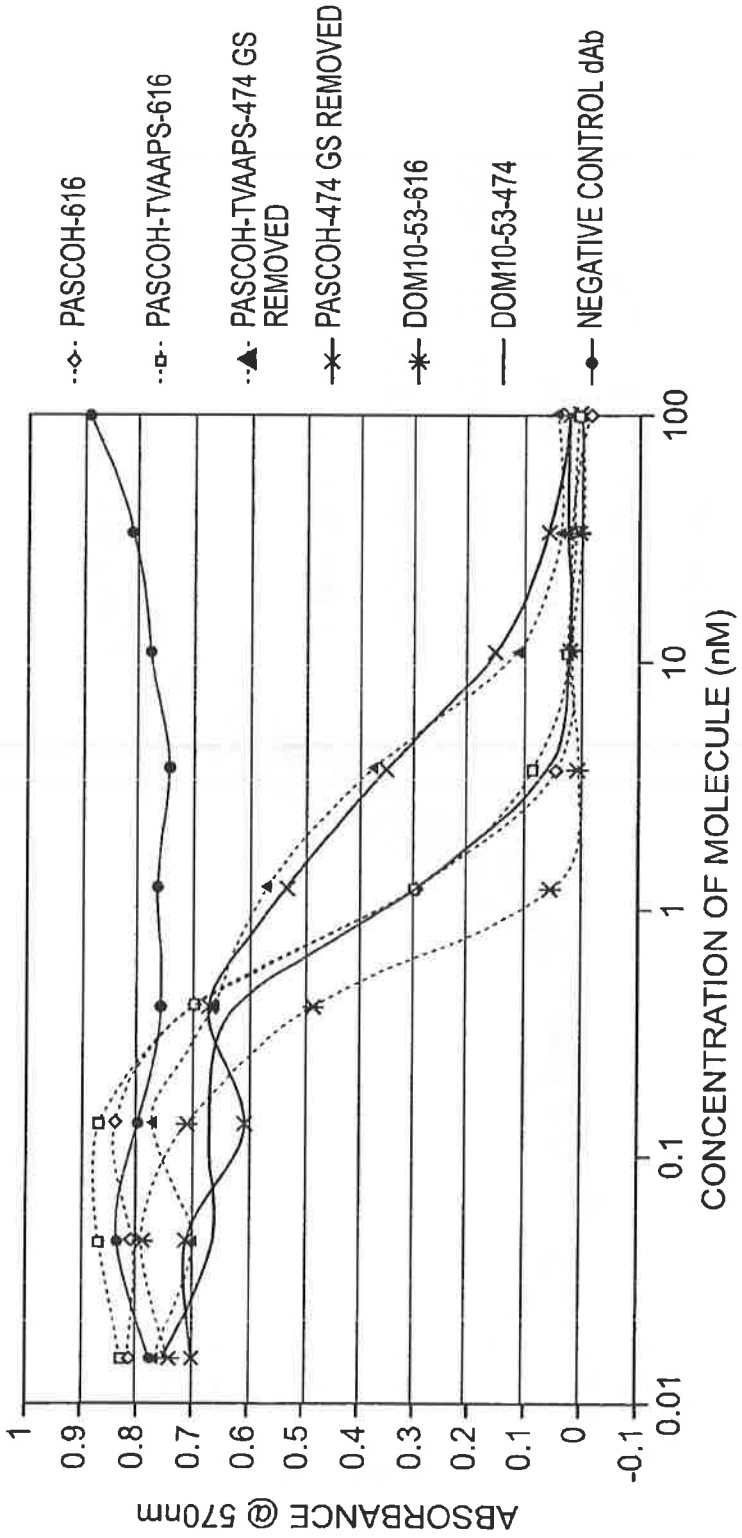

PASCOH-616
PASCOH-TVAAPS-616
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-474 GS REMOVED
DOM10-53-616
DOM10-53-474
NEGATIVE CONTROL dAb
ABSORBANCE @ 570nm
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
0.01
0.1
1
10
100
CONCENTRATION OF MOLECULE (nM)

FIG. 104

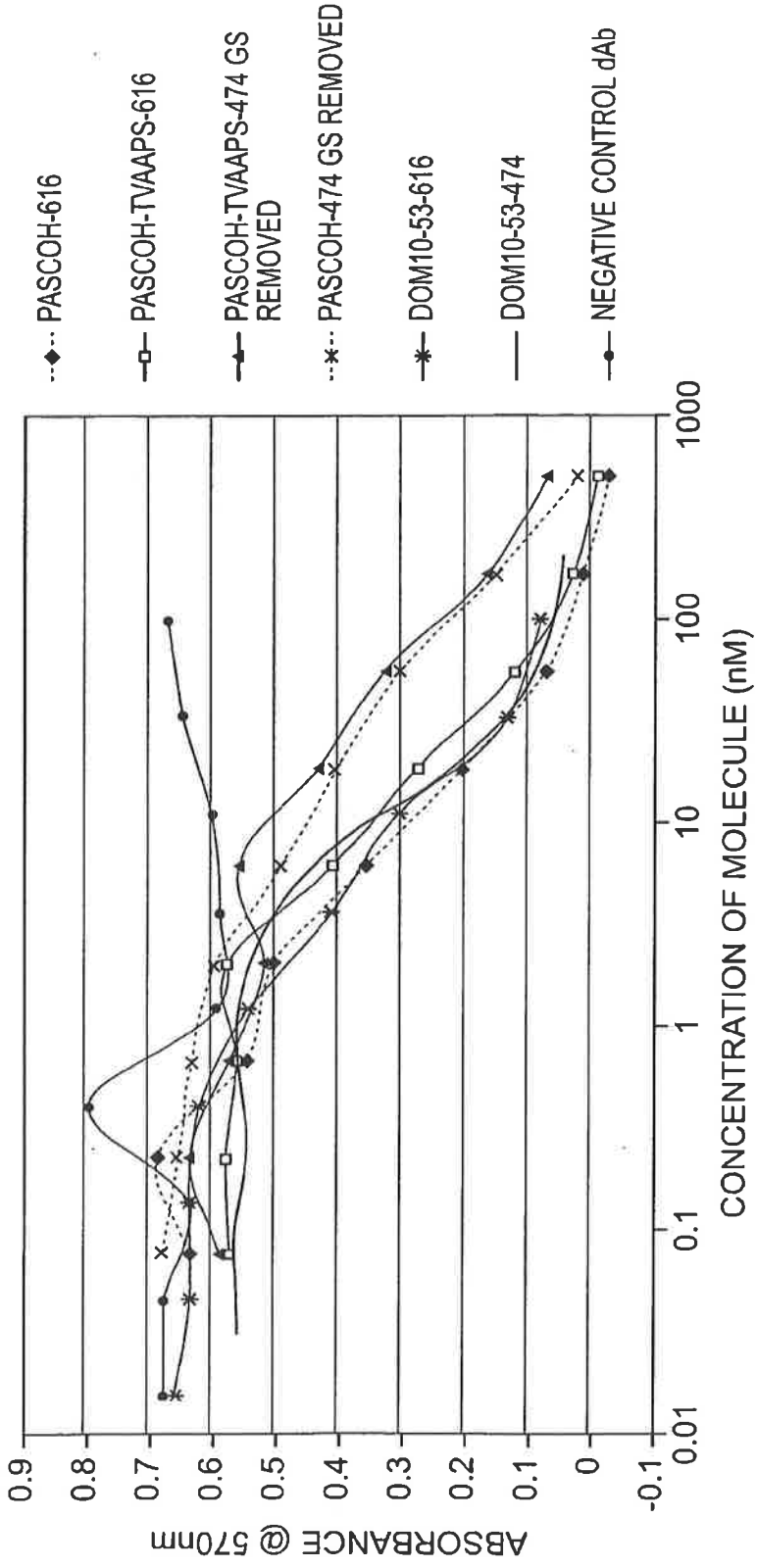

PASCOH-616
PASCOH-TVAAPS-616
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-474 GS REMOVED
DOM10-53-616
DOM10-53-474
NEGATIVE CONTROL dAb
ABSORBANCE @ 570nm
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
0.01
0.1
1
10
100
1000
CONCENTRATION OF MOLECULE (nM)

FIG. 105

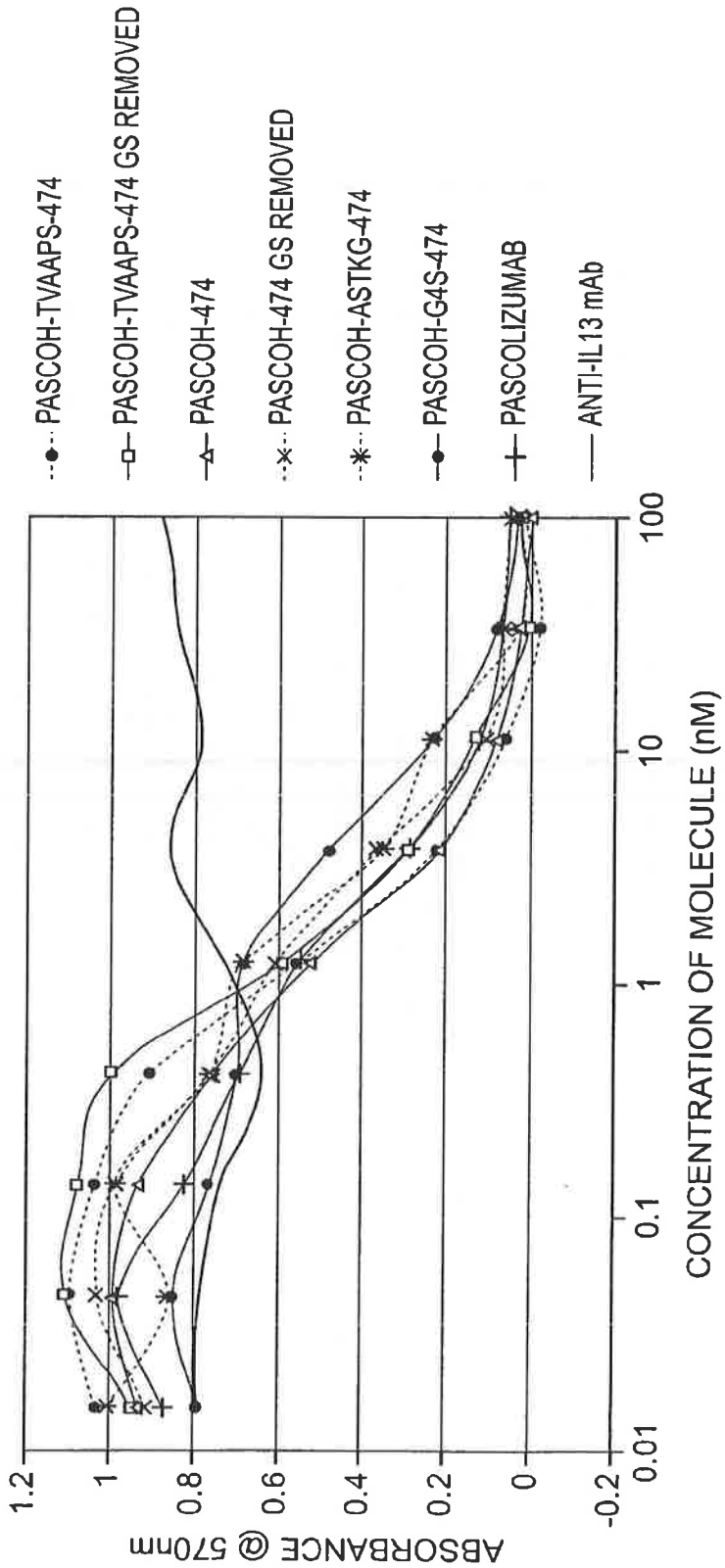

PASCOH-TVAAPS-474
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-474
PASCOH-474 GS REMOVED
PASCOH-ASTKG-474
PASCOH-G4S-474
PASCOLIZUMAB
ANTI-IL13 mAb
ABSORBANCE @ 570nm
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0.01
0.1
1
10
100
CONCENTRATION OF MOLECULE (nM)

FIG. 106

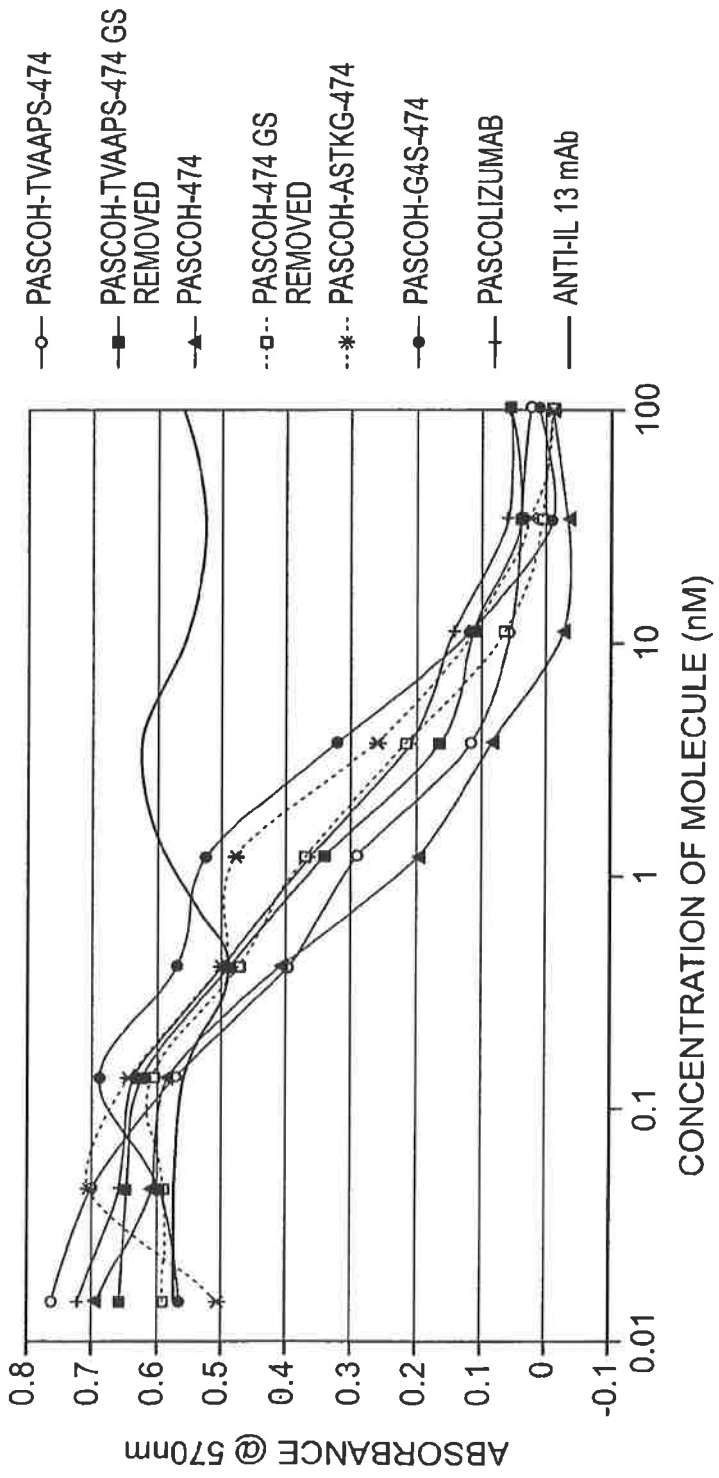

PASCOH-TVAAPS-474
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-474
PASCOH-474 GS REMOVED
PASCOH-ASTKG-474
PASCOH-G4S-474
PASCOLIZUMAB
ANTI-IL 13 mAb
ABSORBANCE @ 570nm
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
0.01
0.1
1
10
100
CONCENTRATION OF MOLECULE (nM)

FIG. 107

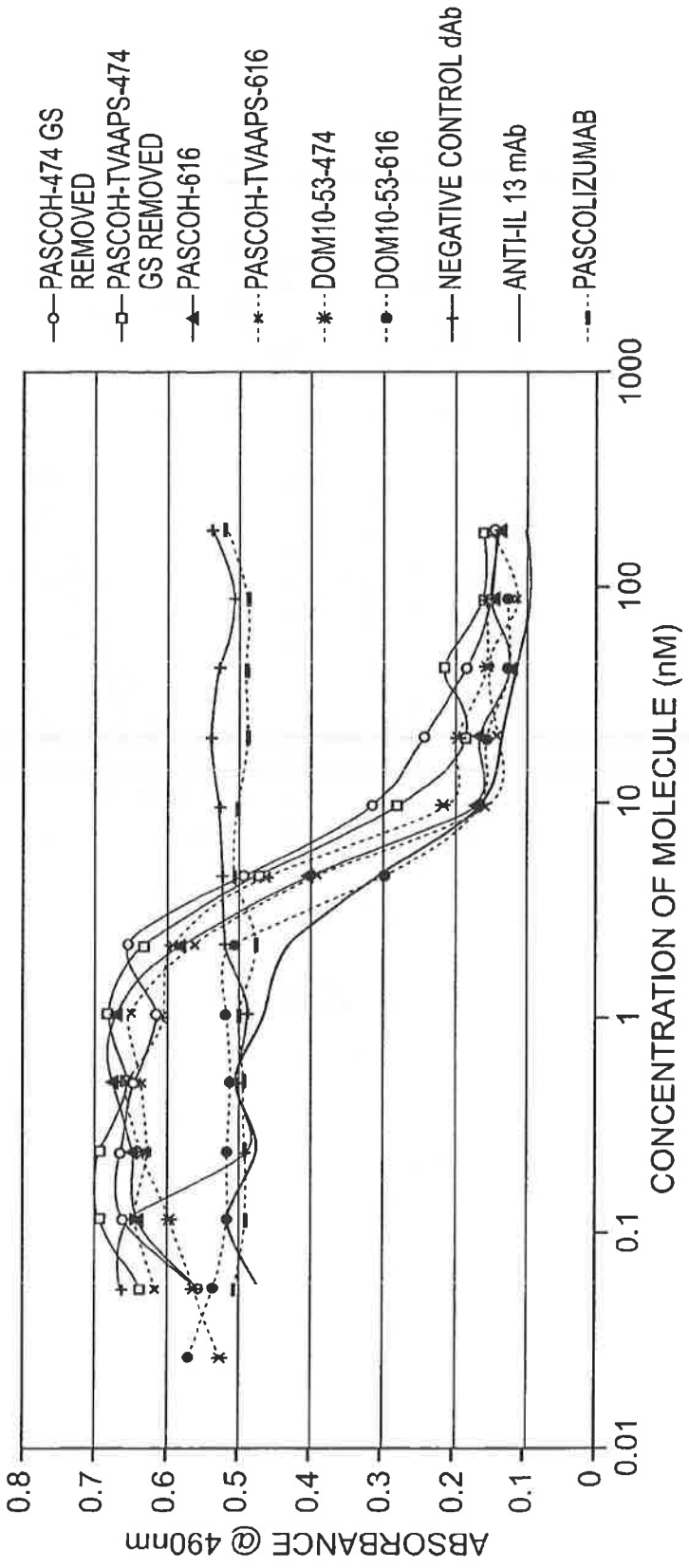

PASCOH-474 GS REMOVED
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-616
PASCOH-TVAAPS-616
DOM10-53-474
DOM10-53-616
NEGATIVE CONTROL dAb
ANTI-IL 13 mAb
PASCOLIZUMAB
ABSORBANCE @ 490nm
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.01
0.1
1
10
100
1000
CONCENTRATION OF MOLECULE (nM)

FIG. 108

SEC PROFILE FOR PASCOH-616

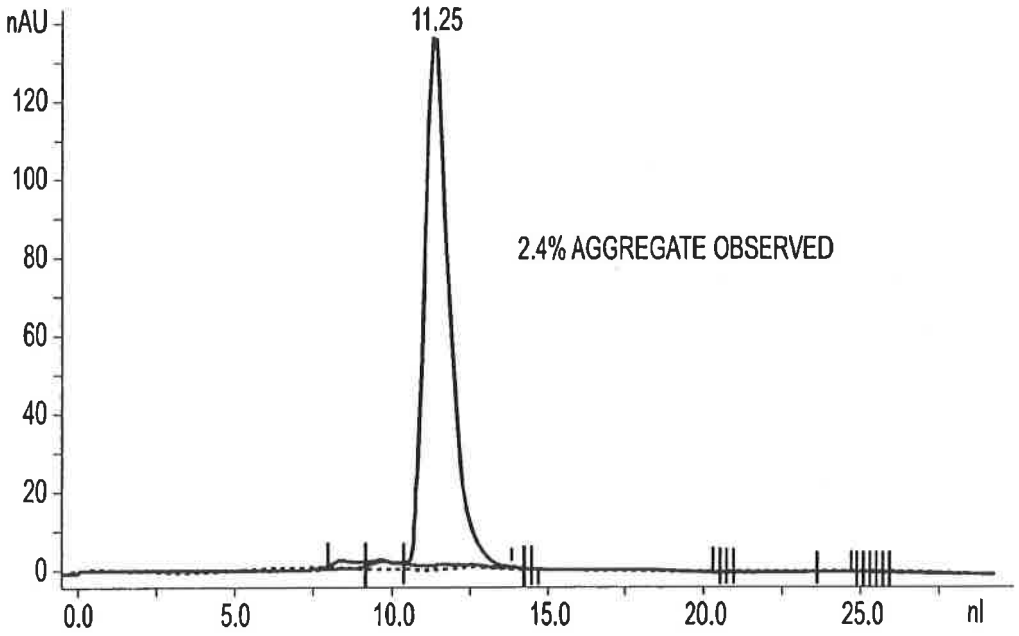


FIG. 109

SEC PROFILE FOR PASCOH-TVAAPS_616

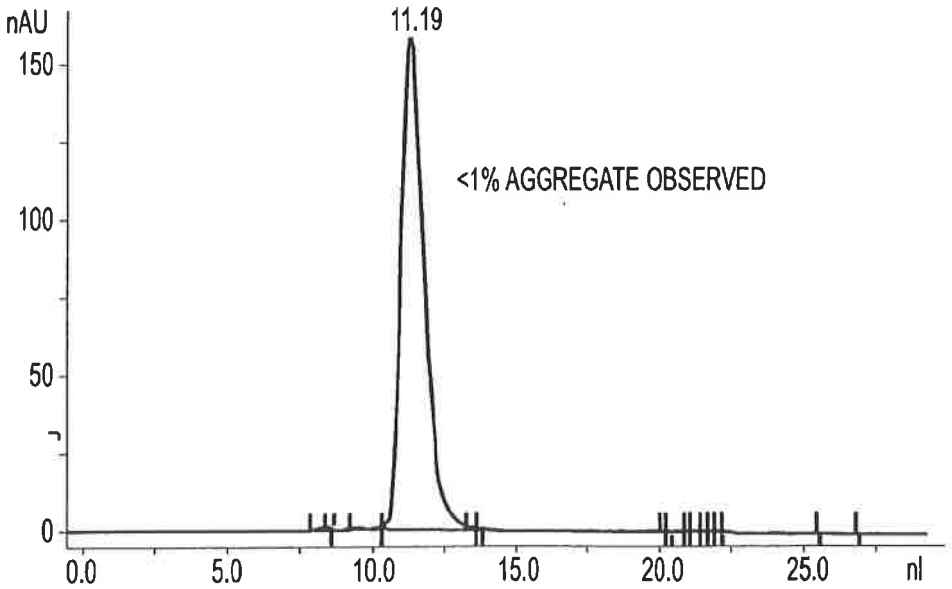


FIG. 110

SDS PAGE FOR PASCOH-616
[E1 = NON-REDUCING CONDITIONS, E2 = REDUCING CONDITIONS]

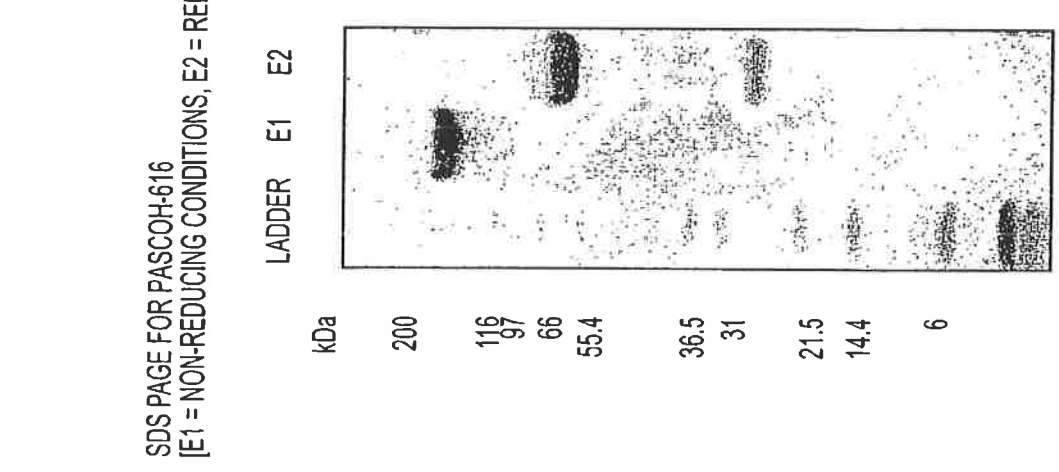


FIG. 111

SDS PAGE FOR PASCOH-TVAAPS-616
[A = NON-REDUCING CONDITIONS, B = REDUCING CONDITIONS]

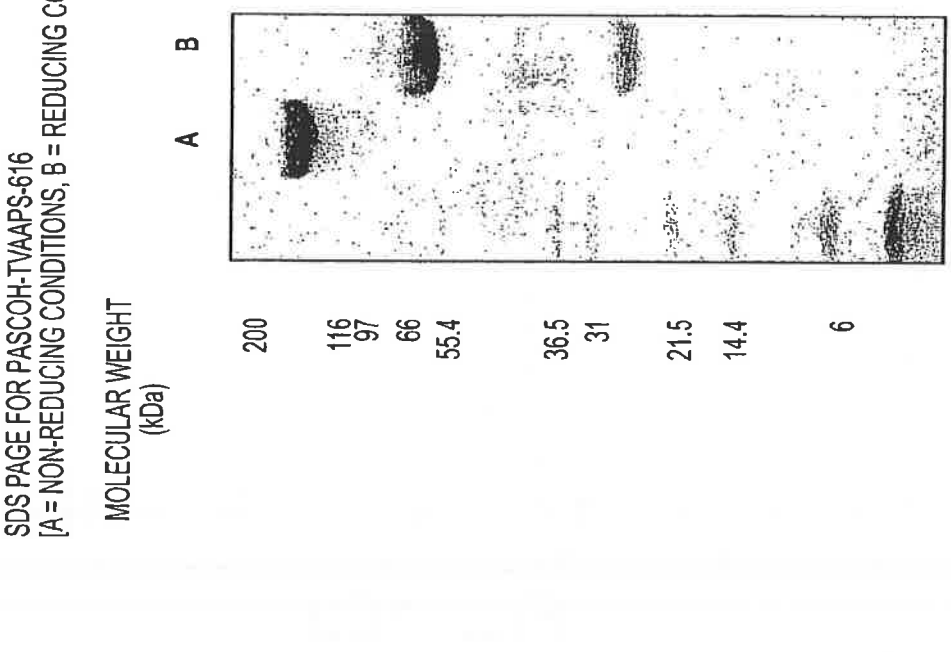


FIG. 112

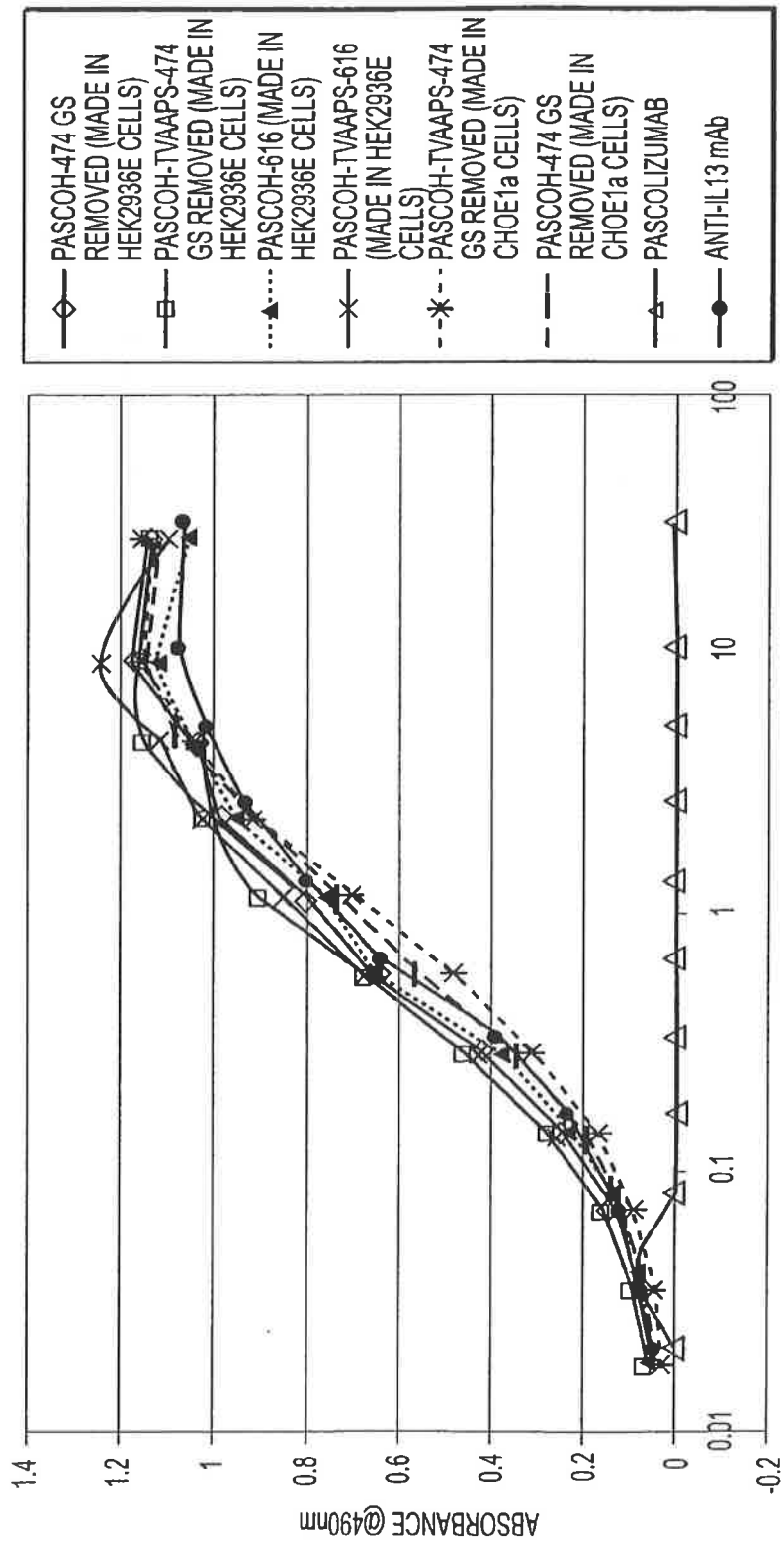

PASCOH-474 GS REMOVED (MADE IN HEK2936E CELLS)
PASCOH-TVAAPS-474 GS REMOVED (MADE IN HEK2936E CELLS)
PASCOH-616 (MADE IN HEK2936E CELLS)
PASCOH-TVAAPS-616 (MADE IN HEK2936E CELLS)
PASCOH-TVAAPS-474 GS REMOVED (MADE IN CHOE1a CELLS)
PASCOH-474 GS REMOVED (MADE IN CHOE1a CELLS)
PASCOLIZUMAB
ANTI-IL13 mAb
ABSORBANCE @490nm
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0.01
0.1
1
10
100
CONCENTRATION OF MOLECULE (nM)

FIG. 113

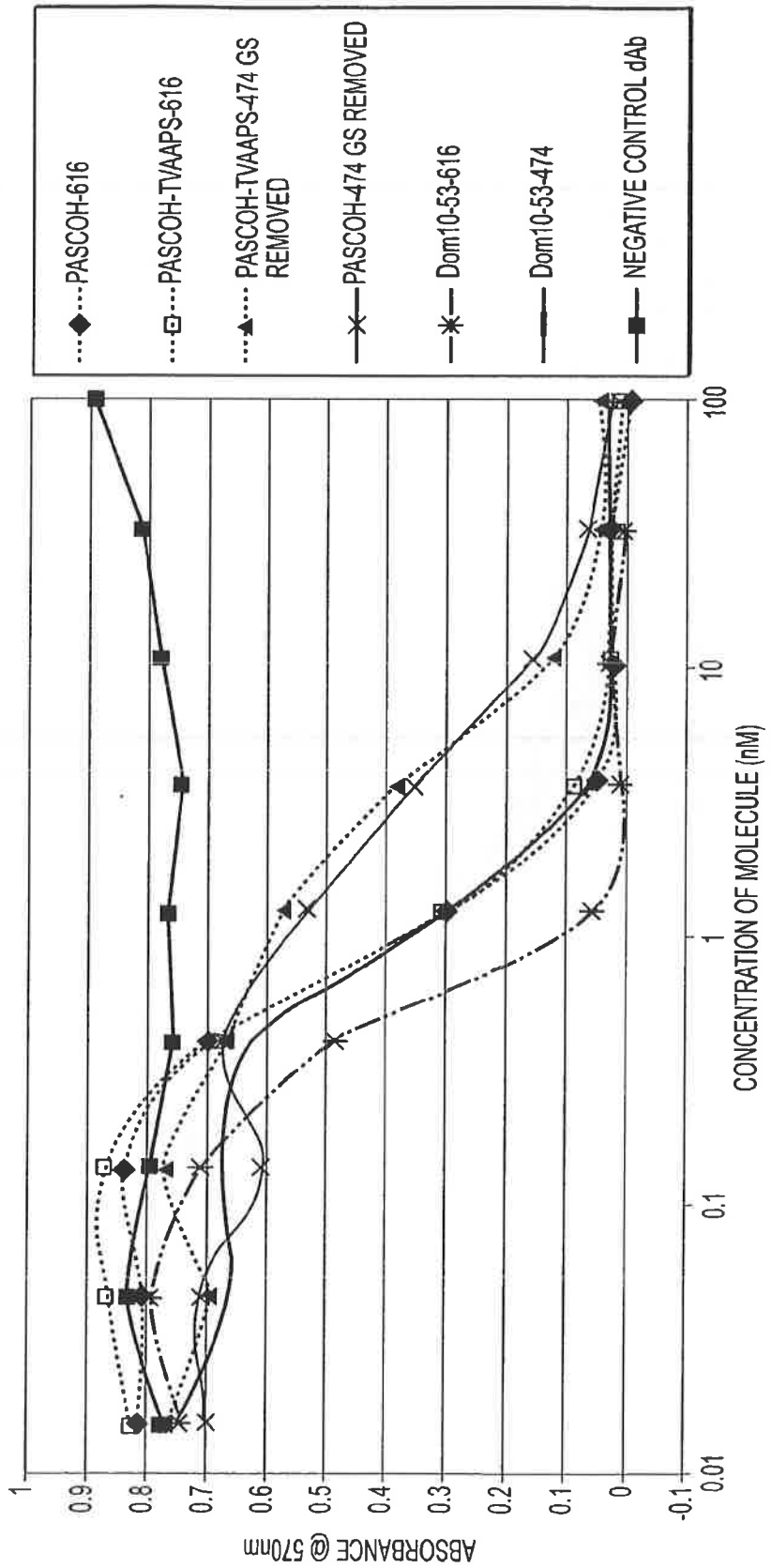

PASCOH-616
PASCOH-TVAAPS-616
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-474 GS REMOVED
Dom10-53-616
Dom10-53-474
NEGATIVE CONTROL dAb
ABSORBANCE @ 570nm
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
0.01
0.1
1
10
100
CONCENTRATION OF MOLECULE (nM)

FIG. 114

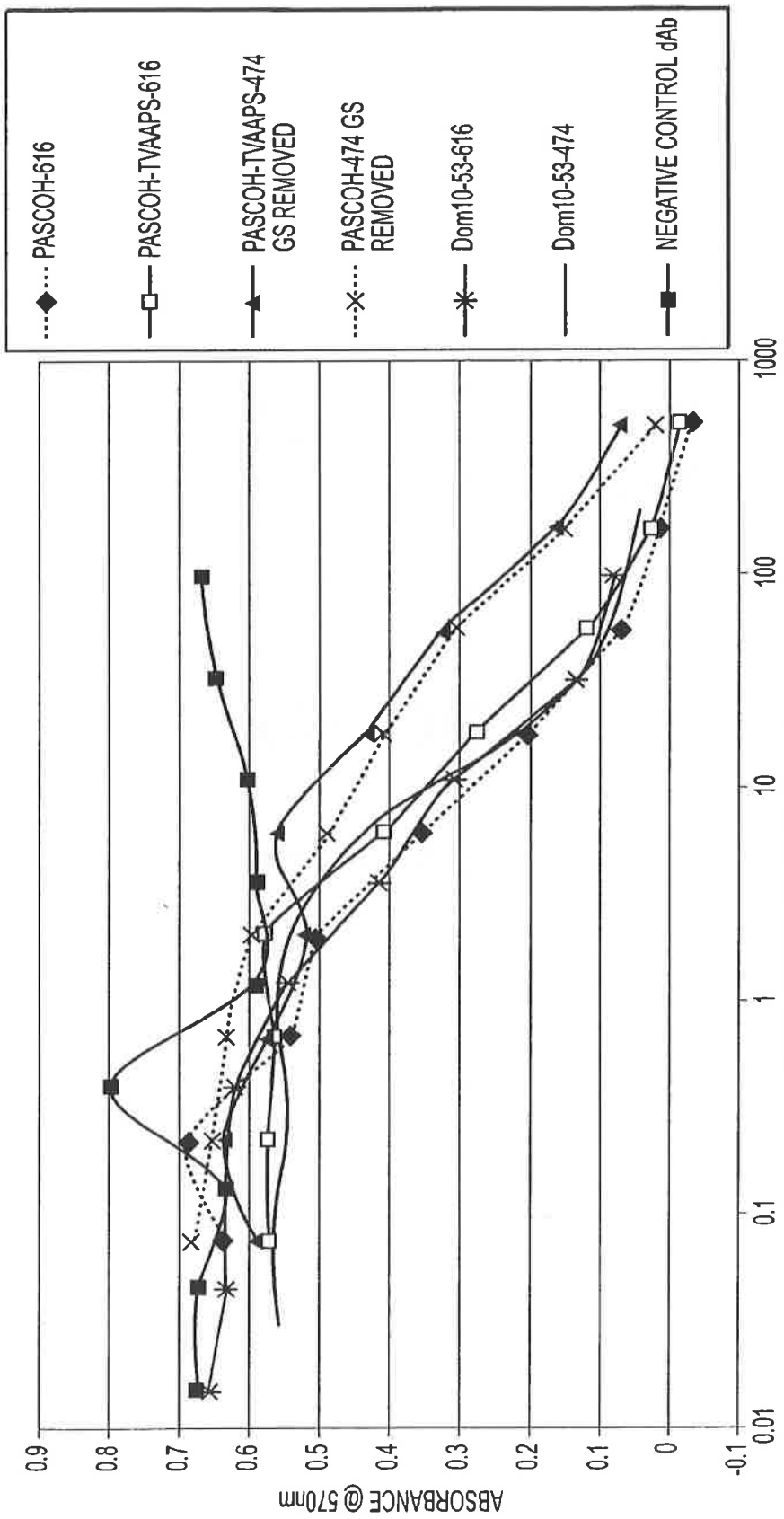

PASCOH-616
PASCOH-TVAAPS-616
PASCOH-TVAAPS-474 GS REMOVED
PASCOH-474 GS REMOVED
Dom10-53-616
Dom10-53-474
NEGATIVE CONTROL dAb
ABSORBANCE @ 570nm
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
0.01
0.1
1
10
100
1000
CONCENTRATION OF MOLECULE (nM)

FIG. 114a

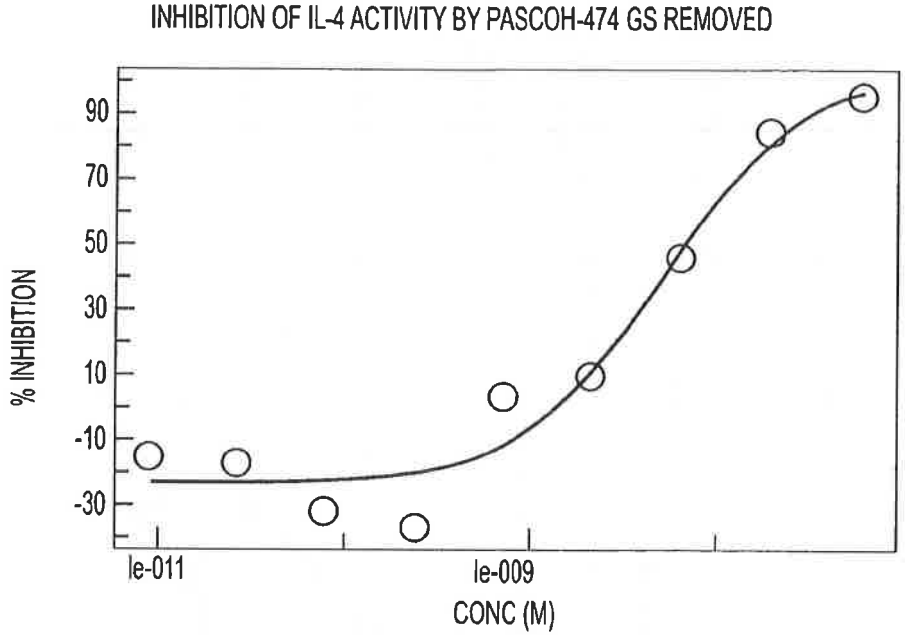


FIG. 115

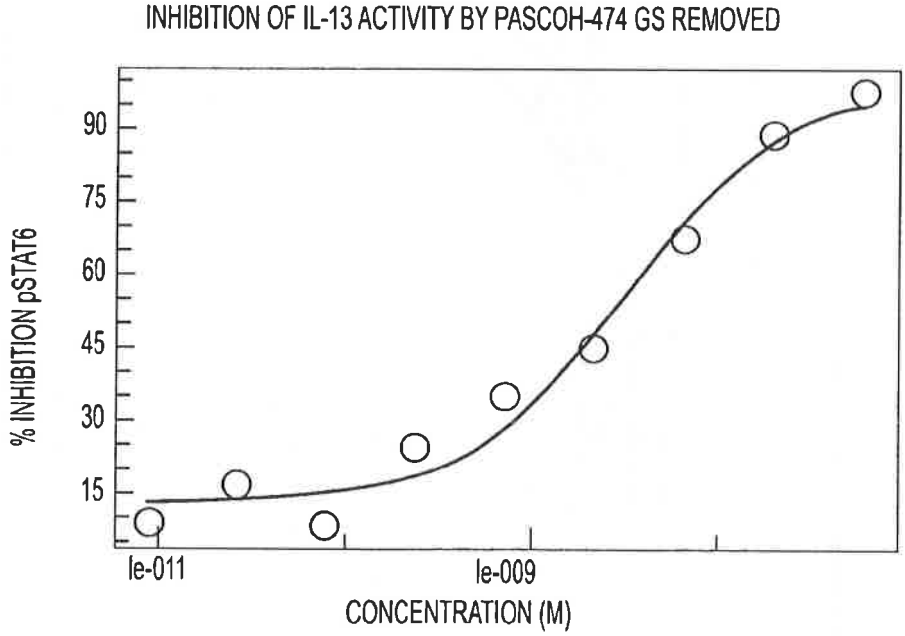


FIG. 116

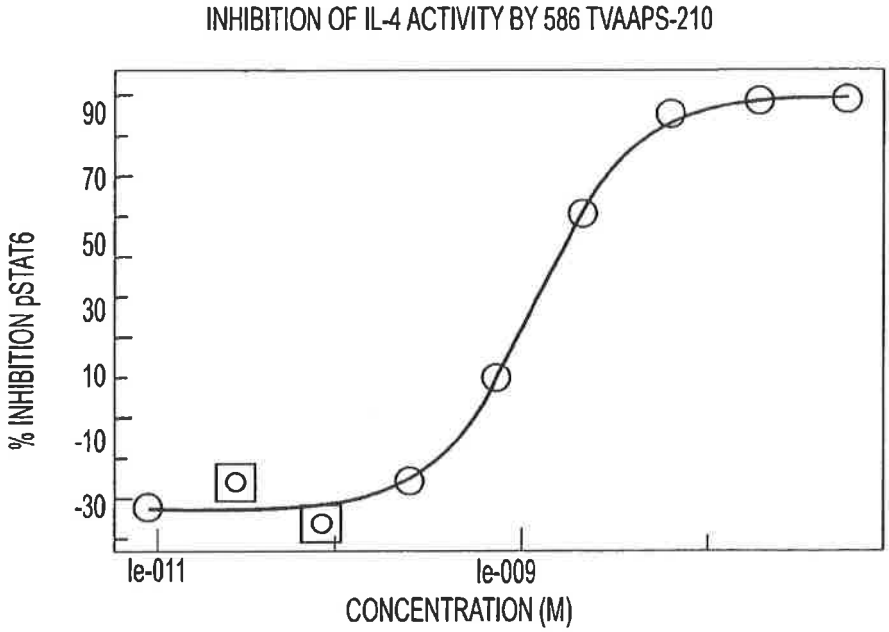


FIG. 117

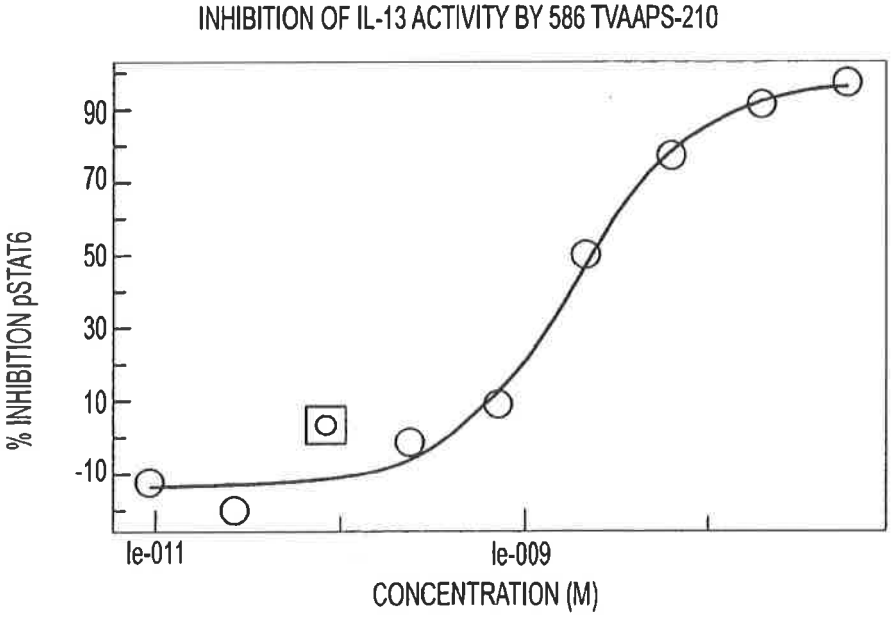


FIG. 118

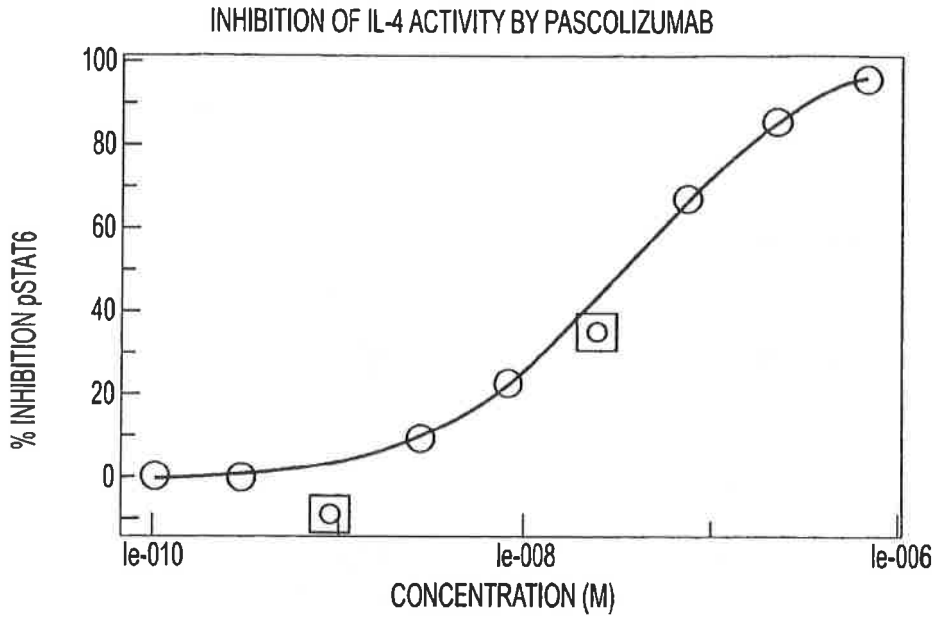


FIG. 119

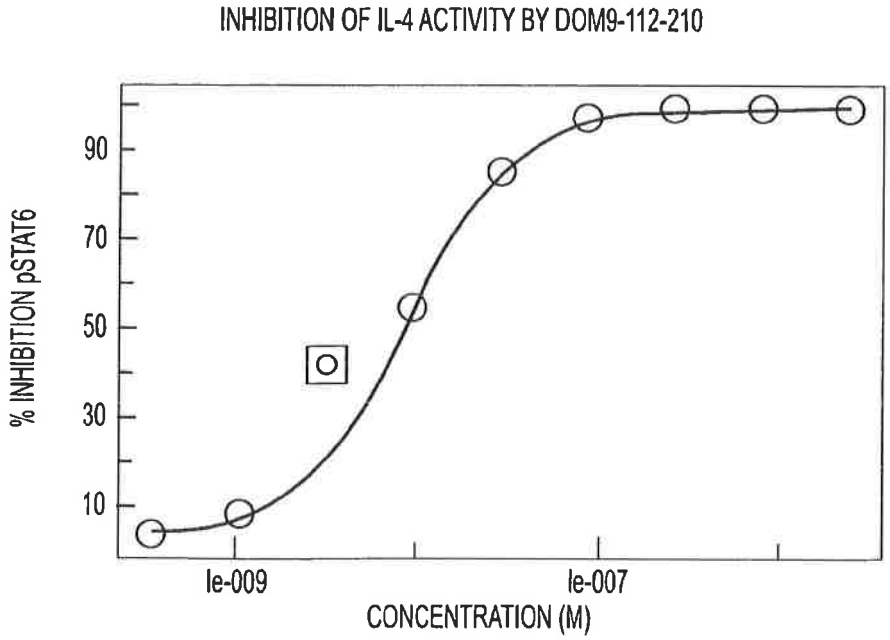


FIG. 120

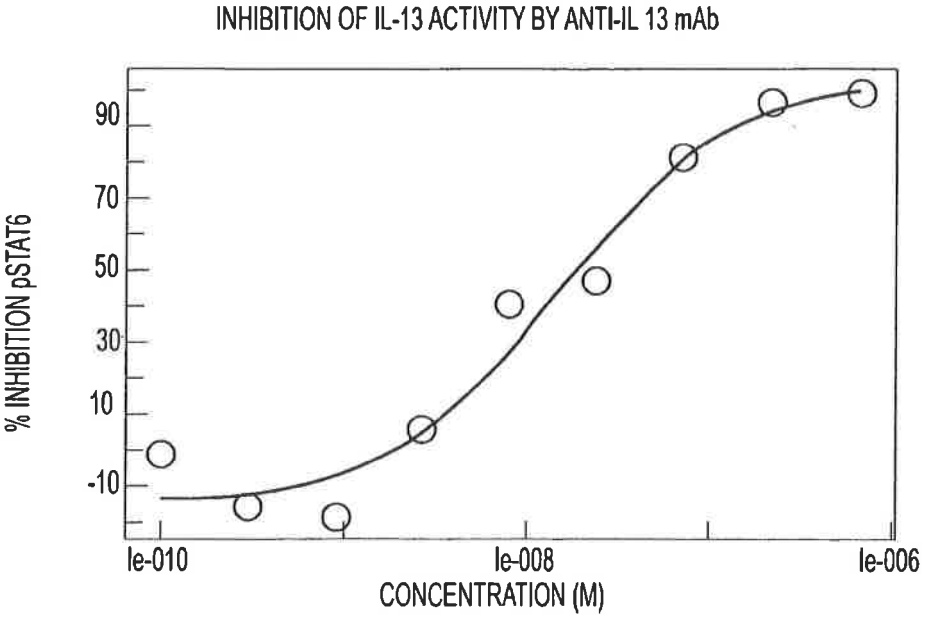


FIG. 121

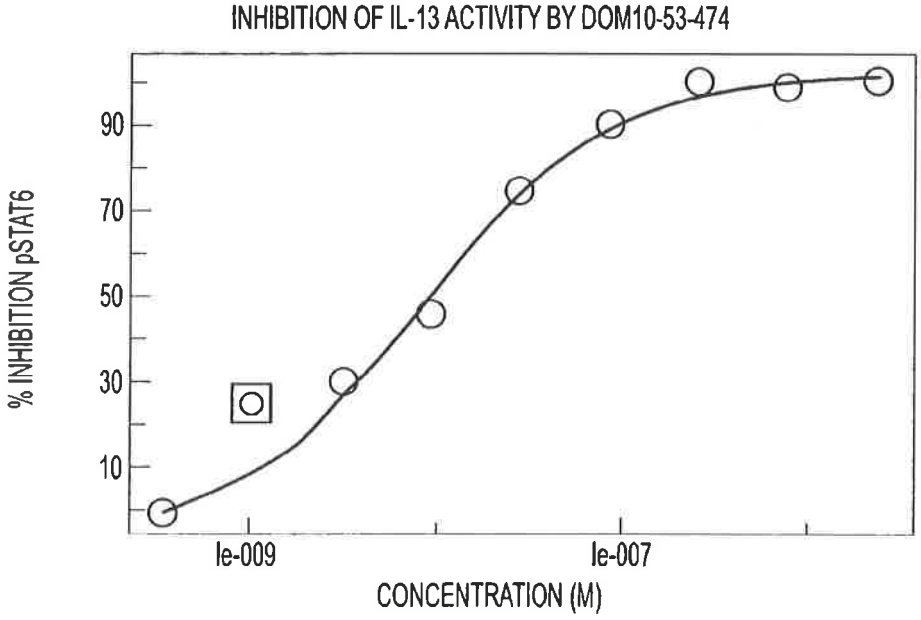


FIG. 122

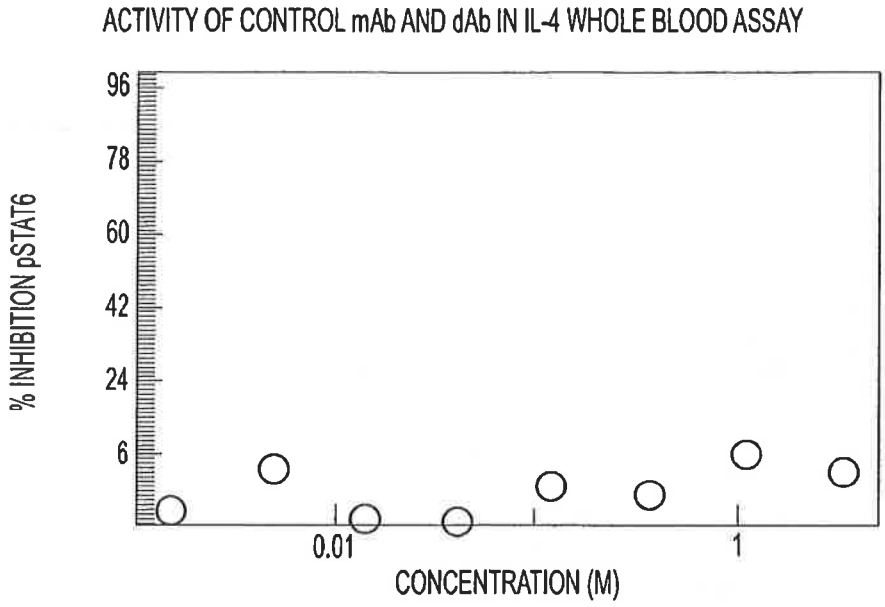


FIG. 123

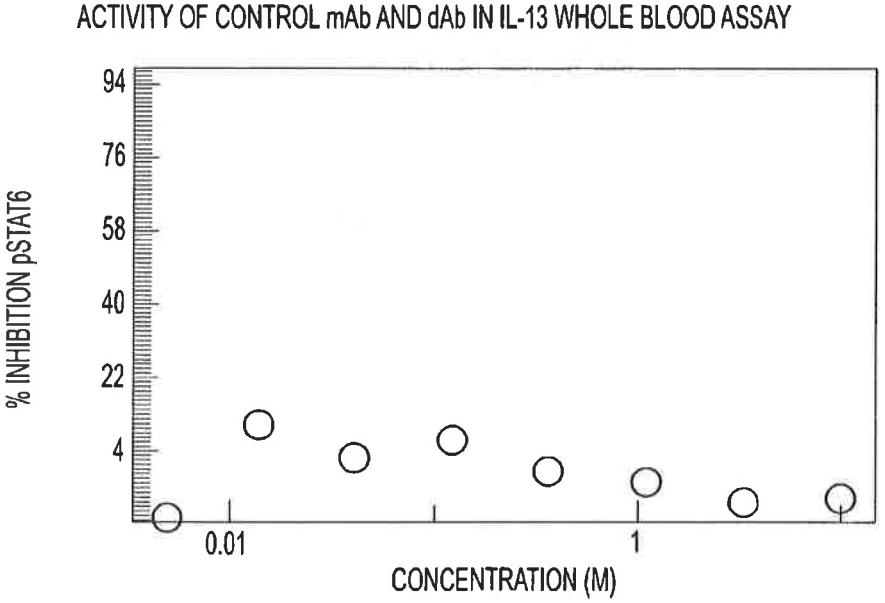


FIG. 124

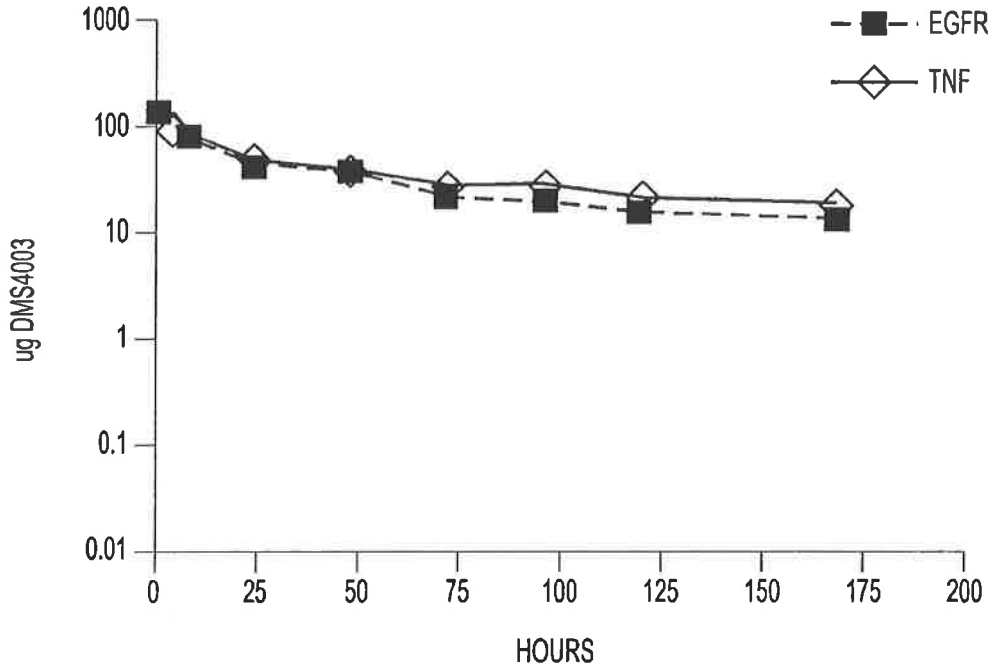


FIG. 125

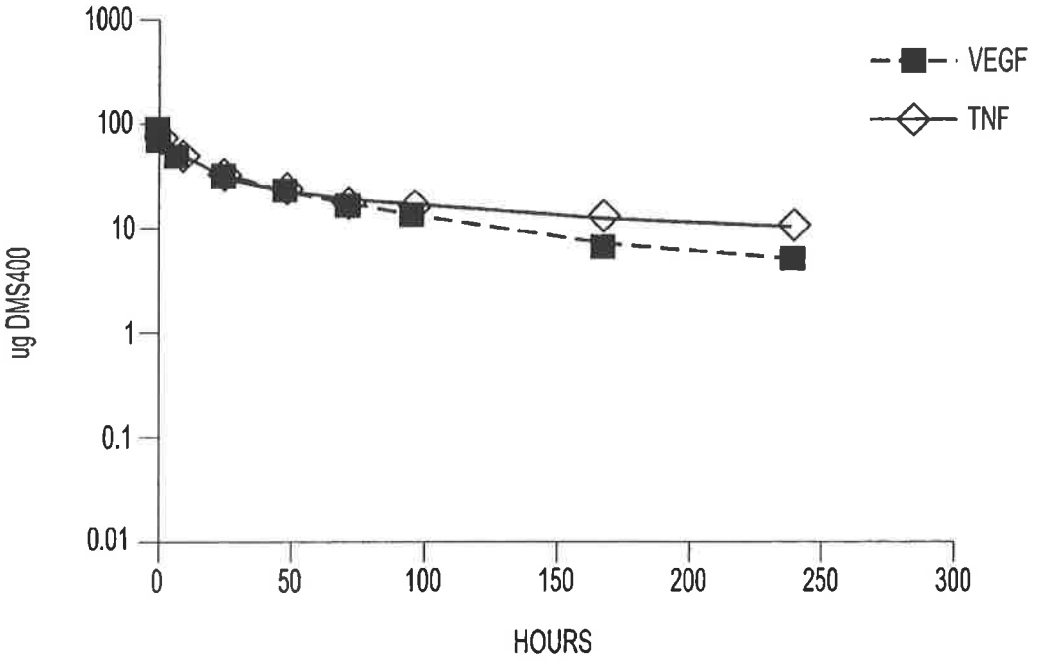


FIG. 126

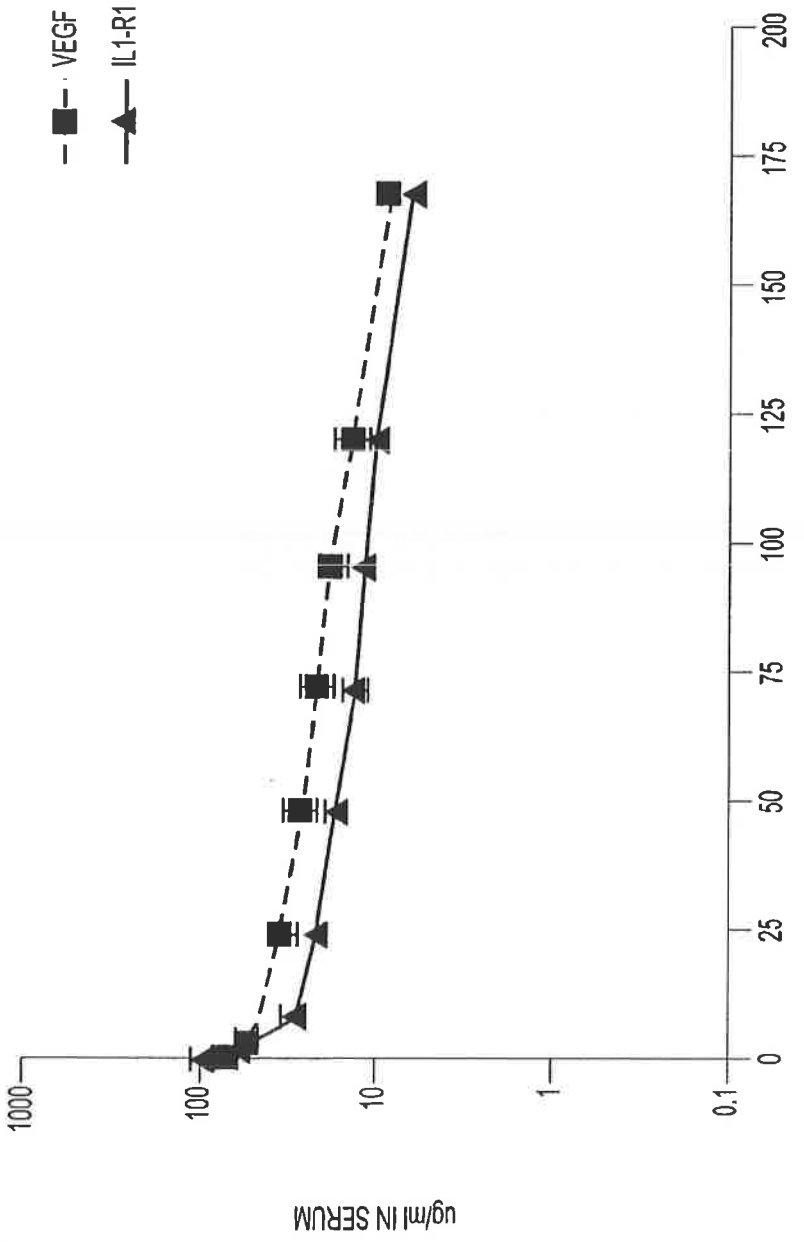

VEGF
IL1-R1
1000
100
10
1
0.1
ug/ml IN SERUM
0
25
50
75
100
125
150
175
200
TIME (hrs)

FIG. 127

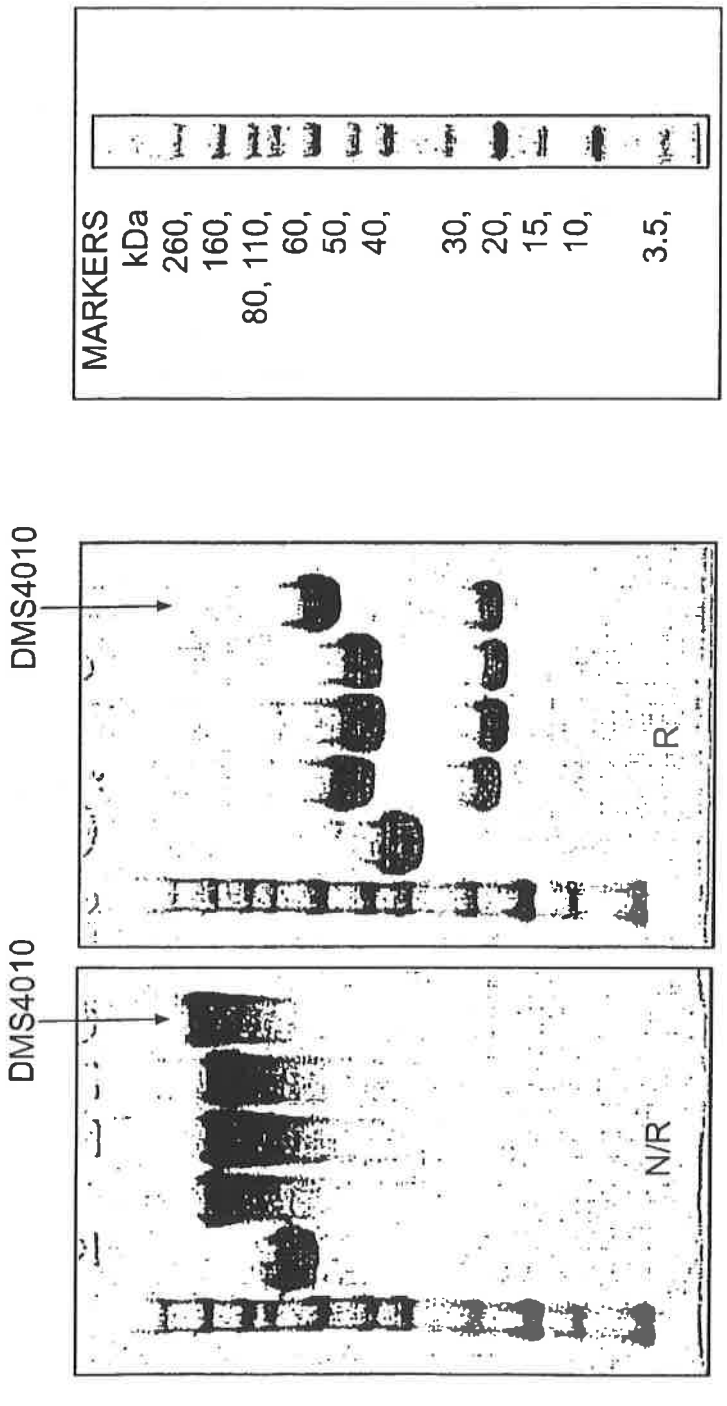

MARKERS
kDa
260,
160,
80, 110,
60,
50,
40,
30,
20,
15,
10,
3.5,
DMS4010
R
DMS4010
N/R
N/R=NON-REDUCED; R=REDUCED

FIG. 128

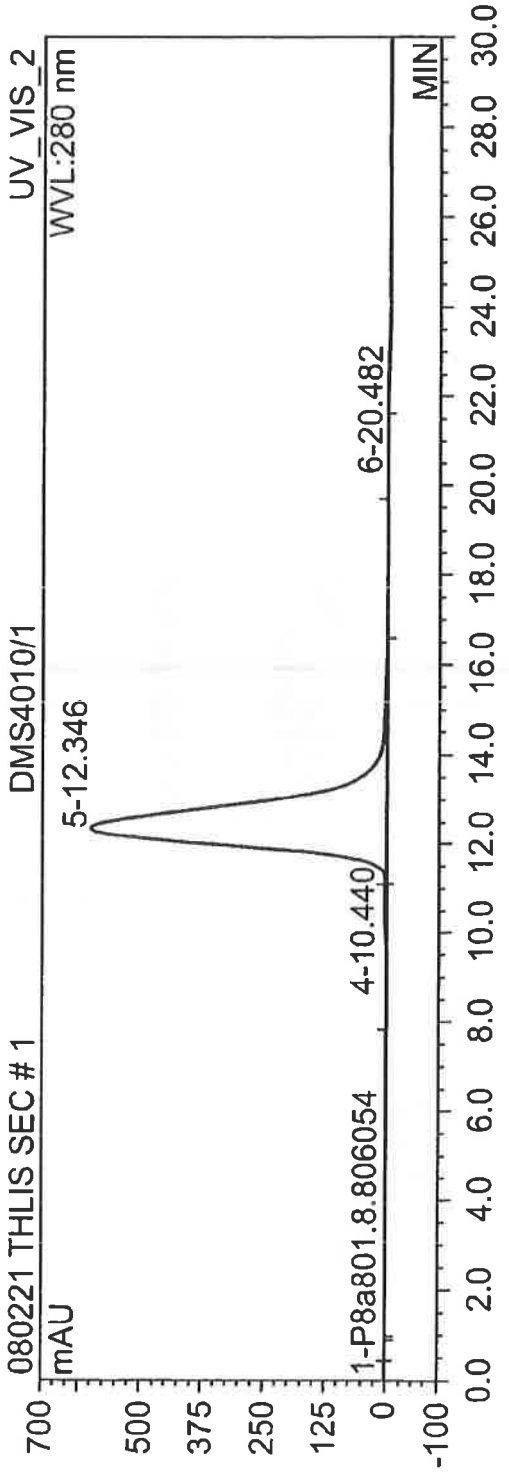
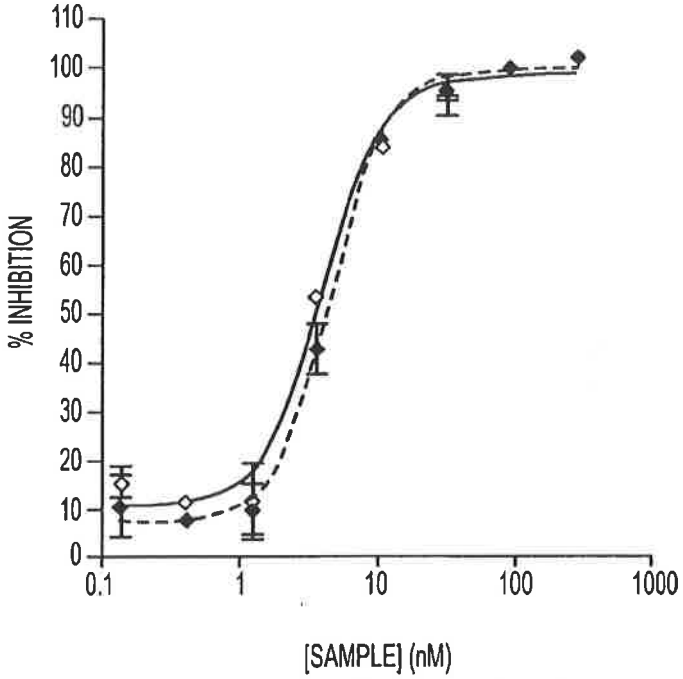
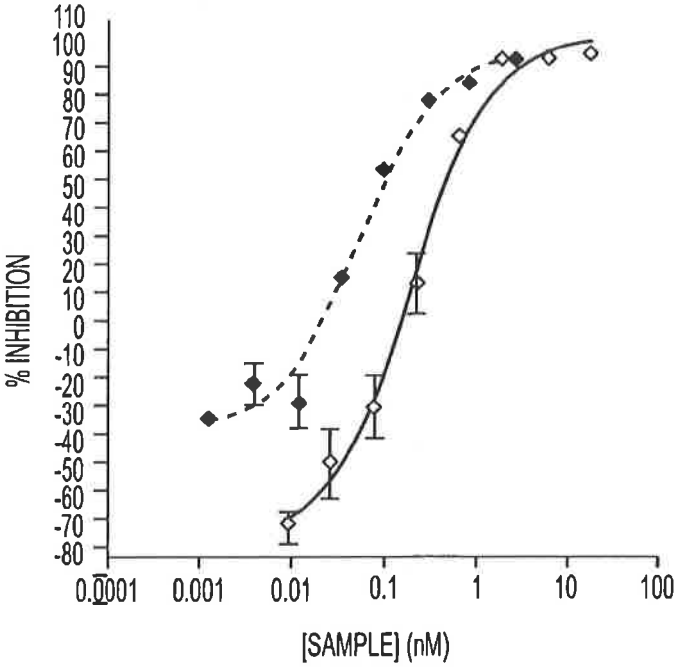

080221 THLIS SEC # 1
DMS4010/1
UV_VIS_2
WVL:280 nm
mAU
MIN
5-12.346
4-10.440
6-20.482
1-P8a801.8.806054
700
500
375
250
125
0
-100
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.0
28.0
30.0

FIG. 129



	EC50
ERBITUX	4.214
DMS4010	4.784

FIG. 130



	EC50
AVASTIN	0.2141
DMS4010	0.05828

FIG. 131

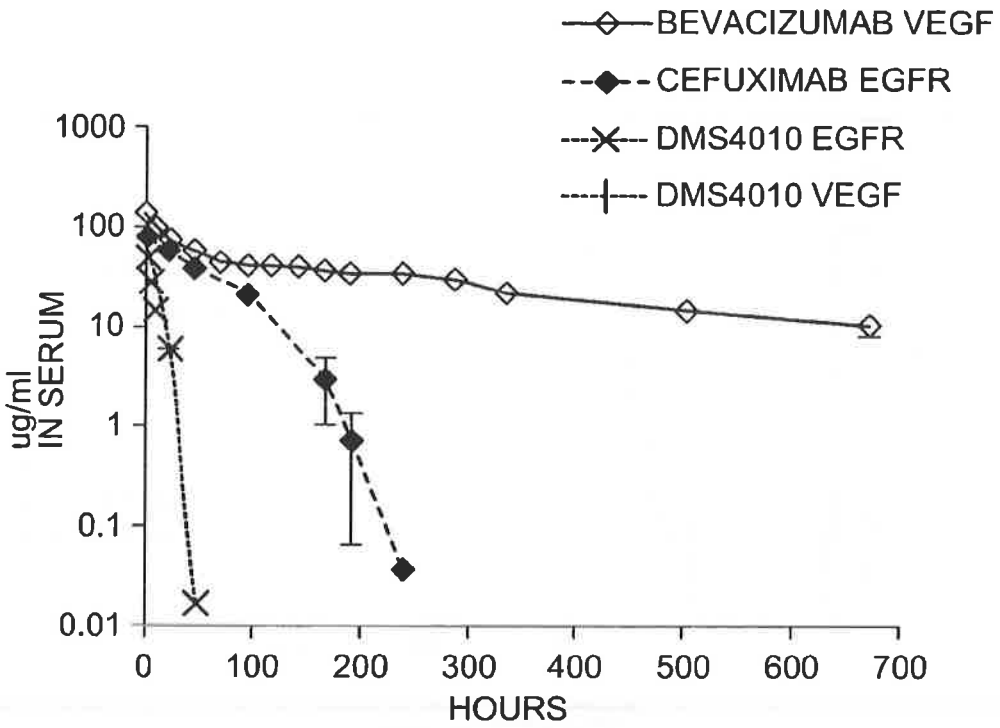
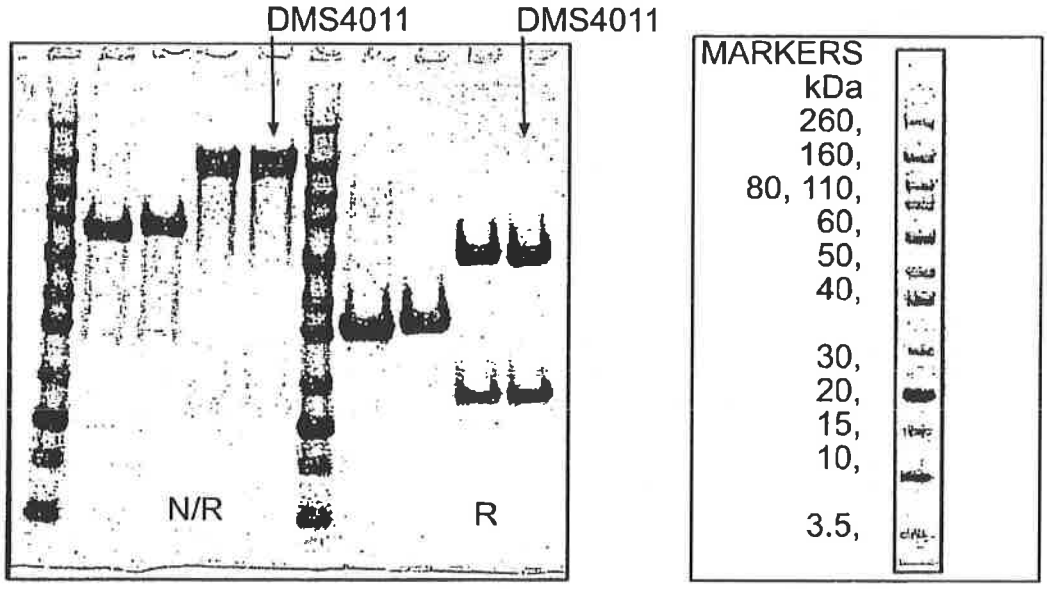


FIG. 132



N/R=NON-REDUCED; R=REDUCED

FIG. 133

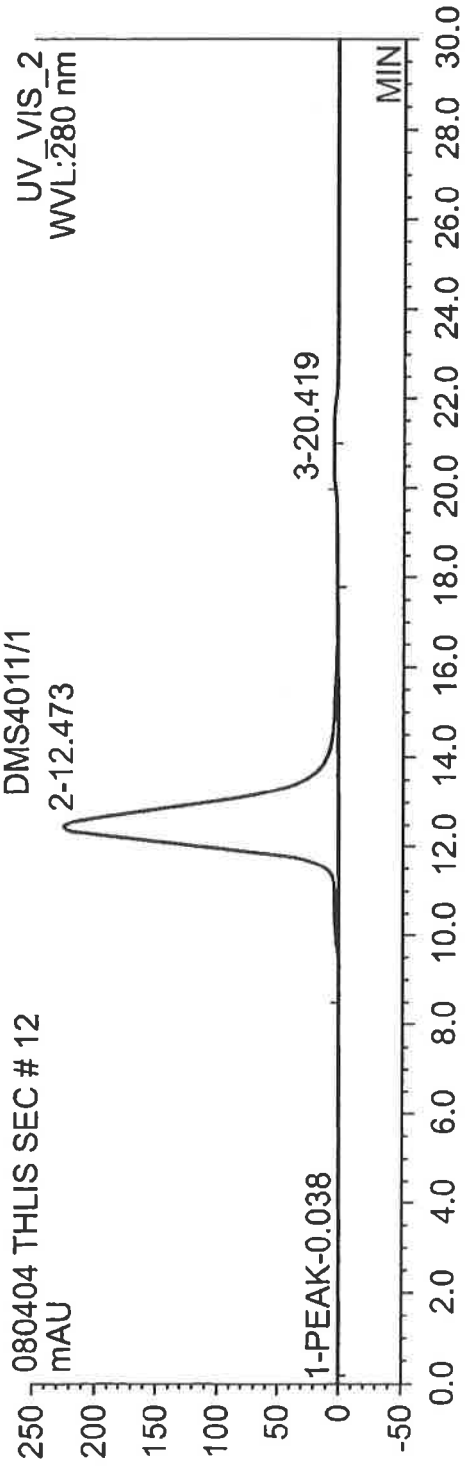

080404 THLIS SEC # 12
mAU
DMS4011/1
UV_VIS_2
WVL:280 nm
2-12.473
3-20.419
1-PEAK-0.038
MIN
250
200
150
100
50
0
-50
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.0
28.0
30.0

FIG. 134

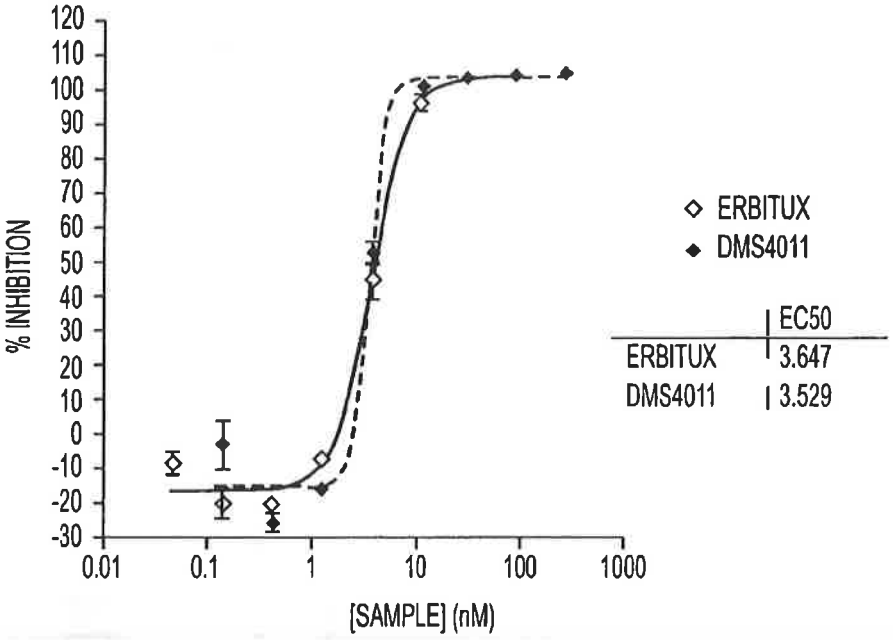


FIG. 135

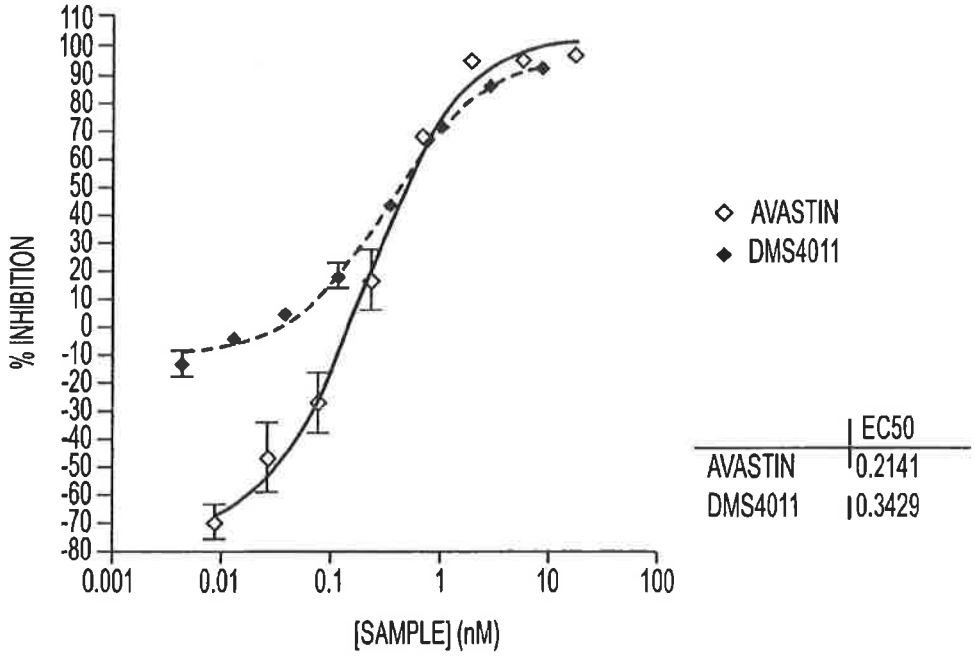


FIG. 136

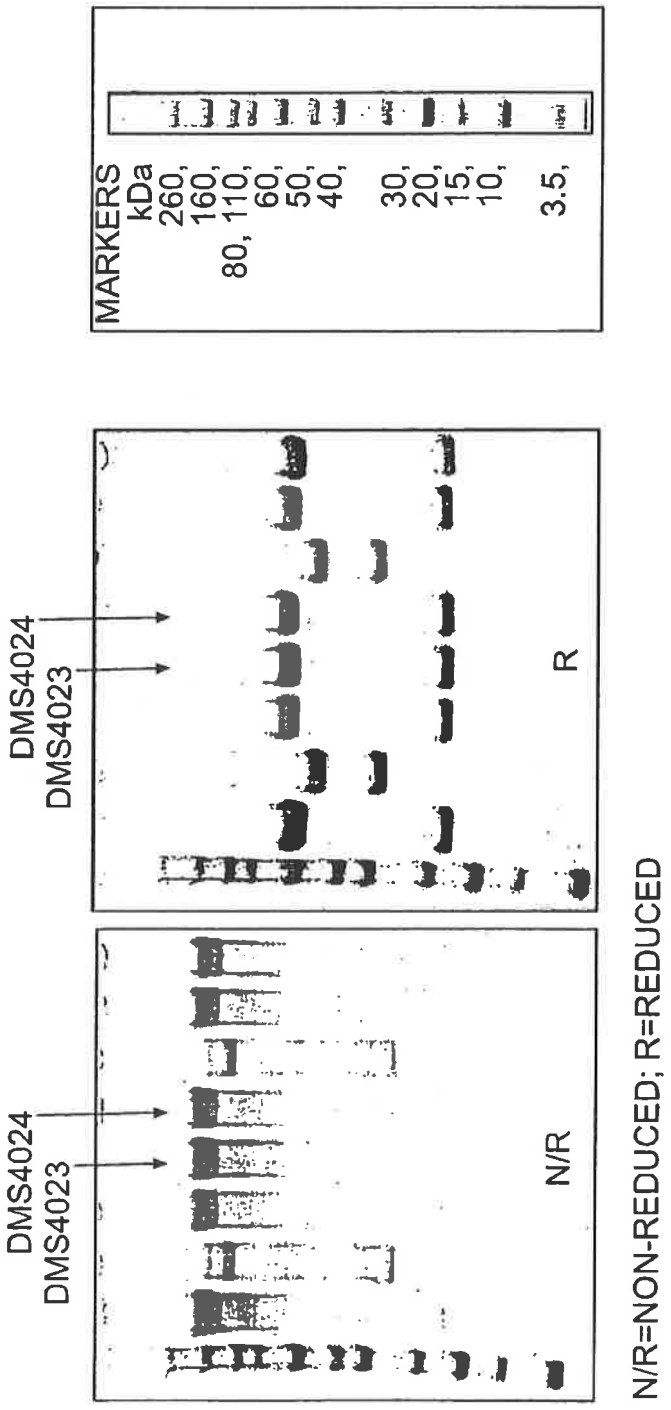

MARKERS
kDa
260,
160,
110,
80,
60,
50,
40,
30,
20,
15,
10,
3.5,
DMS4024
DMS4023
R
DMS4024
DMS4023
N/R
N/R=NON-REDUCED; R=REDUCED

FIG. 137

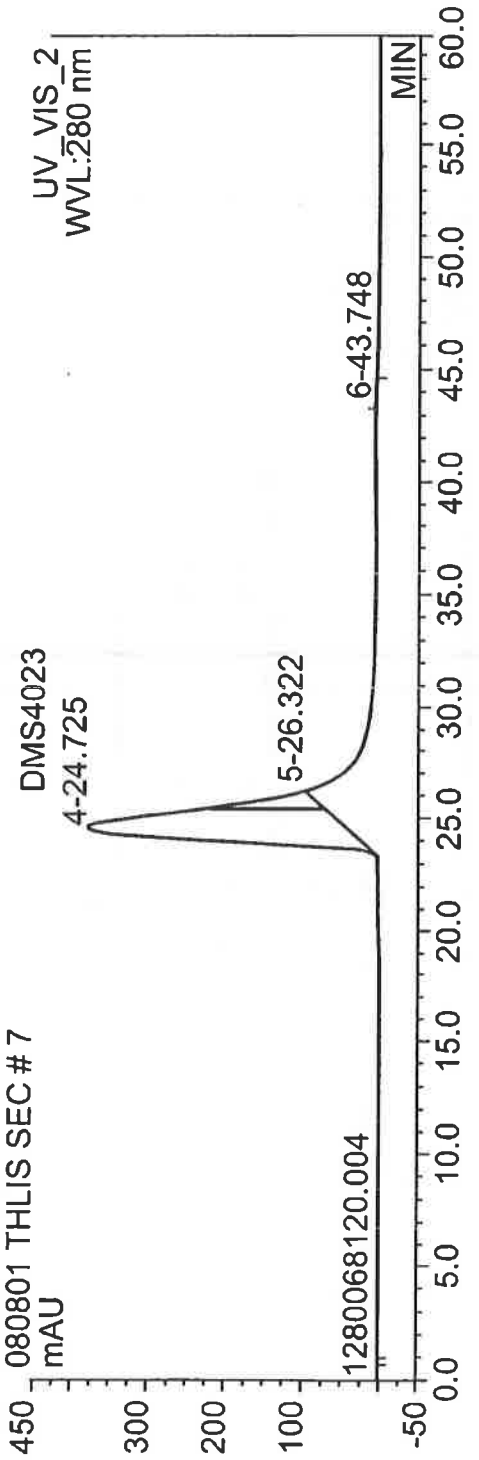

UV_VIS_2
WVL:280 nm
DMS4023
4-24.725
5-26.322
6-43.748
080801 THLIS SEC # 7
mAU
1280068120.004
MIN
450
300
200
100
-50
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
55.0
60.0

FIG. 138

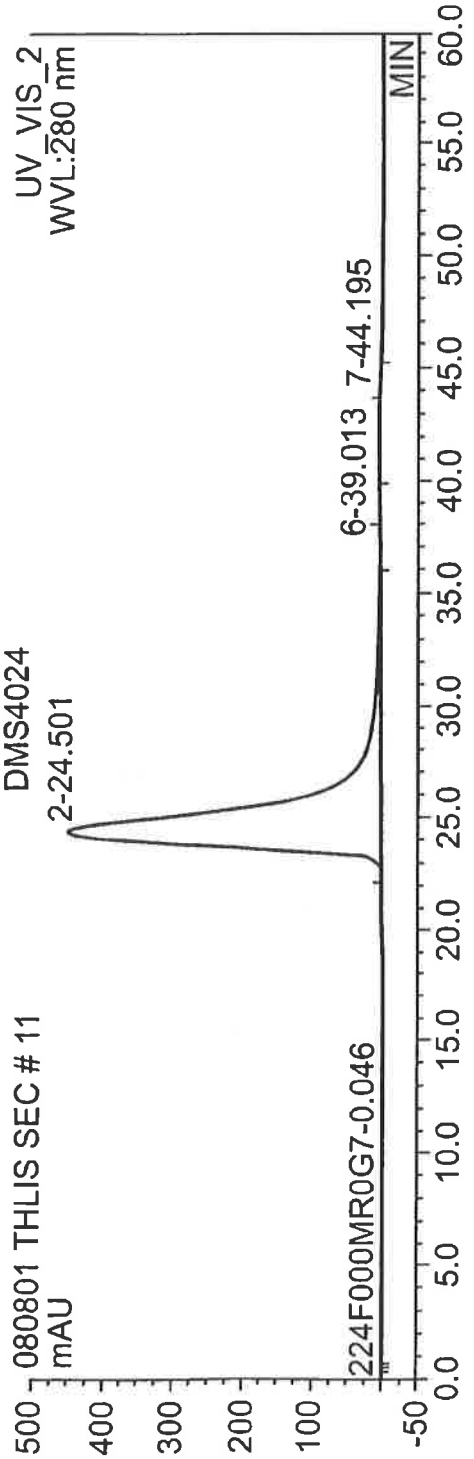

UV_VIS_2
WVL:280 nm
080801 THLIS SEC # 11
mAU
DMS4024
2-24.501
6-39.013
7-44.195
224F000MR0G7-0.046
MIN
500
400
300
200
100
-50
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
55.0
60.0

FIG. 139

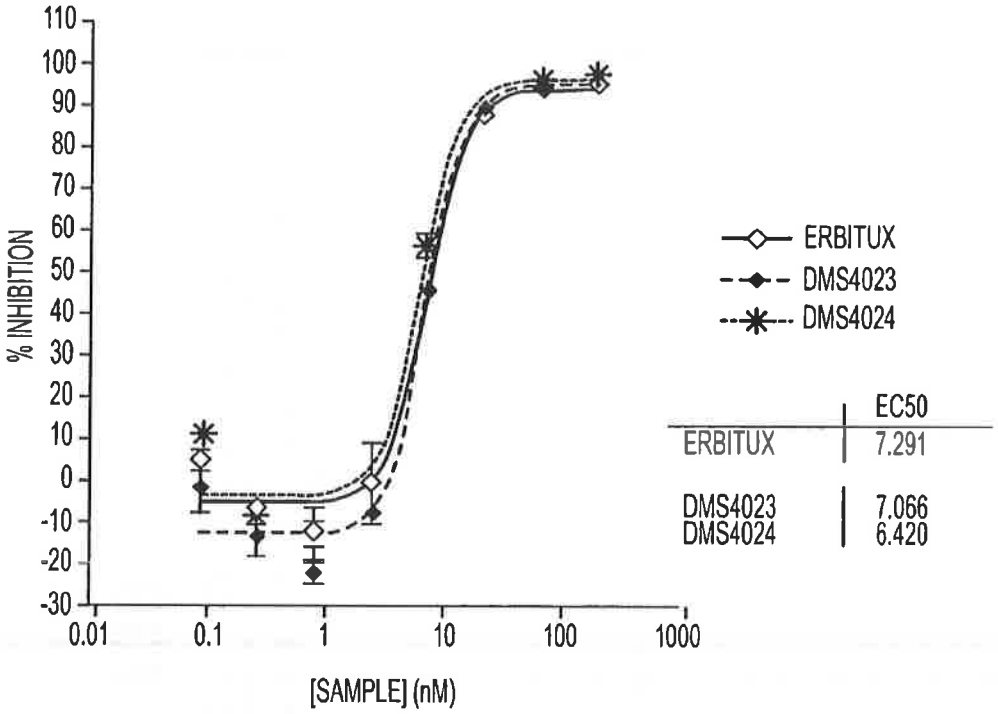


FIG. 140

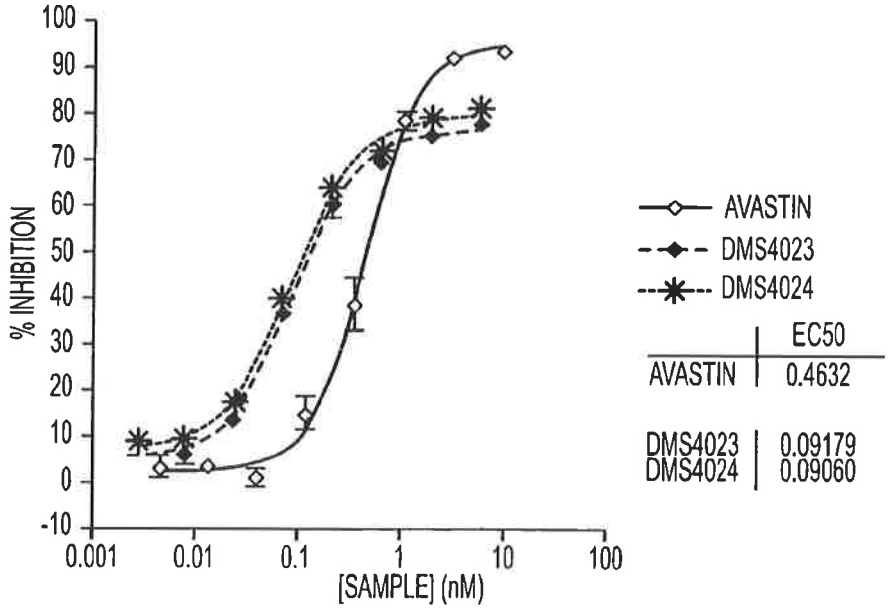


FIG. 141

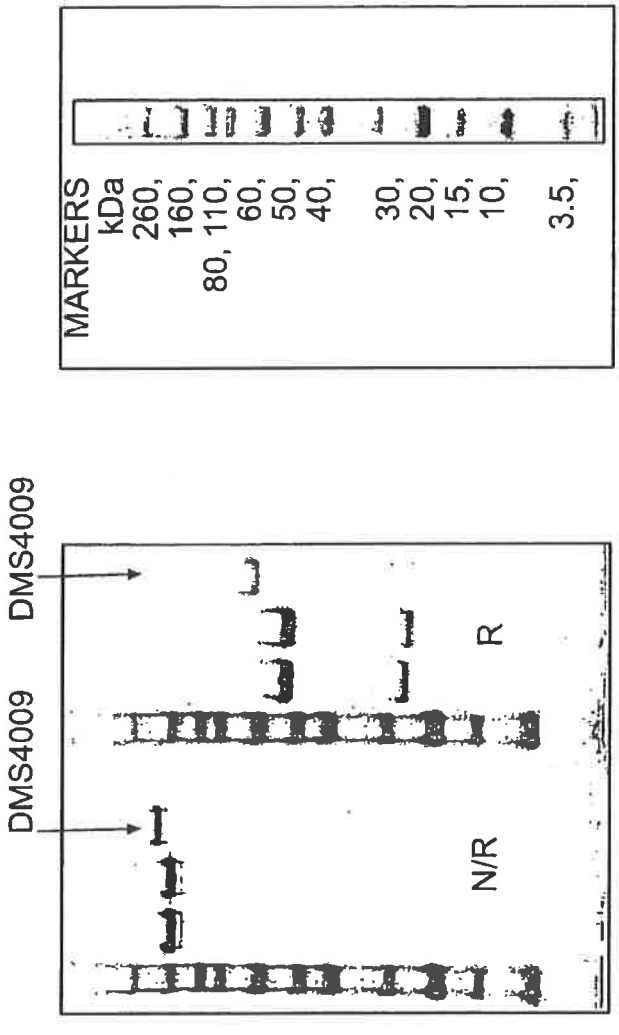

MARKERS
kDa
260,
160,
80, 110,
60,
50,
40,
30,
20,
15,
10,
3.5,
DMS4009
DMS4009
R
N/R
N/R=NON-REDUCED; R=REDUCED

FIG. 142

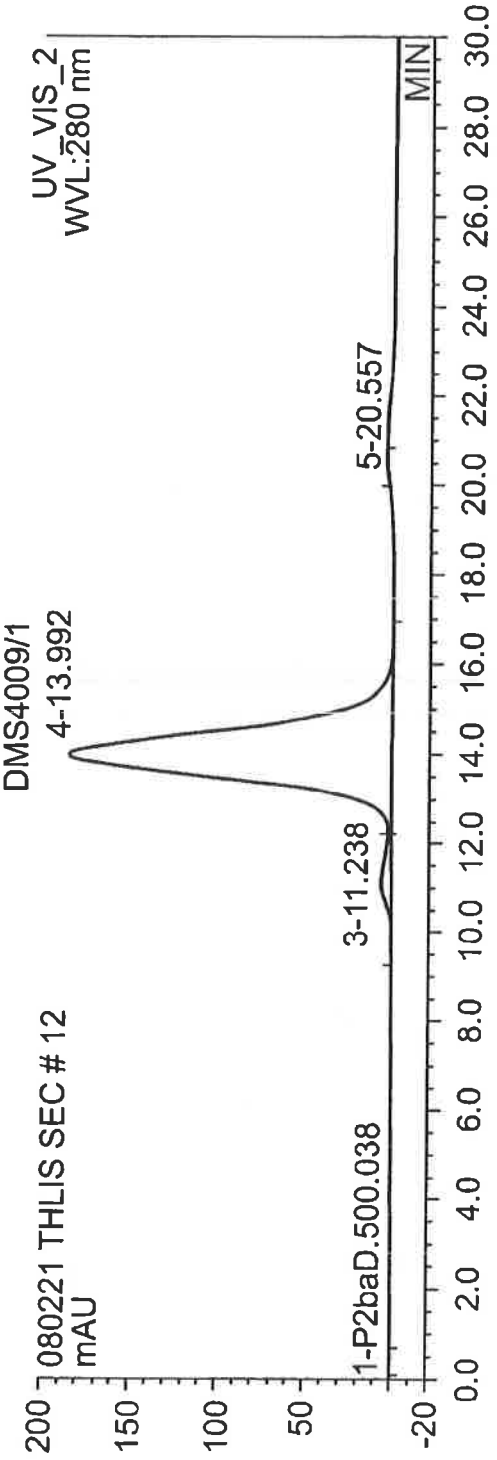

UV_VIS_2
WVL:280 nm
DMS4009/1
4-13.992
3-11.238
5-20.557
080221 THLIS SEC # 12
mAU
1-P2baD.500.038
MIN
200
150
100
50
-20
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.0
28.0
30.0

FIG. 143

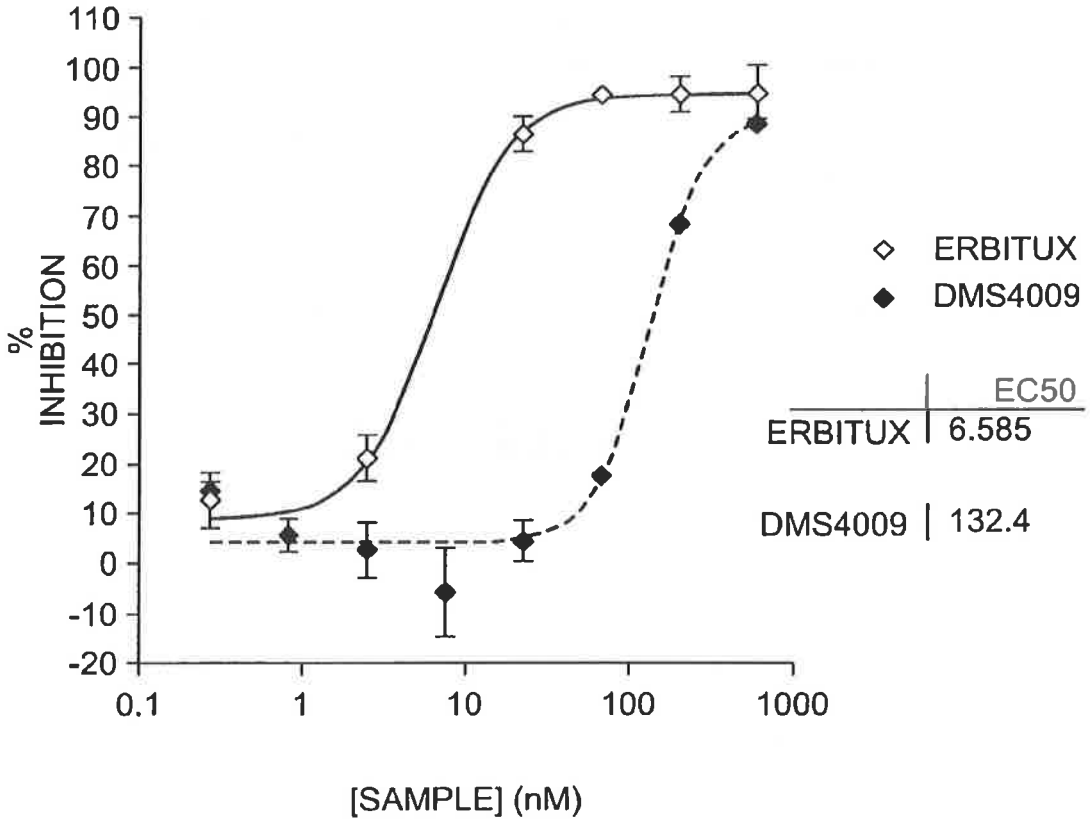

110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
% INHIBITION
0.1
1
10
100
1000
[SAMPLE] (nM)
ERBITUX
DMS4009
EC50
ERBITUX | 6.585
DMS4009 | 132.4

FIG. 144

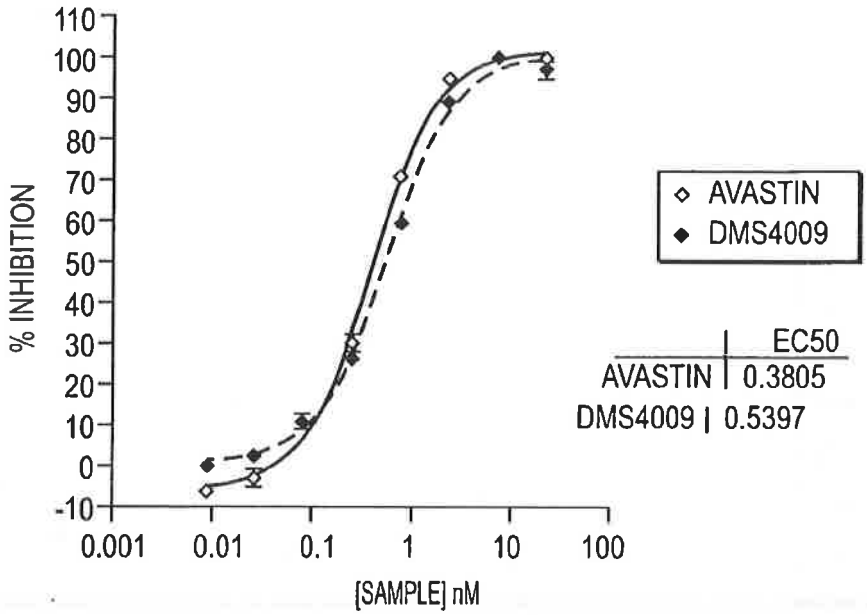
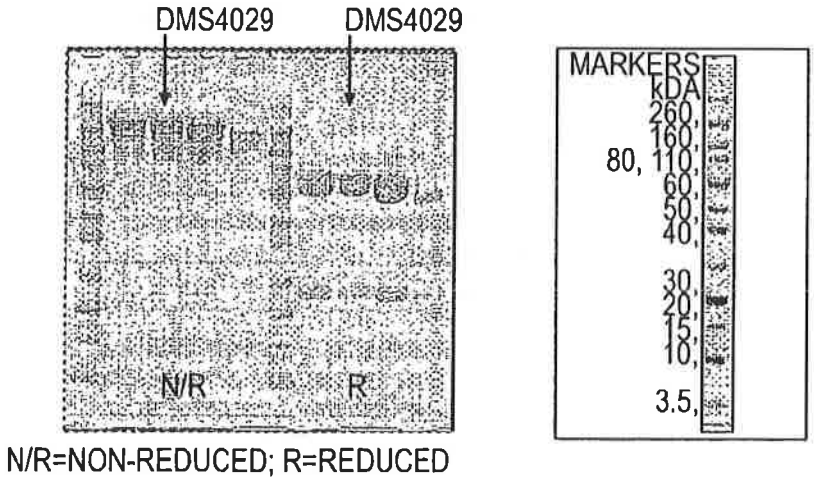


FIG. 145



N/R=NON-REDUCED; R=REDUCED

FIG. 146

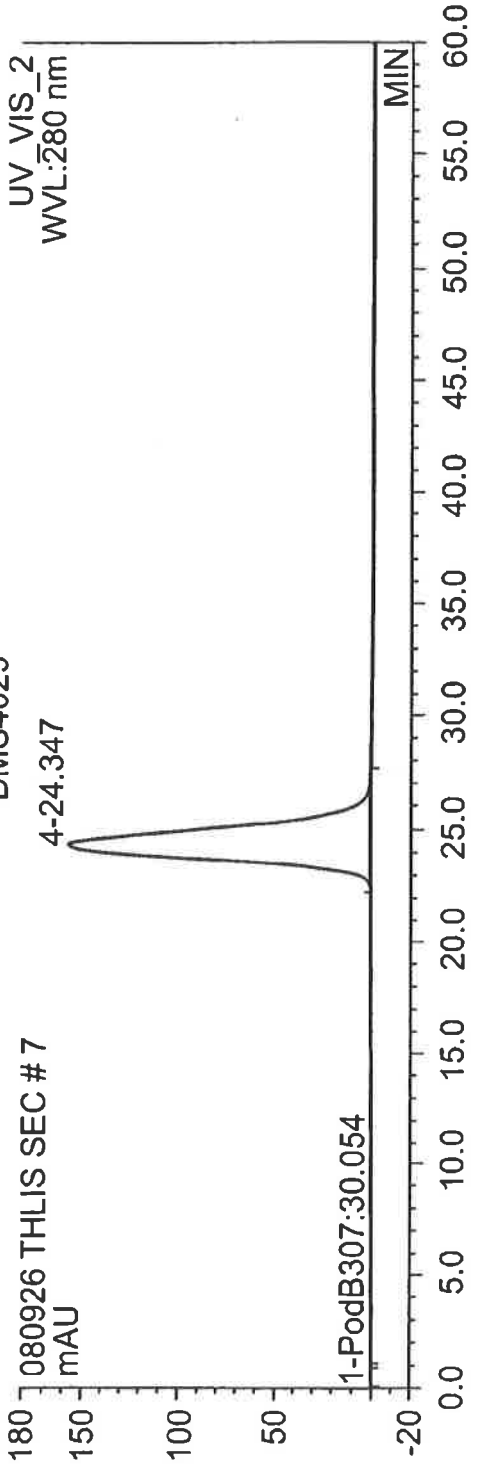

UV_VIS_2
WVL:280 nm
DMS4029
4-24.347
080926 THLIS SEC # 7
mAU
1-PodB307:30.054
MIN
180
150
100
50
-20
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
55.0
60.0

FIG. 147

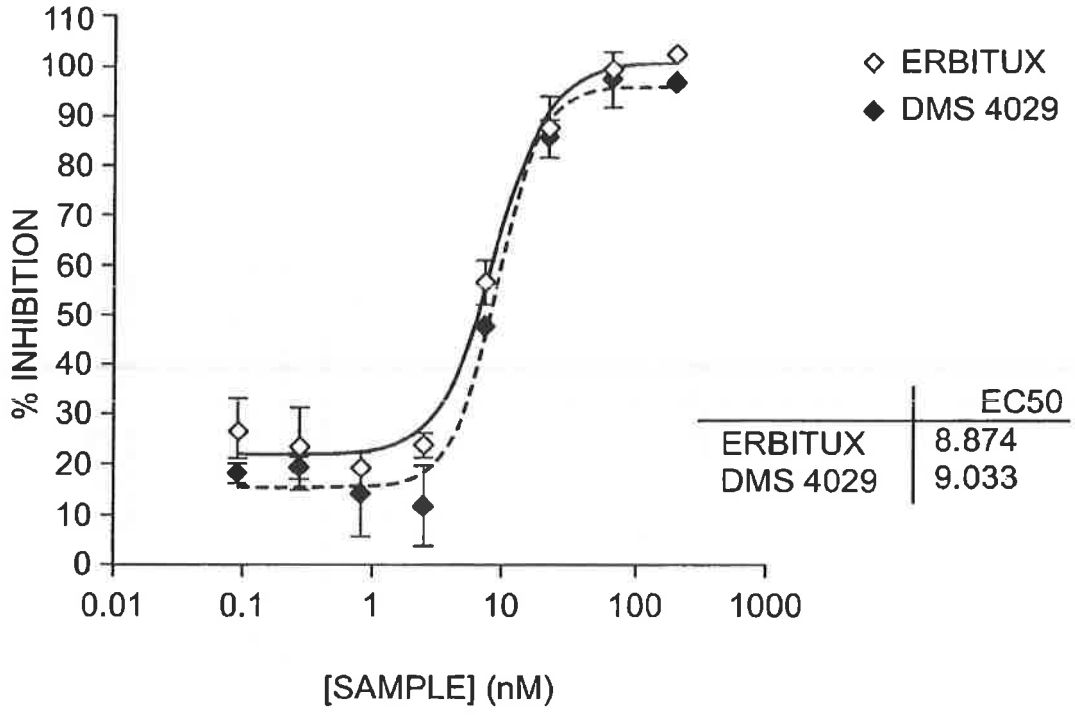
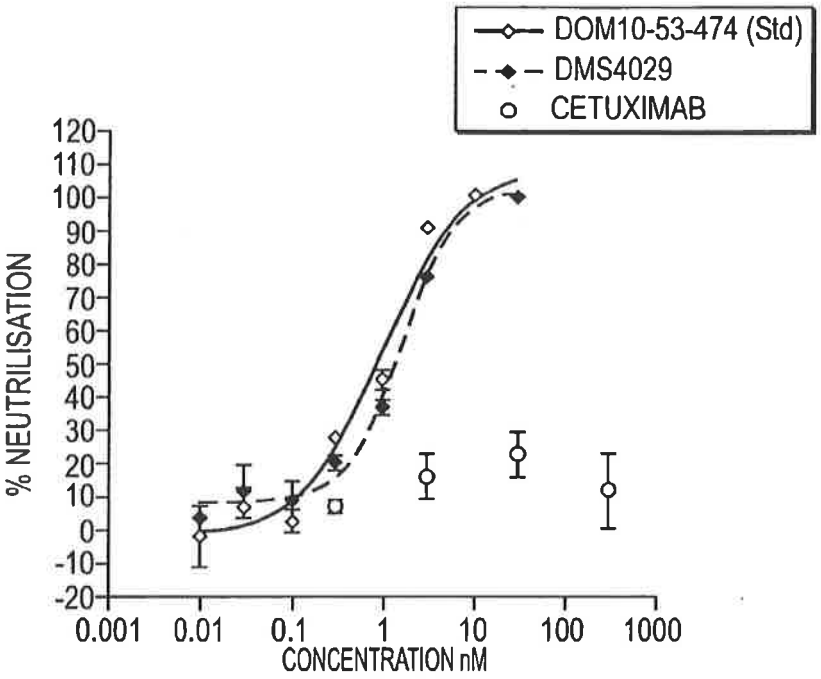
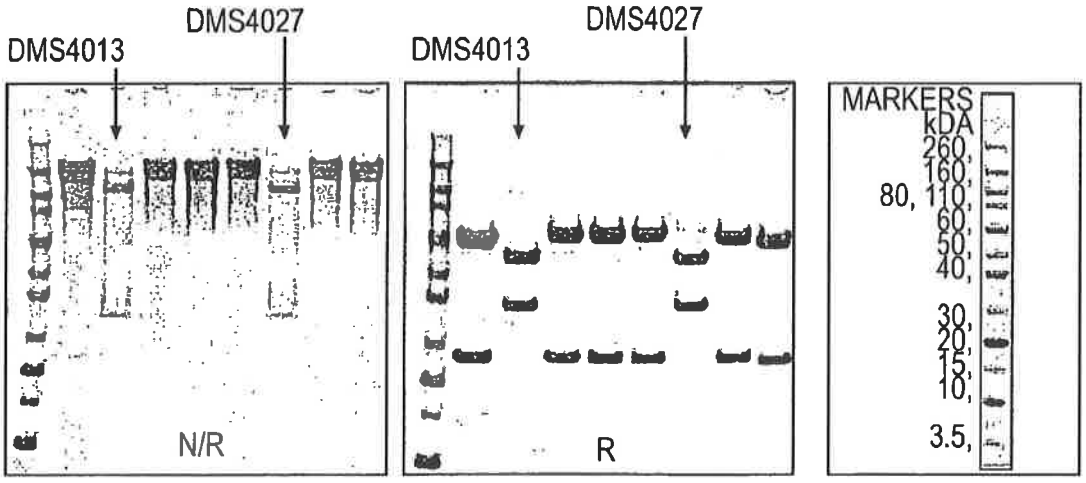

110
100
90
80
70
60
50
40
30
20
10
0
% INHIBITION
0.01
0.1
1
10
100
1000
[SAMPLE] (nM)
◇ ERBITUX
◆ DMS 4029
EC50
ERBITUX 8.874
DMS 4029 9.033

FIG. 148



	DOM10-53-474 (Std)	DMS4029
EC50	0.9960	1.654

FIG. 149



N/R=NON-REDUCED; R=REDUCED

FIG. 150

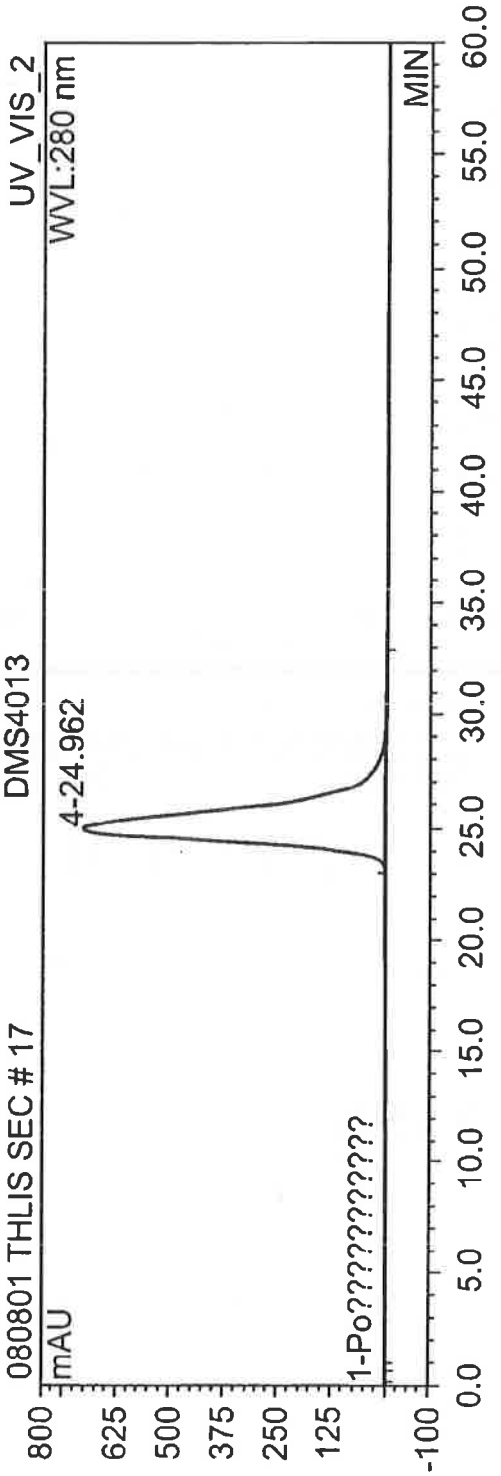

080801 THLIS SEC # 17
DMS4013
UV_VIS_2
WVL:280 nm
mAU
MIN
4-24.962
1-Po???????????
800
625
500
375
250
125
-100
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
55.0
60.0

FIG. 151

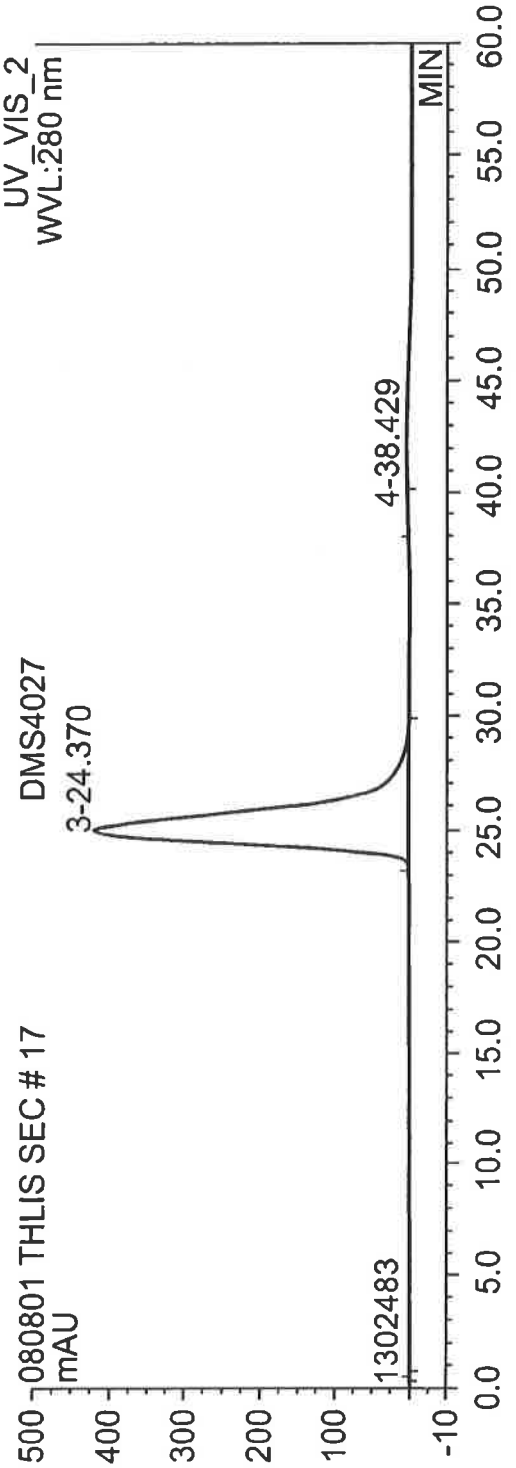

UV_VIS_2
WVL:280 nm
DMS4027
3-24.370
4-38.429
080801 THLIS SEC # 17
mAU
1302483
MIN
500
400
300
200
100
-10
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
55.0
60.0

FIG. 152

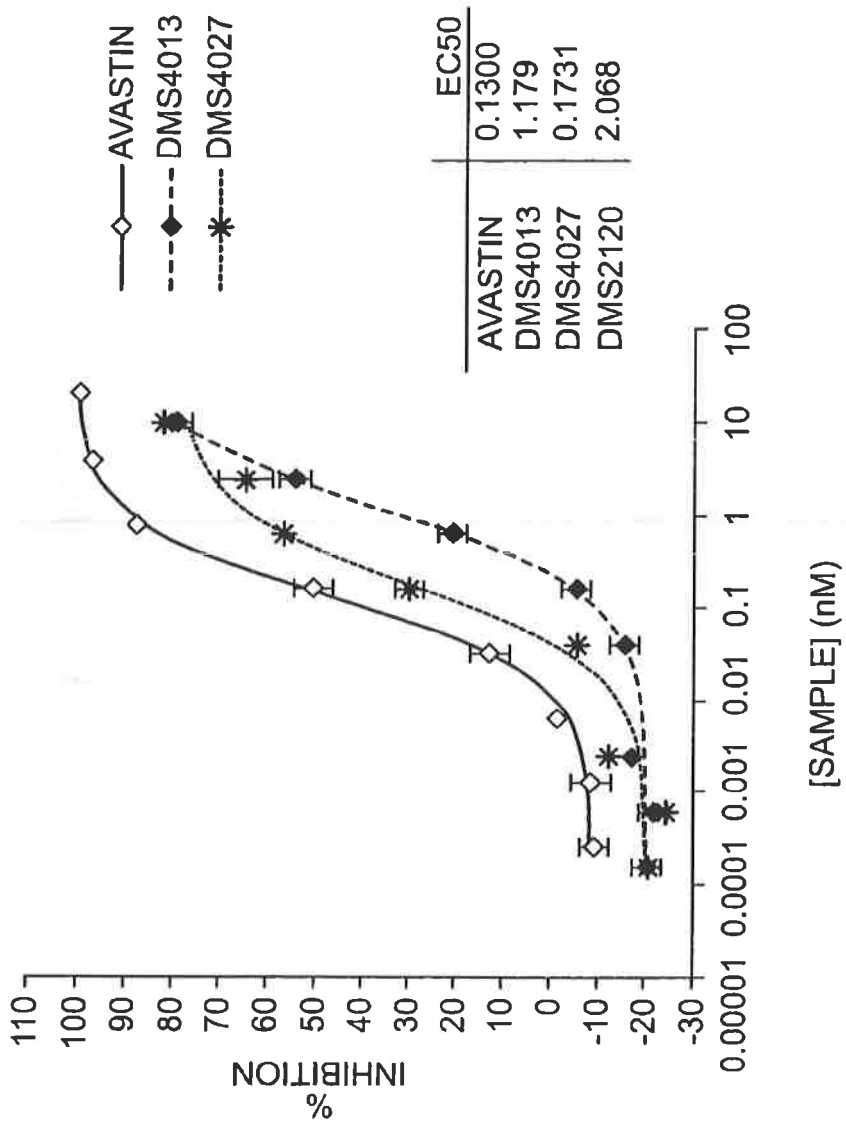

AVASTIN
DMS4013
DMS4027
EC50
AVASTIN 0.1300
DMS4013 1.179
DMS4027 0.1731
DMS2120 2.068
INHIBITION %
110 100 90 80 70 60 50 40 30 20 10 0 -10 -20 -30
0.00001 0.0001 0.001 0.01 0.1 1 10 100
[SAMPLE] (nM)

FIG. 153

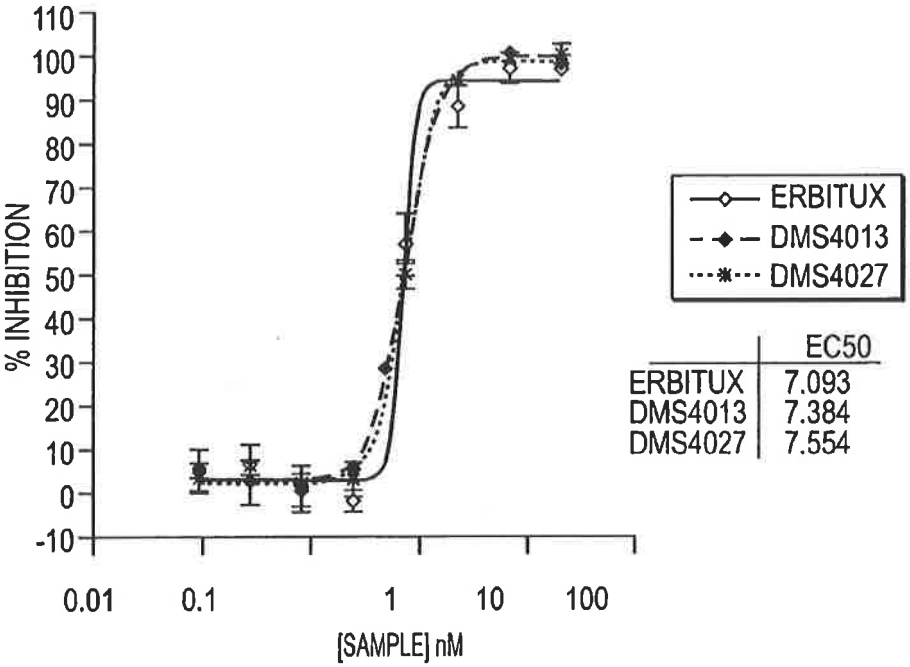


FIG. 154

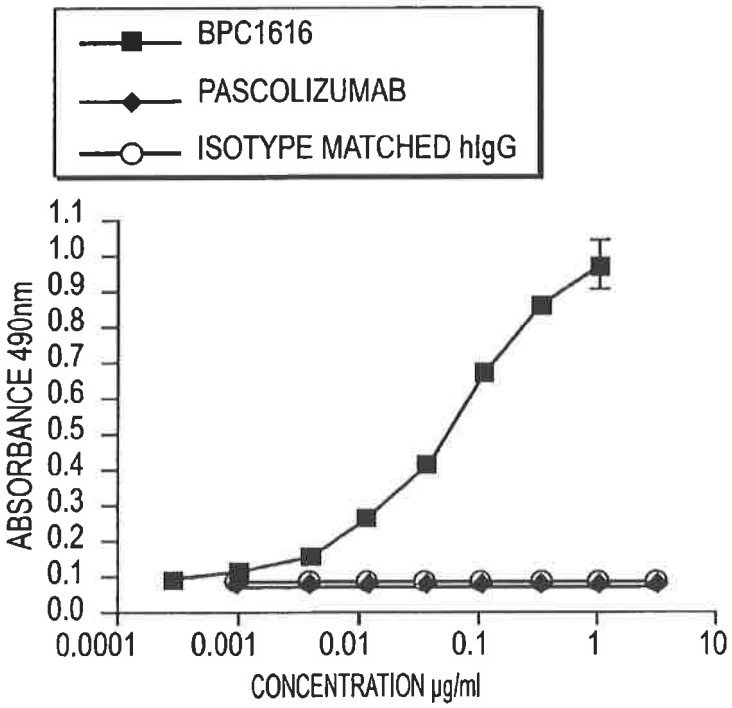


FIG. 155

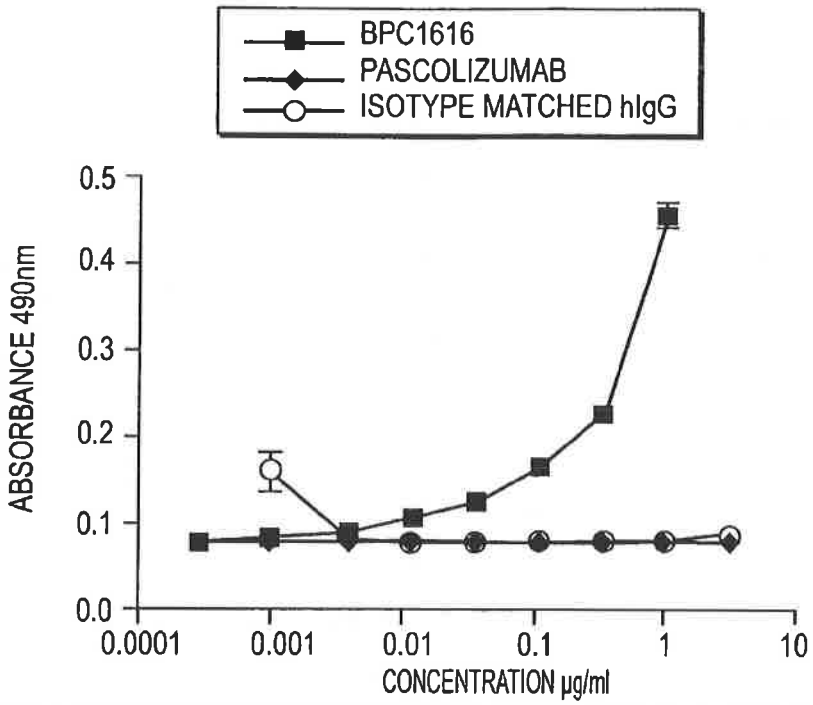


FIG. 156

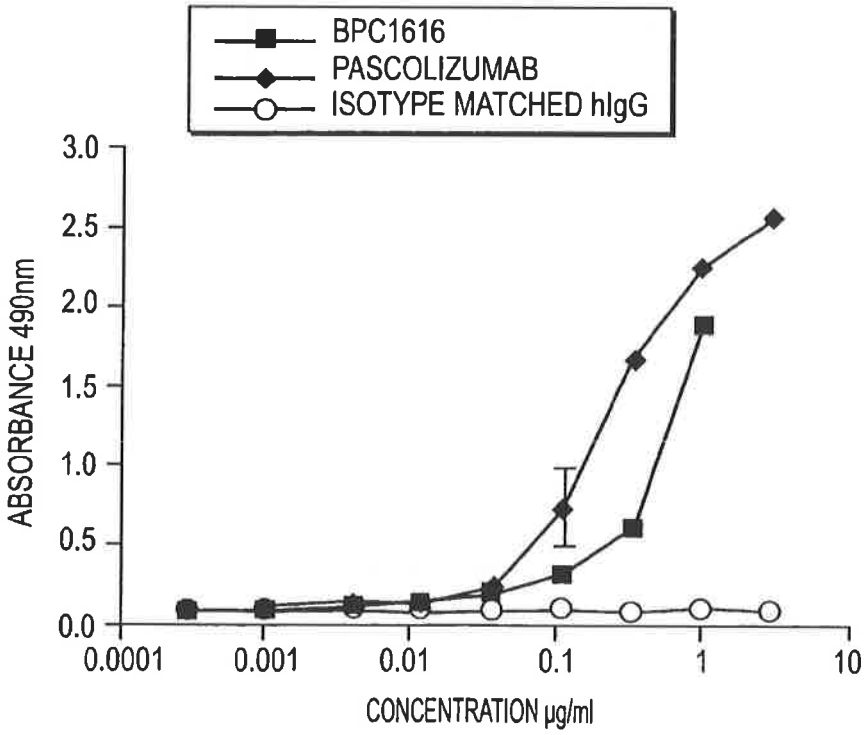


FIG. 157

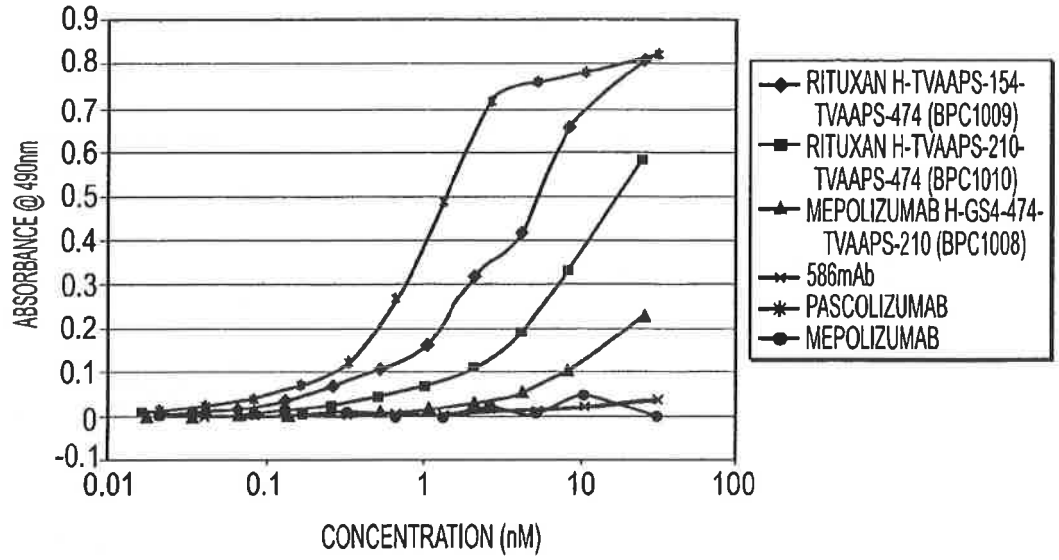


FIG. 158

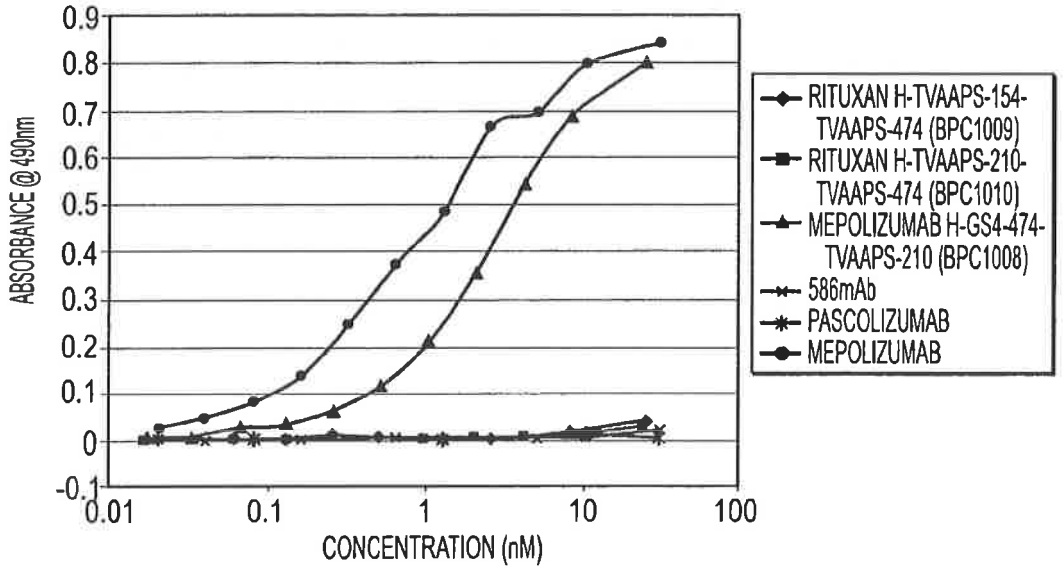


FIG. 159

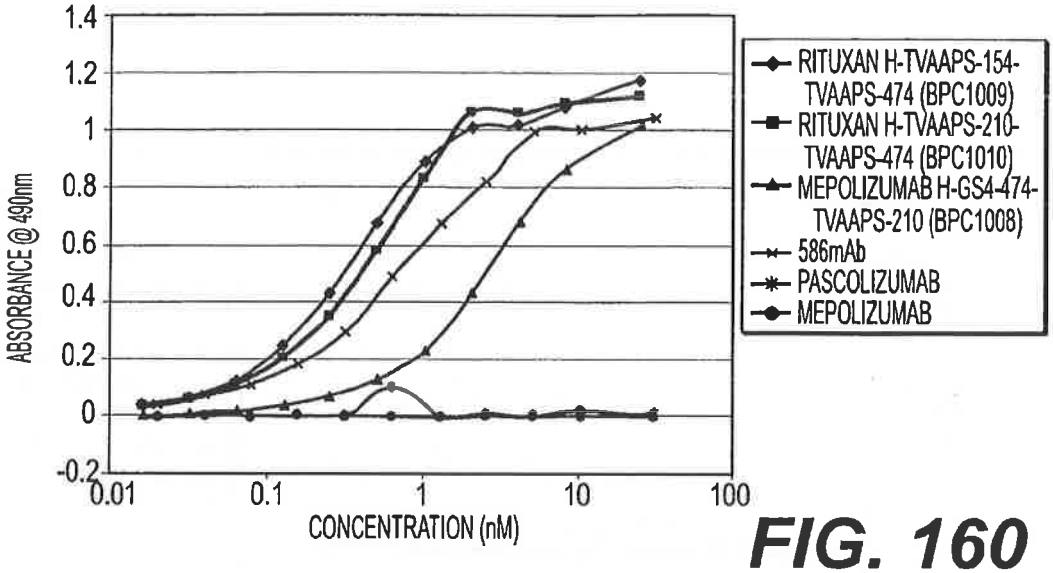


FIG. 160

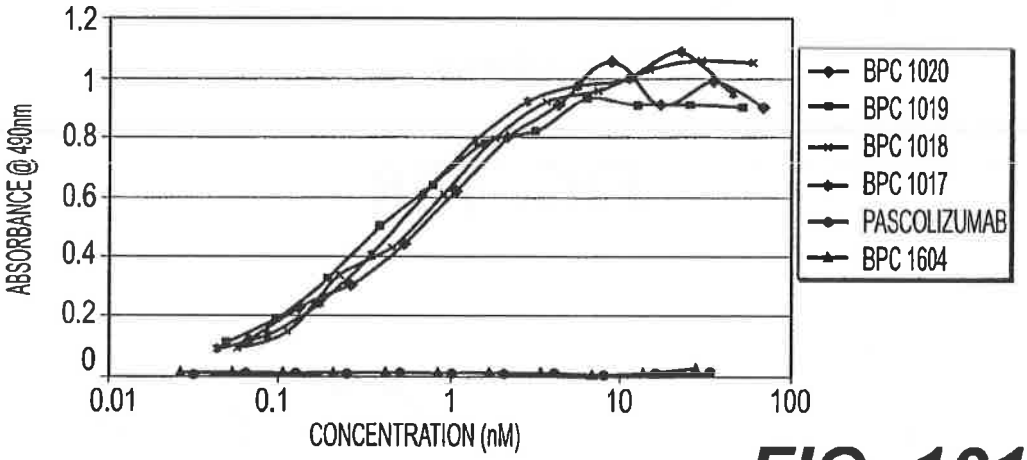


FIG. 161

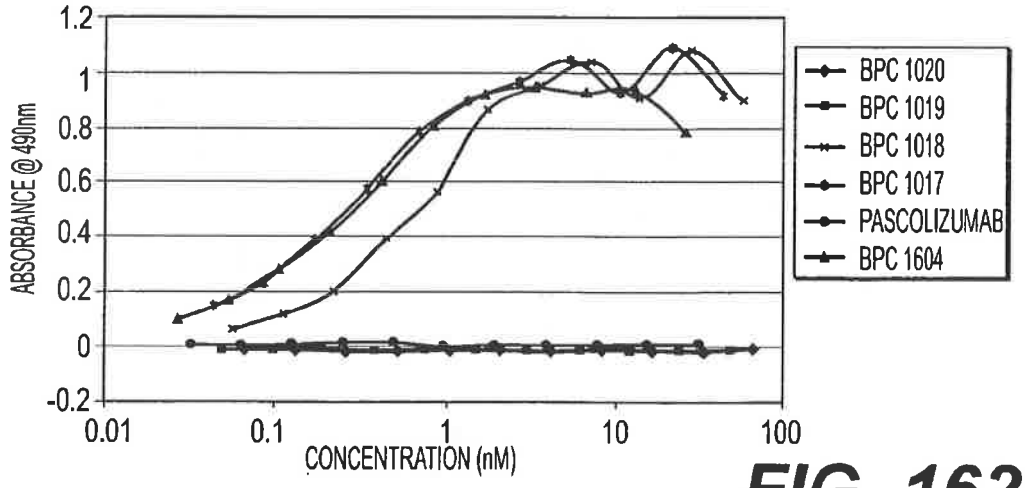


FIG. 162

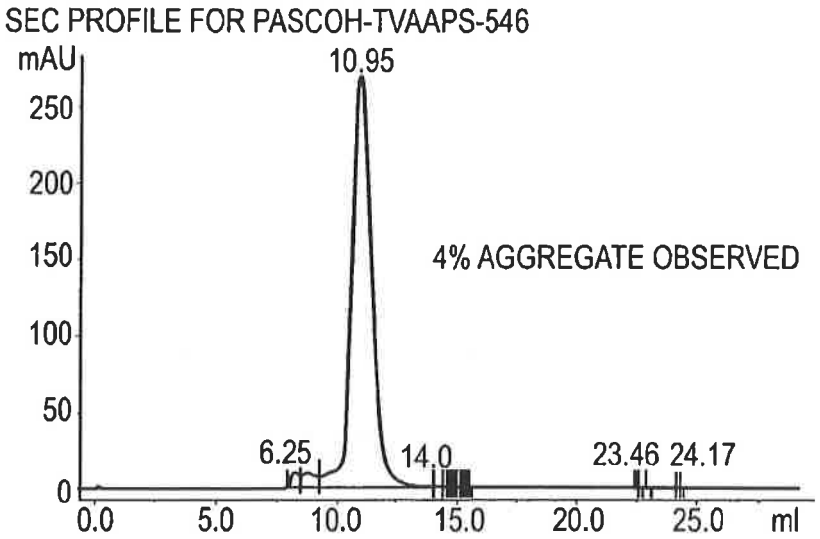


FIG. 163

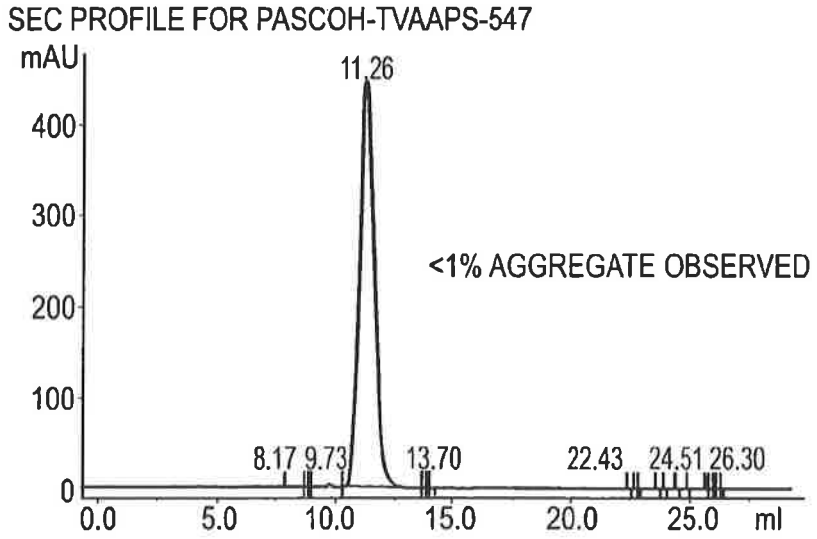


FIG. 164

SDS PAGE FOR PASCOH-TVAAPS-546 [A= NON-REDUCING CONDITIONS, B = REDUCING CONDITIONS]

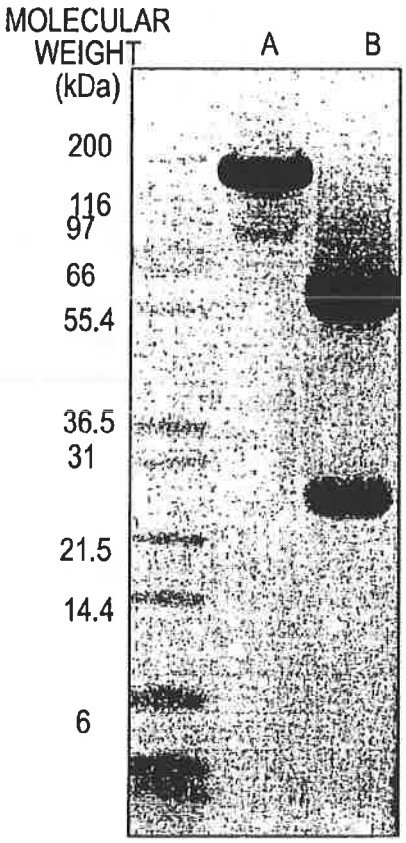


FIG. 165

SDS PAGE FRO PASCOH-TVAAPS-567 [A= NON-REDUCING CONDITIONS, B = REDUCING CONDITIONS]

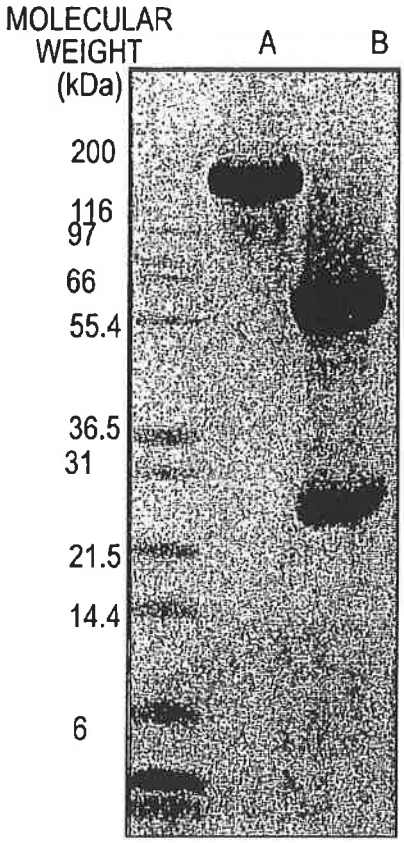


FIG. 166

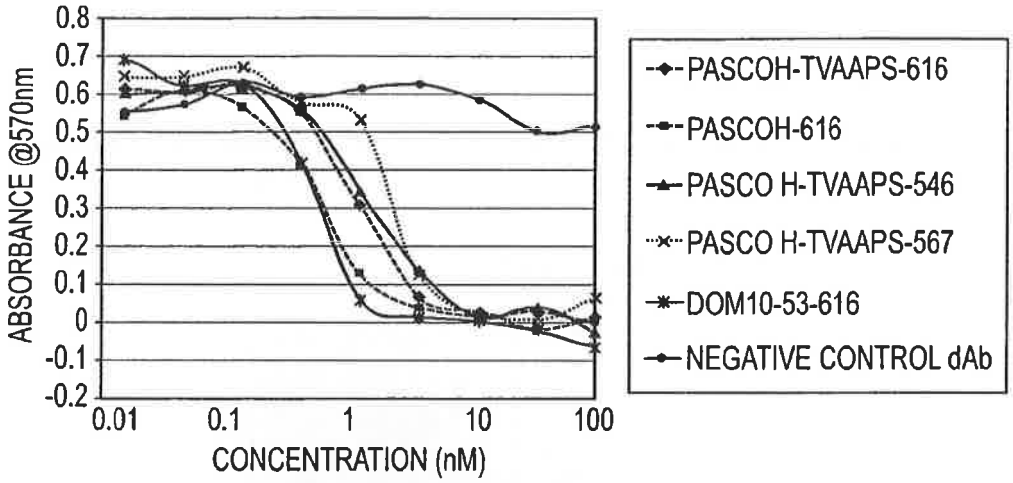


FIG. 167

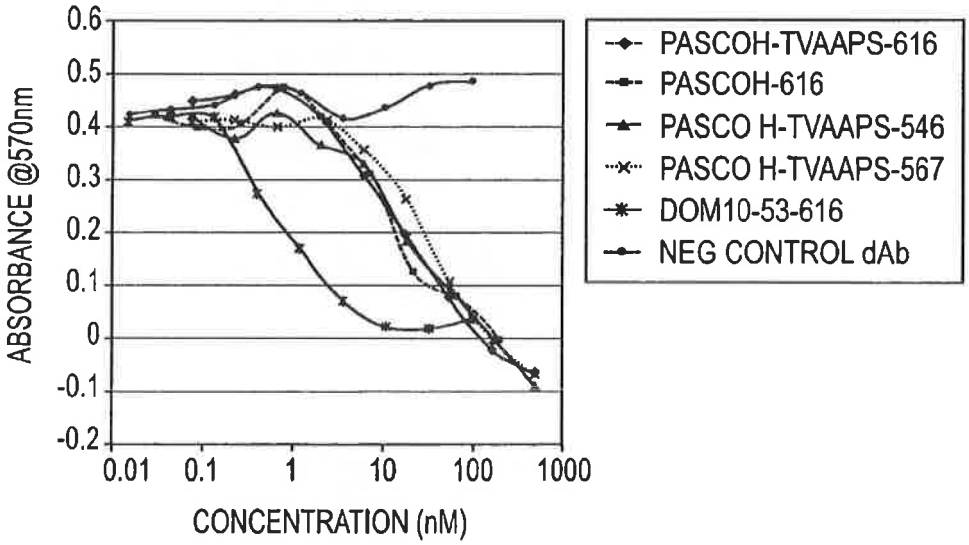


FIG. 168

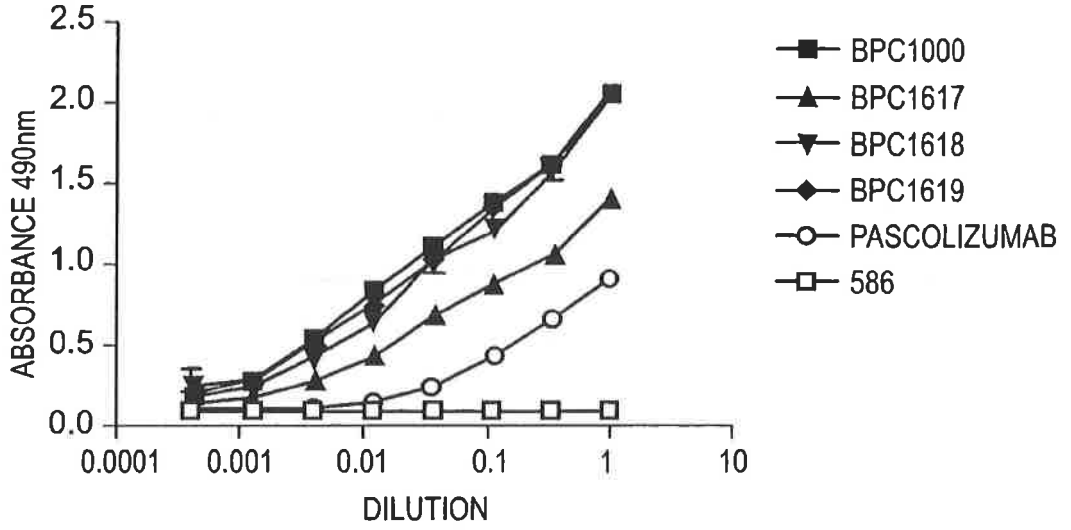


FIG. 169

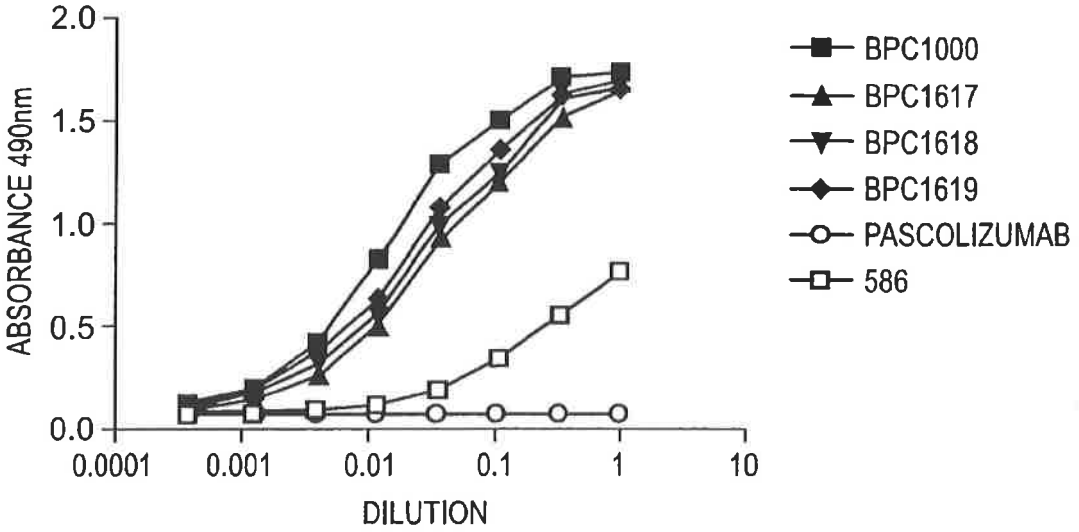


FIG. 170

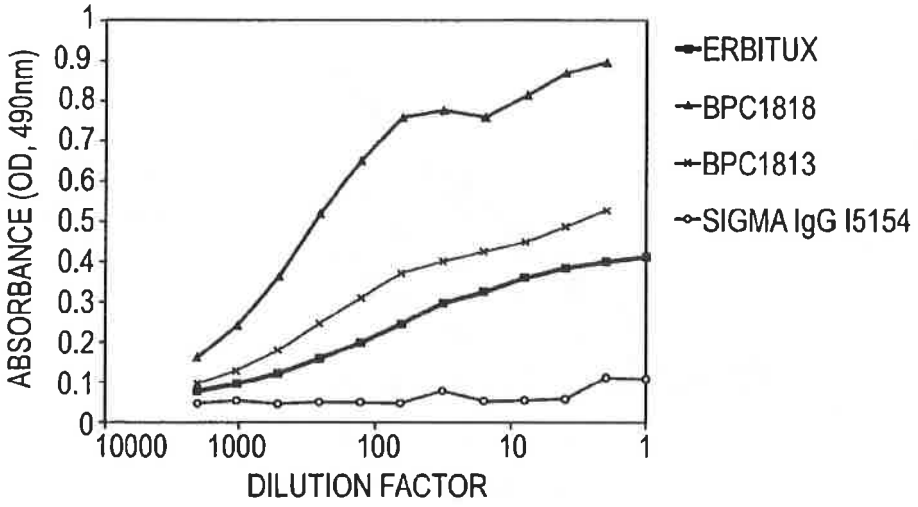


FIG. 171

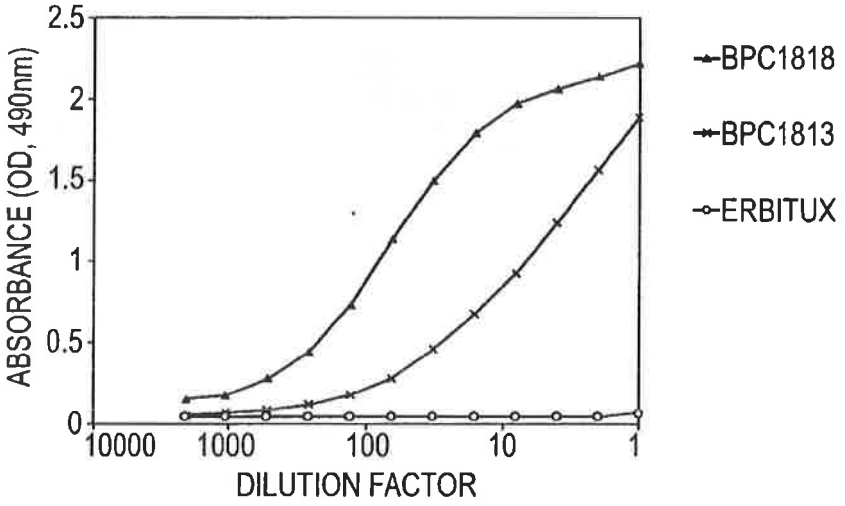


FIG. 172

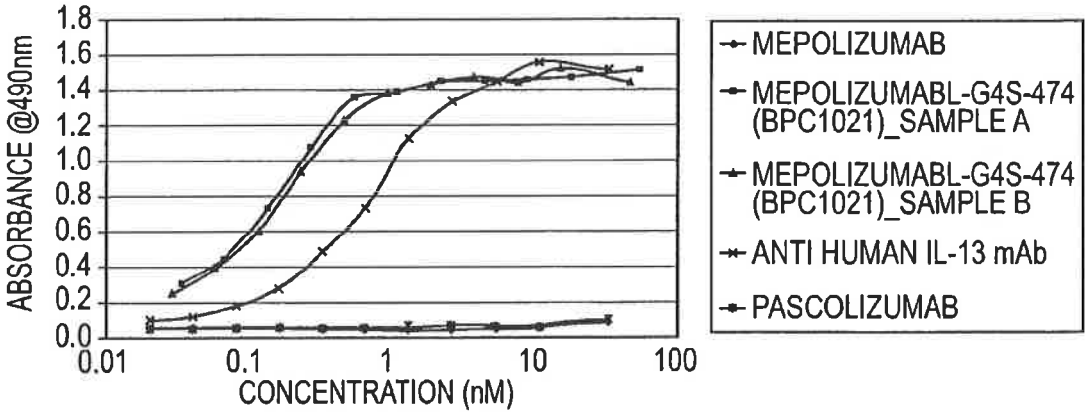


FIG. 173

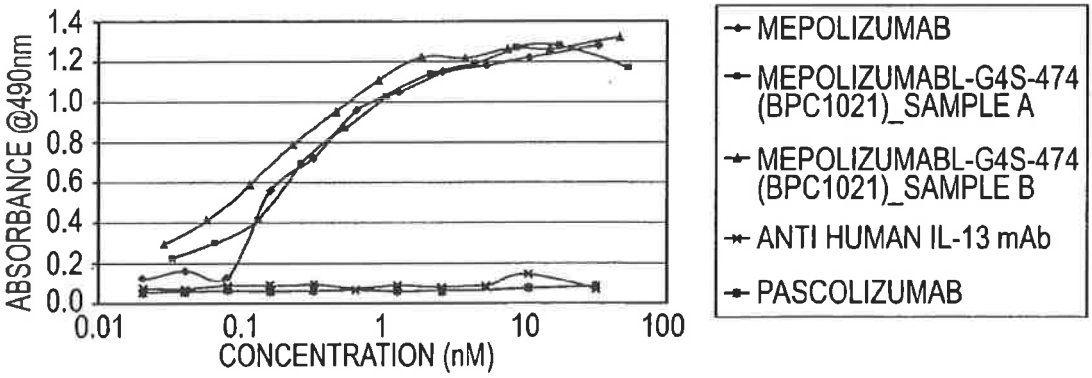


FIG. 174

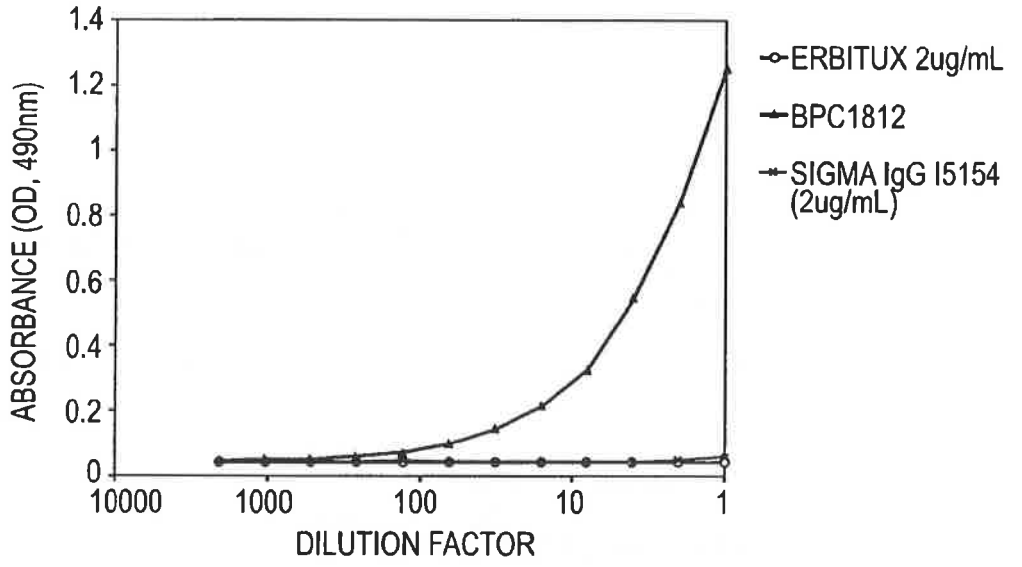


FIG. 175

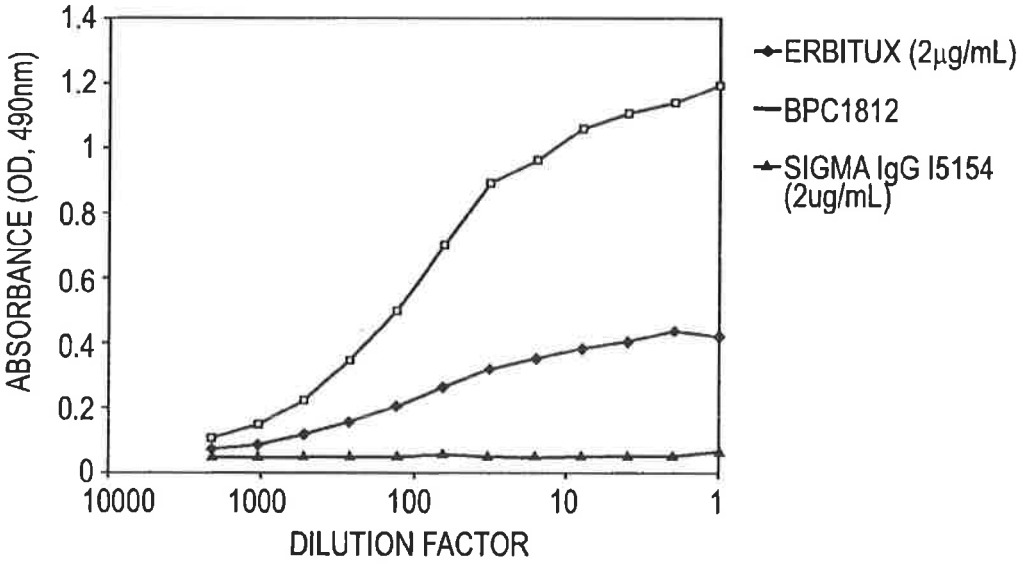


FIG. 176

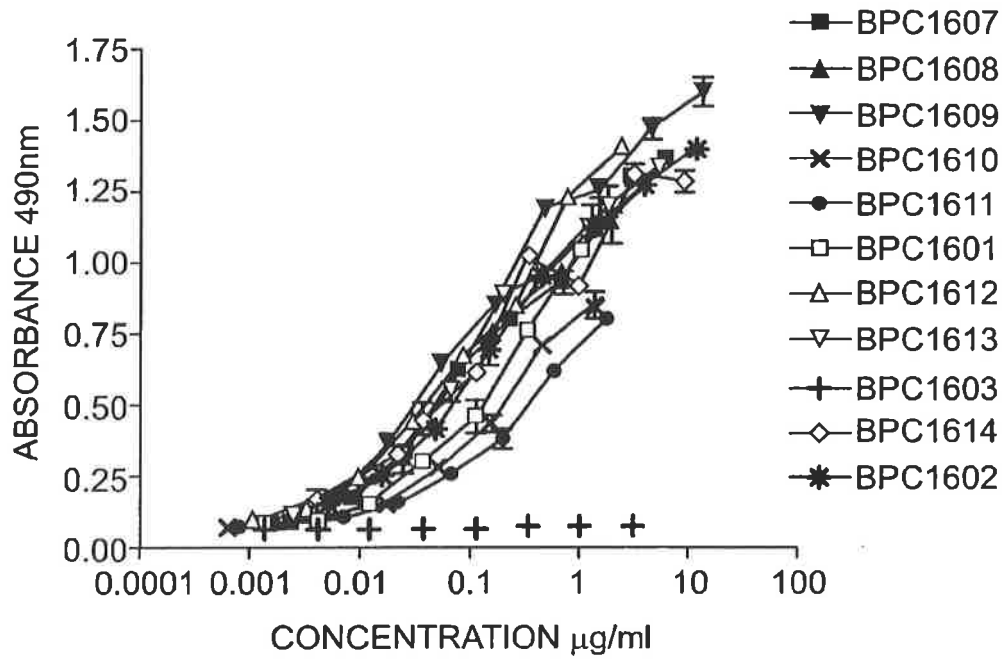

ABSORBANCE 490nm
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
0.0001 0.001 0.01 0.1 1 10 100
CONCENTRATION µg/ml
BPC1607
BPC1608
BPC1609
BPC1610
BPC1611
BPC1601
BPC1612
BPC1613
BPC1603
BPC1614
BPC1602

FIG. 177