- **Anti-IL-12 Antibody (ABT-874) Heavy Chain Variable Region Sequence**

```
1         10          20          30          40
QVQLVESGGG VVQPGRSLRL SCAASGFTFS SYGMHWVRQA
                                    CDR1

PGKGLEQVAF IRYDGSNKYY ADSVKGRFTI SRDNSKNTLY
                CDR2

LQMNSLRAED TAVYYCKTHG SHDNWGQGTM VTVSS
                        CDR3
```

- **Anti-IL-12 Antibody (ABT-874) Light Chain Variable Region Sequence**

```
1         10          20          30          40
QSVLTQPPSV SGAPGQRVTI SCSGSRSNIG SNTVKWYQQL
                              CDR1

PGTAPKLLIY YGNDQRPSGV PDRFSGSKGT SASLAITGVQ
             CDR2

AEDEADYYCQ SYDRYTHPAL LFGTGTKVTVLG
              CDR3
```

FIG.1

- **Anti-IL-18 Antibody (ABT-325) Heavy Chain Sequence**

```
1         10         20         30         40         50
EVQLVQSGTE VKKPGESLKI SCKGSGYTVT SYWIGWVRQM PGKGLEWMGF

IYPGDSETRY SPTFQGQVTI SADKSFNTAF LQWSSLKASD TAMYYCARVG

SGWYPYTFDI WGQGTMVTVS SASTKGPSVF PLAPSSKSTS GGTAALGCLV

KDYFPEPVTV SWNSGALTSG VHTFPAVLQS SGLYSLSSVV TVPSSSLGTQ

TYICNVNHKP SNTKVDKKVE PKS
```

- **Anti-IL-18 Antibody (ABT-325) Light Chain Sequence**

```
1         10         20         30         40         50
EIVMTQSPAT LSVSPGERAT LSCRASESIS SNLAWYQQKP GQAPRLFIYT

ASTRATDIPA RFSGSGSGTE FTLTISSLQS EDFAVYYCQQ YNNWPSITFG

QGTRLEIKRT VAAPSVFIFP PSDEQLKSGT ASVVCLLNNF YPREAKVQWK

VDNALQSGNS QESVTEQDSK DSTYSLSSTL TLSKADYEKH KVYACEVTHQ

GLSSPVTKSF NRGE
```

FIG.2

- **Anti-TNFα Antibody (Adalimumab) Heavy Chain Variable Region Sequence**

```
1         10         20         30         40         50
EVQLVESGGG LVQPGRSLRL SCAASGFTFD DYAMHWVRQA PGKGLEWVSA
                                  CDR1

ITWNSGHIDY ADSVEGRFTI SRDNAKNSLY LQMNSLRAED TAVYYCAKVS
   CDR2

YLSTASSLDY WGQGTLVTVS S
   CDR3
```

- **Anti-TNFα Antibody (Adalimumab) Light Chain Variable Region Sequence**

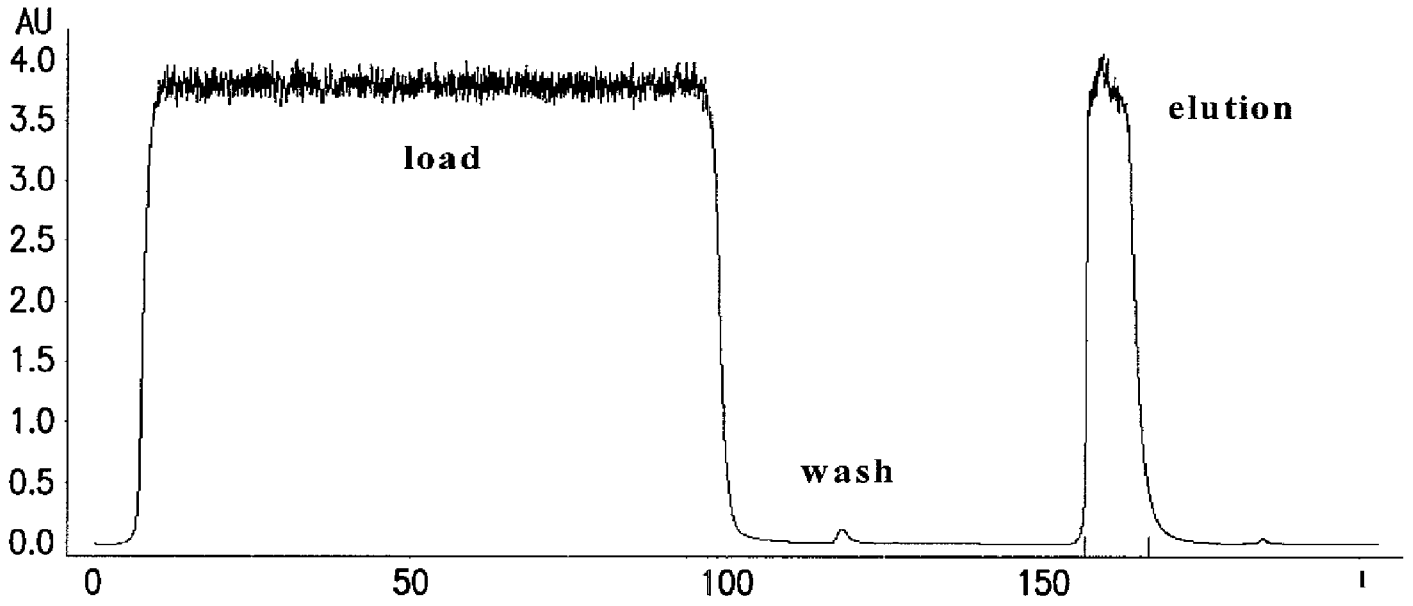
```
1         10         20         30         40         50
DIQMTQSPSS LSASVGDRVT ITCRASQGIR NYLAWYQQKP GKAPKLLIYA
                              CDR1

ASTLQSGVPS RFSGSGSGTD FTLTISSLQP EDVATYYCQR YNRAPYTFGQ
CDR2                                      CDR3

GTKVEIK
```

FIG.3

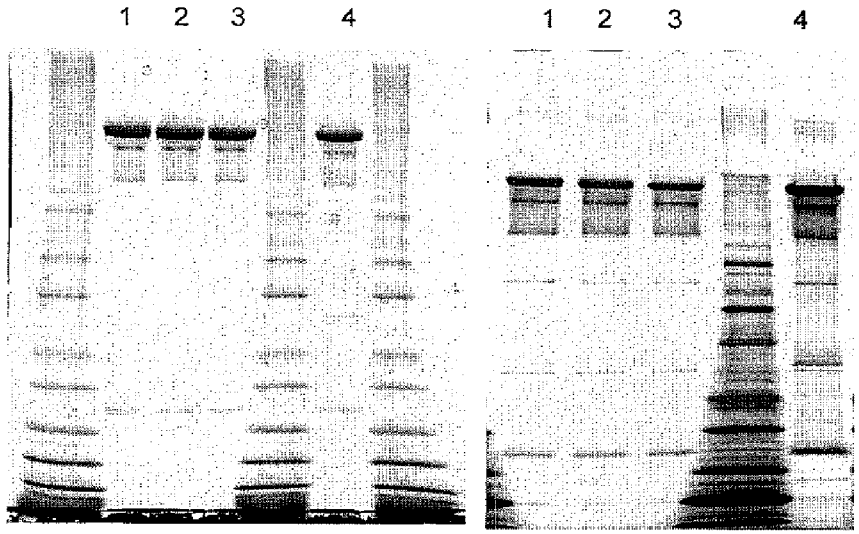
Chromatogram of MabSelect™ column at 300 L bioreactor scale



Data presented as absorbance (280 nm) versus elution volume.

FIG.4

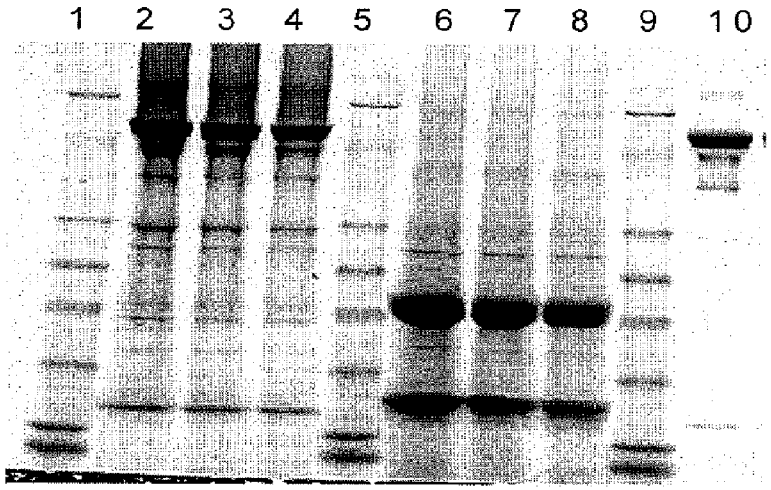
Evaluation of MabSelect™ Wash Conditions



Lanes 1, 2 and 3 were eluted Ab with no wash, 0.5 M NaCl wash or 20 mM citrate, 0.5 M NaCl wash at pH 6, respectively. Lane 4 was wash with 20 mM citrate, 0.5 M NaCl, pH 6 buffer.

FIG.5

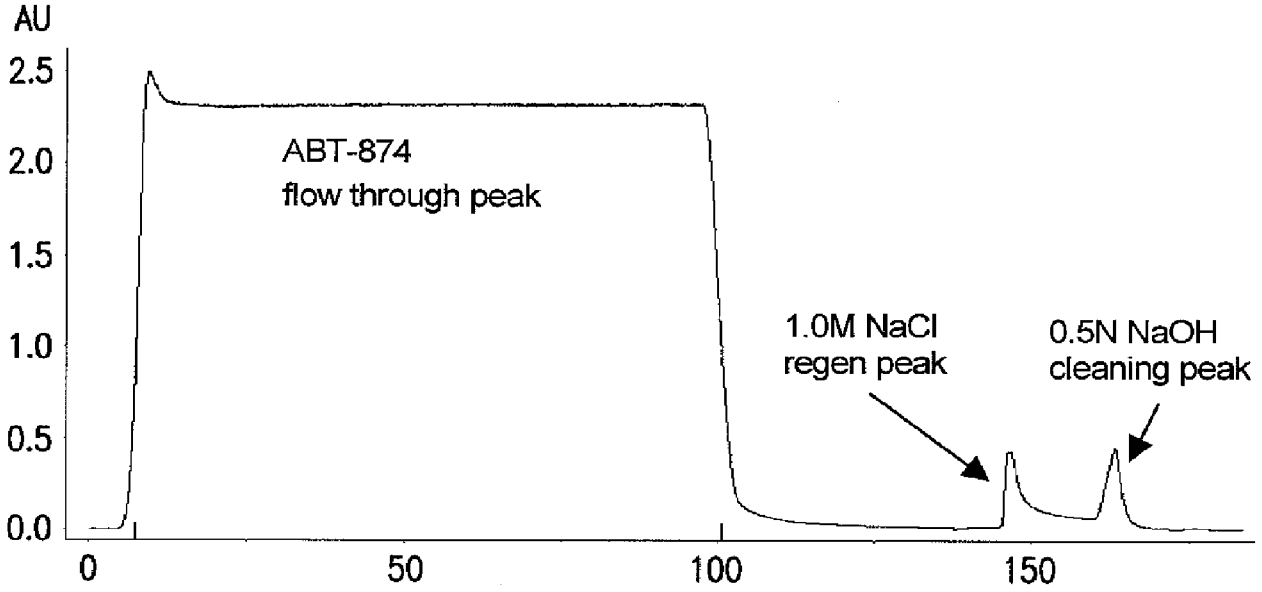
SDS-PAGE of pH 8 7ms/cm Precipitates



Lanes 1, 5 and 9 are molecular weight standard. Lanes 2, 3 and 4 are precipitates formed at pH 8 and 7 mS/cm (non-reduced). Lanes 6, 7 and 8 are precipitate formed at pH 8 and 7 mS/cm (reduced). Lane 10 is the MabSelect™ eluate.

FIG.6

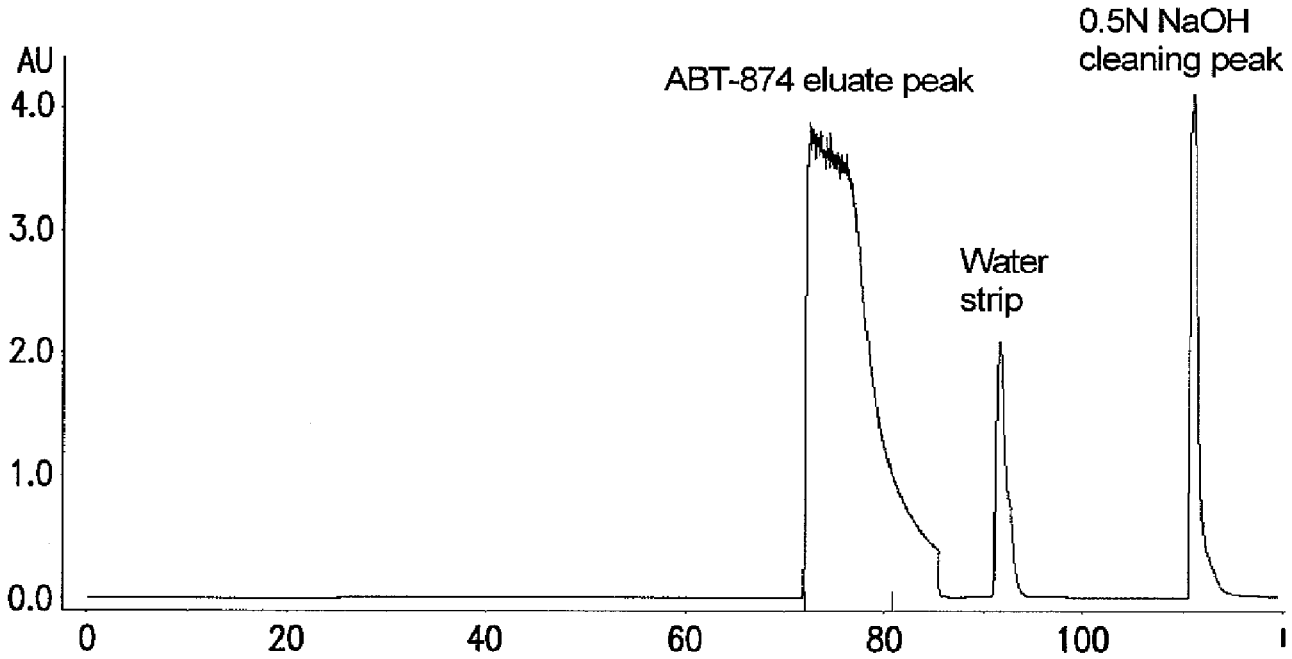
Flow-Through Wash Profile of 300 L Bioreactor Scale Q Sepharose™ FF Chromatography Column



Data are presented as absorbance (280 nm) versus process volume

FIG. 7

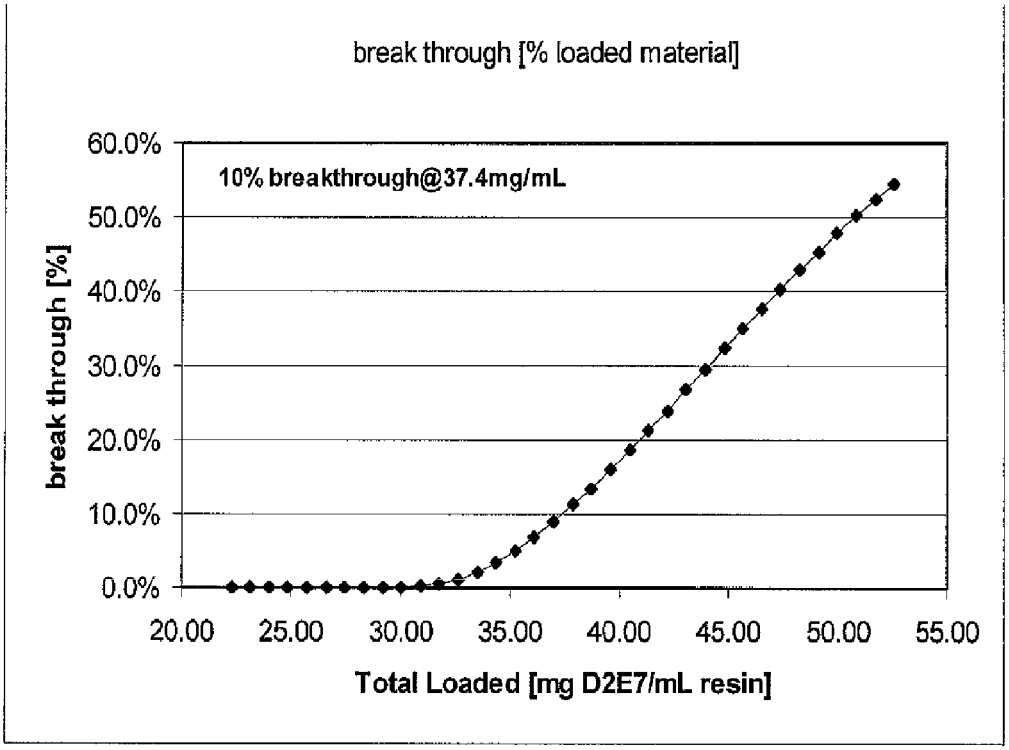
Elution Profile of 300 L Bioreactor Scale Phenyl Sepharose™ HP Chromatography Column



Data are presented as absorbance (280 nm) vs elution volume.

FIG.8

Antibody Binding Breakthrough Curve in MabSelect™



Material: AY-04 Lot 35205BI clarified antibody harvest
Load: pH7, 400 cm/hr
Column size: 1.6 x 5 cm

FIG.9

SDS-PAGE of Protein A Process Run and AY-04

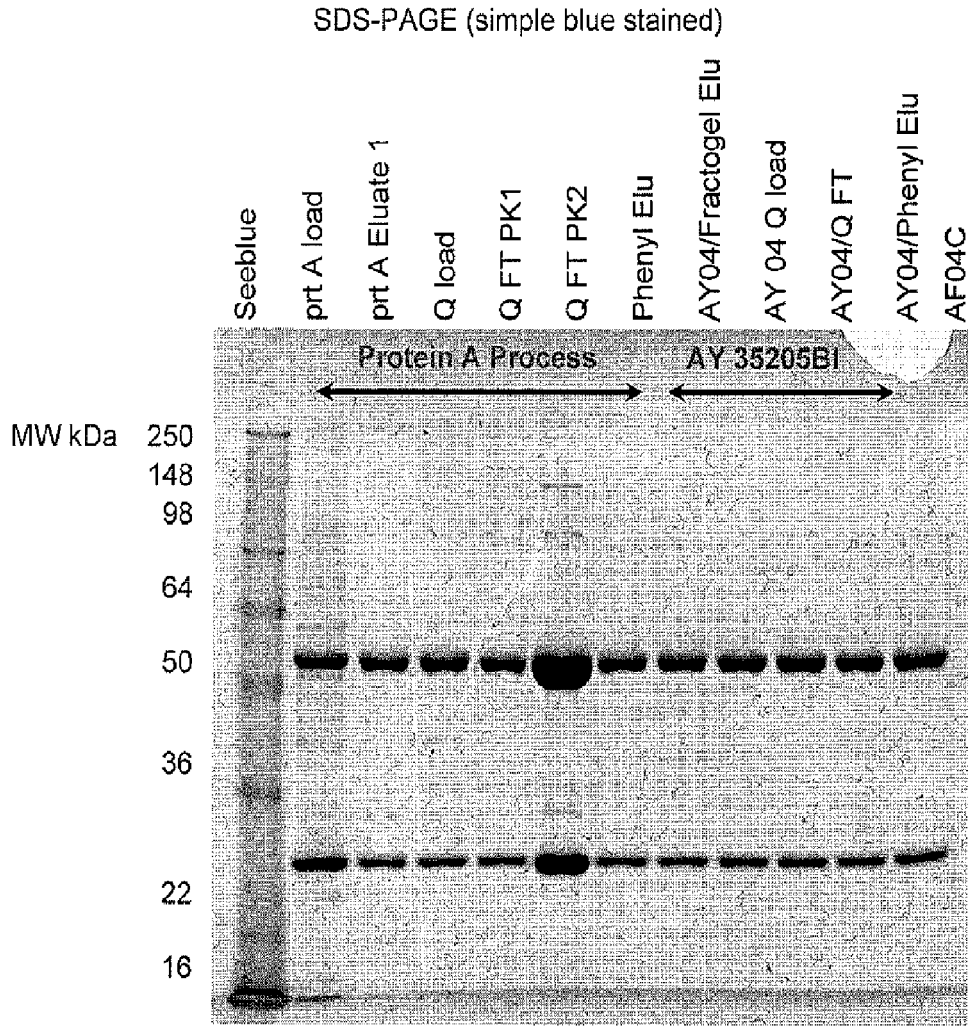
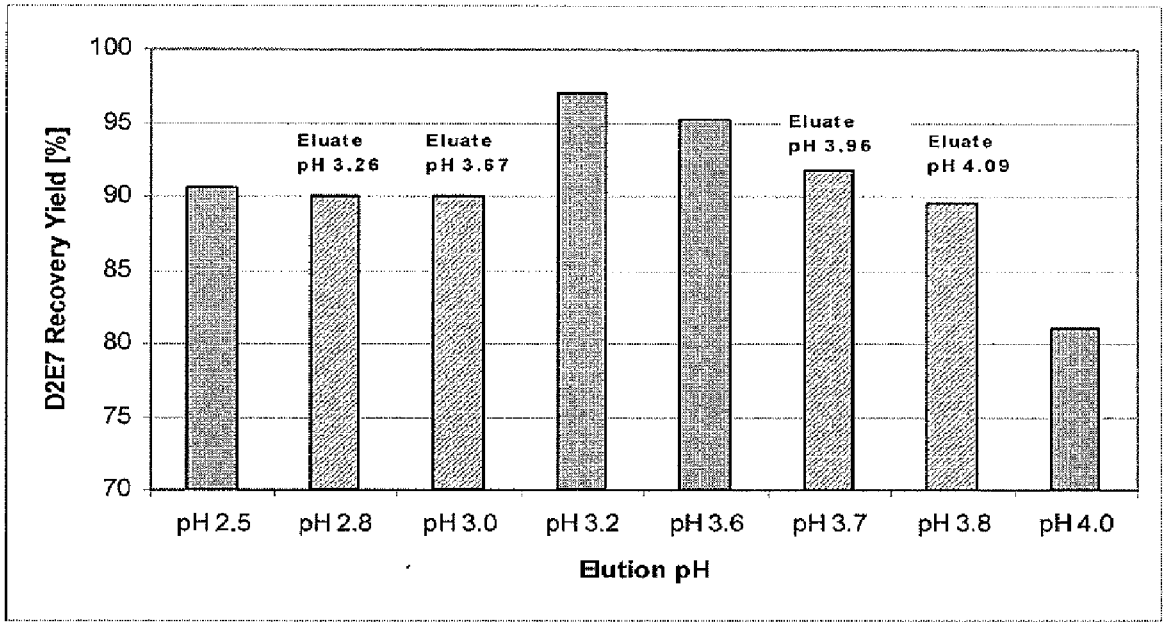


FIG.10

MabSelect™ Adalimumab Recovery Yield vs. Elutin pH



Material: AY-04 Lot 35205BI clarified antibody harvest
Load: pH7, 400 cm/hr
Column size: 1.6 x 5 cm

FIG. 11

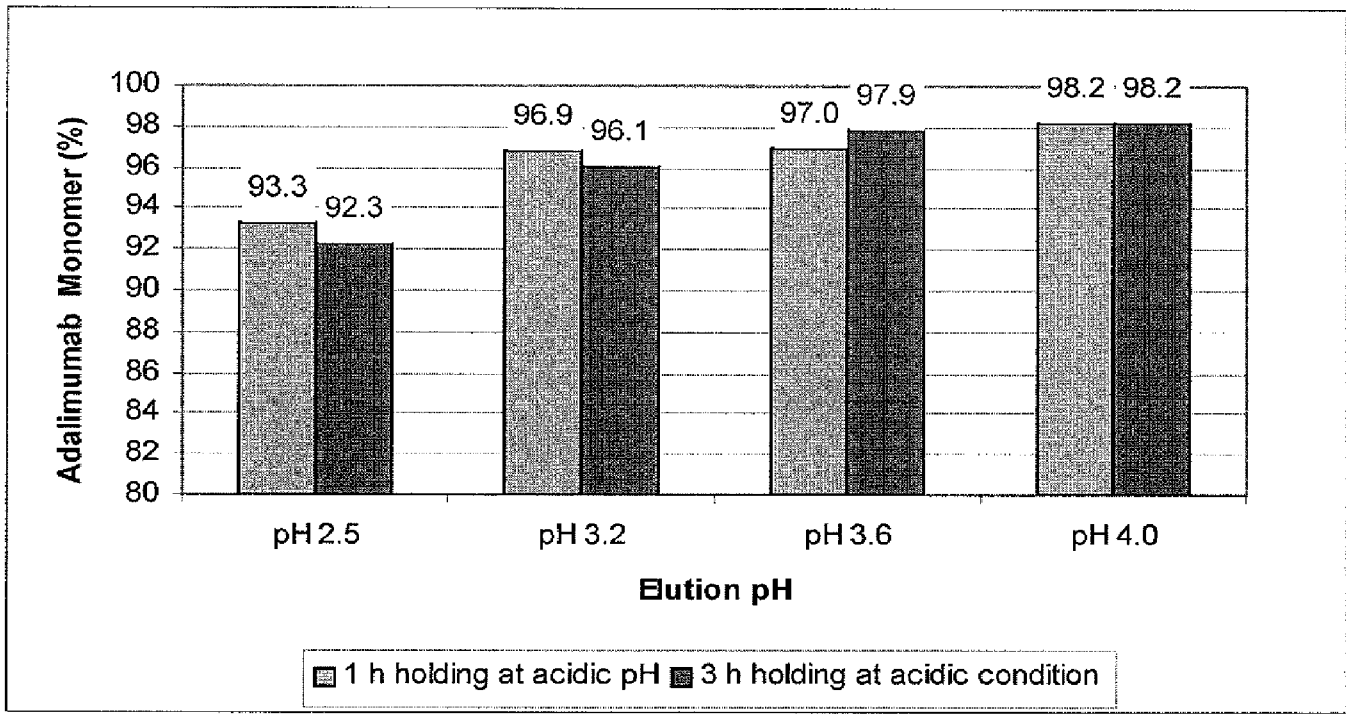

Antibody (or Adalimumab) Monomer vs. Elution pH & Incubation Time
Adalimumab Monomer (%)
100
98
96
94
92
90
88
86
84
82
80
93.3
92.3
96.9
96.1
97.0
97.9
98.2
98.2
pH 2.5
pH 3.2
pH 3.6
pH 4.0
Elution pH
1 h holding at acidic pH
3 h holding at acidic condition

FIG.12