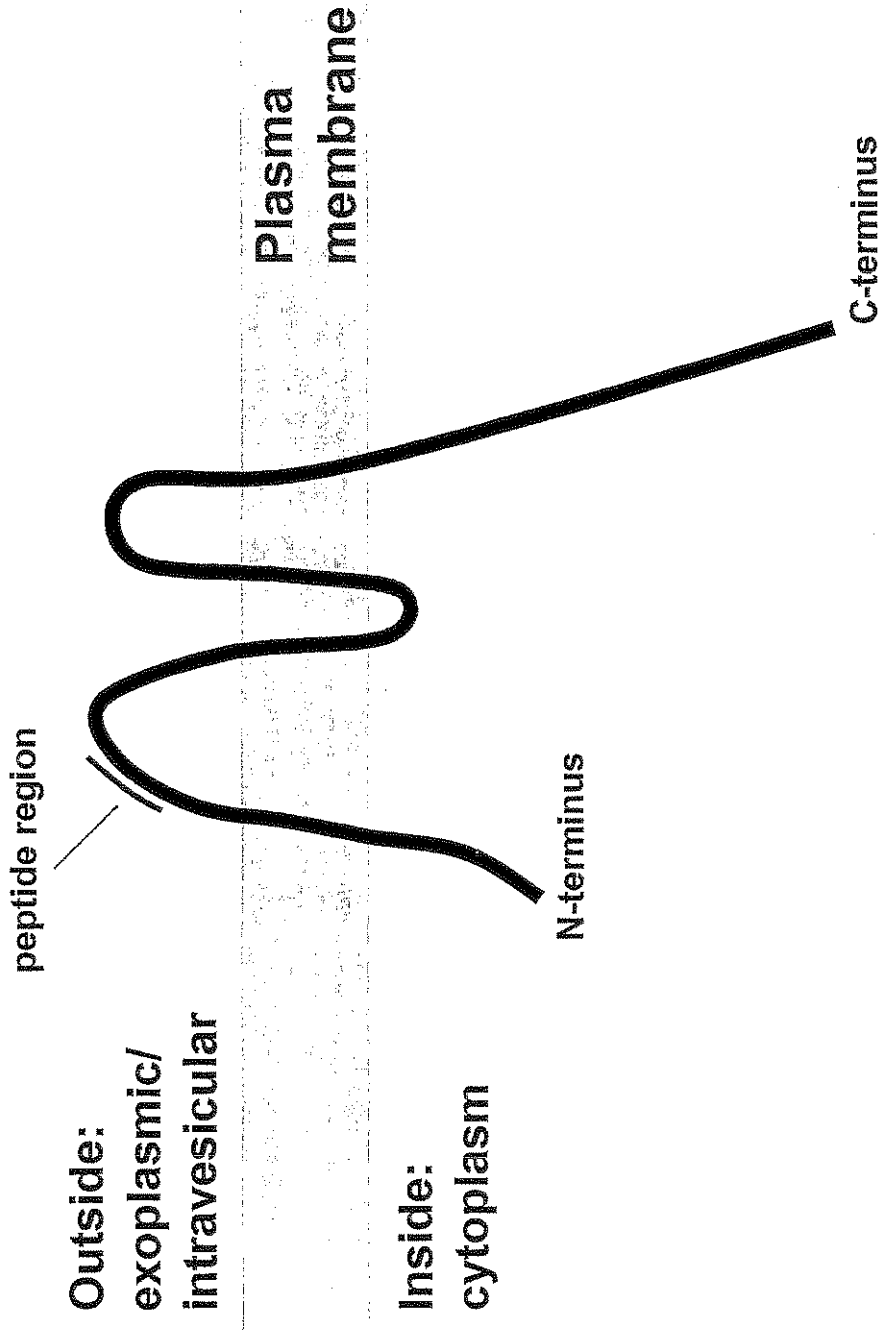
Figure 1


Plasma membrane
C-terminus
peptide region
N-terminus
Outside: exoplasmic/ intravesicular
Inside: cytoplasm

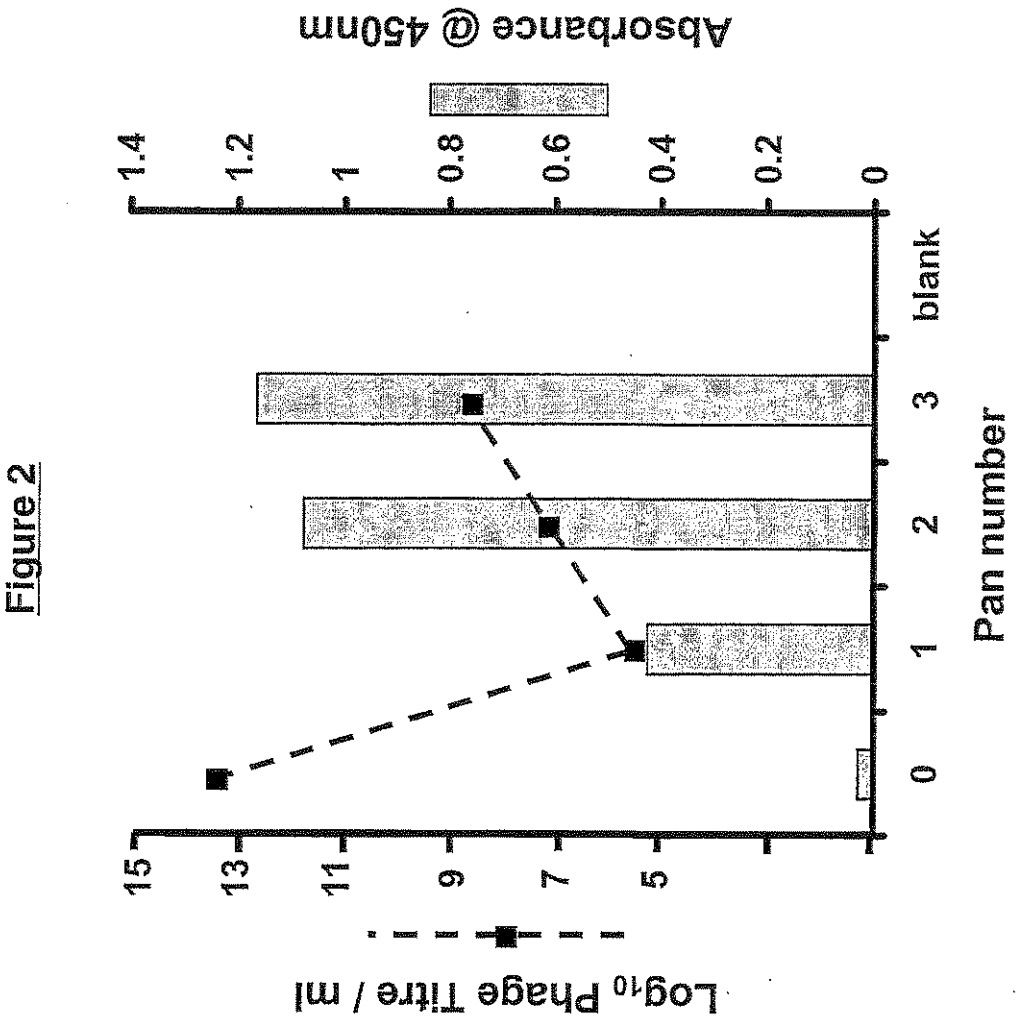

Absorbance @ 450nm
1.4
1.2
1
0.8
0.6
0.4
0.2
0
blank
3
2
1
0
Pan number
15
13
11
9
7
5
Log10 Phage Titre / ml

Figure 2

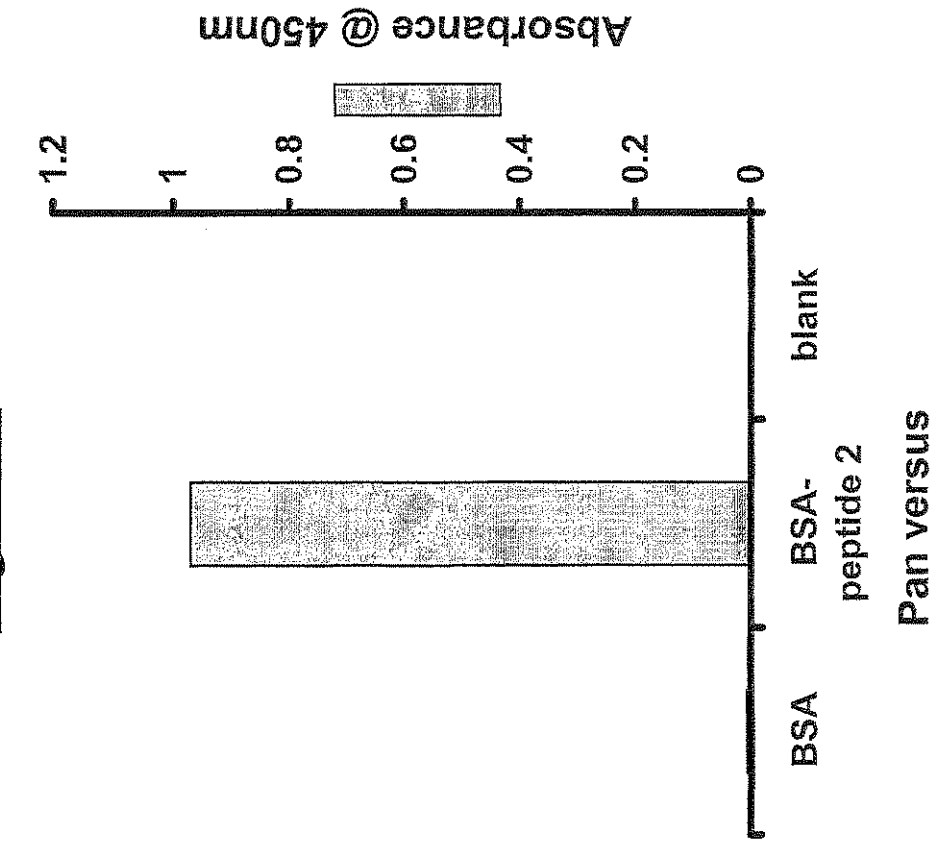

Absorbance @ 450nm
1.2
1
0.8
0.6
0.4
0.2
0
blank
BSA-peptide 2
BSA
Pan versus

Figure 3

# Figure 4

```
          NcoI
  CC ATG GCC GAA GTG CAG CTG TTG GAG TCT GGG GGA GGC TTG GTA
1    Met Ala Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val

     CAG CCT GGG GGG TCC CTG AGA CTC TCC TGT GCA GCC TCT GGA
15   Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly

                           HCDR 1              HFW2
     TTC ACC TTT AGC AGC TAT GCC ATG AGC TGG GTC CGC CAG GCT
30   Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala

                                                CDR 2
     CCA GGG AAG GGG CTG GAG TGG GTC TCA ACT ATT GCT GCG TCG
45   Pro Gly Lys Gly Leu Glu Trp Val Ser Thr Ile Ala Ala Ser

                           HCDR 2                          HFW3
     GGT CCT TCT ACA GGG TAC GCA GAC TCC GTG AAG GGC CGG TTC
60   Gly Pro Ser Thr Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe

     ACC ATC TCC AGA GAC AAT TCC AAG AAC ACG CTG TAT CTG CAA
75   Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln

     ATG AAC AGC CTG AGA GCC GAG GAC ACG GCC GTA TAT TAC TGT
90   Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys

                     HCDR 3                    HFW4
     GCG AAA ACT ACG GCG AAG TTT GAC TAC TGG GGC CAG GGA ACC
105  Ala Lys Thr Thr Ala Lys Phe Asp Tyr Trp Gly Gln Gly Thr

                                               Linker
     CTG GTC ACC GTC TCG AGC GGT GGA GGC GGT TCA GGC GGA GGT
120  Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly

            Linker                LFW1
     GGC AGC GGC GGT GGC GGG TCG ACG GAC ATC CAG ATG ACC CAG
135  Gly Ser Gly Gly Gly Gly Ser Thr Asp Ile Gln Met Thr Gln

     TCT CCA TCC TCC CTG TCT GCA TCT GTA GGA GAC AGA GTC ACC
150  Ser Pro Ser Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr

                                          LCDR 1
     ATC ACT TGC CGG GCA AGT CAG AGC ATT AGC AGC TAT TTA AAT
165  Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn

       LFW2
     TGG TAT CAG CAG AAA CCA GGG AAA GCC CCT AAG CTC CTG ATC
180  Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile

                     LCDR2                     LFW3
     TAT TCT GCA TCC CGA TTG CAA AGT GGG GTC CCA TCA AGG TTC
195  Tyr Ser Ala Ser Arg Leu Gln Ser Gly Val Pro Ser Arg Phe
```

# Figure 4 Continued

```
    AAT GGC AGT GGA TCT GGG ACA GAT TTC ACT CTC ACC ATC AGC
210 Asn Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser

                                                    LCDR3
    AGT CTG CAA CCT GAA GAT TTT GCA ACT TAC TAC TGT CAA CAG
225 Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln

            LCDR3                                   LFW4
    CTG CAG AGG AAG CCT ACG ACG TTC GGC CAA GGG ACC AAG GTG GAA
240 Leu Gln Arg Lys Pro Thr Thr Phe Gly Gln Gly Thr Lys Val Glu

                      NotI     Beginning Cκ domain
    ATC AAA CGG GCG GCC GCT GCA CCA TCT GTC TTC ATC TTT
255 Ile Lys Arg Gly Ala Ala Ala Pro Ser Val Phe Ile Phe
```

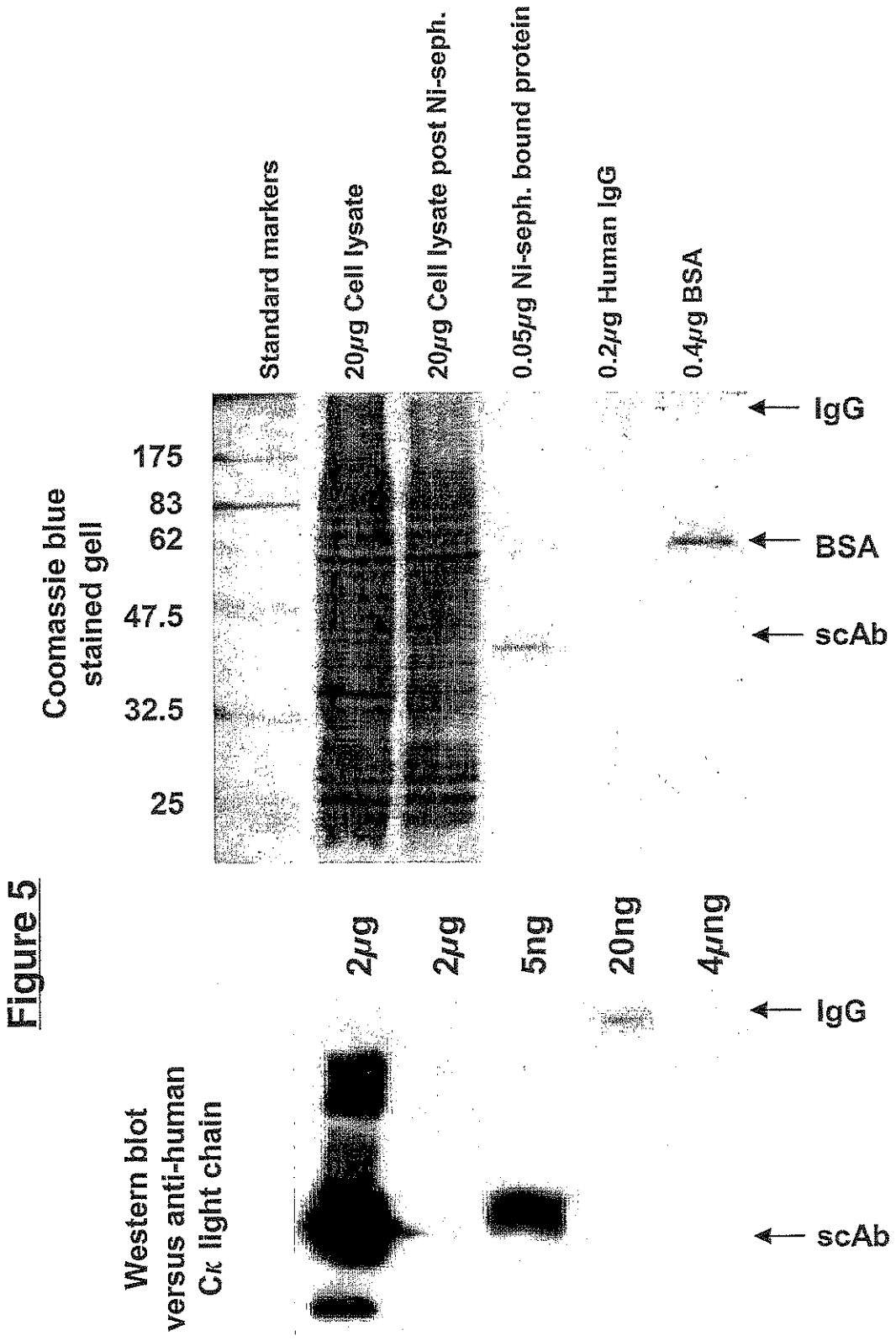

Standard markers
20μg Cell lysate
20μg Cell lysate post Ni-seph.
0.05μg Ni-seph. bound protein
0.2μg Human IgG
0.4μg BSA
Coomassie blue stained gell
175
83
62
47.5
32.5
25
IgG
BSA
scAb
2μg
2μg
5ng
20ng
4μng
Western blot versus anti-human Cκ light chain
IgG
scAb

Figure 5

Figure 6

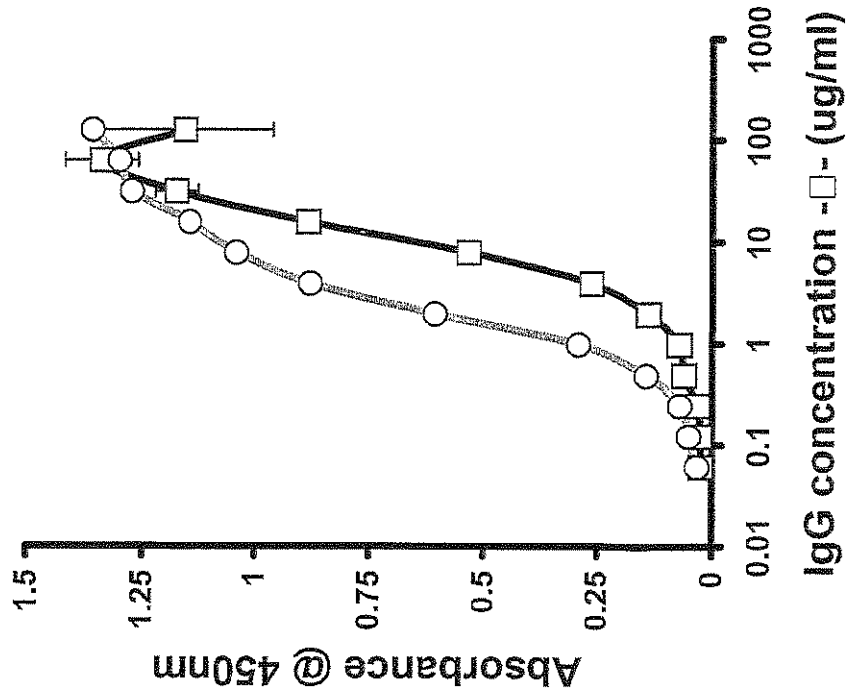
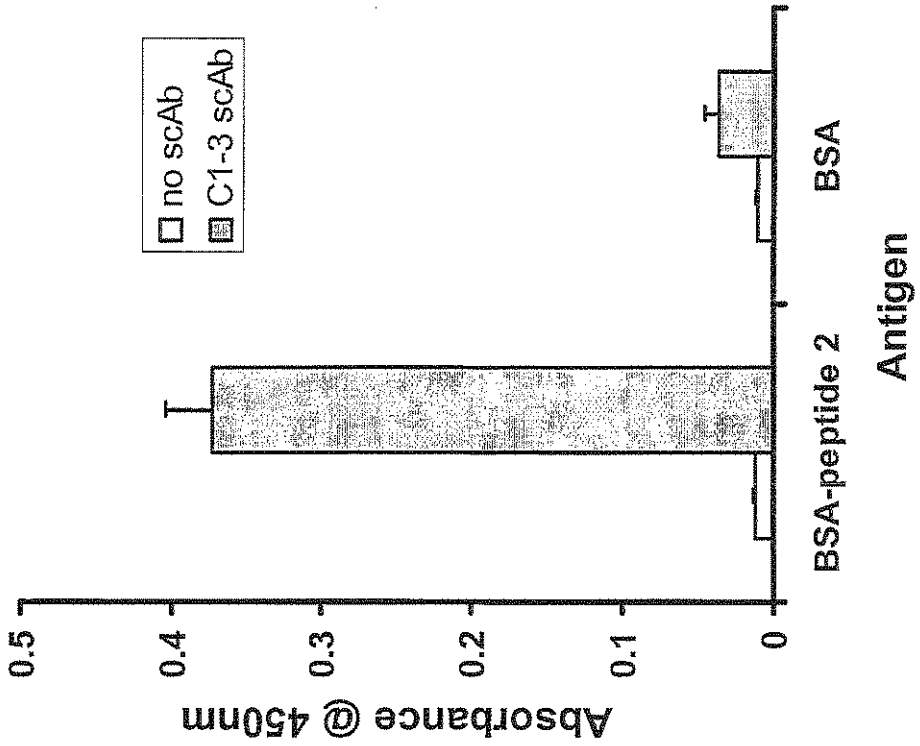

Absorbance @ 450nm
1.5
1.25
1
0.75
0.5
0.25
0
0.01
0.1
1
10
100
1000
IgG concentration -□- (ug/ml)

Figure 7


no scAb
C1-3 scAb
Absorbance @ 450nm
0.5
0.4
0.3
0.2
0.1
0
BSA-peptide 2
BSA
Antigen

# Figure 8

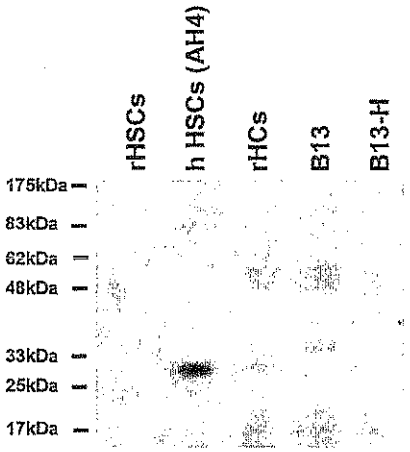
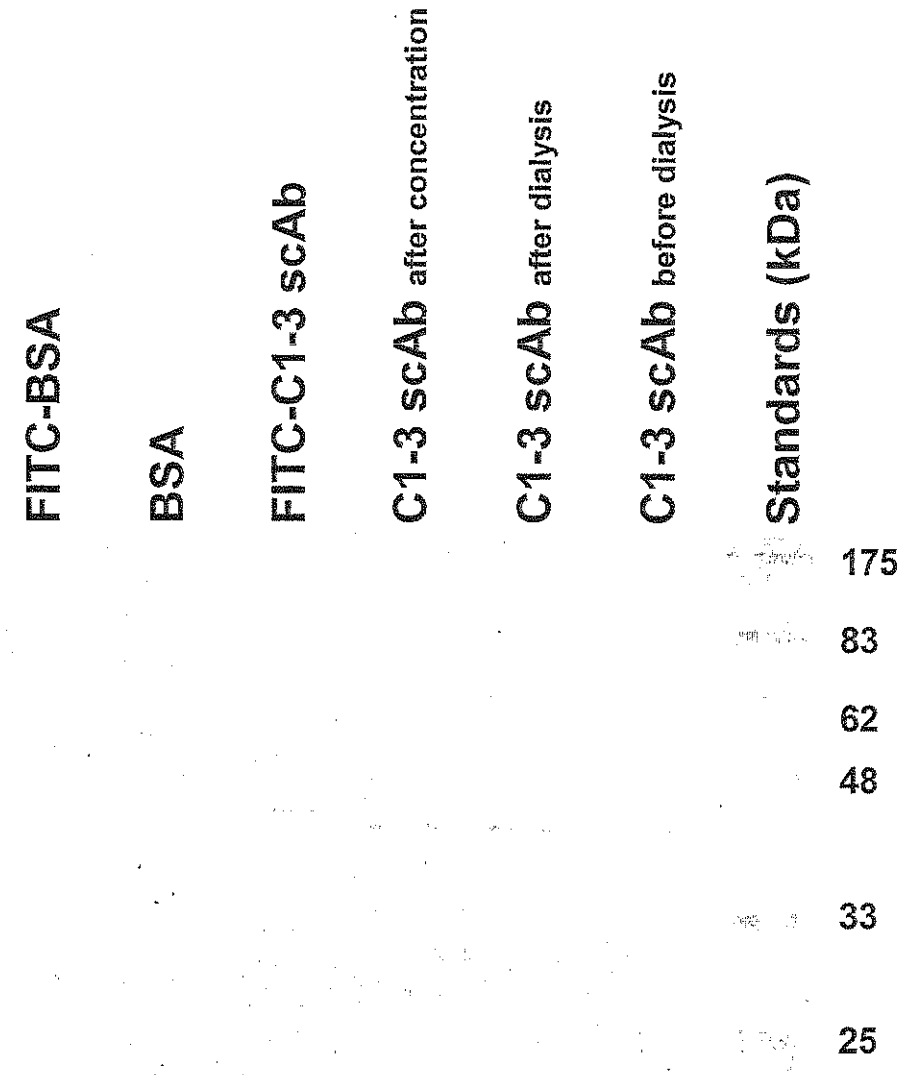

rHSCs
h HSCs (AH4)
rHCs
B13
B13-H
175kDa
83kDa
62kDa
48kDa
33kDa
25kDa
17kDa

Figure 9


FITC-BSA
BSA
FITC-C1-3 scAb
C1-3 scAb after concentration
C1-3 scAb after dialysis
C1-3 scAb before dialysis
Standards (kDa)
175
83
62
48
33
25

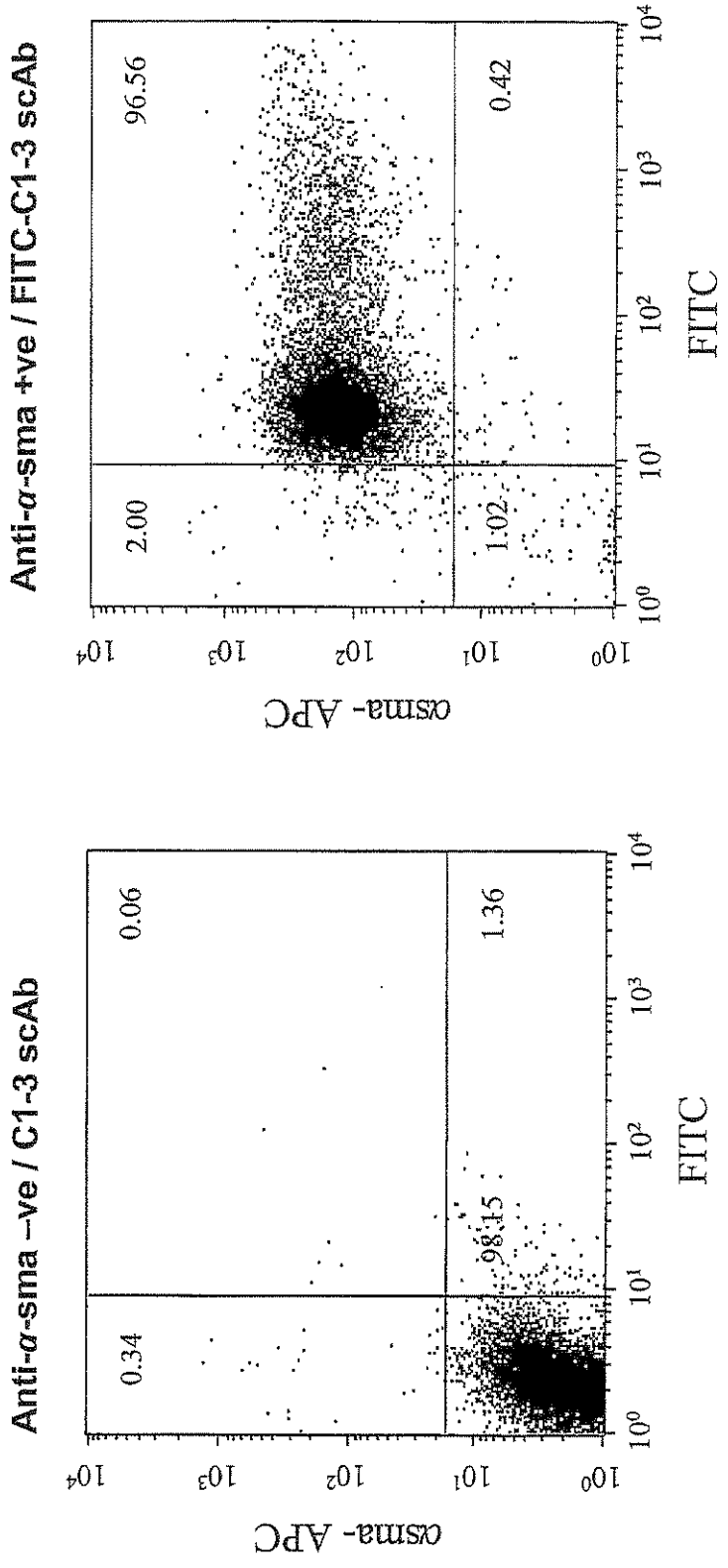

Anti-α-sma +ve / FITC-C1-3 scAb
96.56
0.42
2.00
1.02
αsma- APC
FITC
Anti-α-sma –ve / C1-3 scAb
0.06
1.36
0.34
98.15
αsma- APC
FITC

Figure 10

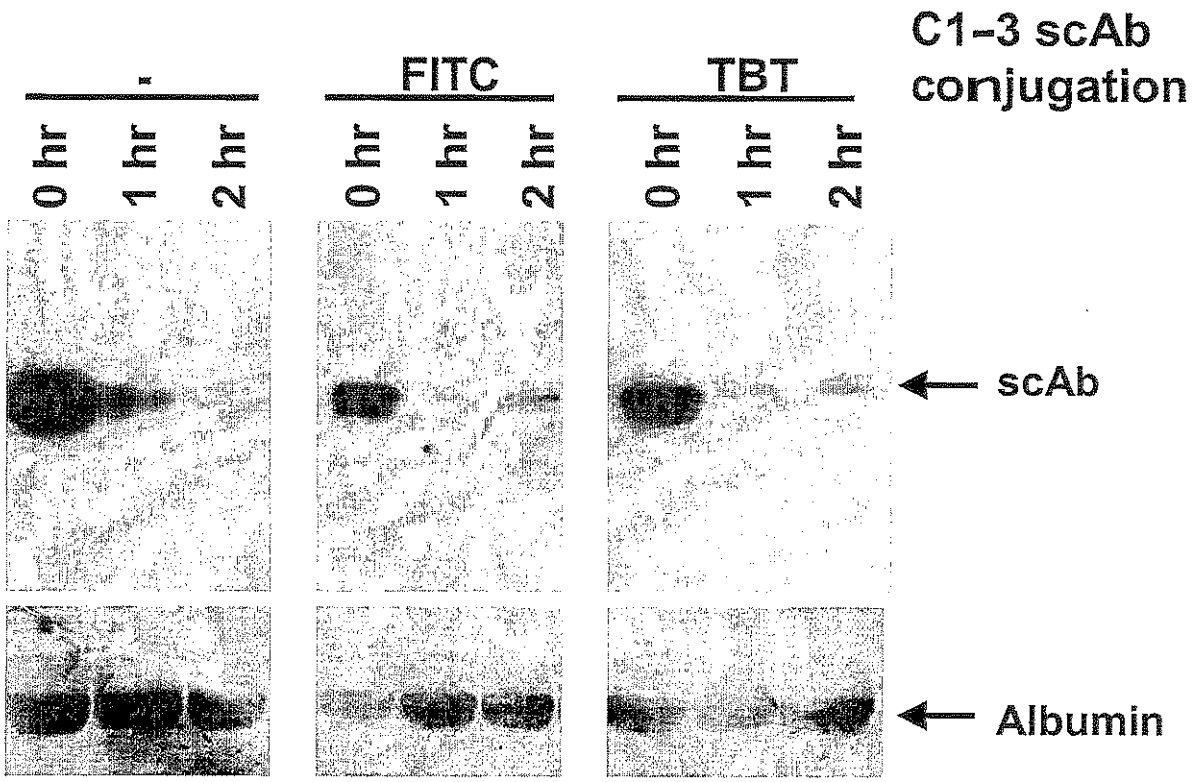

C1-3 scAb conjugation
-
FITC
TBT
0 hr
1 hr
2 hr
0 hr
1 hr
2 hr
0 hr
1 hr
2 hr
scAb
Albumin

Figure 11

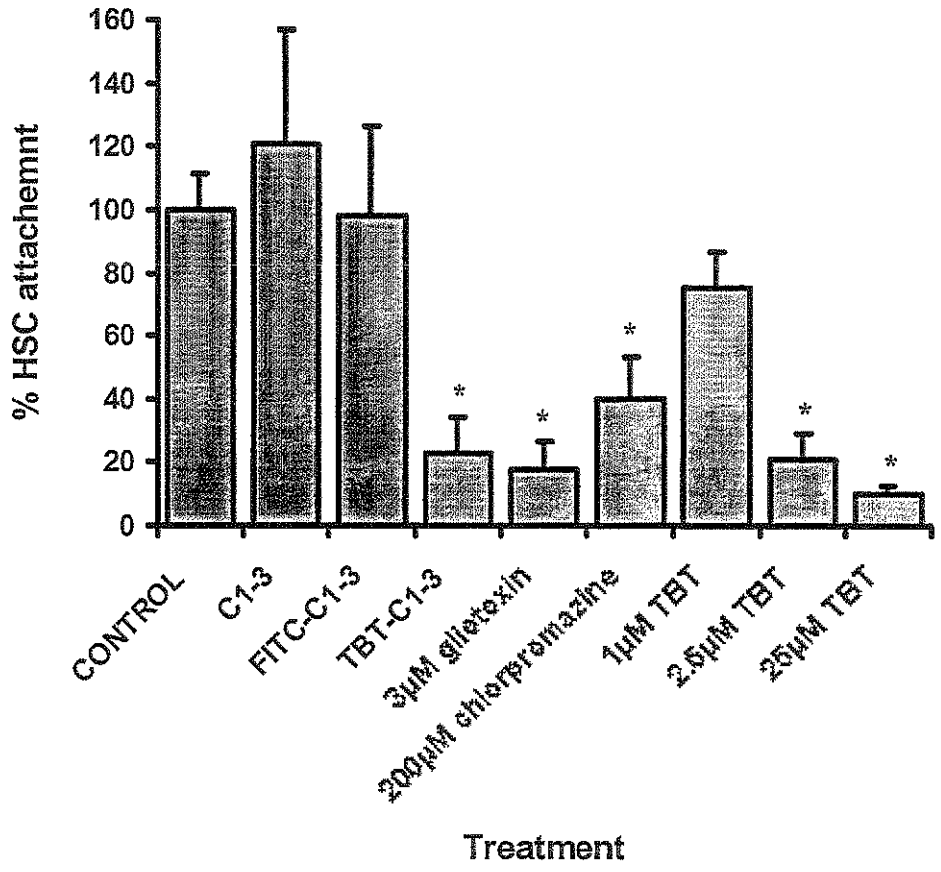

160
140
120
100
80
60
40
20
0
% HSC attachemnt
*
*
*
*
CONTROL
C1-3
FITC-C1-3
TBT-C1-3
3µM gliotoxin
200µM chlorpromazine
1µM TBT
2.5µM TBT
25µM TBT
Treatment

Figure 12

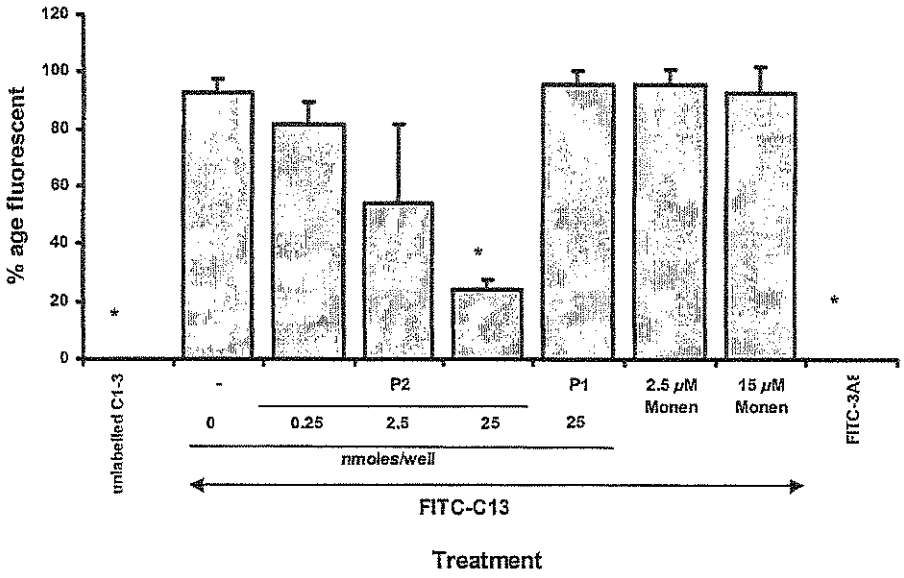

120
100
80
60
40
20
0
% age fluorescent
*
*
*
unlabelled C1-3
-
P2
P1
2.5 μM Monen
15 μM Monen
FITC-3At
0
0.25
2.5
25
25
nmoles/well
FITC-C13
Treatment

Figure 13

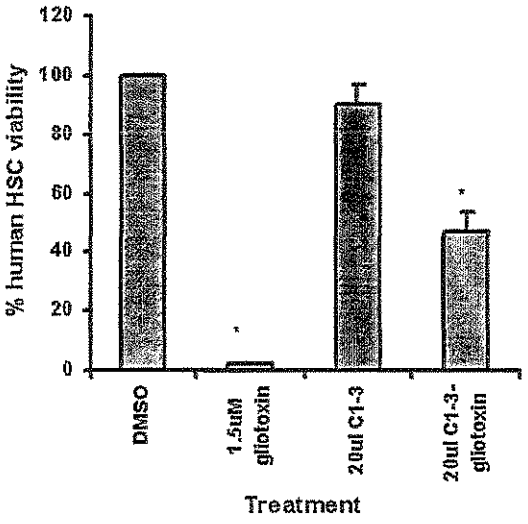

120
100
80
60
40
20
0
% human HSC viability
DMSO
1.5uM gliotoxin
20ul C1-3
20ul C1-3-gliotoxin
Treatment

Figure 14