FIGURE 1

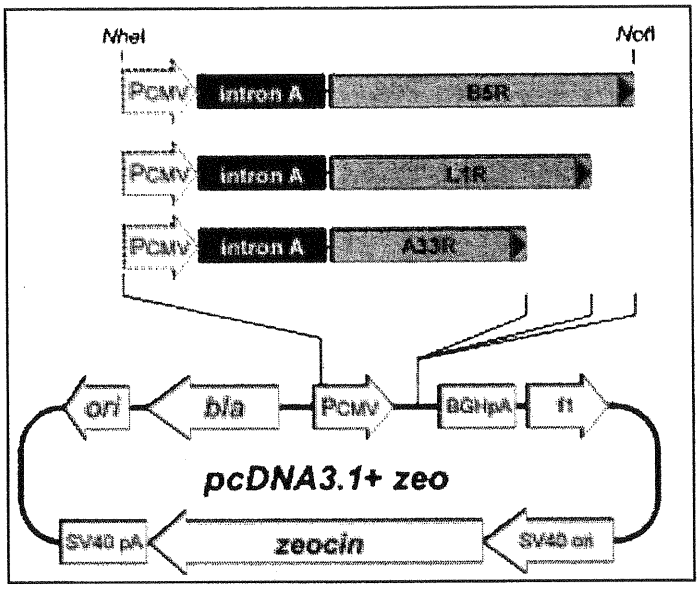

NheI
NotI
PCMV
Intron A
B5R
PCMV
Intron A
L1R
PCMV
Intron A
A33R
ori
bla
PCMV
BGHpA
f1
pcDNA3.1+ zeo
SV40 pA
zeocin
SV40 ori

FIGURE 2

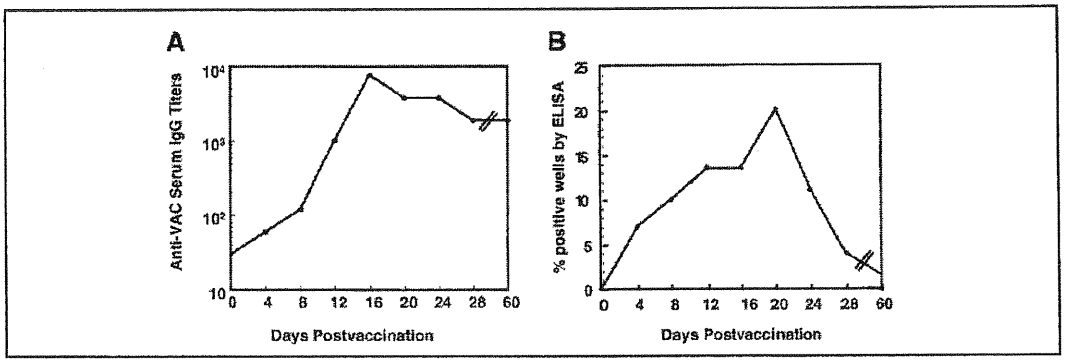
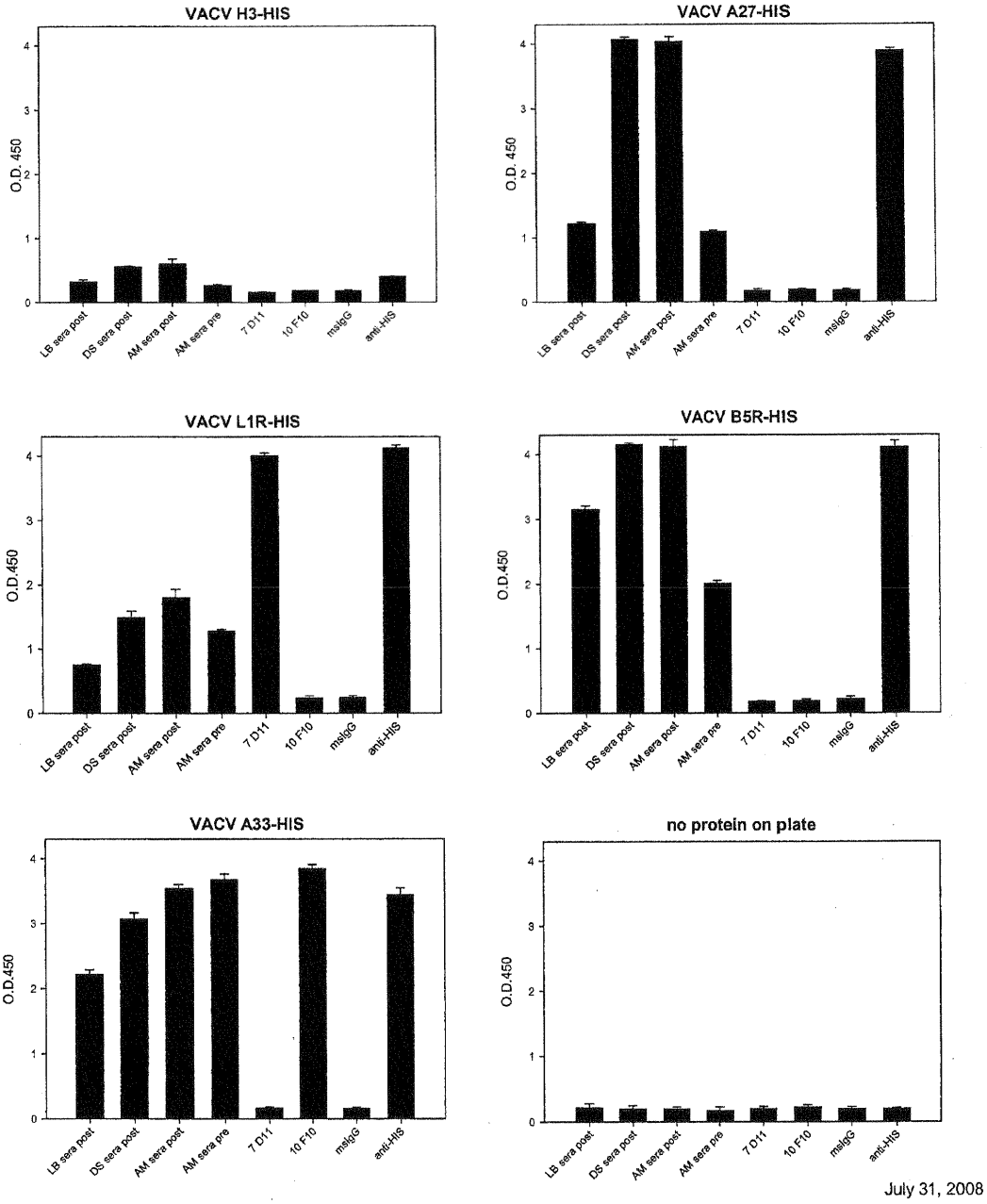

A
Anti-VAC Serum IgG Titers
10^4
10^3
10^2
10
0 4 8 12 16 20 24 28 60
Days Postvaccination
B
% positive wells by ELISA
25
20
15
10
5
0
0 4 8 12 16 20 24 28 60
Days Postvaccination

FIGURE 3

ELISA with human sera samples from Dryvax (LB, DS) or ACAM2000 (AM)-vaccinated donors on recombinantly expressed VACV proteins with immunological relevance



July 31, 2008

FIGURE 4

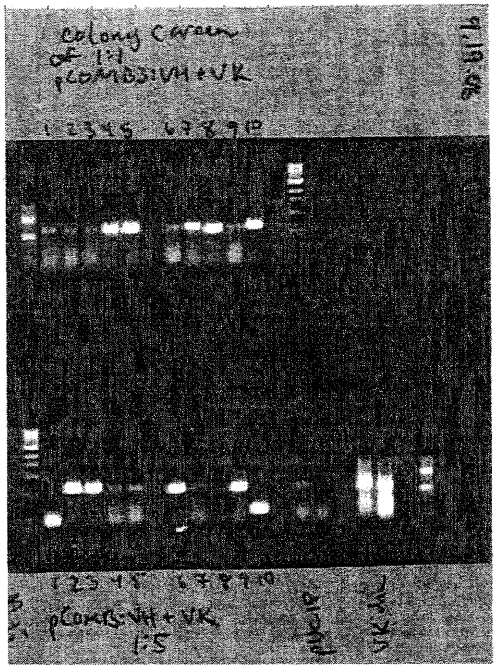

Colony Screen
of 1:1
pCOMB3:VH+VK
1 2 3 4 5 6 7 8 9 10
1 2 3 4 5 6 7 8 9 10
pComb3:VH+VK
1:5

FIGURE 5

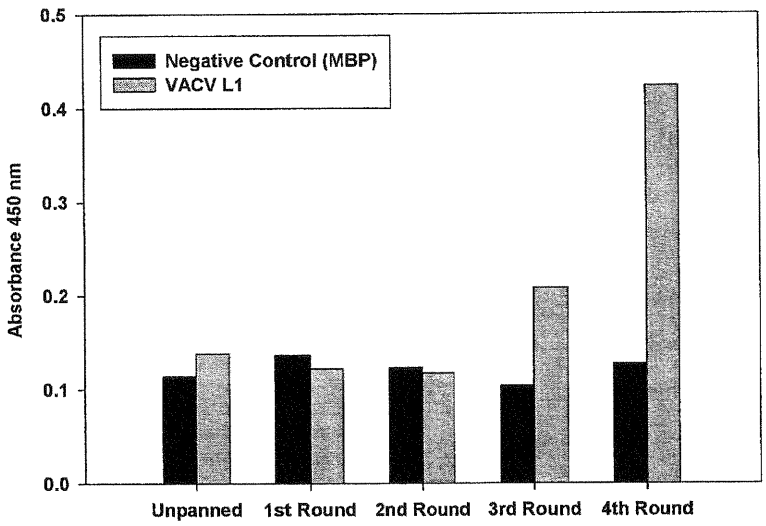
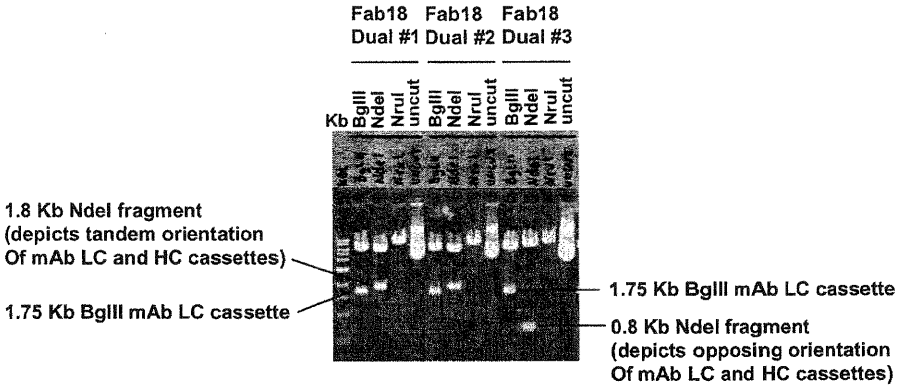
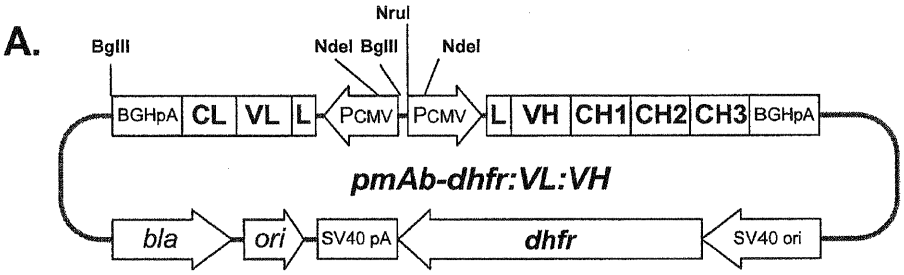

Negative Control (MBP)
VACV L1
Absorbance 450 nm
0.5
0.4
0.3
0.2
0.1
0.0
Unpanned
1st Round
2nd Round
3rd Round
4th Round

FIGURE 6


Fab18 Dual #1
Fab18 Dual #2
Fab18 Dual #3
Kb
BglII
NdeI
NruI
uncut
1.8 Kb NdeI fragment
(depicts tandem orientation
Of mAb LC and HC cassettes)
1.75 Kb BglII mAb LC cassette
1.75 Kb BglII mAb LC cassette
0.8 Kb NdeI fragment
(depicts opposing orientation
Of mAb LC and HC cassettes)


A.
BglII
NruI
NdeI
BglII
NdeI
BGHpA
CL
VL
L
PCMV
PCMV
L
VH
CH1
CH2
CH3
BGHpA
pmAb-dhfr:VL:VH
bla
ori
SV40 pA
dhfr
SV40 ori

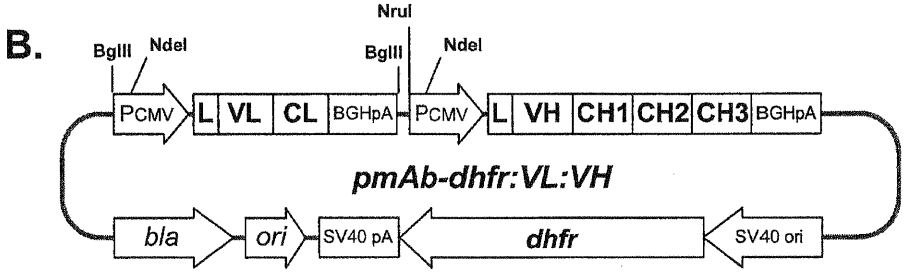

B.
BglII
NdeI
NruI
BglII
NdeI
PCMV
L
VL
CL
BGHpA
PCMV
L
VH
CH1
CH2
CH3
BGHpA
pmAb-dhfr:VL:VH
bla
ori
SV40 pA
dhfr
SV40 ori

FIGURE 7

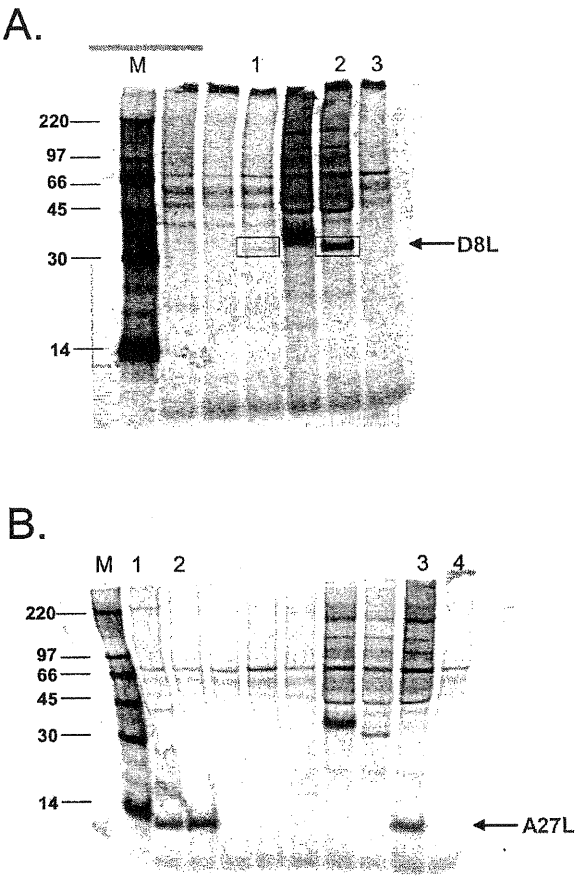


FIGURE 8

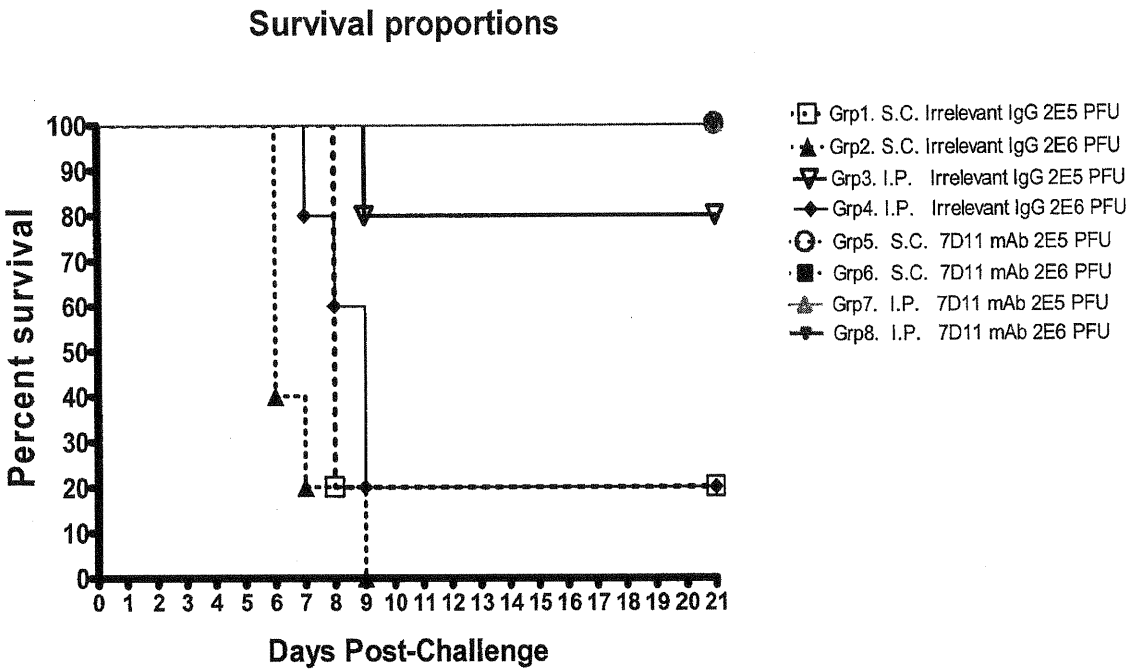

Survival proportions
Percent survival
100
90
80
70
60
50
40
30
20
10
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
Days Post-Challenge
Grp1. S.C. Irrelevant IgG 2E5 PFU
Grp2. S.C. Irrelevant IgG 2E6 PFU
Grp3. I.P. Irrelevant IgG 2E5 PFU
Grp4. I.P. Irrelevant IgG 2E6 PFU
Grp5. S.C. 7D11 mAb 2E5 PFU
Grp6. S.C. 7D11 mAb 2E6 PFU
Grp7. I.P. 7D11 mAb 2E5 PFU
Grp8. I.P. 7D11 mAb 2E6 PFU

FIGURE 9

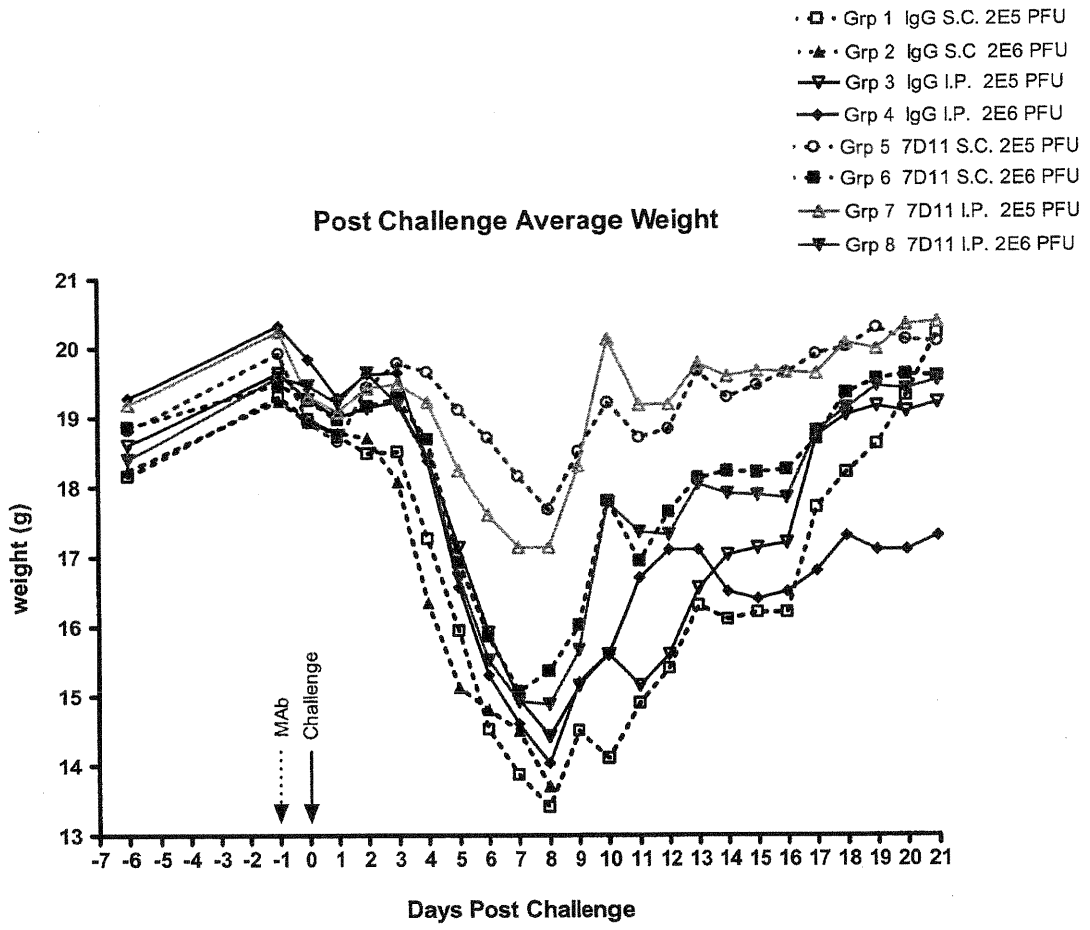

Grp 1 IgG S.C. 2E5 PFU
Grp 2 IgG S.C 2E6 PFU
Grp 3 IgG I.P. 2E5 PFU
Grp 4 IgG I.P. 2E6 PFU
Grp 5 7D11 S.C. 2E5 PFU
Grp 6 7D11 S.C. 2E6 PFU
Grp 7 7D11 I.P. 2E5 PFU
Grp 8 7D11 I.P. 2E6 PFU
Post Challenge Average Weight
weight (g)
21
20
19
18
17
16
15
14
13
MAb
Challenge
-7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
Days Post Challenge

FIGURE 10

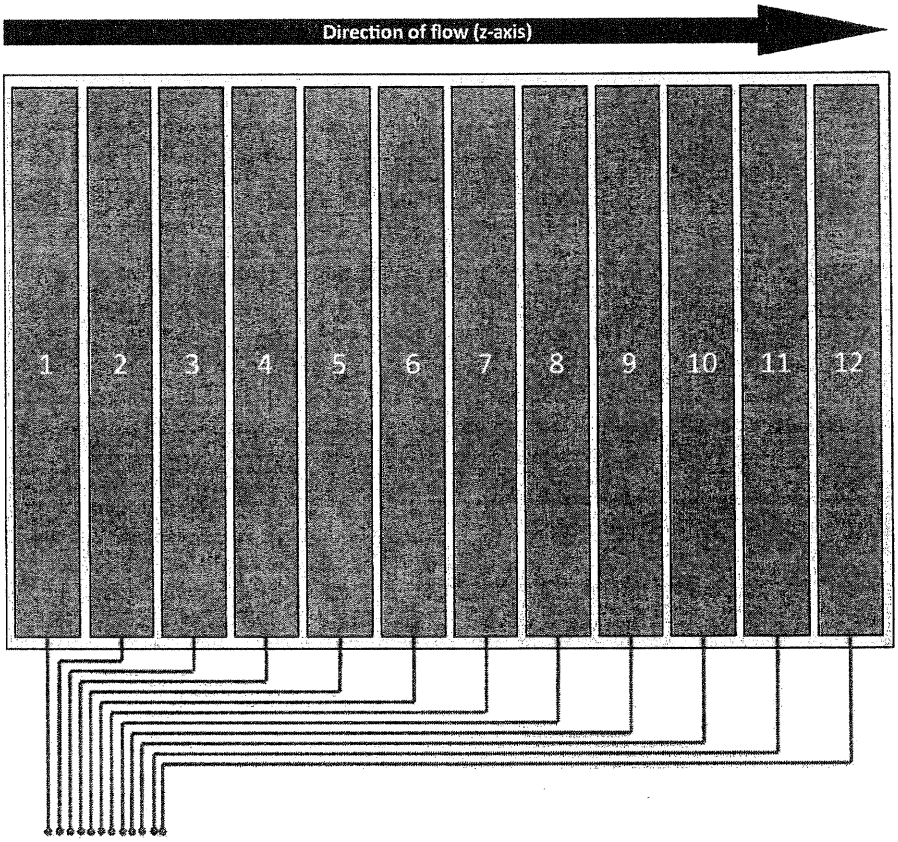


FIGURE 11

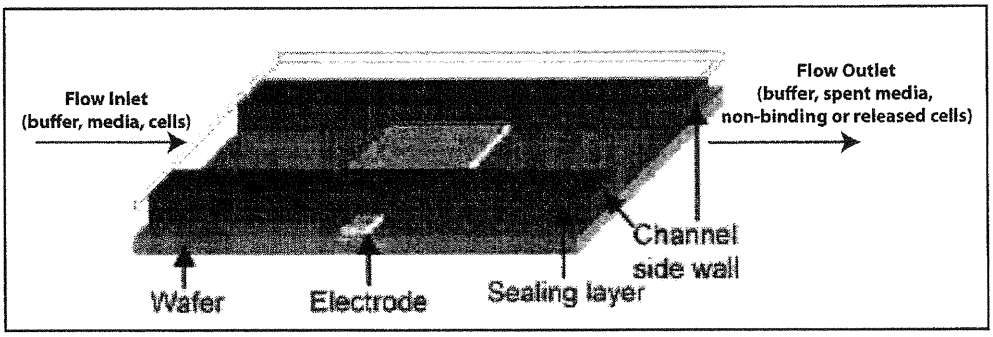

Flow Inlet
(buffer, media, cells)
Flow Outlet
(buffer, spent media,
non-binding or released cells)
Channel
side wall
Wafer
Electrode
Sealing layer

FIGURE 12

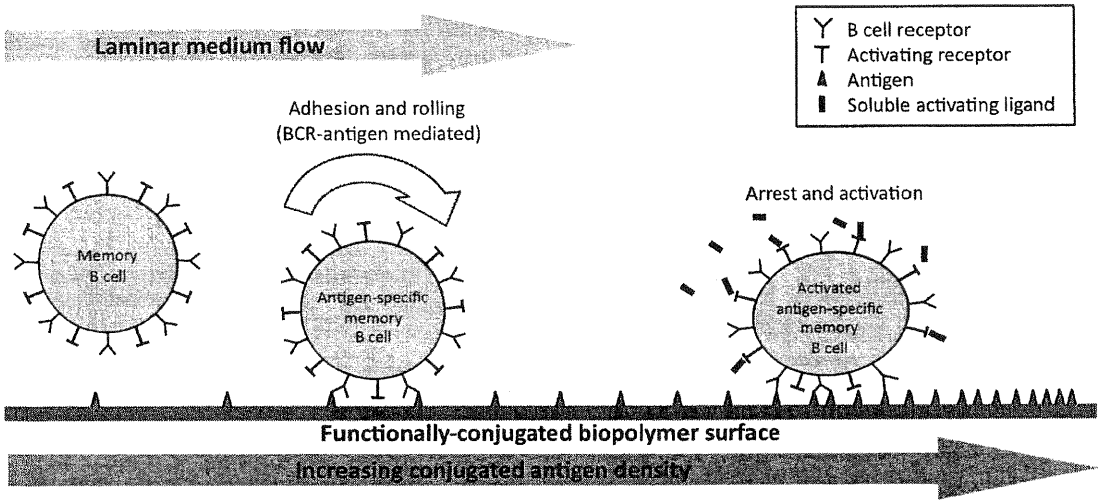

Laminar medium flow
B cell receptor
Activating receptor
Antigen
Soluble activating ligand
Adhesion and rolling
(BCR-antigen mediated)
Arrest and activation
Memory
B cell
Antigen-specific
memory
B cell
Activated
antigen-specific
memory
B cell
Functionally-conjugated biopolymer surface
Increasing conjugated antigen density

FIGURE 13

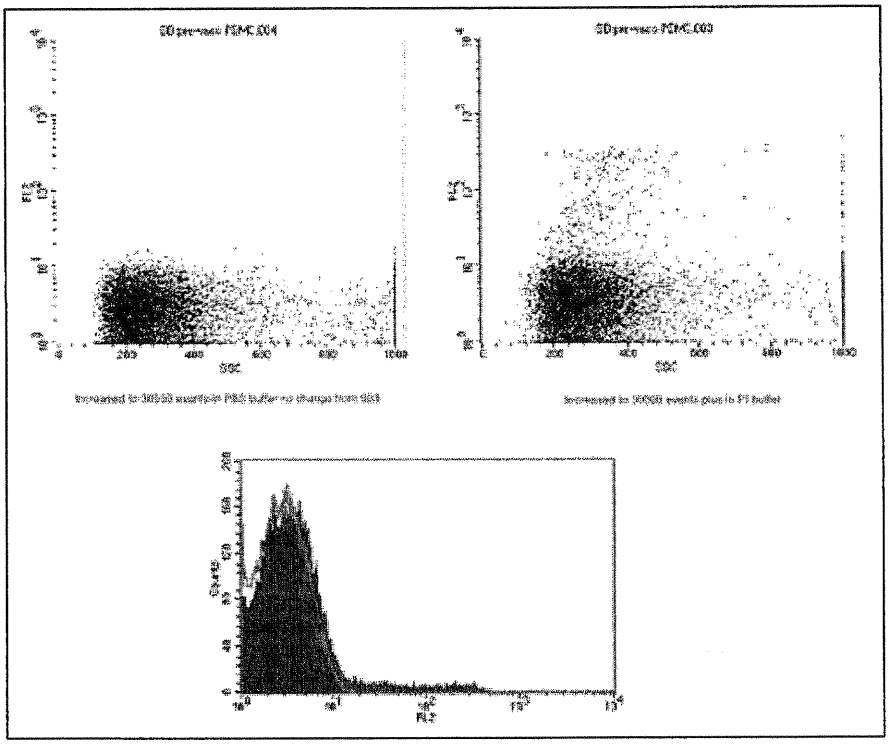


FIGURE 14

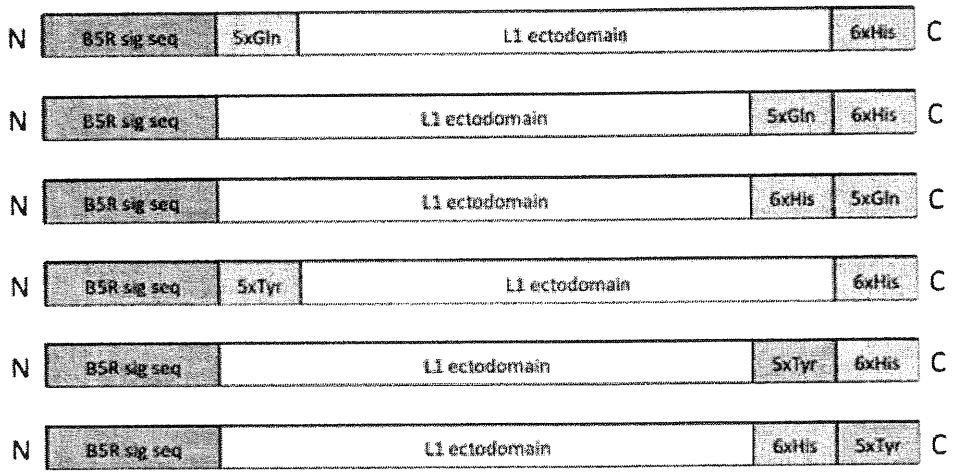
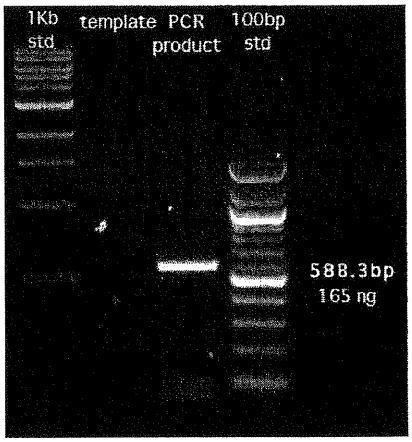

N
B5R sig seq
5xGln
L1 ectodomain
6xHis
C
N
B5R sig seq
L1 ectodomain
5xGln
6xHis
C
N
B5R sig seq
L1 ectodomain
6xHis
5xGln
C
N
B5R sig seq
5xTyr
L1 ectodomain
6xHis
C
N
B5R sig seq
L1 ectodomain
5xTyr
6xHis
C
N
B5R sig seq
L1 ectodomain
6xHis
5xTyr
C

FIGURE 15

A.


1Kb std
template
PCR product
100bp std
588.3bp
165 ng

B.

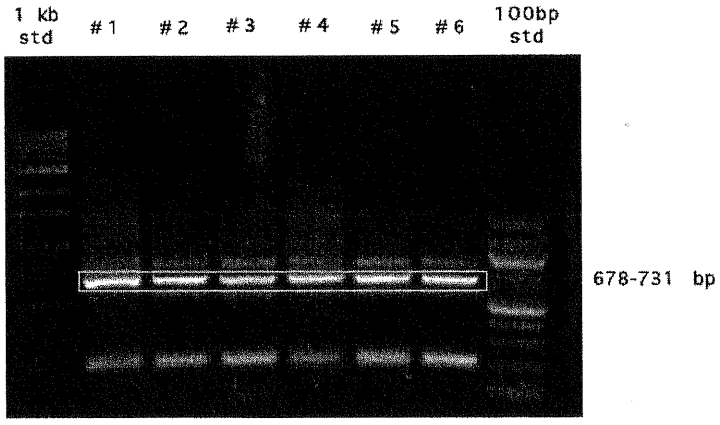

1 kb std
#1
#2
#3
#4
#5
#6
100bp std
678-731 bp

FIGURE 16

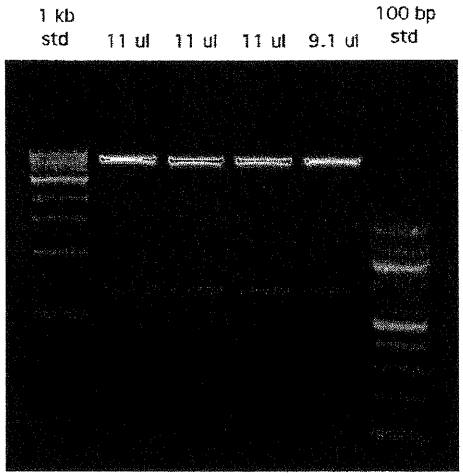


FIGURE 17

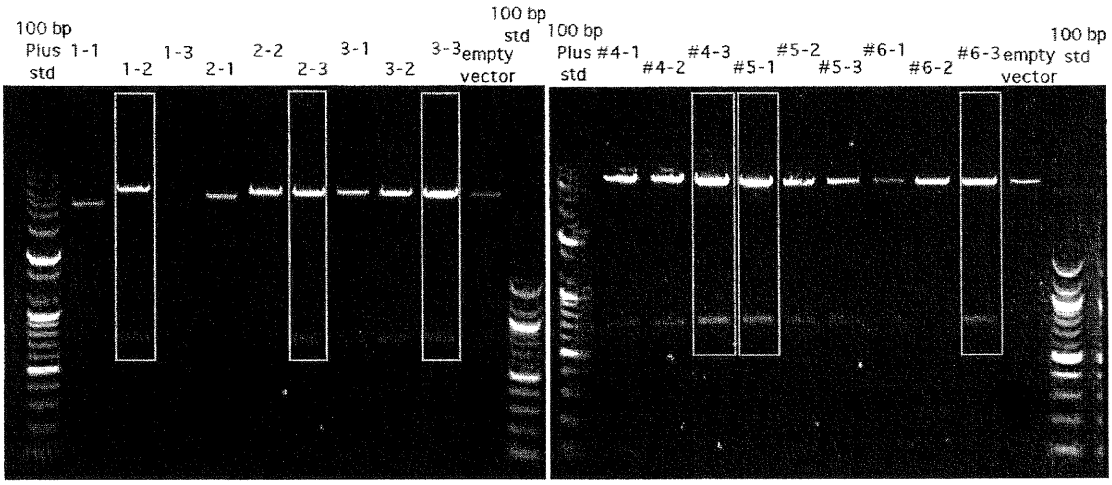
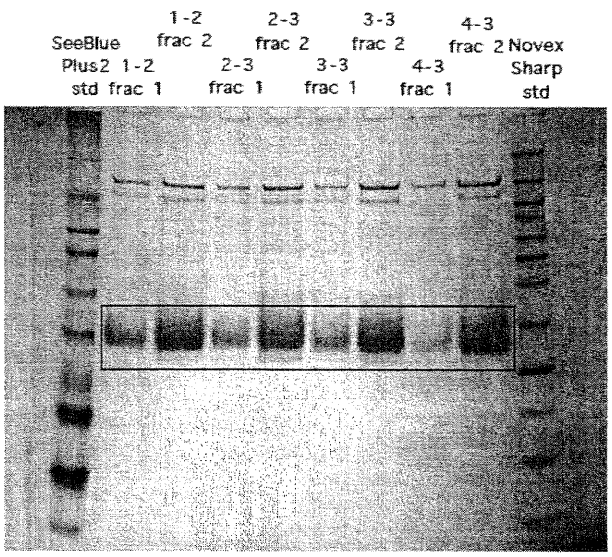

100 bp Plus std
1-1
1-2
1-3
2-1
2-2
2-3
3-1
3-2
3-3
empty vector
100 bp std
100 bp Plus std
#4-1
#4-2
#4-3
#5-1
#5-2
#5-3
#6-1
#6-2
#6-3
empty vector
100 bp std

FIGURE 18


SeeBlue Plus2 std
1-2 frac 1
1-2 frac 2
2-3 frac 1
2-3 frac 2
3-3 frac 1
3-3 frac 2
4-3 frac 1
4-3 frac 2
Novex Sharp std

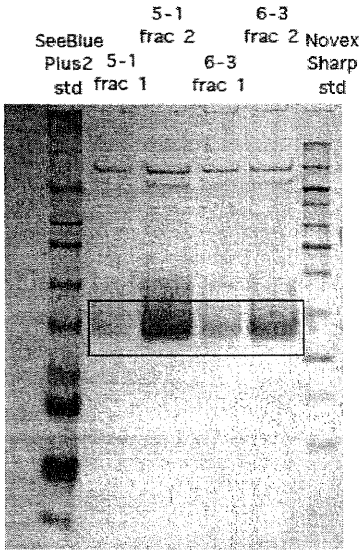
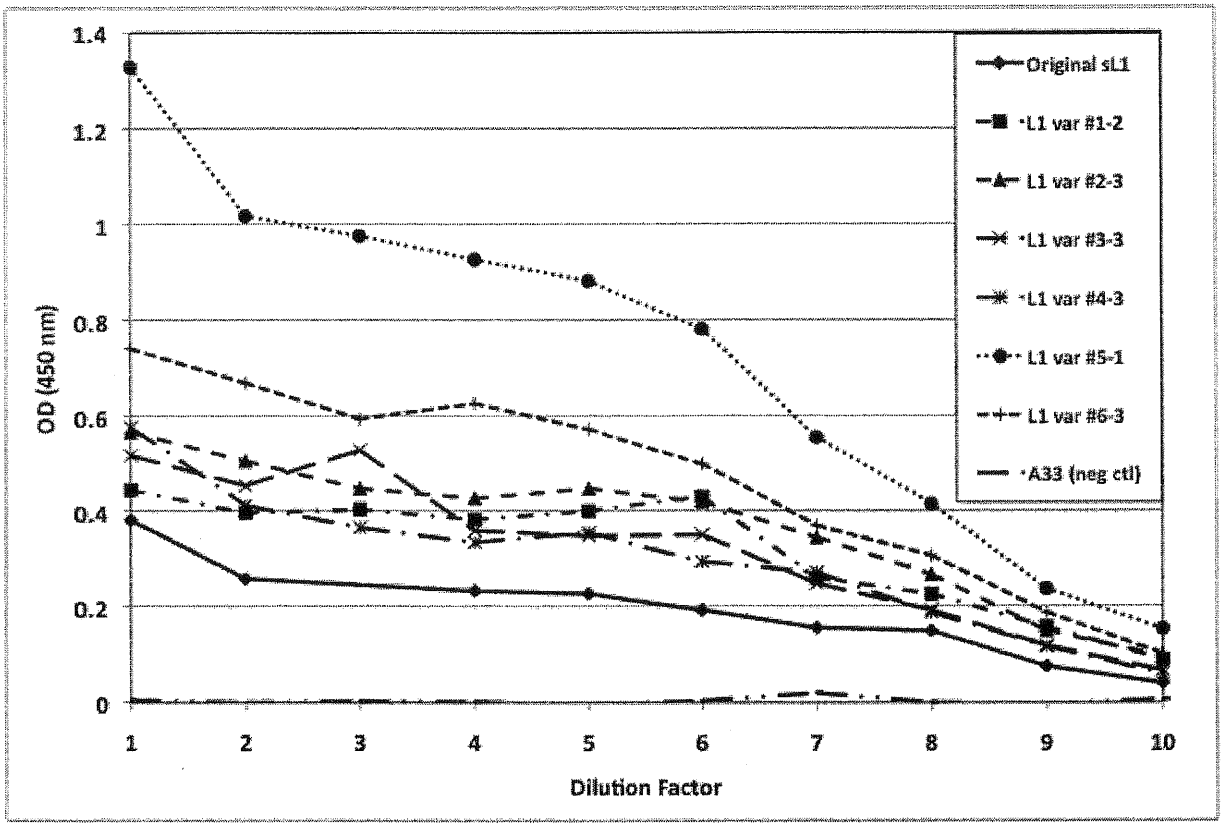

SeeBlue Plus2 std
5-1 frac 1
5-1 frac 2
6-3 frac 1
6-3 frac 2
Novex Sharp std

FIGURE 19


1.4
1.2
1
0.8
0.6
0.4
0.2
0
OD (450 nm)
1
2
3
4
5
6
7
8
9
10
Dilution Factor
Original sL1
L1 var #1-2
L1 var #2-3
L1 var #3-3
L1 var #4-3
L1 var #5-1
L1 var #6-3
A33 (neg ctl)