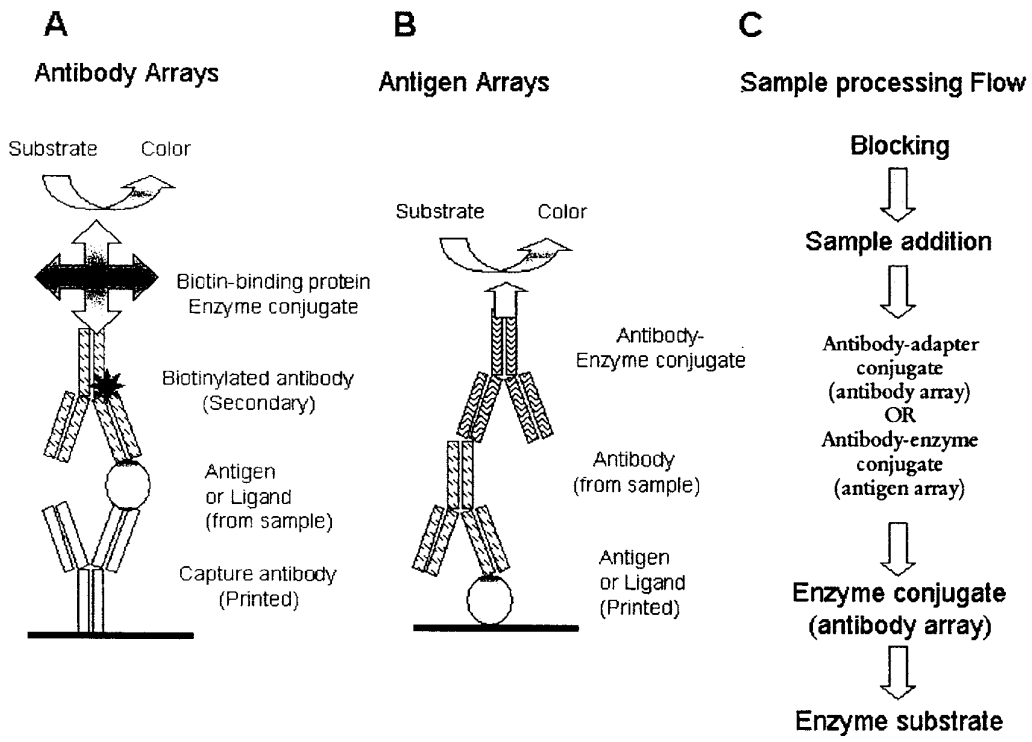

A
Antibody Arrays
Substrate
Color
Biotin-binding protein
Enzyme conjugate
Biotinylated antibody
(Secondary)
Antigen
or Ligand
(from sample)
Capture antibody
(Printed)
B
Antigen Arrays
Substrate
Color
Antibody-
Enzyme conjugate
Antibody
(from sample)
Antigen
or Ligand
(Printed)
C
Sample processing Flow
Blocking
Sample addition
Antibody-adapter
conjugate
(antibody array)
OR
Antibody-enzyme
conjugate
(antigen array)
Enzyme conjugate
(antibody array)
Enzyme substrate

FIG. 1

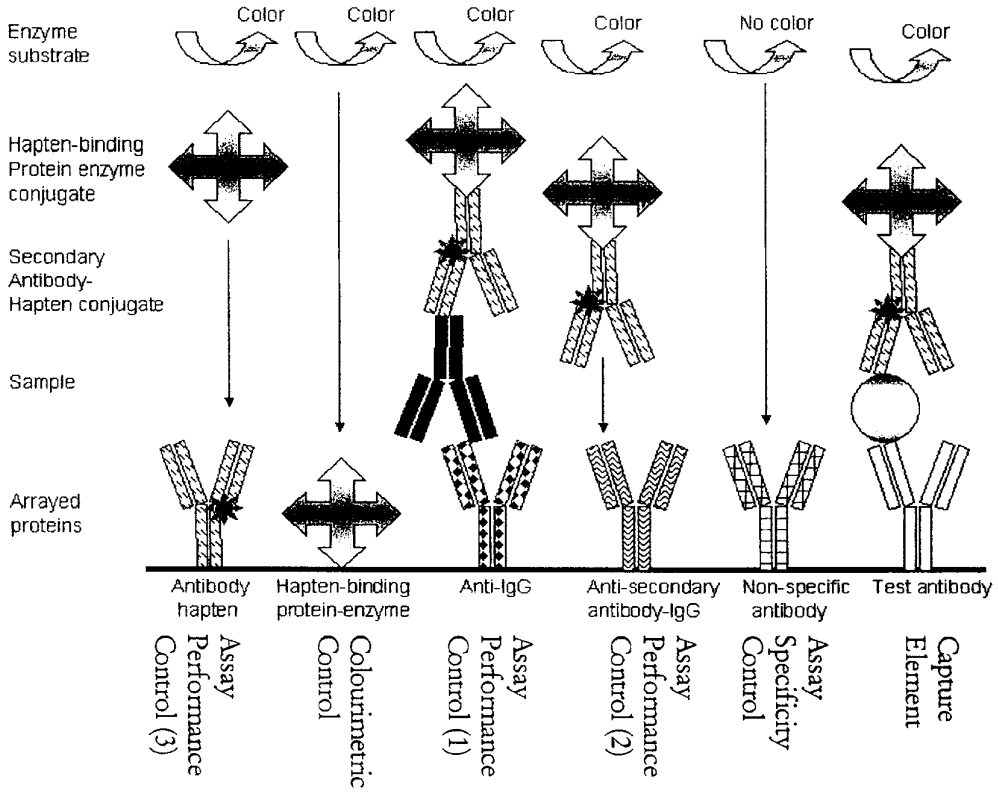

Enzyme substrate
Hapten-binding Protein enzyme conjugate
Secondary Antibody-Hapten conjugate
Sample
Arrayed proteins
Color
Color
Color
Color
No color
Color
Antibody hapten
Hapten-binding protein-enzyme
Anti-IgG
Anti-secondary antibody-IgG
Non-specific antibody
Test antibody
Assay Performance Control (3)
Colourimetric Control
Assay Performance Control (1)
Assay Performance Control (2)
Assay Specificity Control
Capture Element

FIG. 2

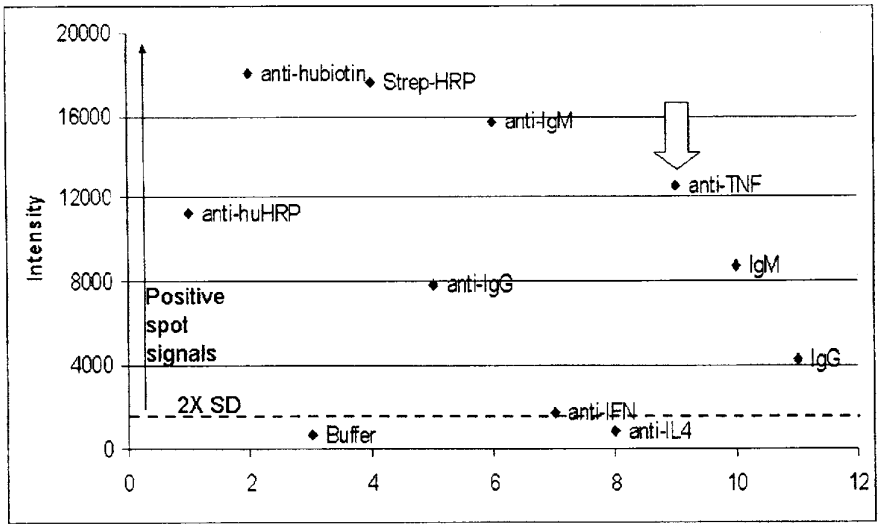

20000
16000
12000
8000
4000
0
Intensity
anti-hubiotin
Strep-HRP
anti-IgM
anti-TNF
anti-huHRP
IgM
anti-IgG
Positive
spot
signals
IgG
2X SD
anti-IFN
anti-IL4
Buffer
0
2
4
6
8
10
12

FIG. 3

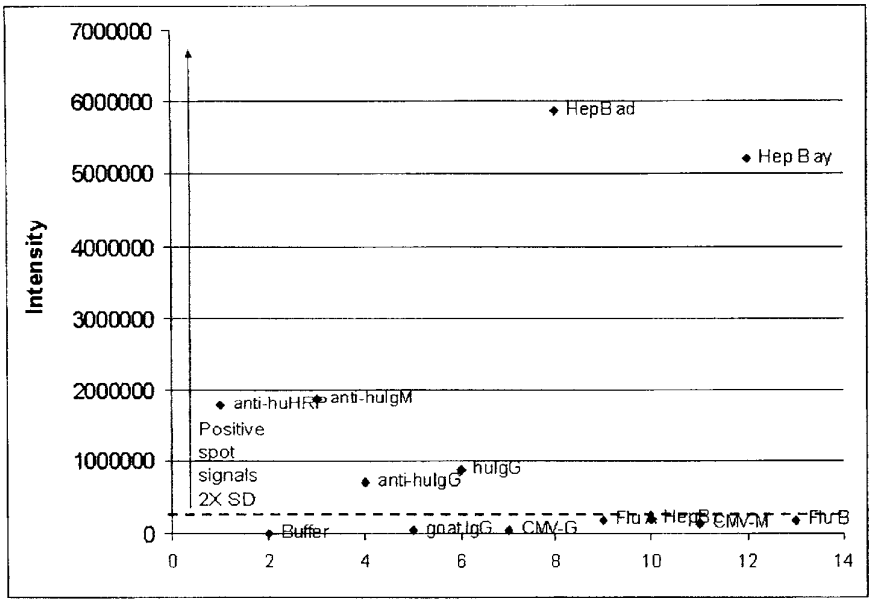

7000000
6000000
5000000
4000000
3000000
2000000
1000000
0
Intensity
HepB ad
Hep B ay
anti-huHRP
anti-hulgM
Positive
spot
signals
2X SD
anti-hulgG
hulgG
Buffer
goat IgG
CMV-G
Flu A
Flu B
0
2
4
6
8
10
12
14

FIG. 4

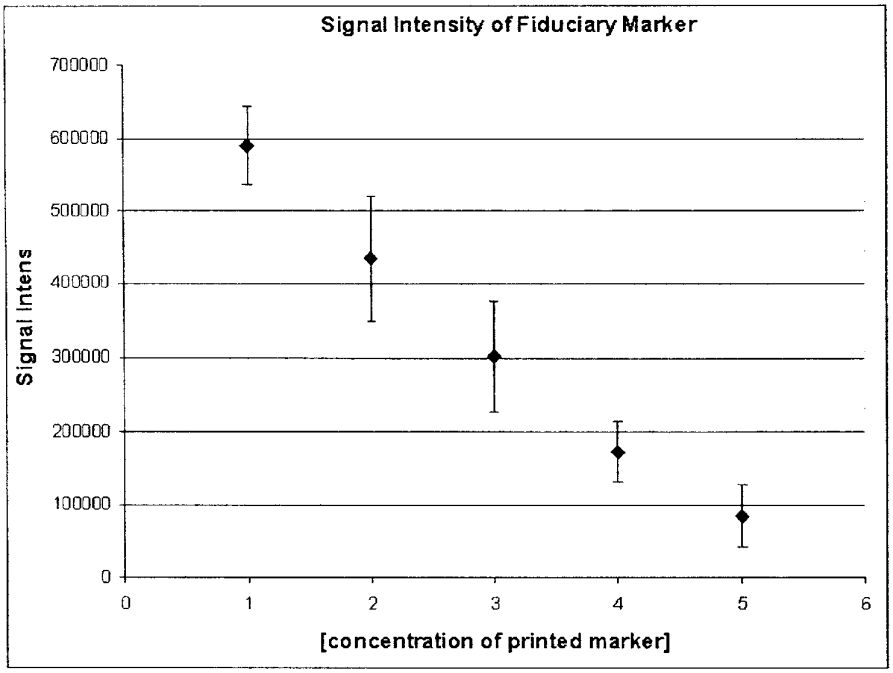

Signal Intensity of Fiduciary Marker
Signal Intens
700000
600000
500000
400000
300000
200000
100000
0
0
1
2
3
4
5
6
[concentration of printed marker]

FIG. 5

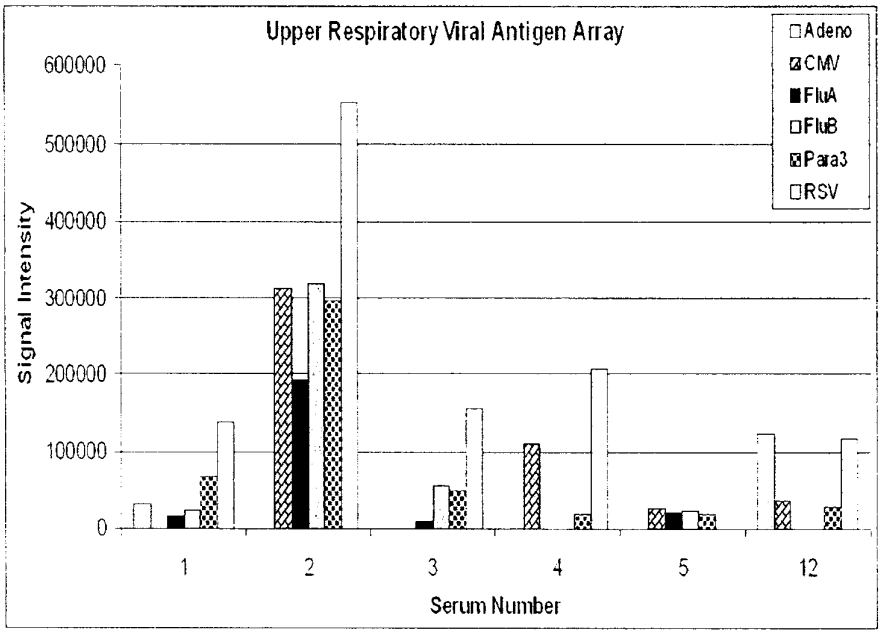

Upper Respiratory Viral Antigen Array
Adeno
CMV
FluA
FluB
Para3
RSV
Signal Intensity
600000
500000
400000
300000
200000
100000
0
1
2
3
4
5
12
Serum Number

FIG. 6

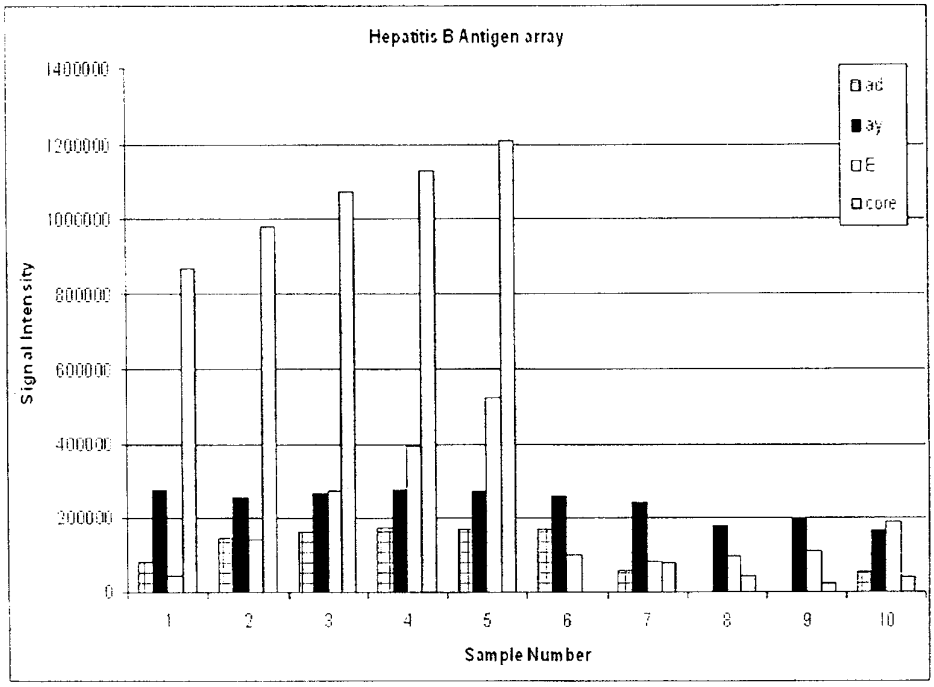

Hepatitis B Antigen array
1400000
1200000
1000000
800000
600000
400000
200000
0
Signal Intensity
1
2
3
4
5
6
7
8
9
10
Sample Number
ac
core

FIG. 7