Figure 1

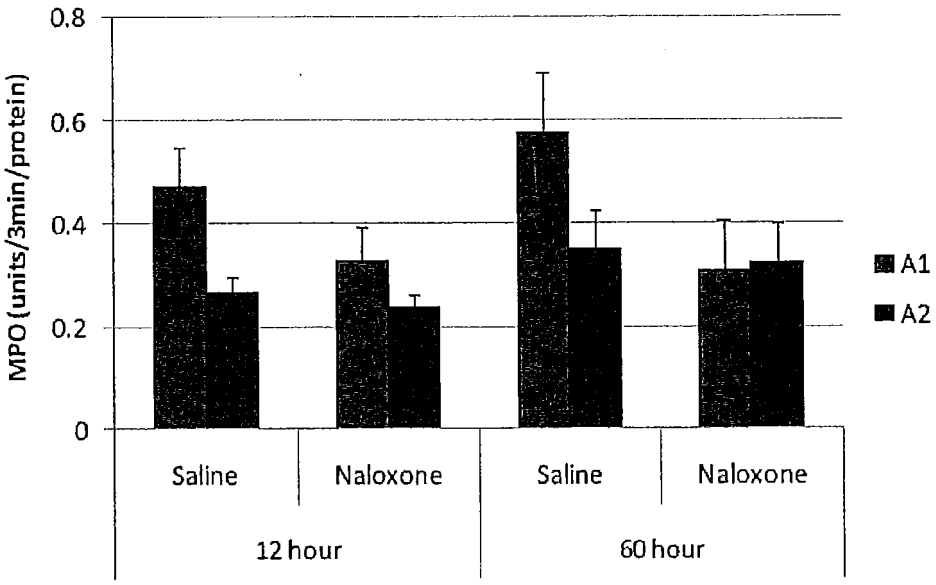


Figure 2

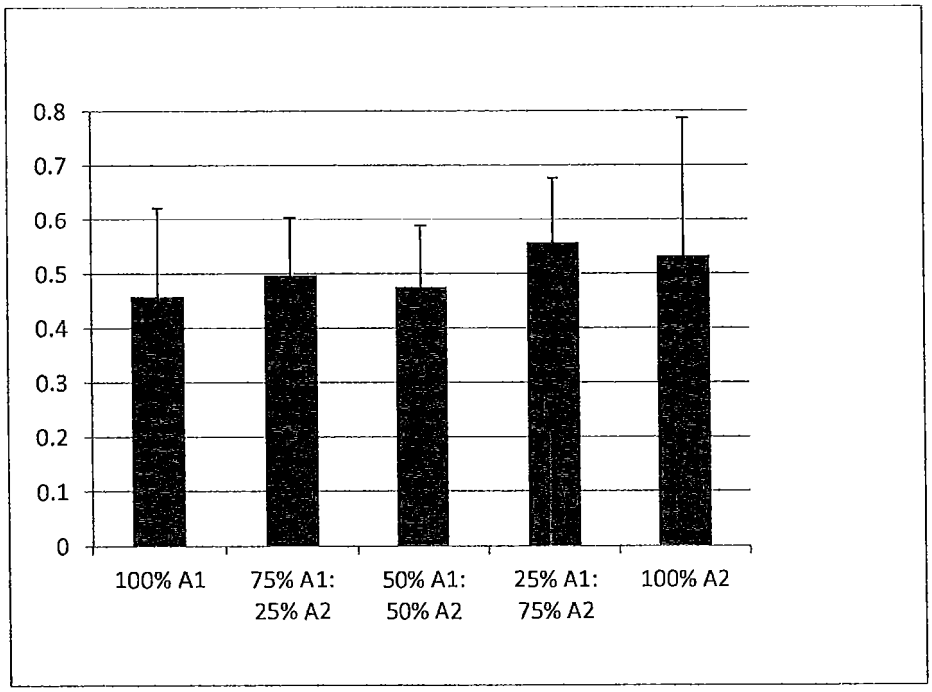


Figure 3

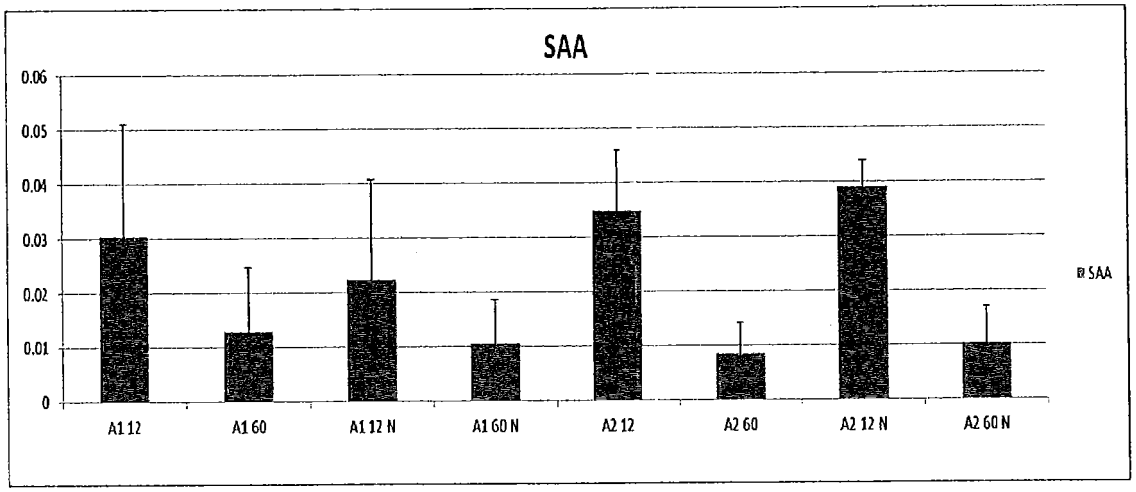
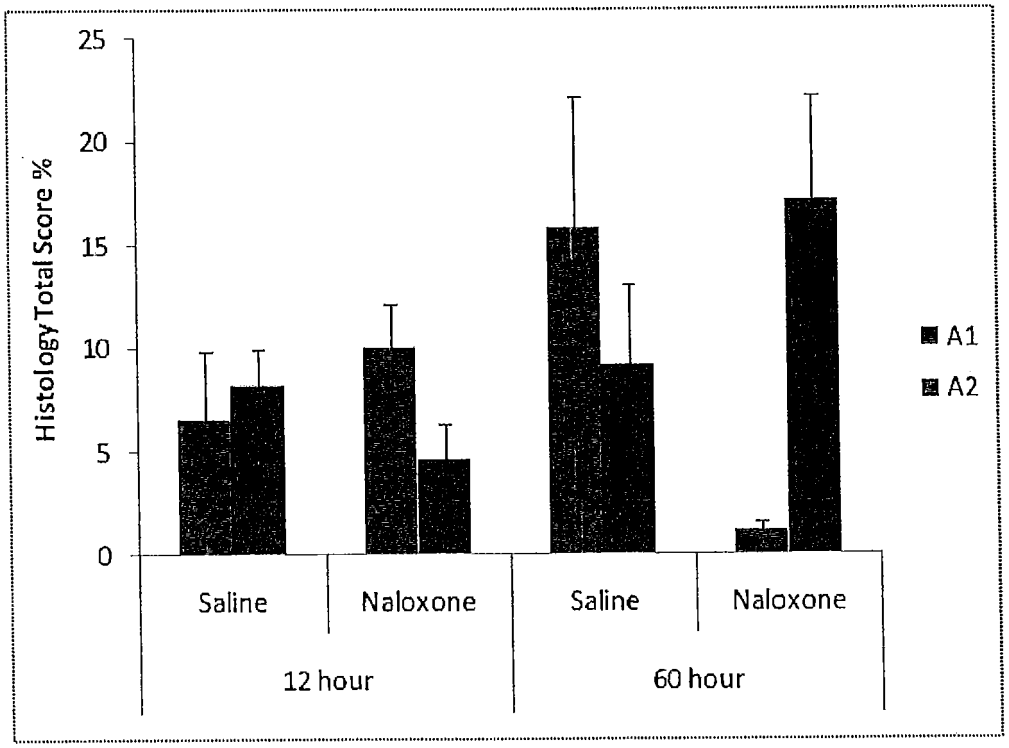


Figure 4



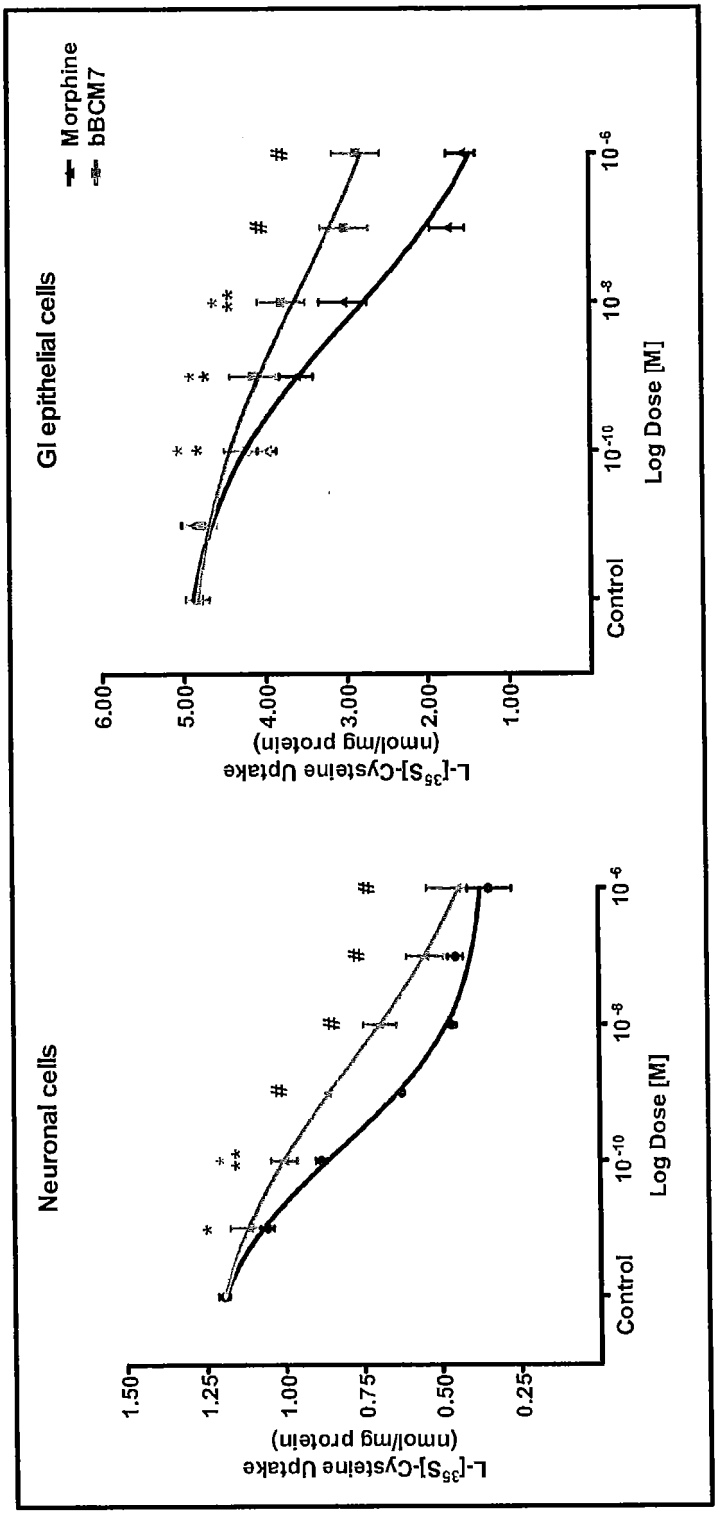

Neuronal cells
GI epithelial cells
Morphine
bBCM7
L-[35S]-Cysteine Uptake (nmol/mg protein)
Log Dose [M]
Control
10-10
10-8
10-6
0.25
0.50
0.75
1.00
1.25
1.50
1.00
2.00
3.00
4.00
5.00
6.00
*
**
#

Figure 5

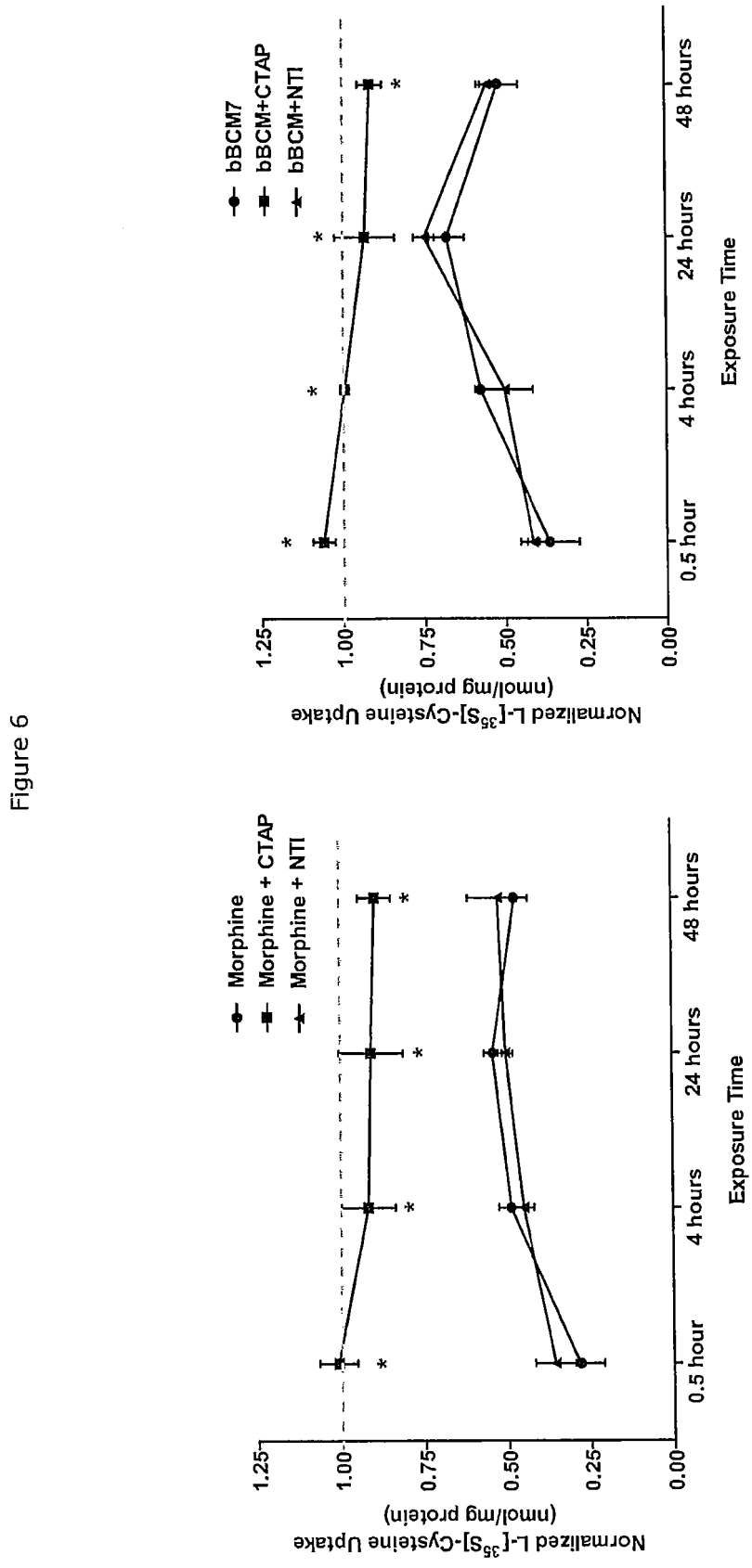

Morphine
Morphine + CTAP
Morphine + NTI
bBCM7
bBCM+CTAP
bBCM+NTI
Normalized L-[35S]-Cysteine Uptake
(nmol/mg protein)
1.25
1.00
0.75
0.50
0.25
0.00
0.5 hour
4 hours
24 hours
48 hours
Exposure Time
*

Figure 6

Figure 7

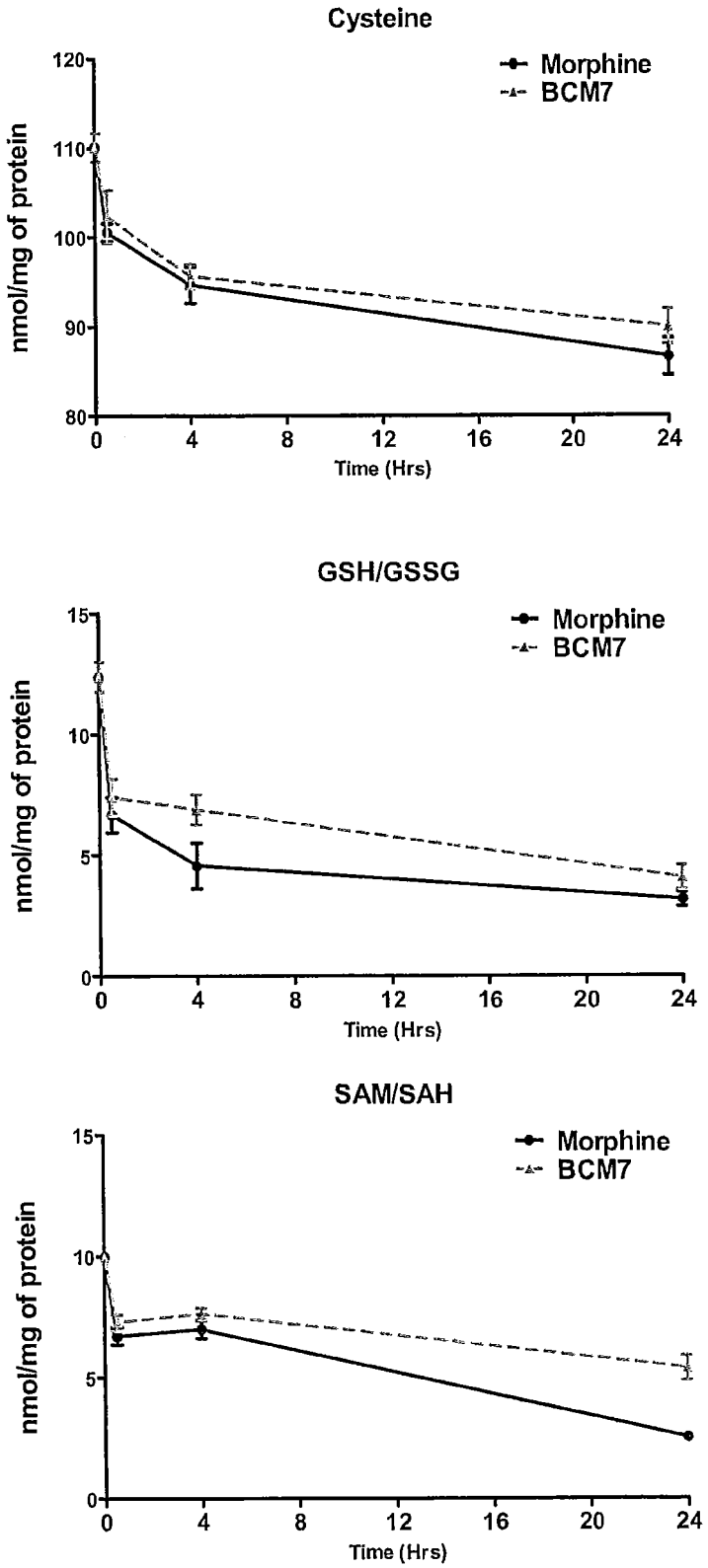

Cysteine
Morphine
BCM7
nmol/mg of protein
120
110
100
90
80
0
4
8
12
16
20
24
Time (Hrs)
GSH/GSSG
Morphine
BCM7
nmol/mg of protein
15
10
5
0
0
4
8
12
16
20
24
Time (Hrs)
SAM/SAH
Morphine
BCM7
nmol/mg of protein
15
10
5
0
0
4
8
12
16
20
24
Time (Hrs)

Figure 8

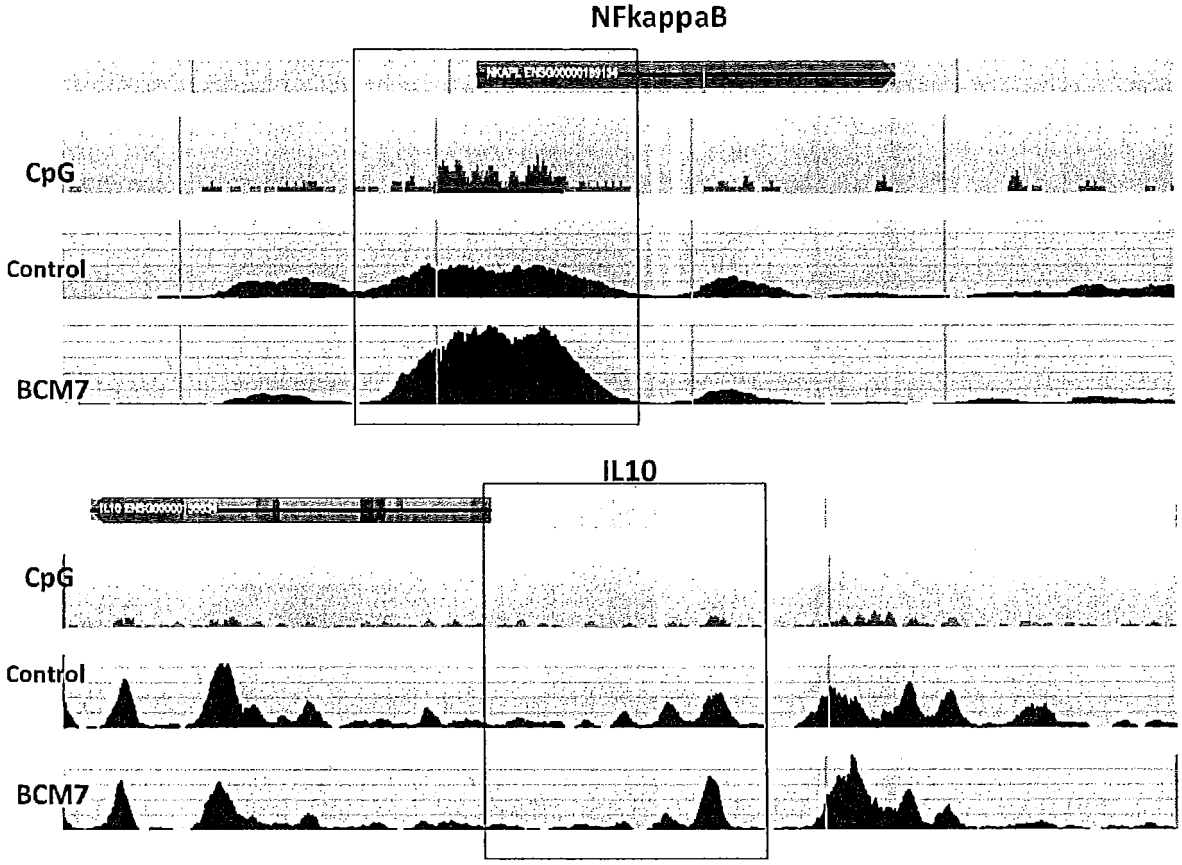
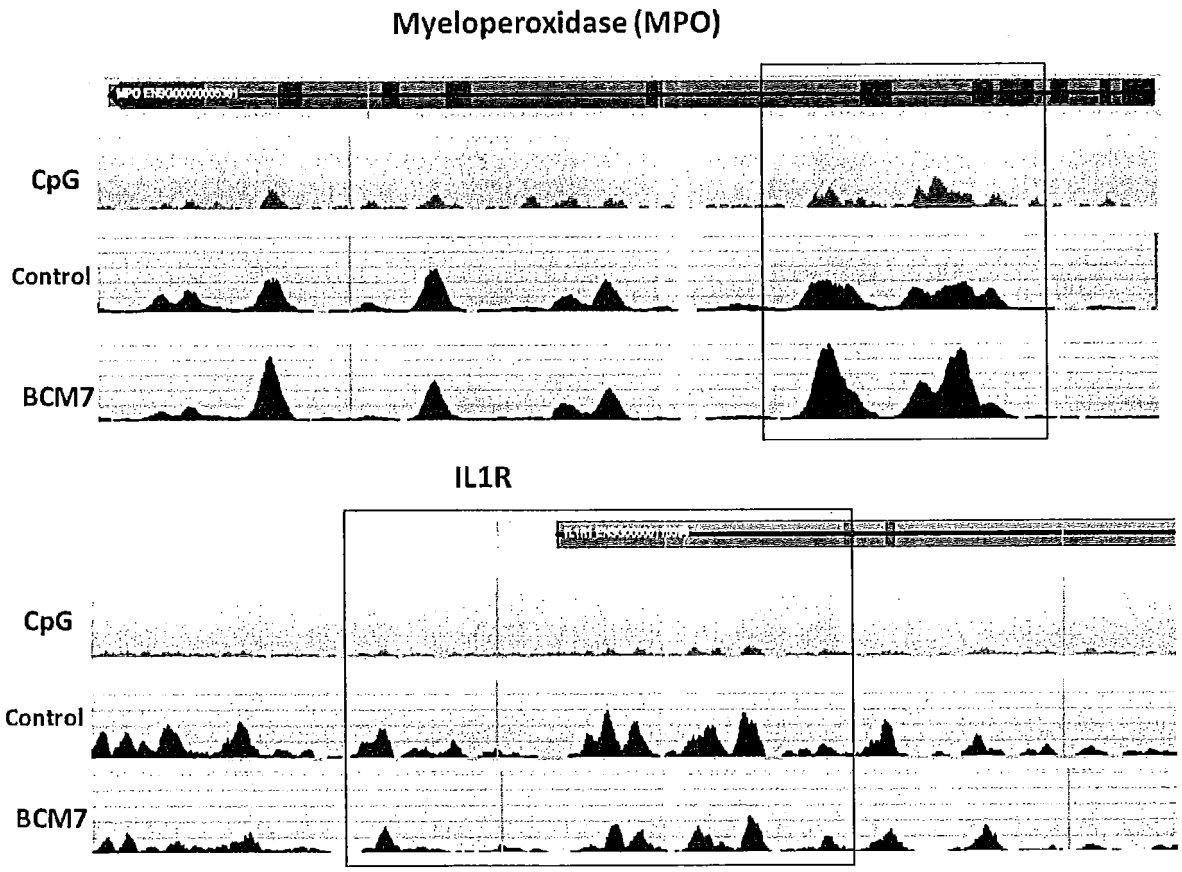


Figure 9


Myeloperoxidase (MPO)
CpG
Control
BCM7
IL1R
CpG
Control
BCM7