Figure 1

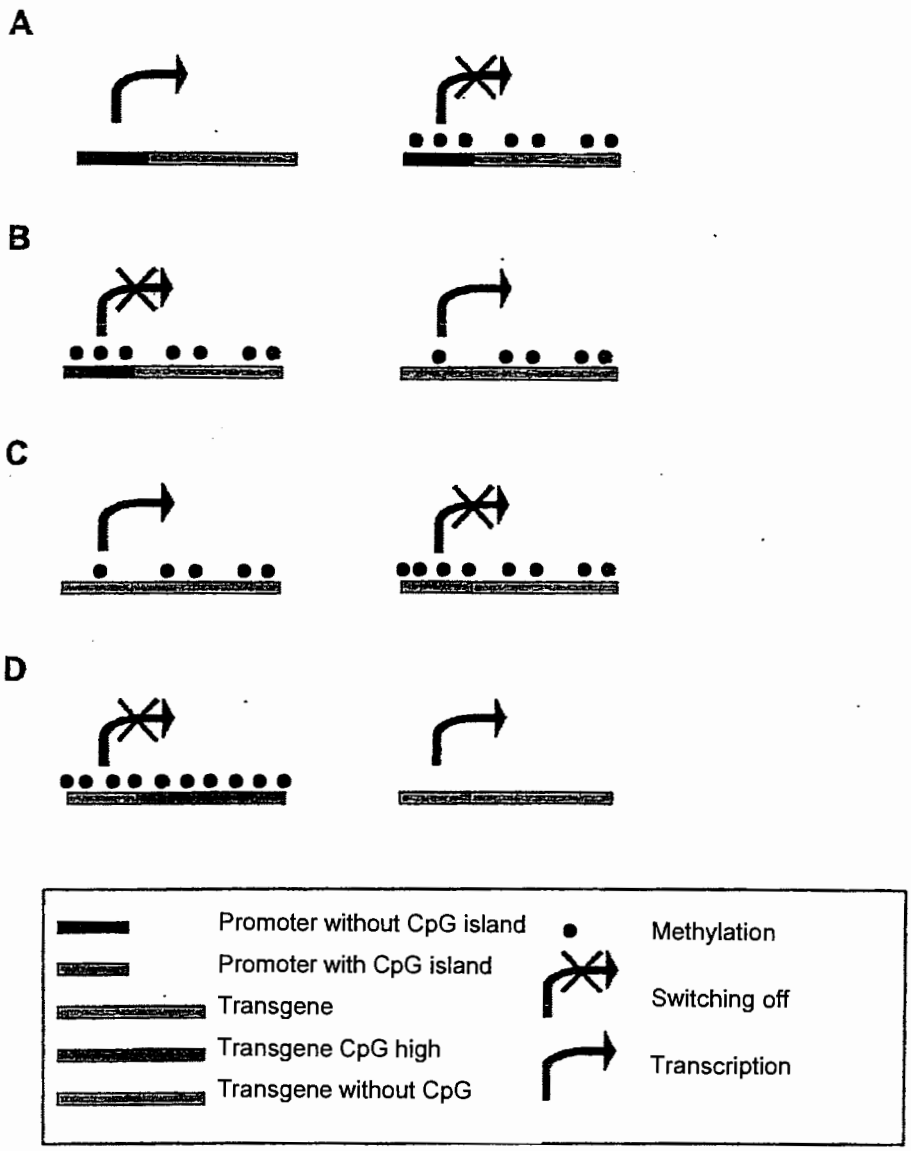

A
B
C
D
Promoter without CpG island
Promoter with CpG island
Transgene
Transgene CpG high
Transgene without CpG
Methylation
Switching off
Transcription

Figure 2

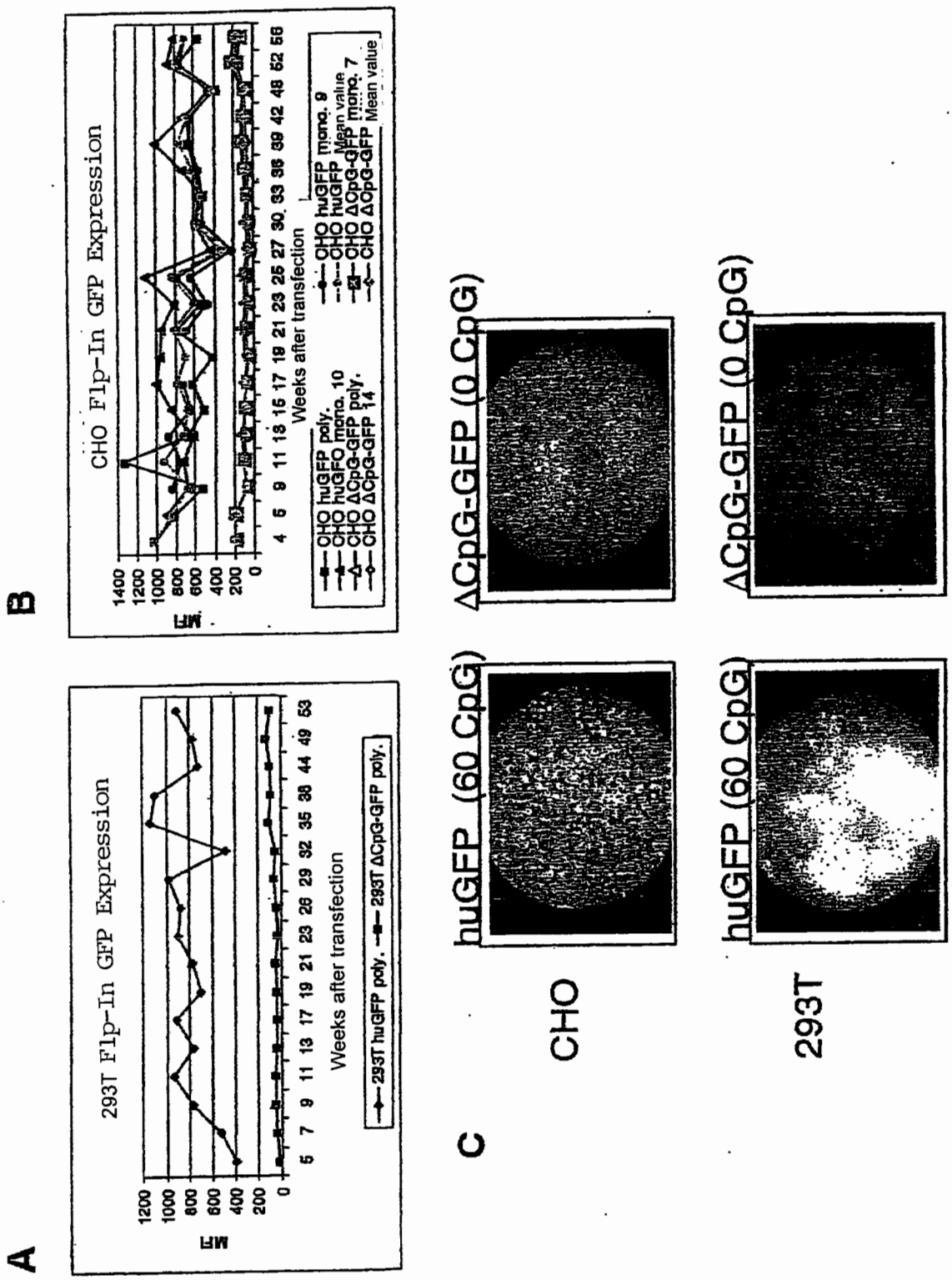

A
293T Flp-In GFP Expression
MFI
Weeks after transfection
293T huGFP poly.
293T ΔCpG-GFP poly.
B
CHO Flp-In GFP Expression
MFI
Weeks after transfection
CHO huGFP poly.
CHO huGFP mono. 10
CHO ΔCpG-GFP poly.
CHO ΔCpG-GFP 14
CHO huGFP mono. 9
CHO huGFP Mean value
CHO ΔCpG-GFP mono. 7
CHO ΔCpG-GFP Mean value
C
huGFP (60 CpG)
ΔCpG-GFP (0 CpG)
CHO
huGFP (60 CpG)
ΔCpG-GFP (0 CpG)
293T

Figure 3

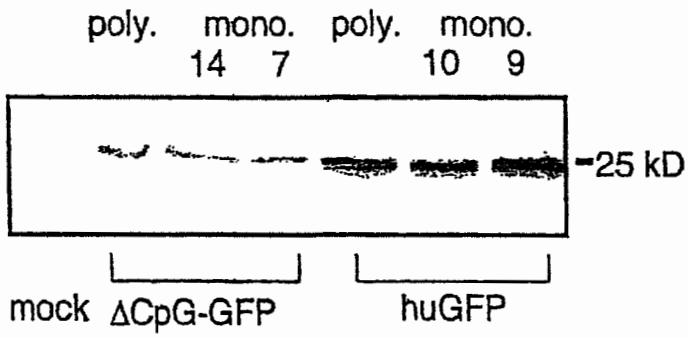


Figure 4

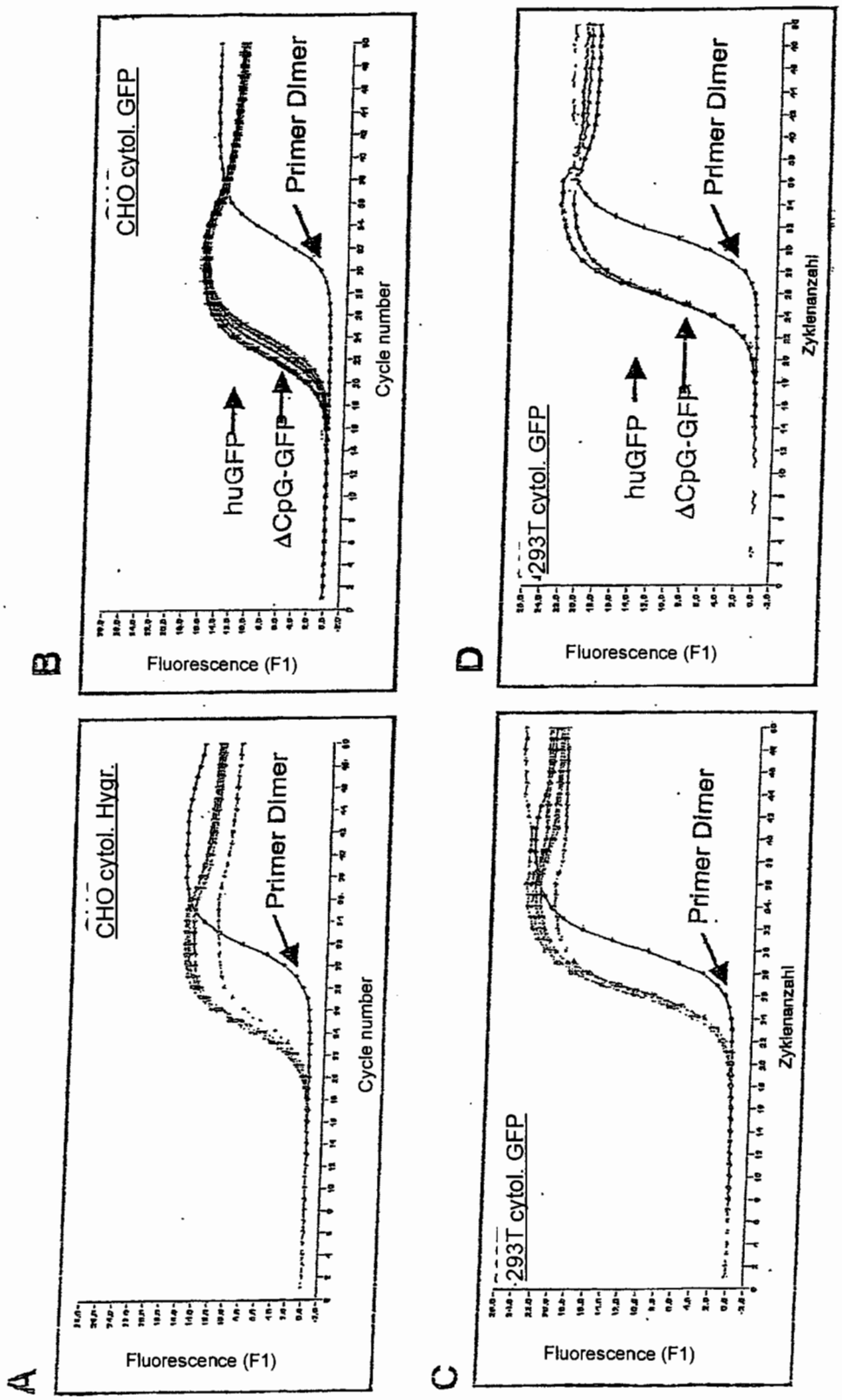

A
CHO cytol. Hygr.
Primer Dimer
Cycle number
Fluorescence (F1)
B
CHO cytol. GFP
Primer Dimer
huGFP
ΔCpG-GFP
Cycle number
Fluorescence (F1)
C
293T cytol. GFP
Primer Dimer
Zyklenanzahl
Fluorescence (F1)
D
293T cytol. GFP
Primer Dimer
huGFP
ΔCpG-GFP
Zyklenanzahl
Fluorescence (F1)

Figure 5

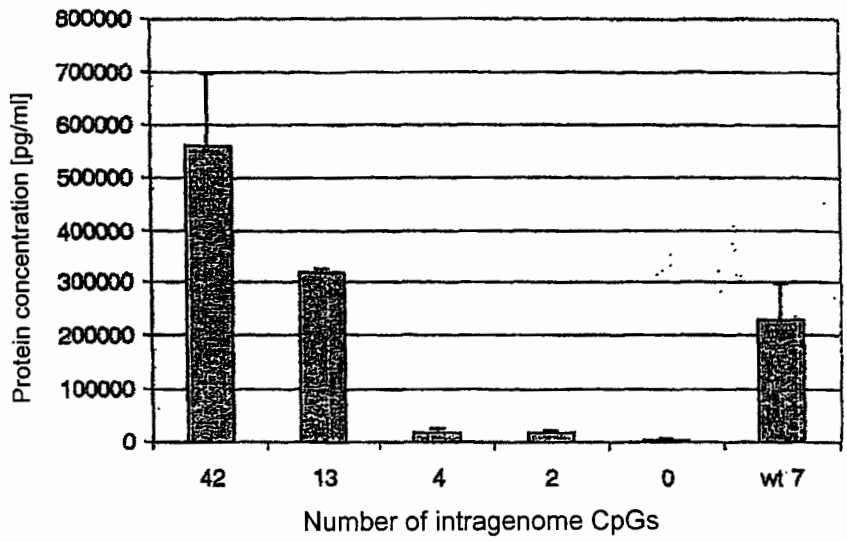

800000
700000
600000
500000
400000
300000
200000
100000
0
Protein concentration [pg/ml]
42
13
4
2
0
wt 7
Number of intragenome CpGs

Figure 6

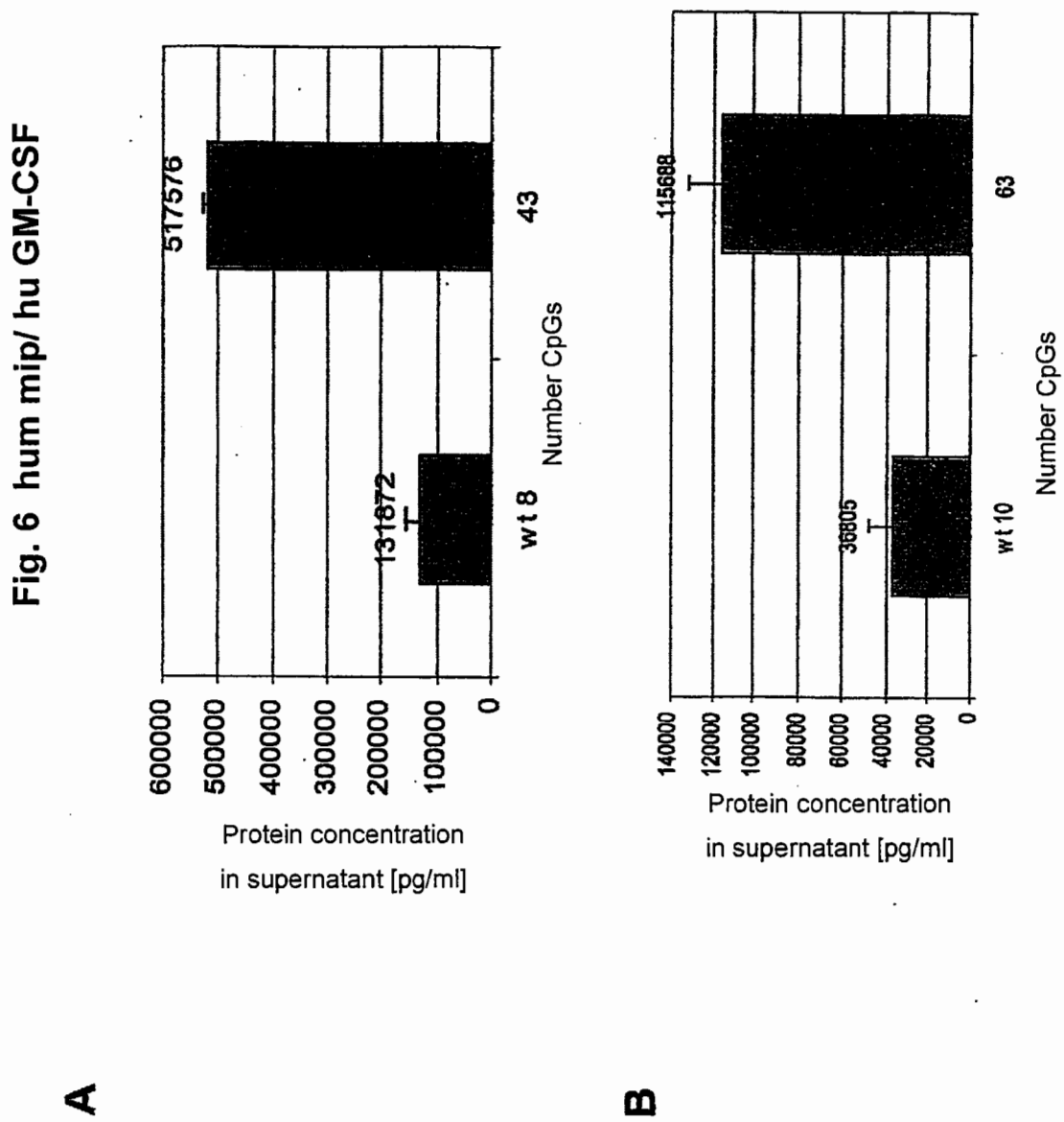

Fig. 6 hum mip/ hu GM-CSF
517576
131672
wt 8
43
Number CpGs
600000
500000
400000
300000
200000
100000
0
Protein concentration
in supernatant [pg/ml]
A
115688
36805
wt 10
63
Number CpGs
140000
120000
100000
80000
60000
40000
20000
0
Protein concentration
in supernatant [pg/ml]
B

Figure 7

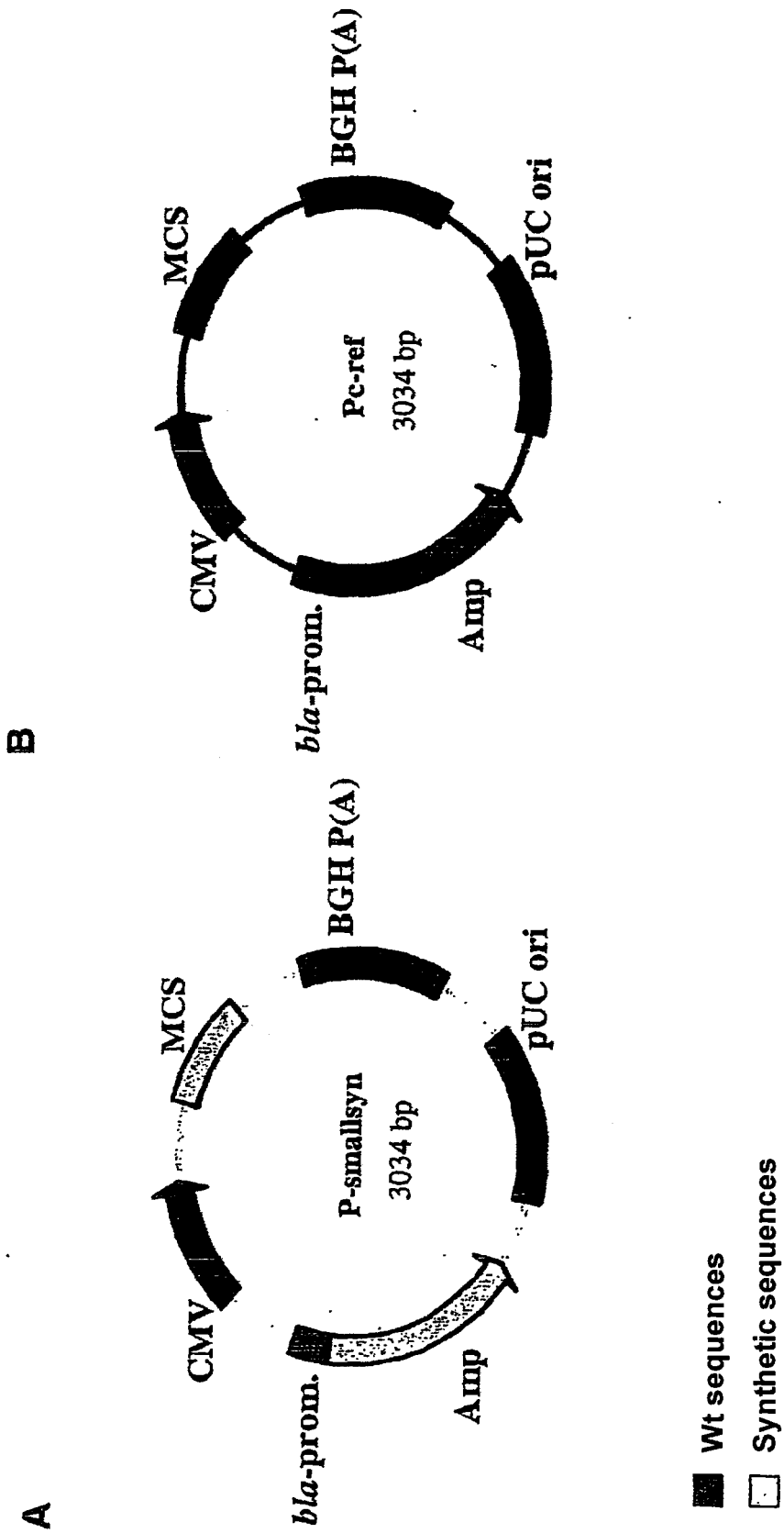

A
B
MCS
BGH P(A)
pUC ori
CMV
bla-prom.
Amp
P-smallsyn
3034 bp
Pc-ref
3034 bp
Wt sequences
Synthetic sequences

Figure 8

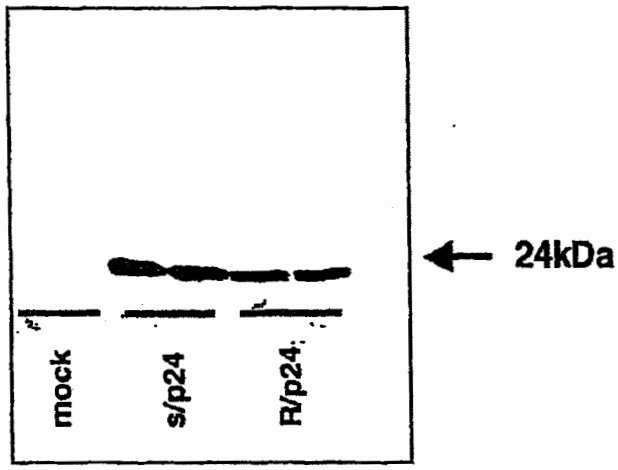
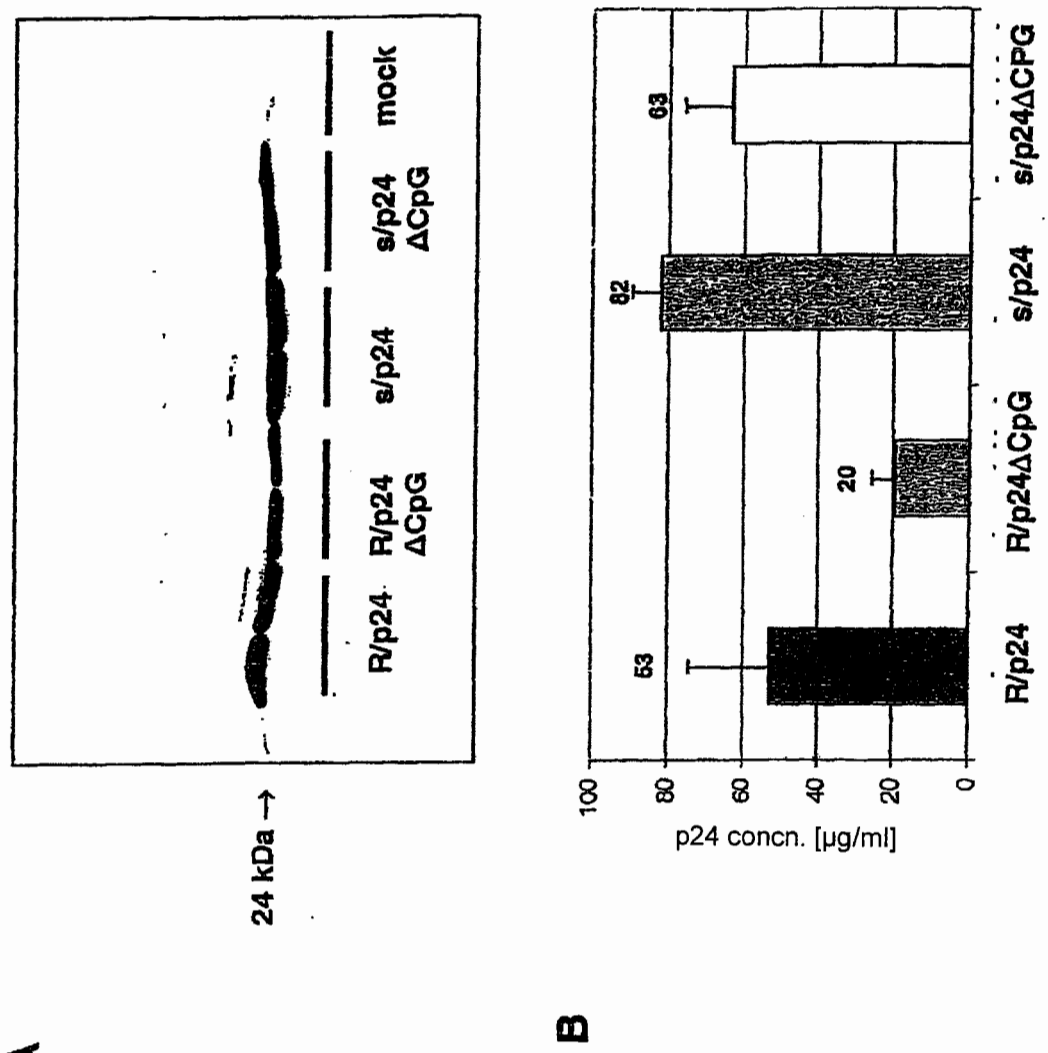


Figure 9


A
24 kDa →
R/p24
R/p24 ΔCpG
s/p24
s/p24 ΔCpG
mock
B
p24 concn. [µg/ml]
100
80
60
40
20
0
63
82
20
63
R/p24
R/p24ΔCpG
s/p24
s/p24ΔCPG