Figure 1 A

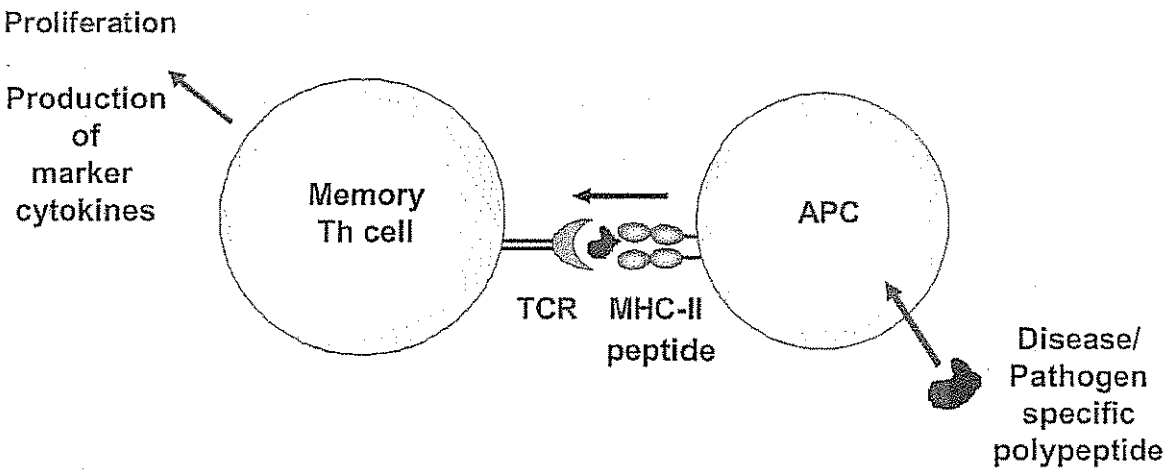


Figure 1 B

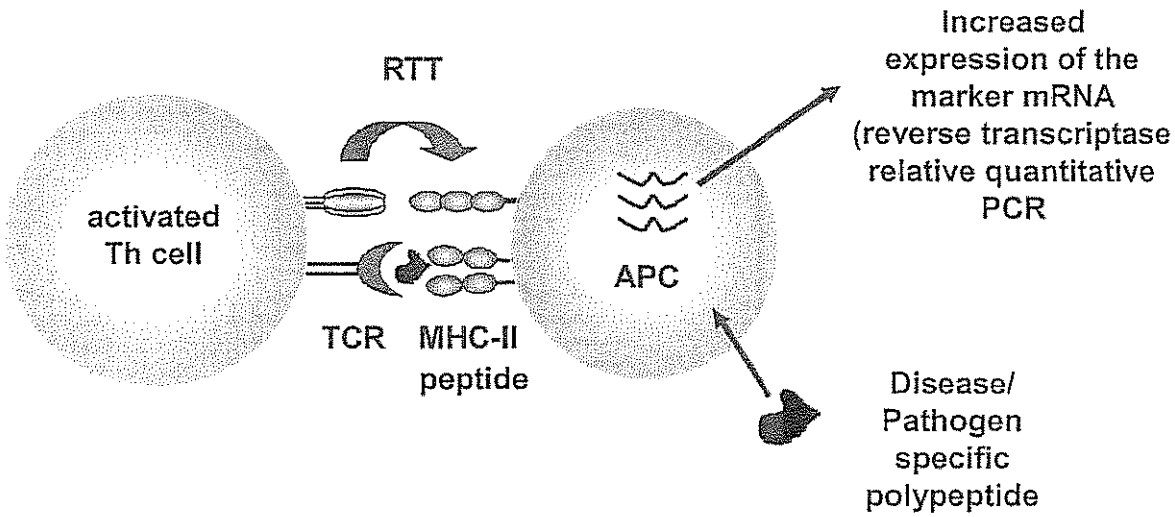
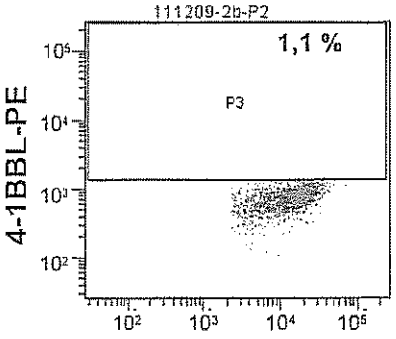
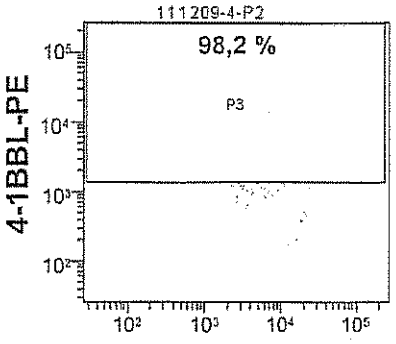


Figure 2

Isotype IgG1

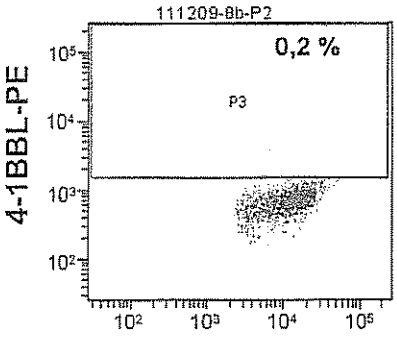


4-1BBL intracellular

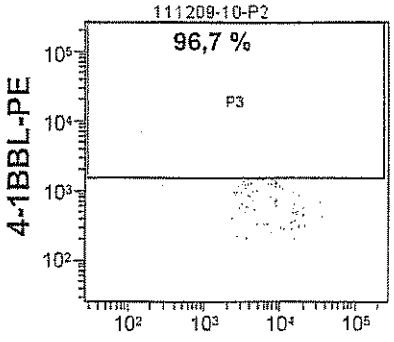


unstimulated

Isotype IgG1



4-1BBL intracellular



specifically stimulated

Figure 3

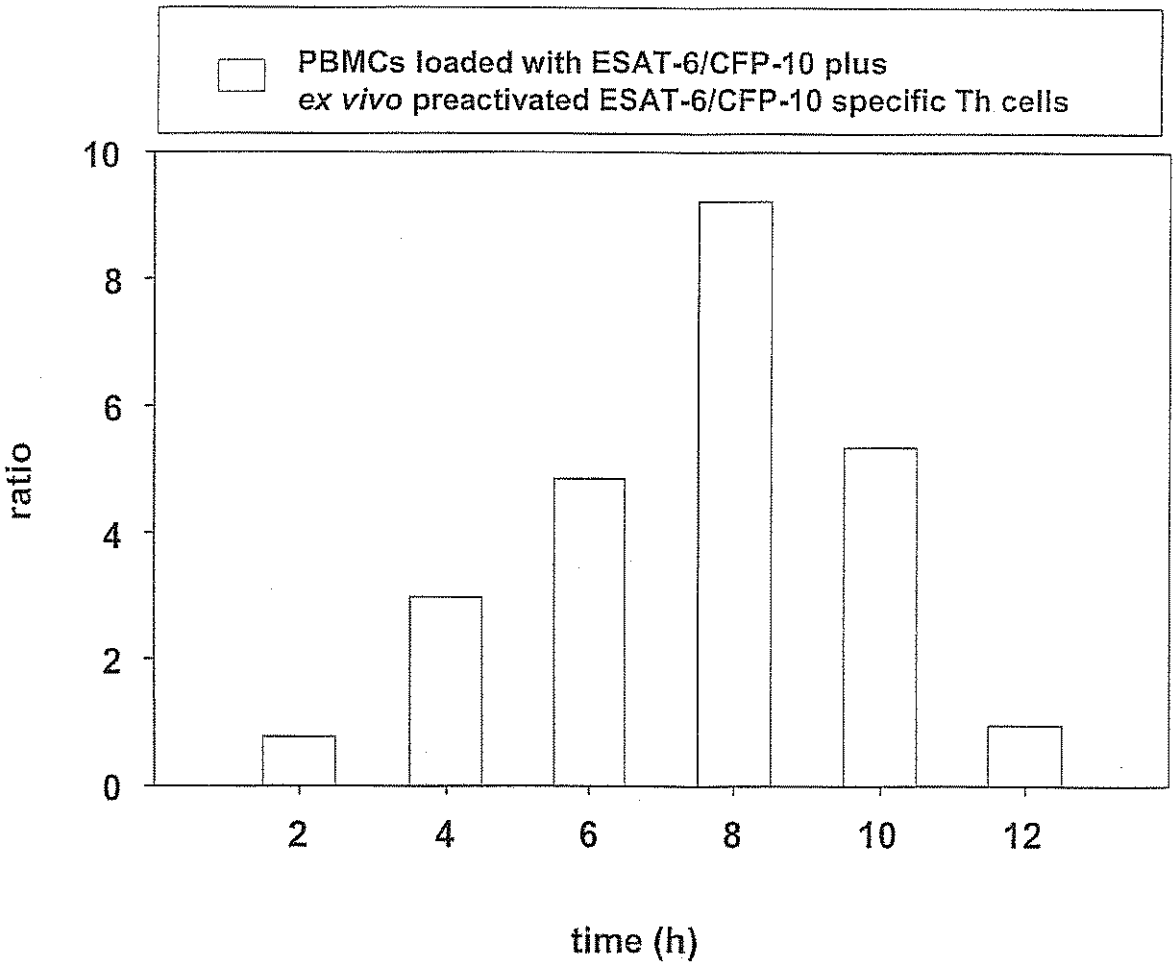

PBMCs loaded with ESAT-6/CFP-10 plus
ex vivo preactivated ESAT-6/CFP-10 specific Th cells
ratio
0
2
4
6
8
10
2
4
6
8
10
12
time (h)

Figure 4

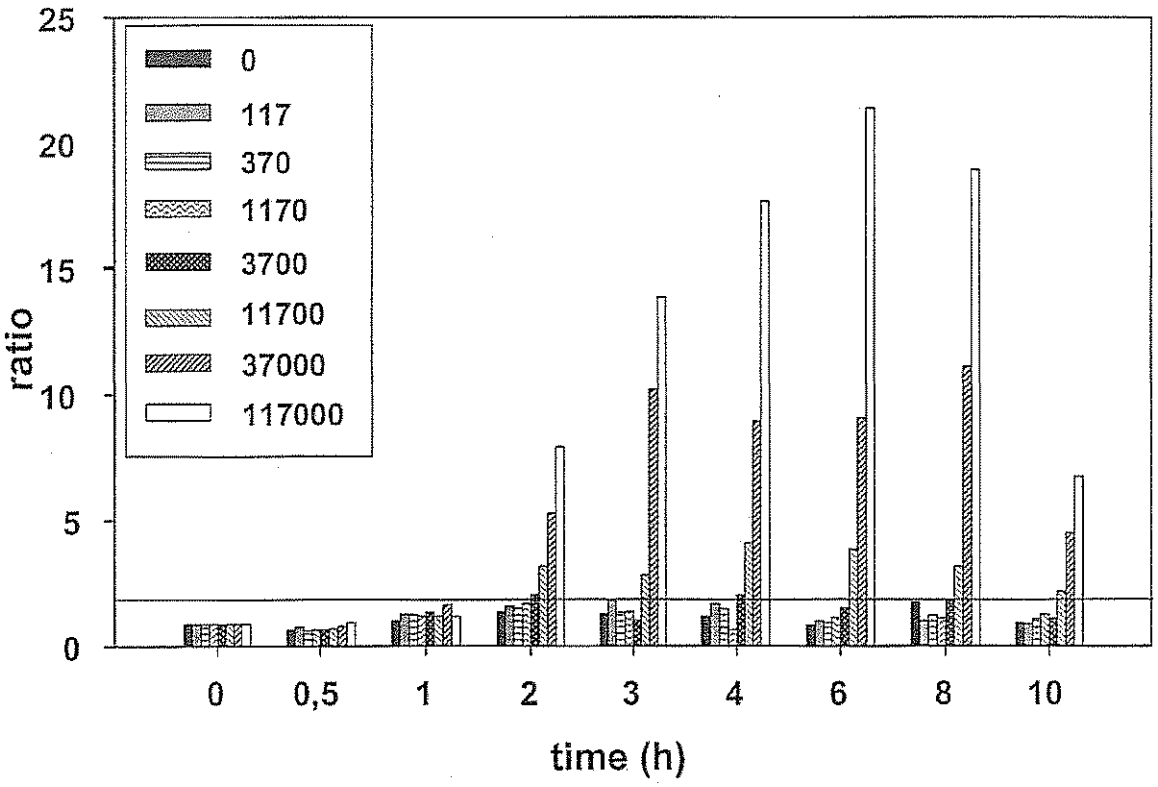

25
20
15
10
5
0
ratio
0
117
370
1170
3700
11700
37000
117000
0
0,5
1
2
3
4
6
8
10
time (h)

Figure 5 A

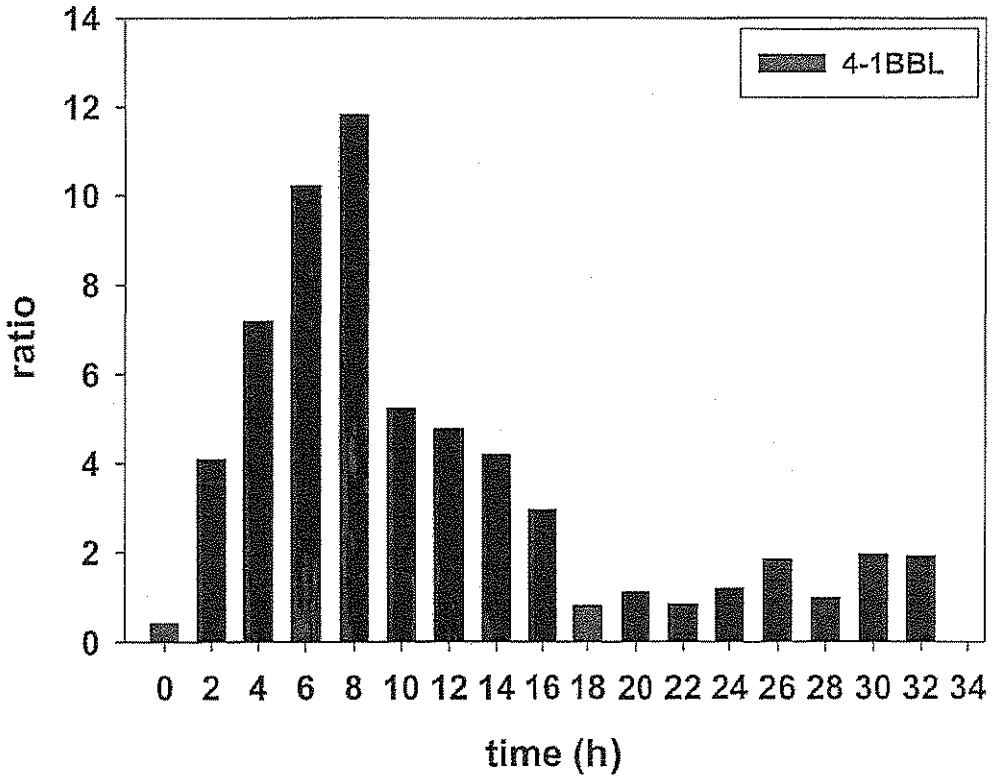


Figure 5 B

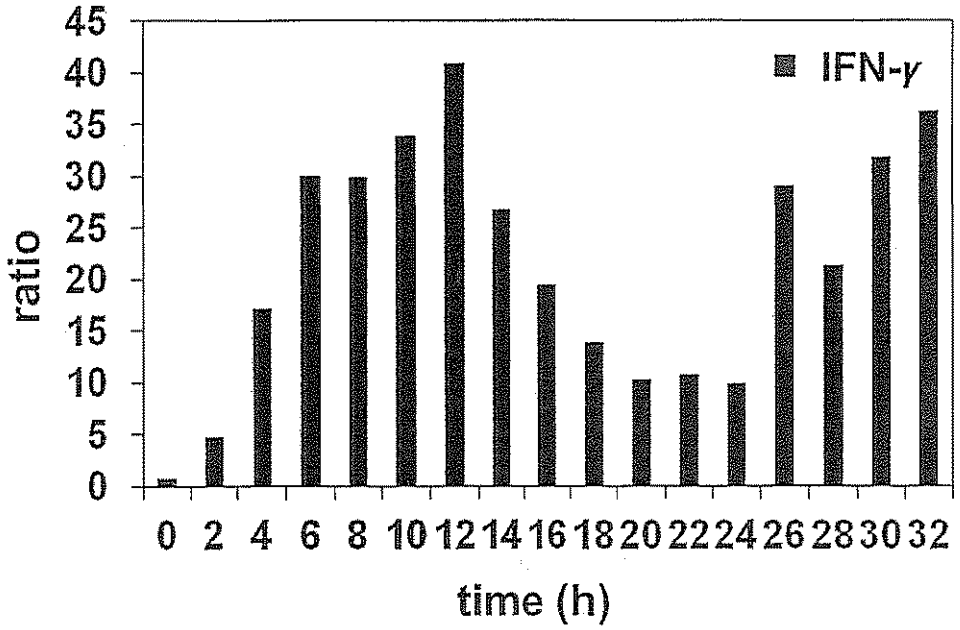


Figure 6

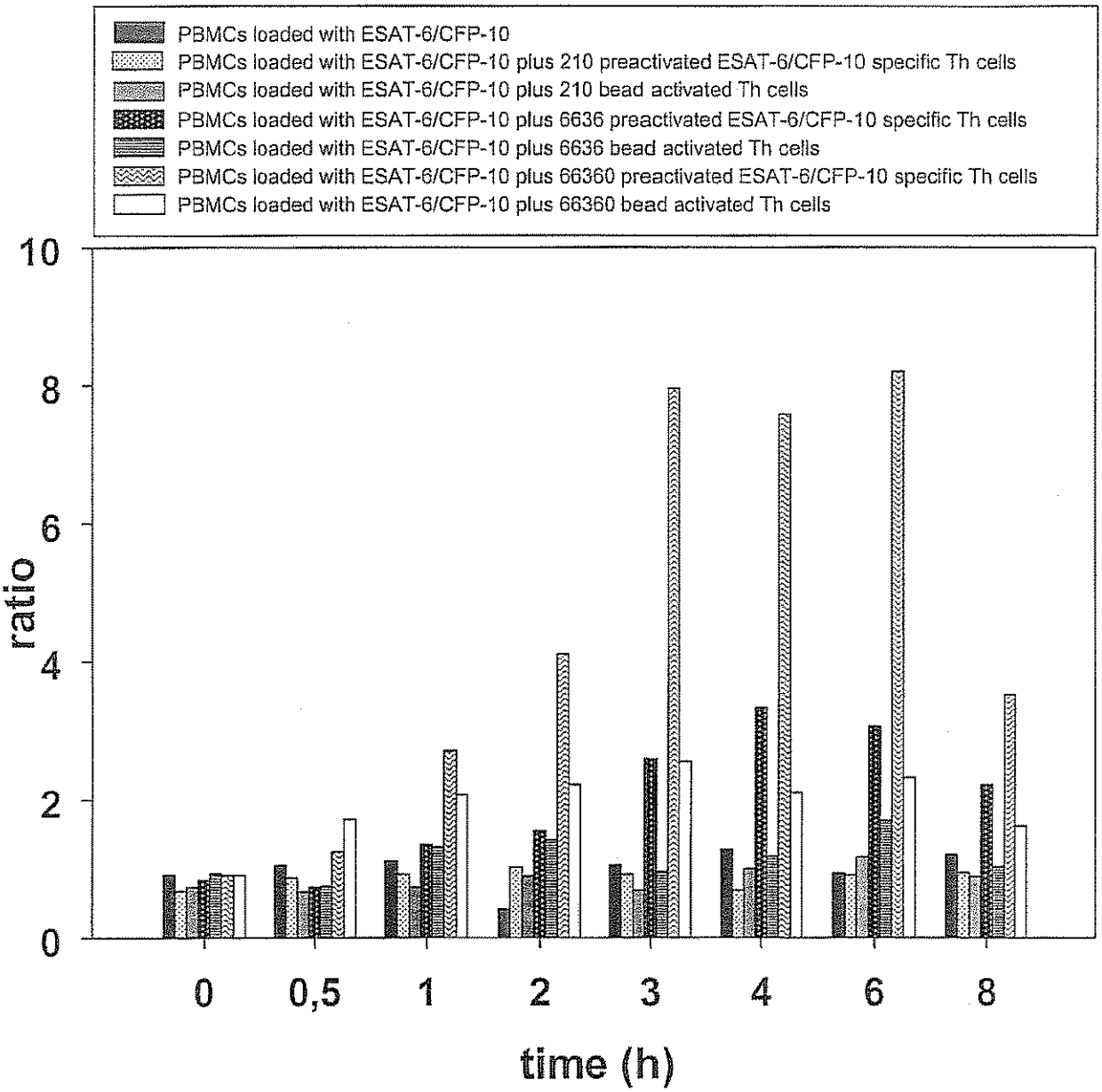

PBMCs loaded with ESAT-6/CFP-10
PBMCs loaded with ESAT-6/CFP-10 plus 210 preactivated ESAT-6/CFP-10 specific Th cells
PBMCs loaded with ESAT-6/CFP-10 plus 210 bead activated Th cells
PBMCs loaded with ESAT-6/CFP-10 plus 6636 preactivated ESAT-6/CFP-10 specific Th cells
PBMCs loaded with ESAT-6/CFP-10 plus 6636 bead activated Th cells
PBMCs loaded with ESAT-6/CFP-10 plus 66360 preactivated ESAT-6/CFP-10 specific Th cells
PBMCs loaded with ESAT-6/CFP-10 plus 66360 bead activated Th cells
10
8
6
4
2
0
ratio
0
0,5
1
2
3
4
6
8
time (h)

Figure 7

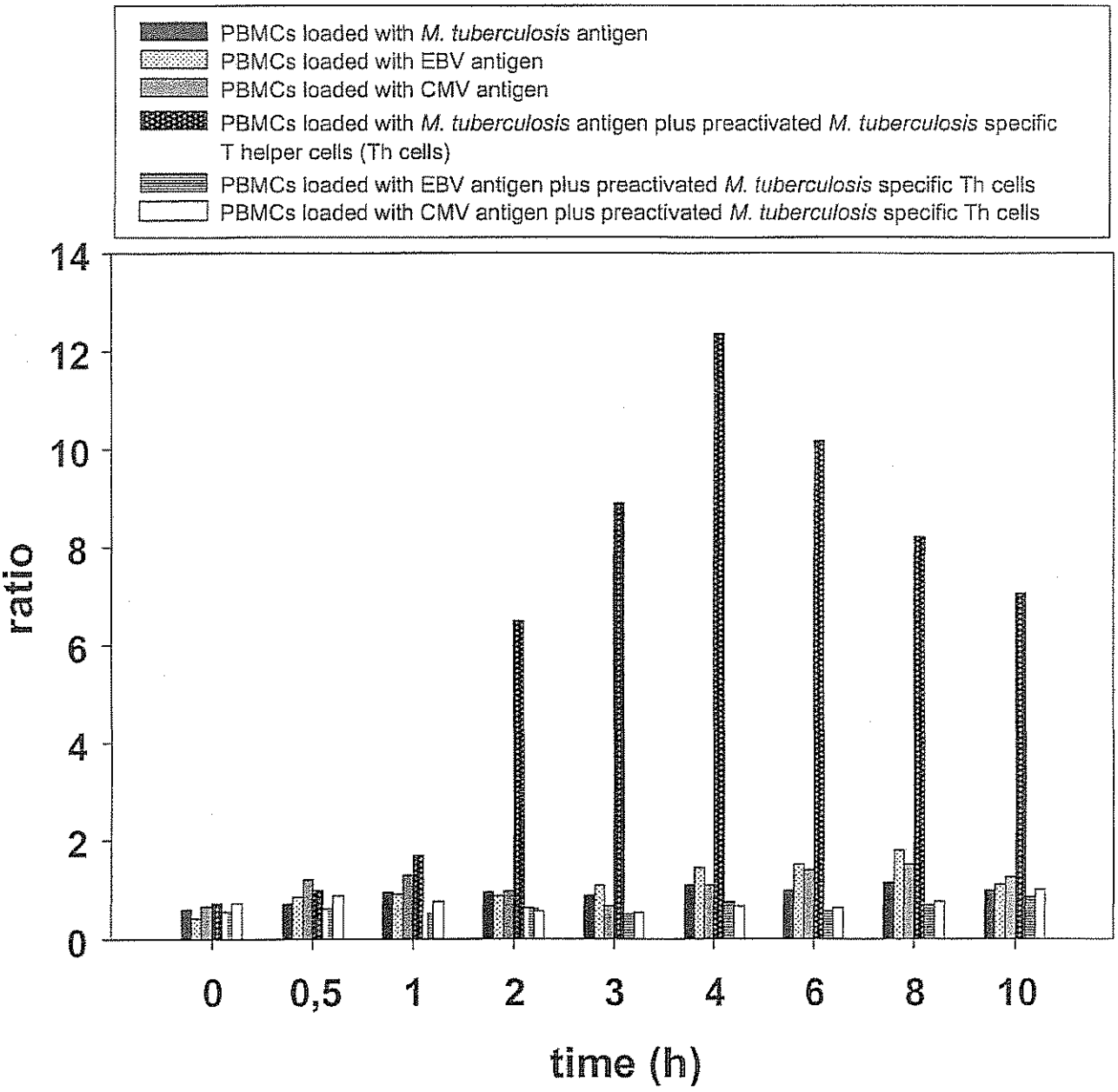

PBMCs loaded with M. tuberculosis antigen
PBMCs loaded with EBV antigen
PBMCs loaded with CMV antigen
PBMCs loaded with M. tuberculosis antigen plus preactivated M. tuberculosis specific T helper cells (Th cells)
PBMCs loaded with EBV antigen plus preactivated M. tuberculosis specific Th cells
PBMCs loaded with CMV antigen plus preactivated M. tuberculosis specific Th cells
ratio
0
2
4
6
8
10
12
14
0
0,5
1
2
3
4
6
8
10
time (h)

Figure 8 A

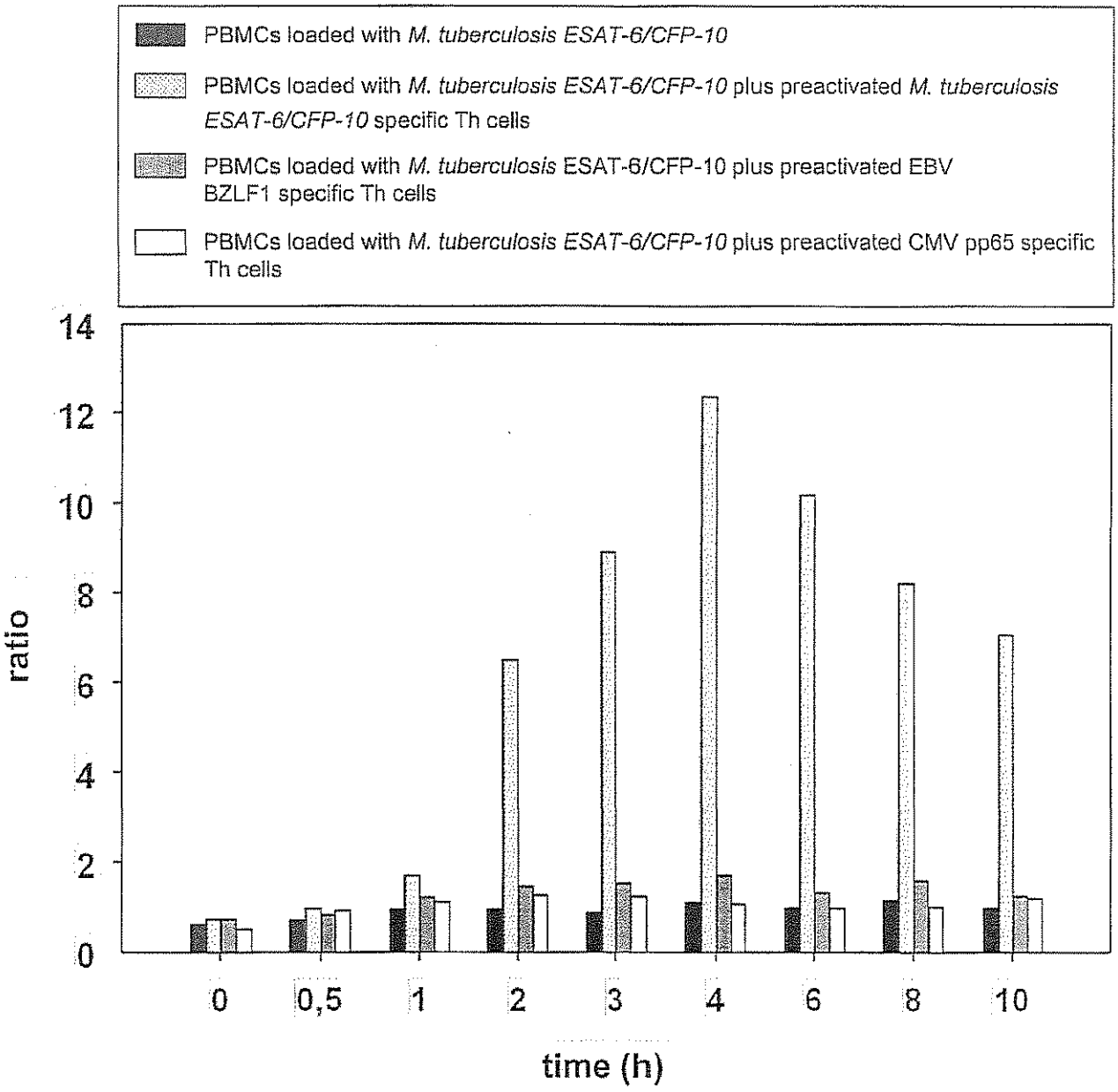

PBMCs loaded with *M. tuberculosis ESAT-6/CFP-10*
PBMCs loaded with *M. tuberculosis ESAT-6/CFP-10* plus preactivated *M. tuberculosis ESAT-6/CFP-10* specific Th cells
PBMCs loaded with *M. tuberculosis* ESAT-6/CFP-10 plus preactivated EBV BZLF1 specific Th cells
PBMCs loaded with *M. tuberculosis ESAT-6/CFP-10* plus preactivated CMV pp65 specific Th cells
ratio
0
2
4
6
8
10
12
14
0
0,5
1
2
3
4
6
8
10
time (h)

Figure 8 B

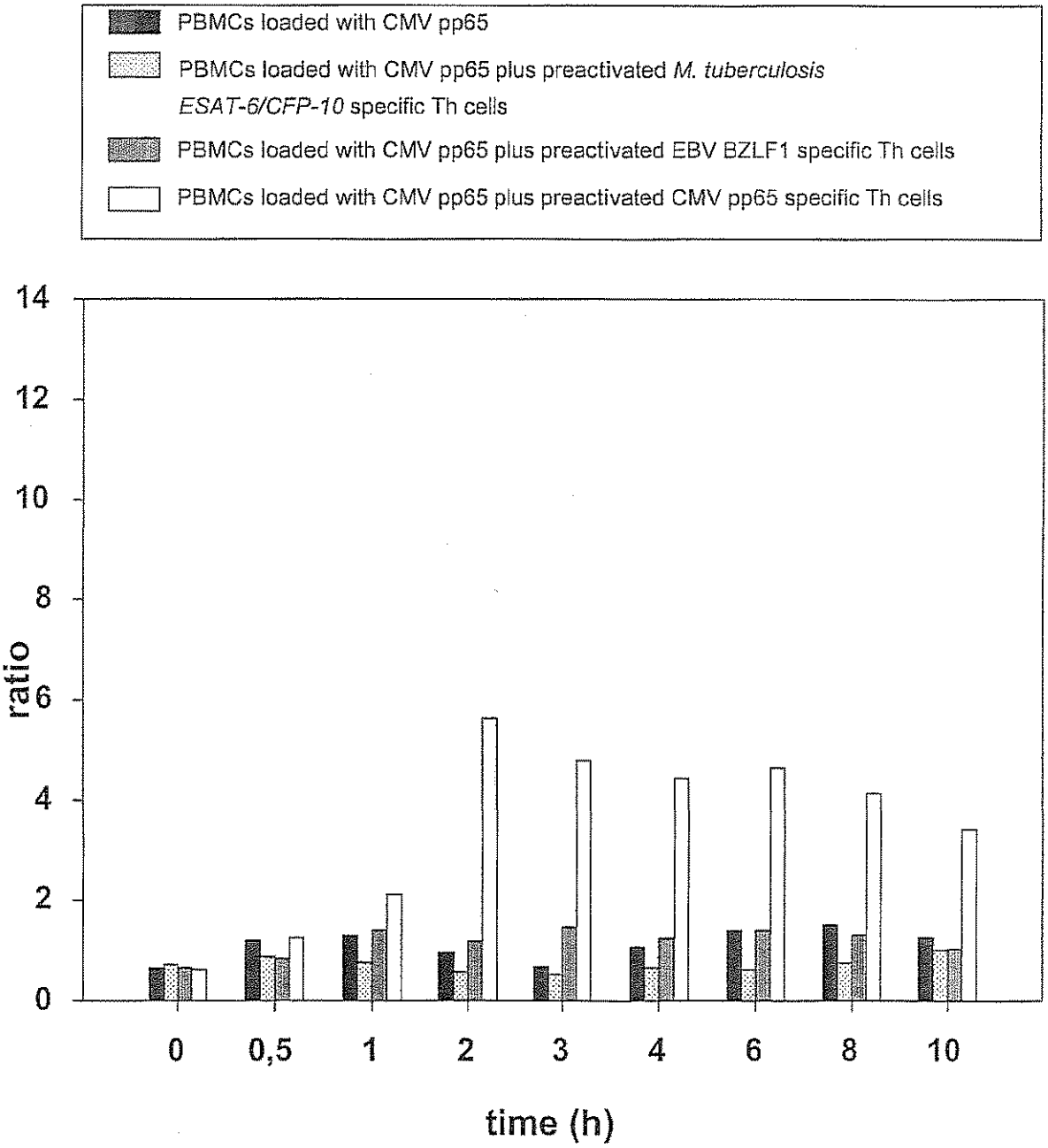

PBMCs loaded with CMV pp65
PBMCs loaded with CMV pp65 plus preactivated M. tuberculosis ESAT-6/CFP-10 specific Th cells
PBMCs loaded with CMV pp65 plus preactivated EBV BZLF1 specific Th cells
PBMCs loaded with CMV pp65 plus preactivated CMV pp65 specific Th cells
14
12
10
8
6
4
2
0
ratio
0
0,5
1
2
3
4
6
8
10
time (h)

Figure 8 C

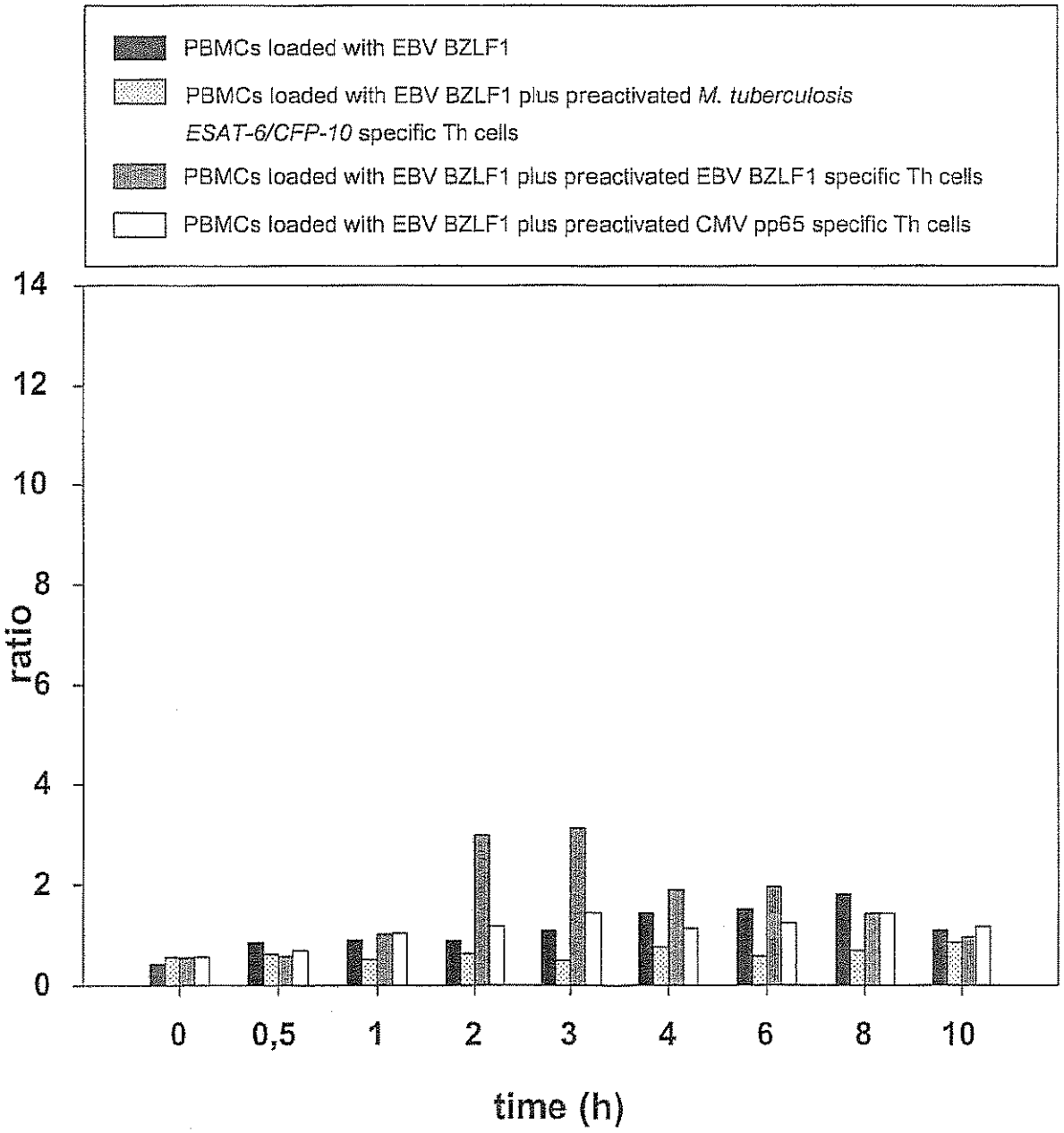

PBMCs loaded with EBV BZLF1
PBMCs loaded with EBV BZLF1 plus preactivated M. tuberculosis ESAT-6/CFP-10 specific Th cells
PBMCs loaded with EBV BZLF1 plus preactivated EBV BZLF1 specific Th cells
PBMCs loaded with EBV BZLF1 plus preactivated CMV pp65 specific Th cells
14
12
10
8
6
4
2
0
ratio
0
0,5
1
2
3
4
6
8
10
time (h)

Figure 9

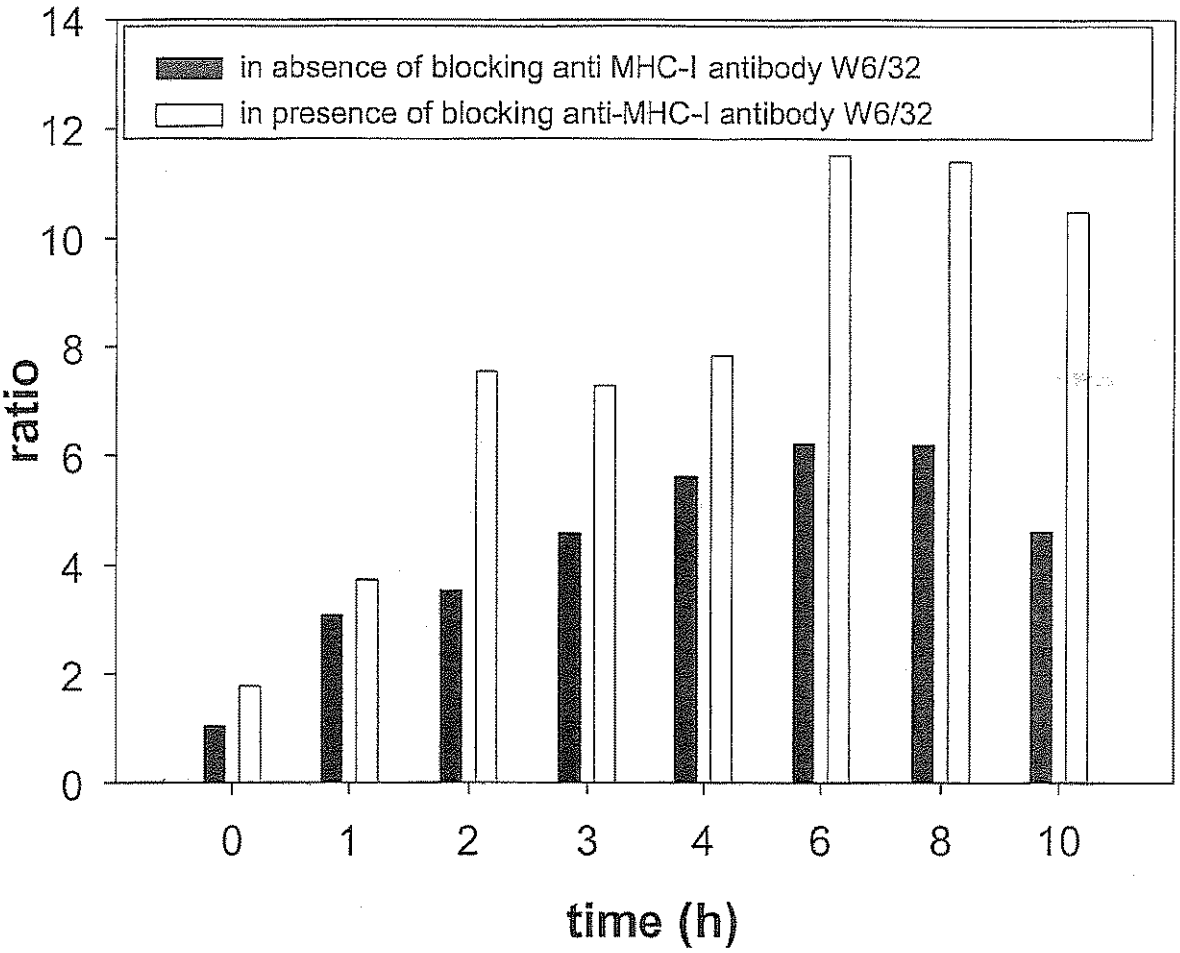

in absence of blocking anti MHC-I antibody W6/32
in presence of blocking anti-MHC-I antibody W6/32
ratio
0
2
4
6
8
10
12
14
0
1
2
3
4
6
8
10
time (h)

Fig. 10A

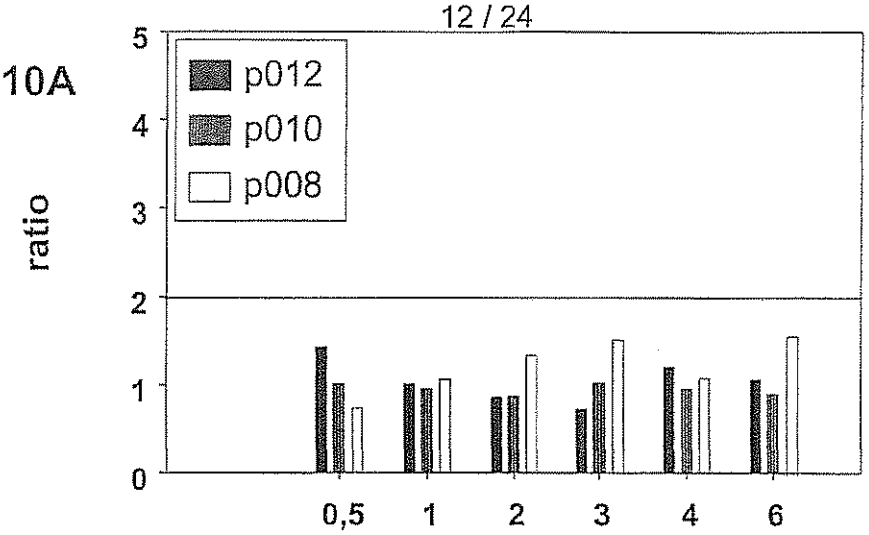


Fig. 10B

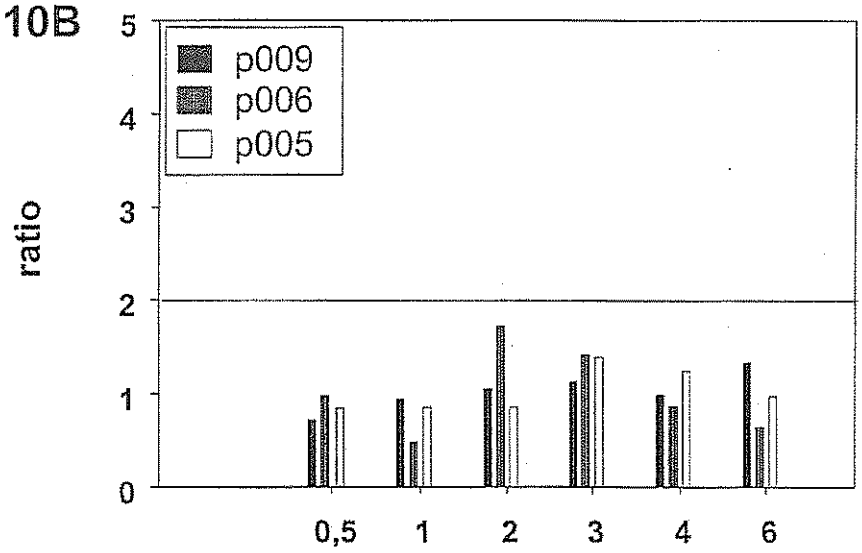


Fig. 10C

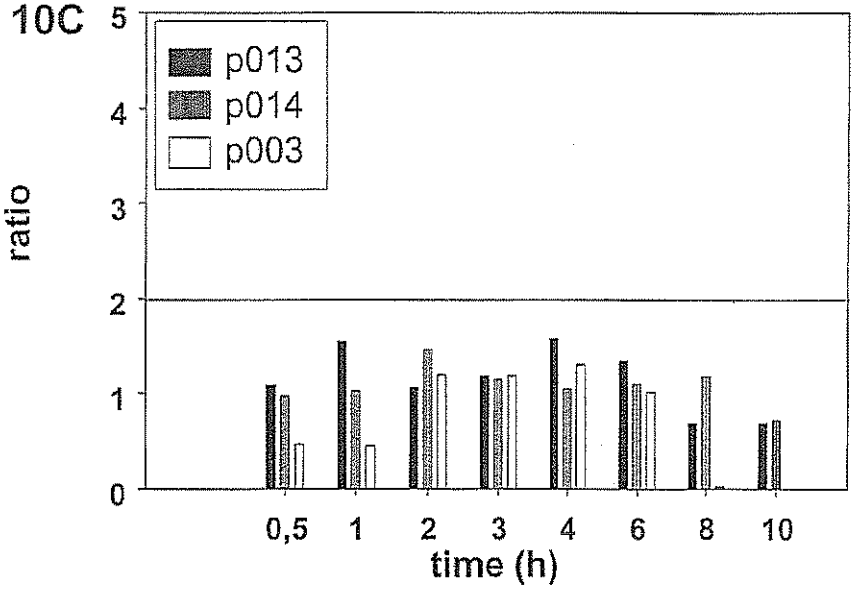


Fig. 10D

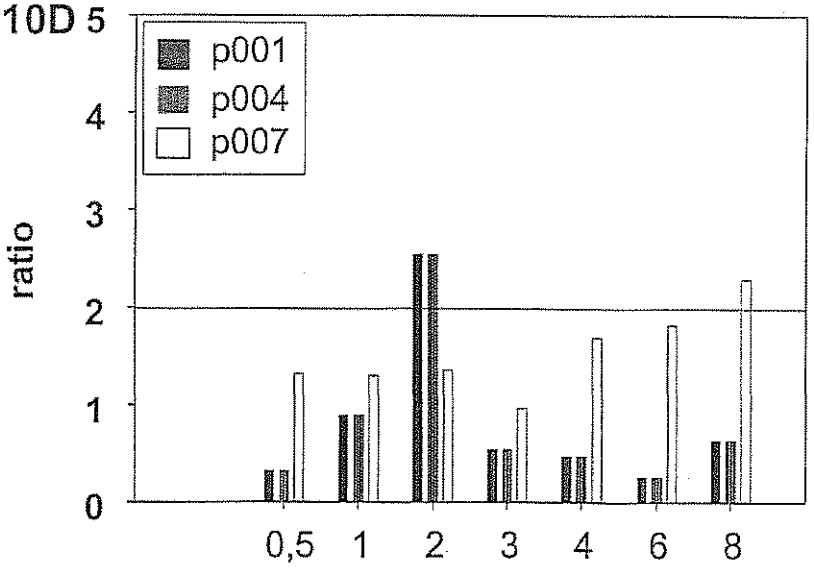


Fig. 10E

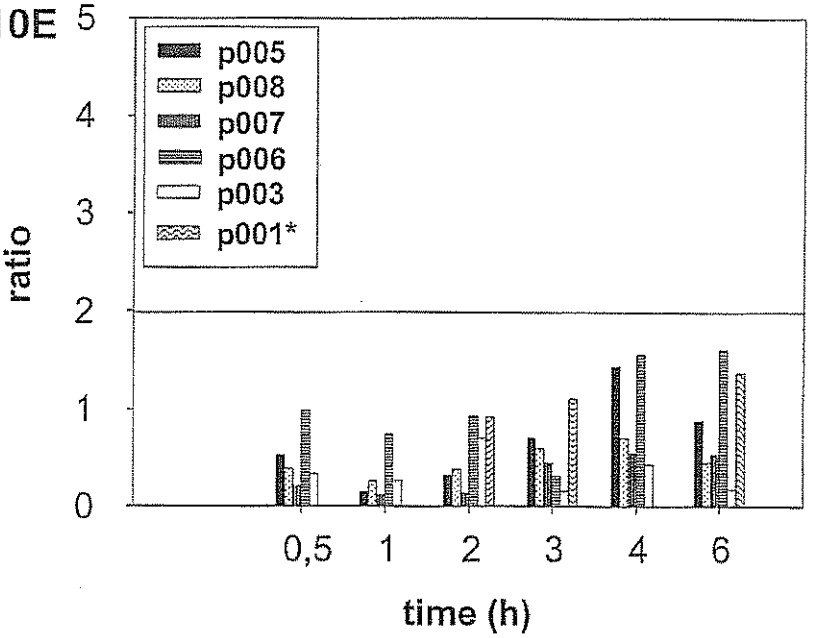
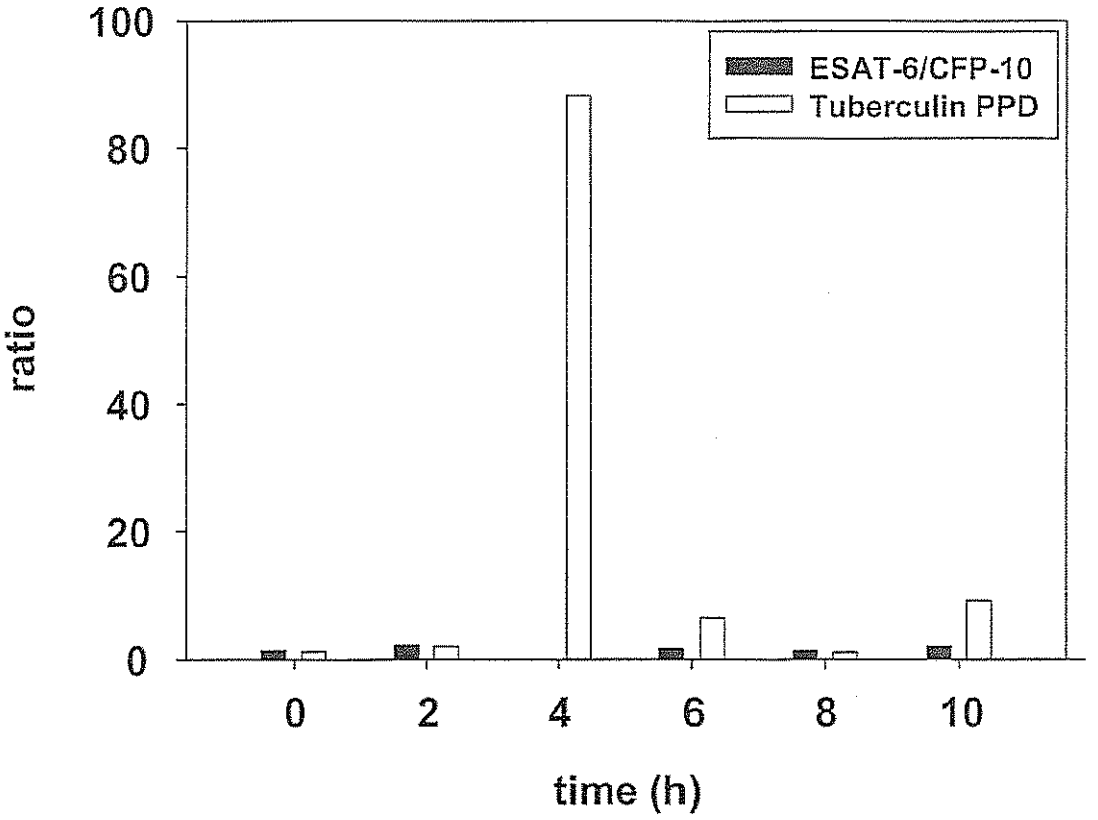


Fig. 11A


ESAT-6/CFP-10
Tuberculin PPD
ratio
100
80
60
40
20
0
0
2
4
6
8
10
time (h)

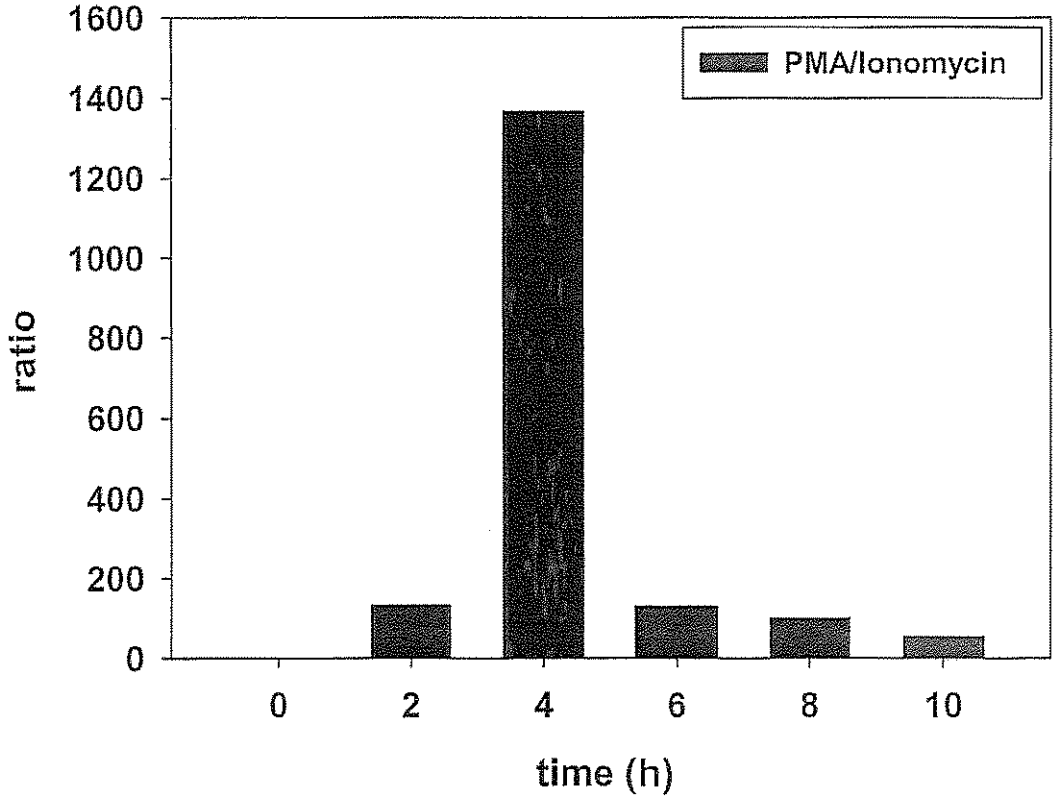
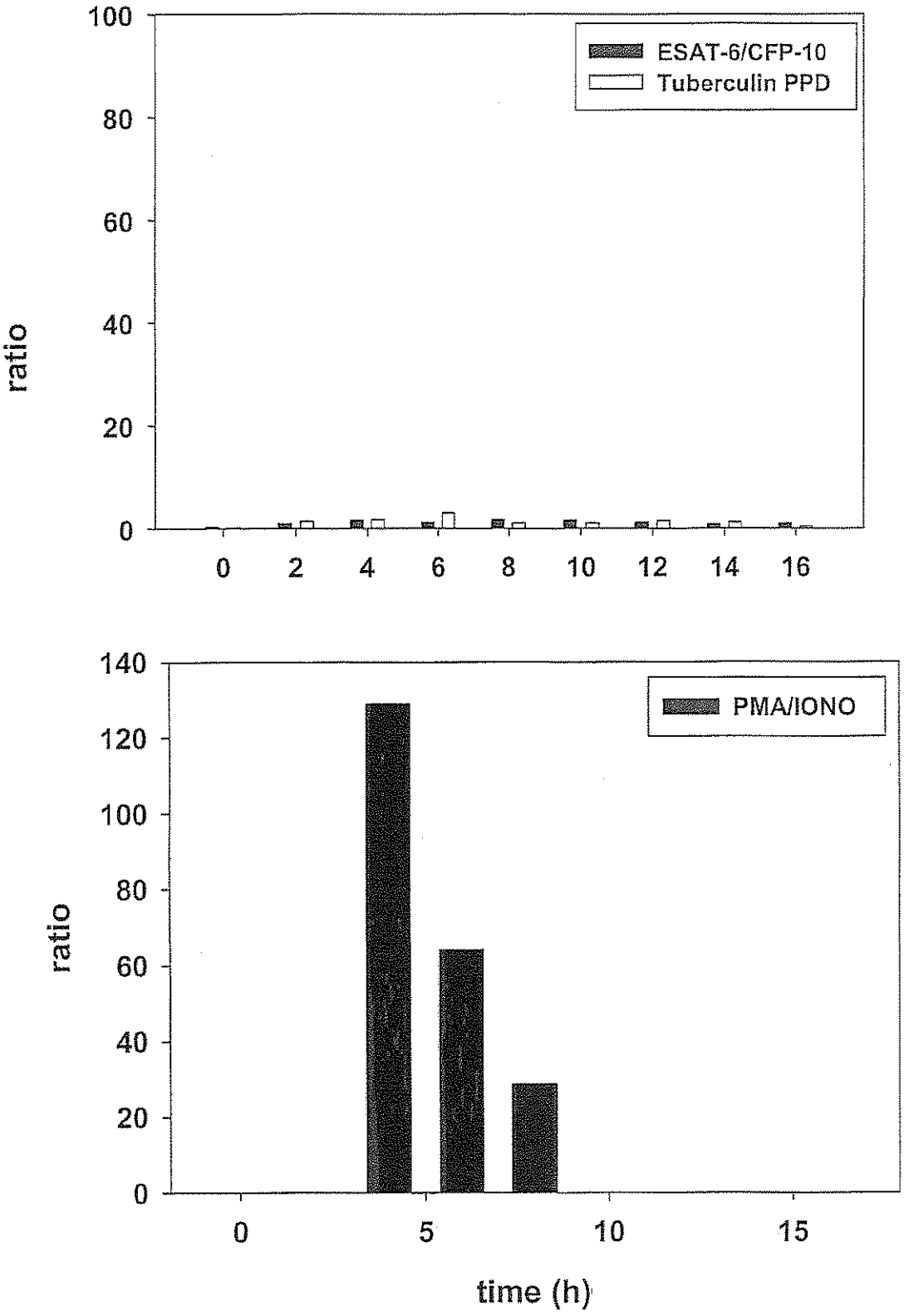
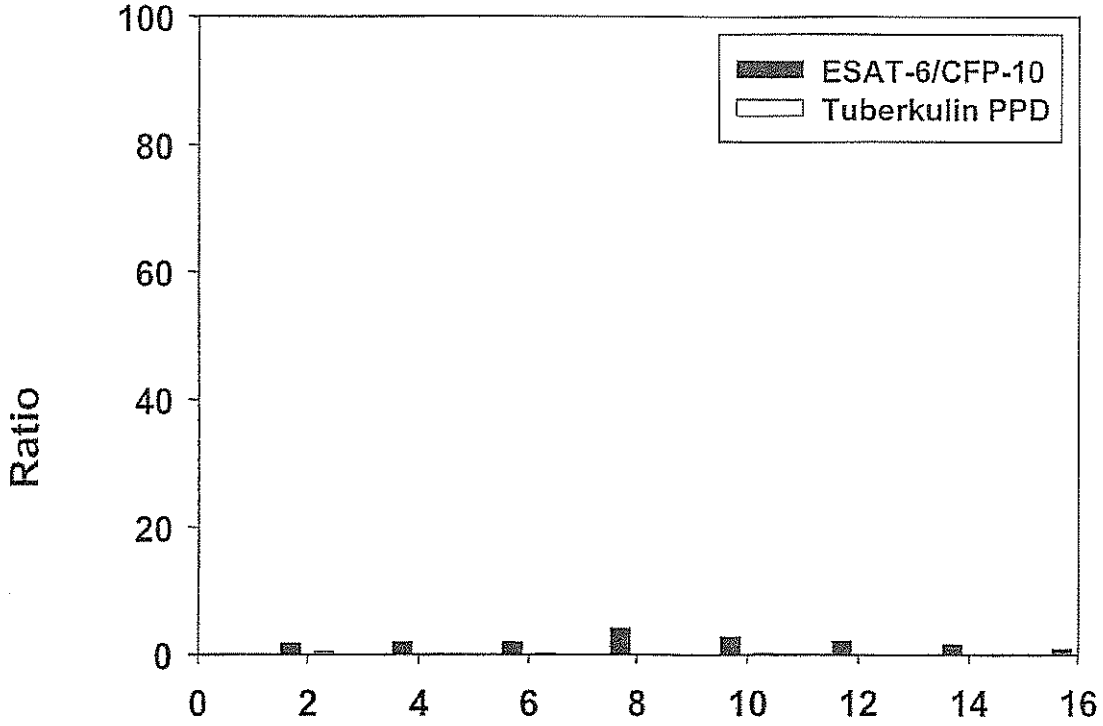

PMA/Ionomycin
ratio
1600
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
time (h)

Figure 11B


ESAT-6/CFP-10
Tuberculin PPD
ratio
100
80
60
40
20
0
0
2
4
6
8
10
12
14
16
PMA/IONO
ratio
140
120
100
80
60
40
20
0
0
5
10
15
time (h)

Figur 11 C


100
80
60
40
20
0
Ratio
0
2
4
6
8
10
12
14
16
ESAT-6/CFP-10
Tuberkulin PPD

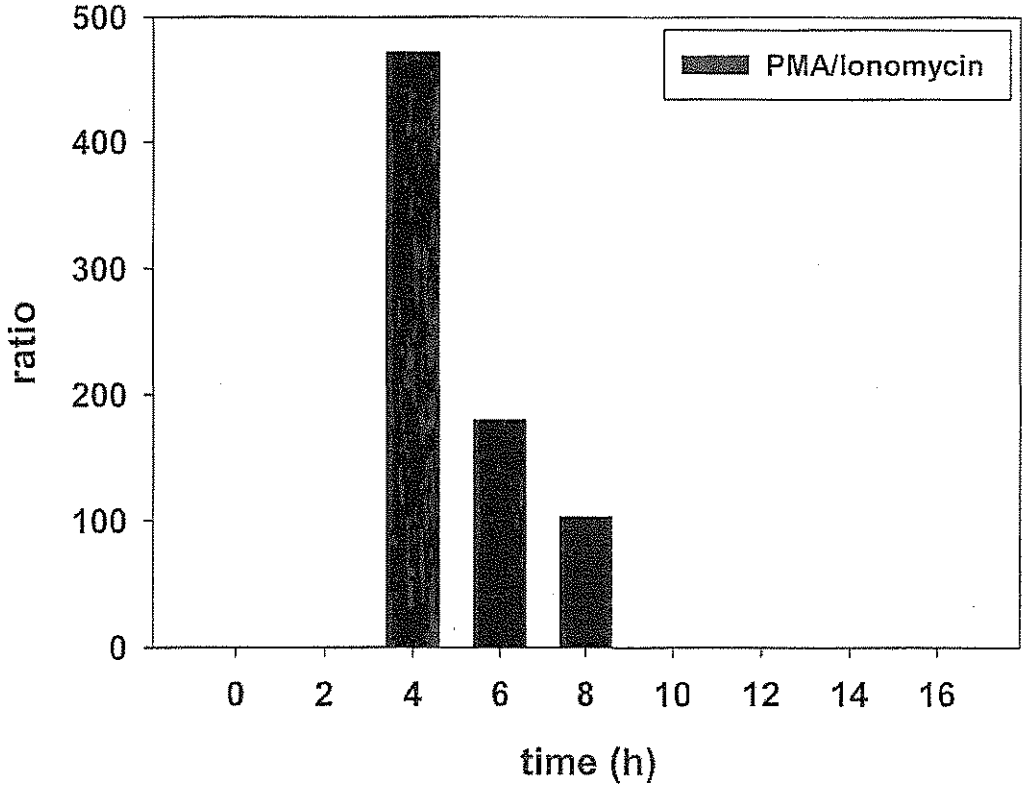

500
400
300
200
100
0
ratio
0
2
4
6
8
10
12
14
16
time (h)
PMA/Ionomycin

Fig. 12A

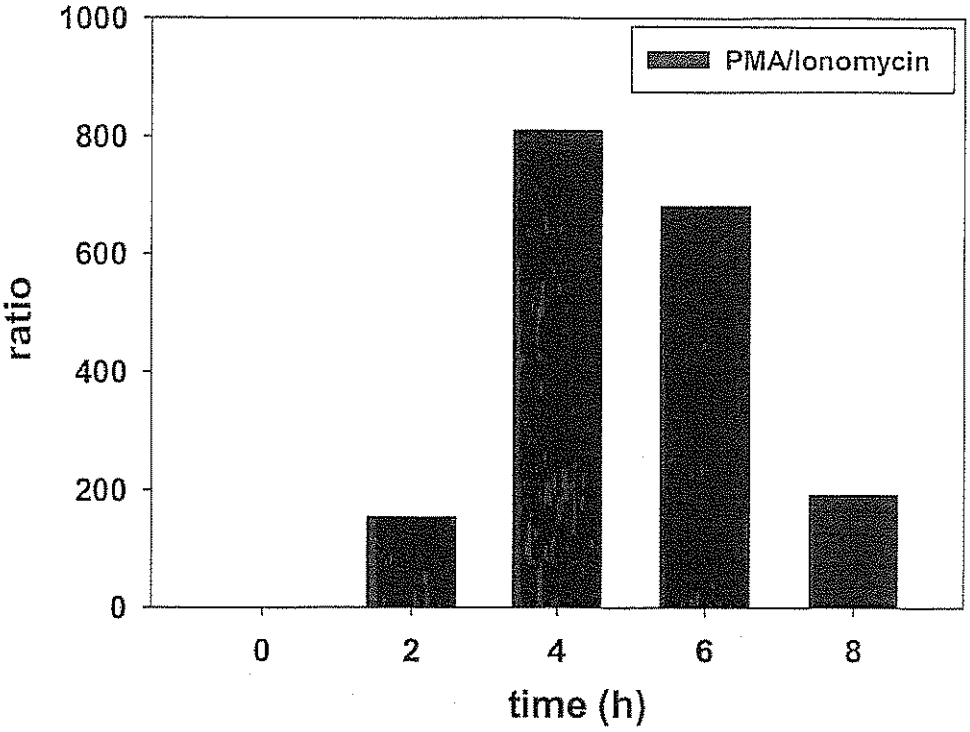


Fig. 12B

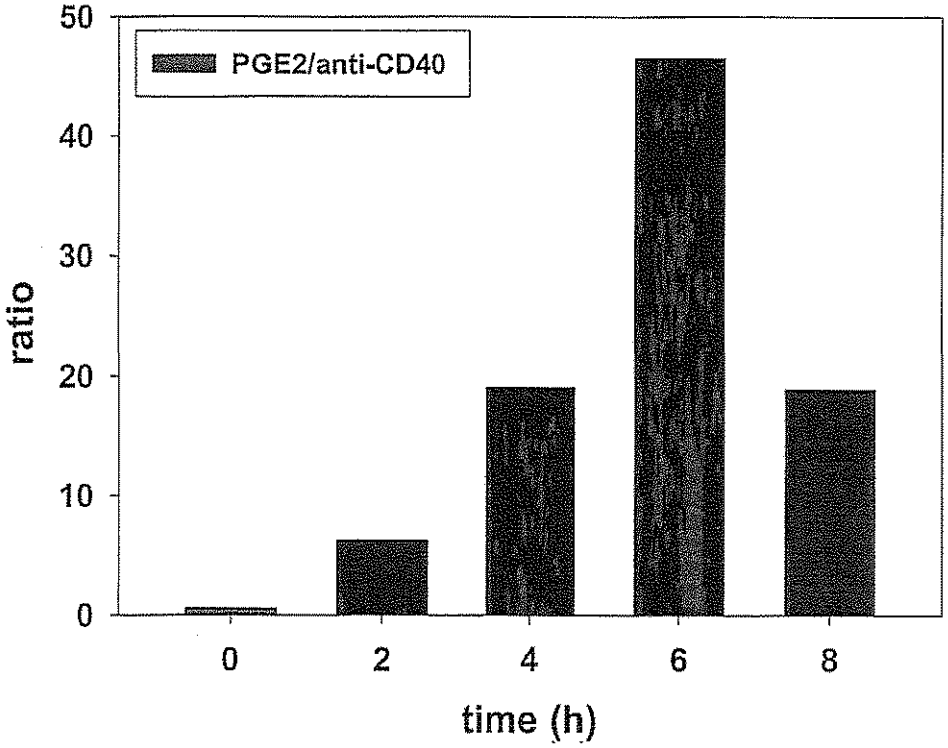


Figure 13

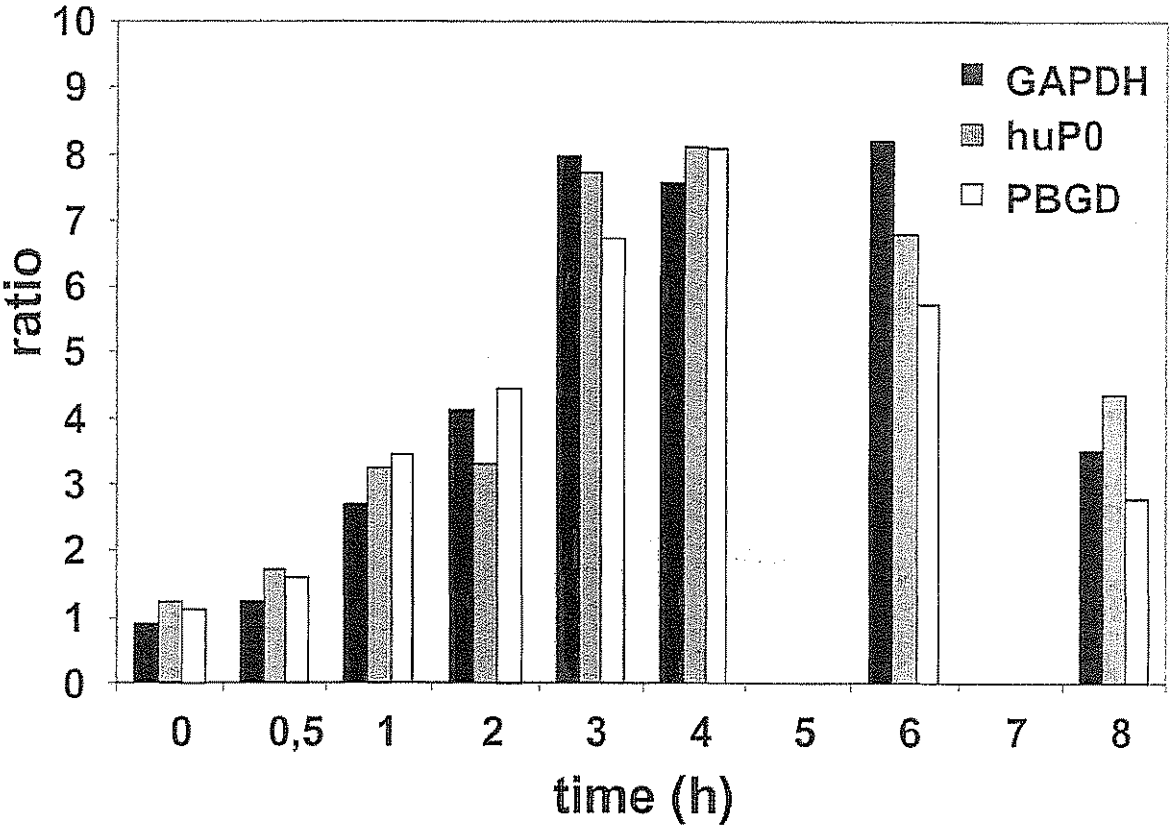


Figure 14

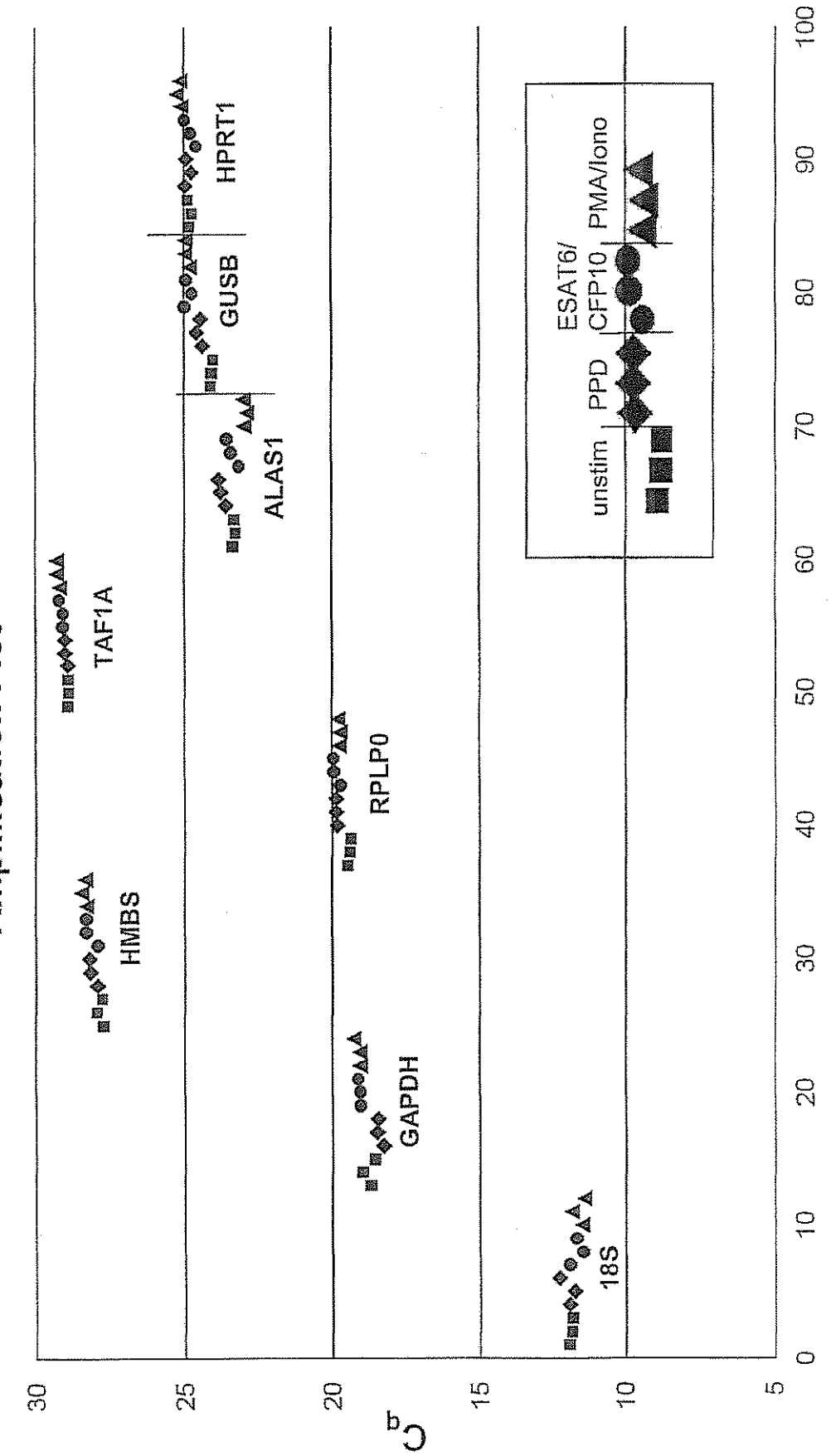

Amplification Plot
Cq
plate position
30
25
20
15
10
5
0
10
20
30
40
50
60
70
80
90
100
TAF1A
HMBS
HPRT1
GUSB
ALAS1
RPLP0
GAPDH
18S
unstim
PPD
ESAT6/
CFP10
PMA/Iono

Figure 15

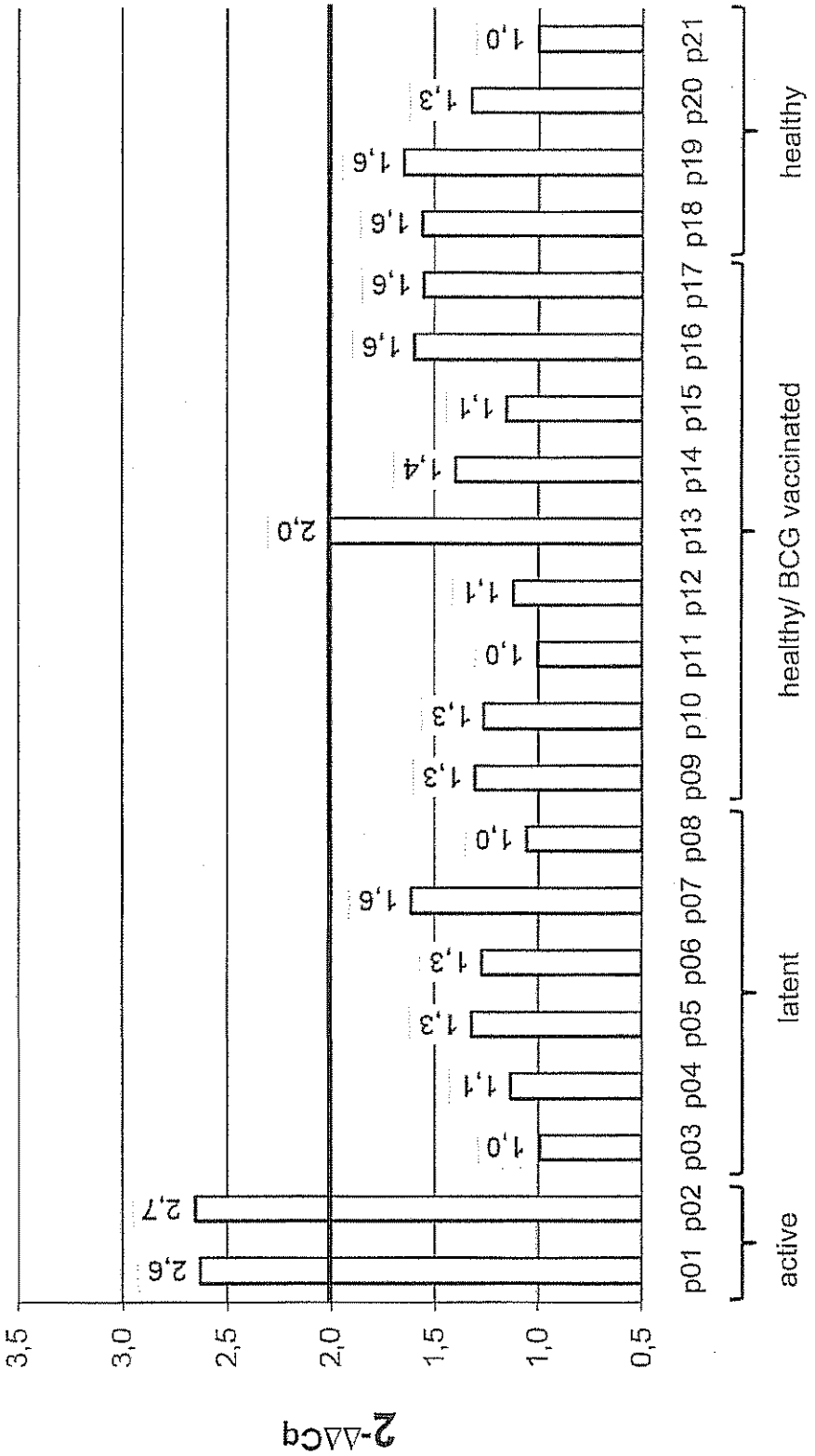

2-ΔΔCq
3,5
3,0
2,5
2,0
1,5
1,0
0,5
2,6
2,7
1,0
1,3
1,1
1,3
1,3
1,6
1,0
1,3
1,3
1,0
1,1
2,0
1,4
1,1
1,6
1,6
1,6
1,6
1,3
1,0
p01 p02 p03 p04 p05 p06 p07 p08 p09 p10 p11 p12 p13 p14 p15 p16 p17 p18 p19 p20 p21
active
latent
healthy/ BCG vaccinated
healthy

Figure 16

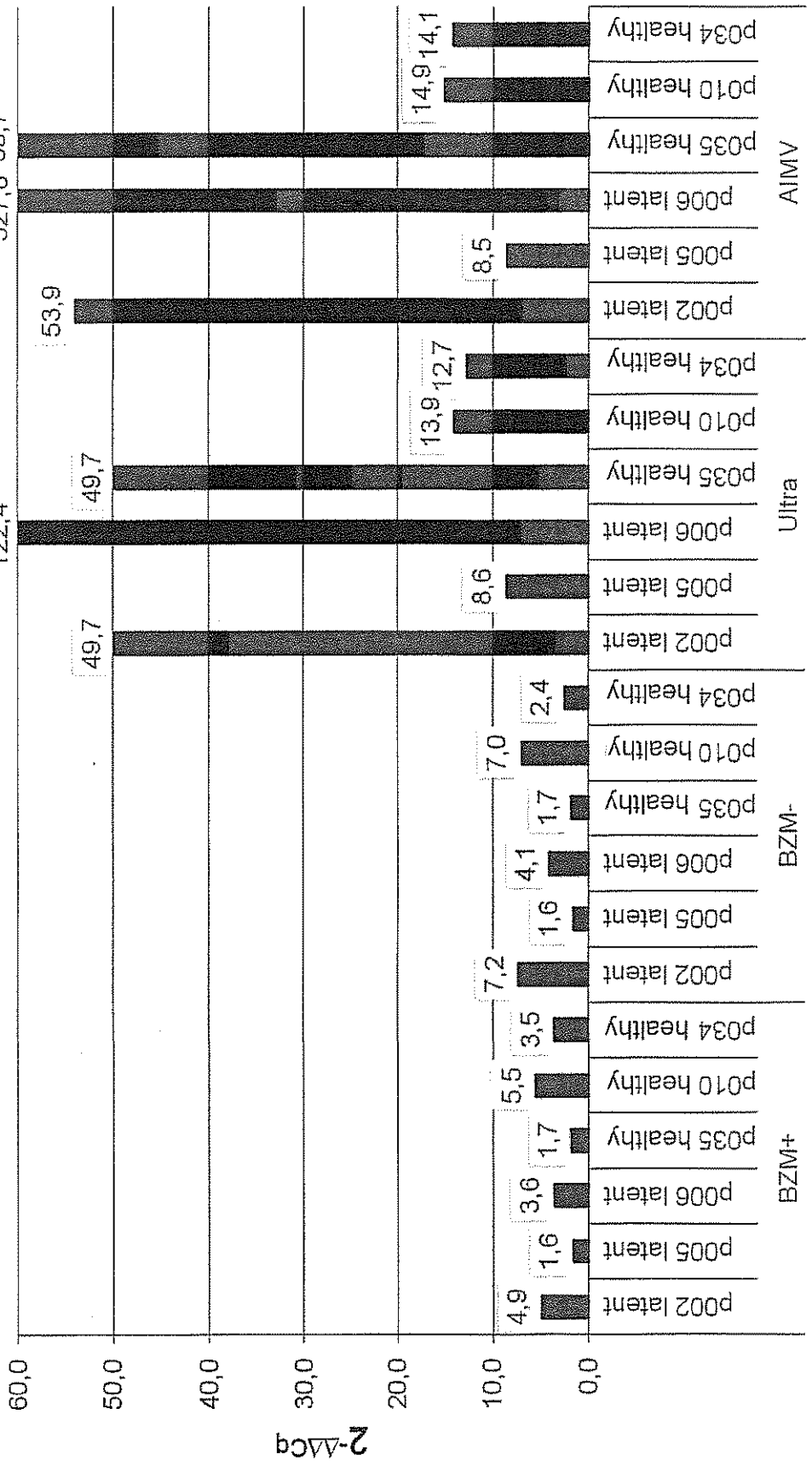

2-ΔΔCq
60,0
50,0
40,0
30,0
20,0
10,0
0,0
BZM+
BZM-
Ultra
AIMV
p002 latent
p005 latent
p006 latent
p035 healthy
p010 healthy
p034 healthy
4,9
1,6
3,6
1,7
5,5
3,5
7,2
1,6
4,1
1,7
7,0
2,4
49,7
8,6
122,4
49,7
13,9
12,7
53,9
8,5
327,8
63,7
14,9
14,1

Figure 17

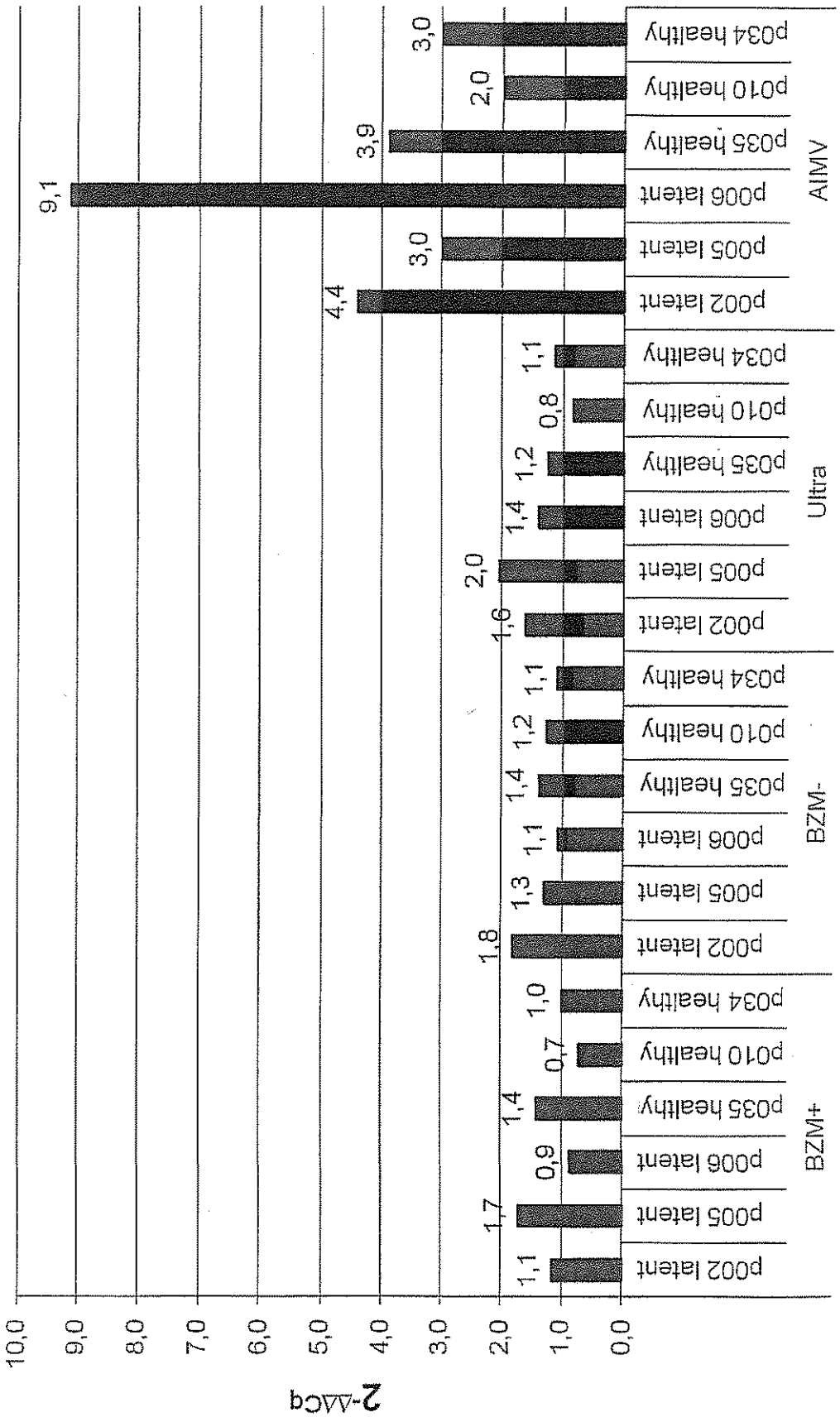
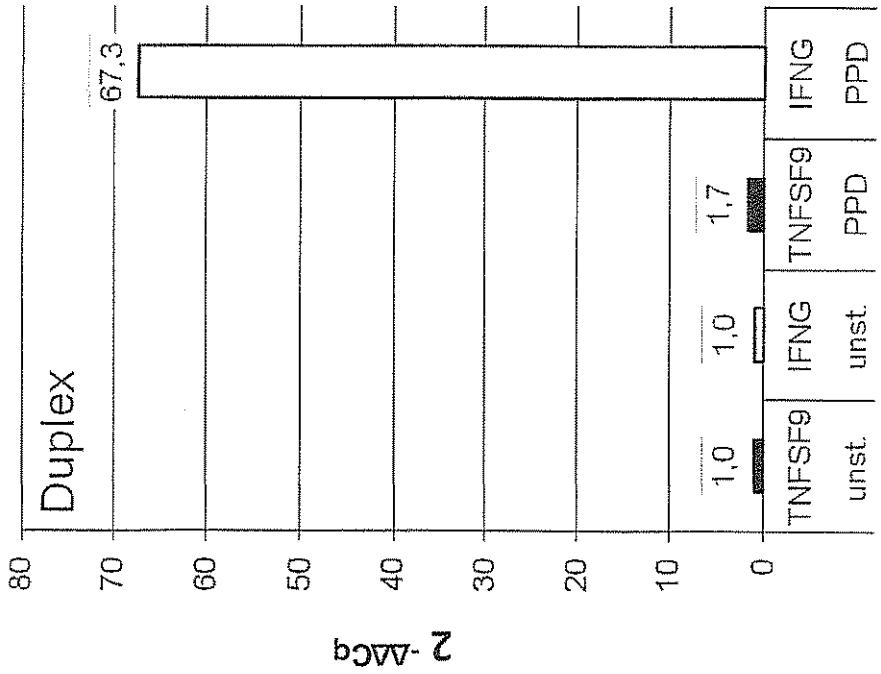

2-ΔΔCq
10,0
9,0
8,0
7,0
6,0
5,0
4,0
3,0
2,0
1,0
0,0
p002 latent
p005 latent
p006 latent
p035 healthy
p010 healthy
p034 healthy
BZM+
1,1
1,7
0,9
1,4
0,7
1,0
p002 latent
p005 latent
p006 latent
p035 healthy
p010 healthy
p034 healthy
BZM-
1,8
1,3
1,1
1,4
1,2
1,1
p002 latent
p005 latent
p006 latent
p035 healthy
p010 healthy
p034 healthy
Ultra
1,6
2,0
1,4
1,2
0,8
1,1
p002 latent
p005 latent
p006 latent
p035 healthy
p010 healthy
p034 healthy
AIMV
4,4
3,0
9,1
3,9
2,0
3,0

Figure 18


Duplex
67,3
1,0
1,0
1,7
TNFSF9 unst.
IFNG unst.
TNFSF9 PPD
IFNG PPD
2 -ΔΔCq
0
10
20
30
40
50
60
70
80

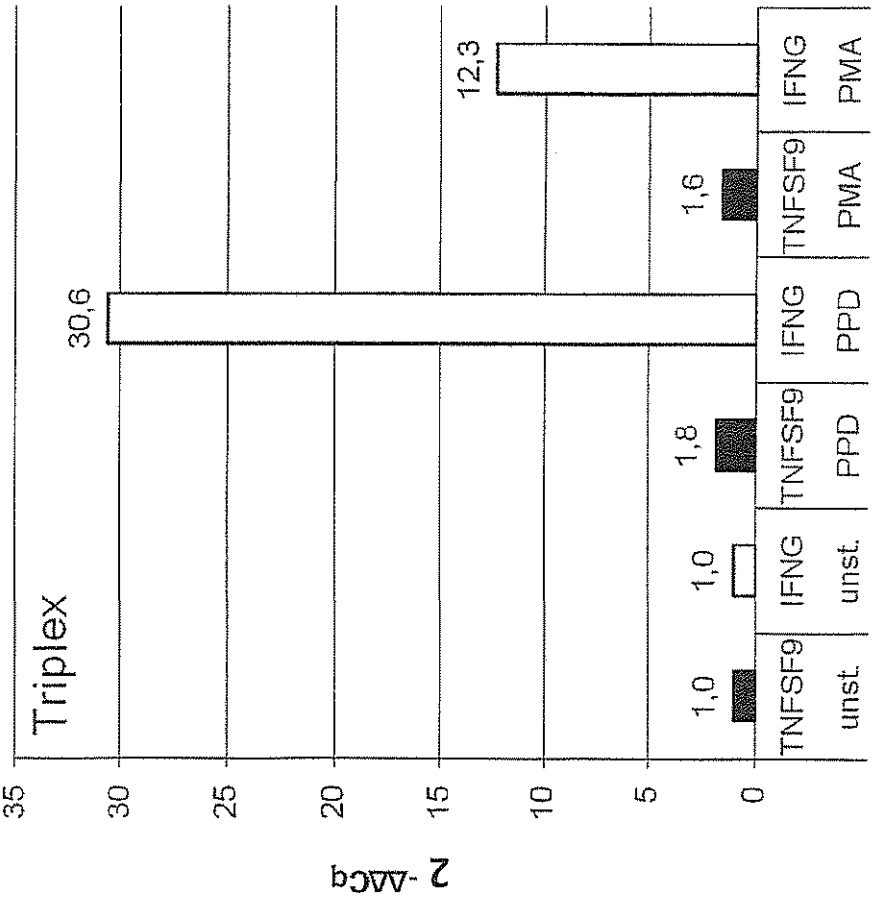
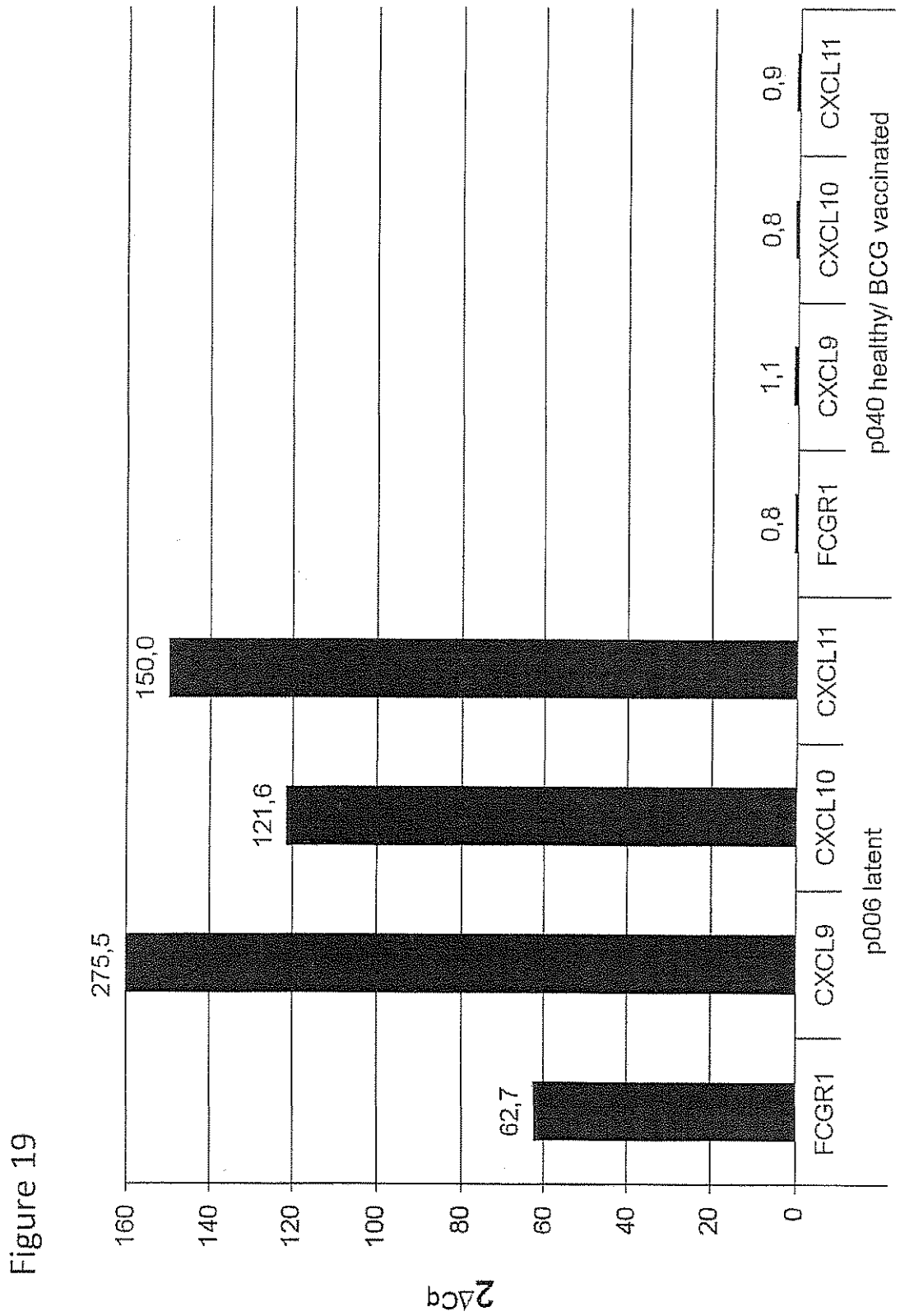

Triplex
30,6
12,3
1,0
1,0
1,8
1,6
TNFSF9 unst.
IFNG unst.
TNFSF9 PPD
IFNG PPD
TNFSF9 PMA
IFNG PMA
2 -ΔΔCq
0
5
10
15
20
25
30
35

Figure 19


2ΔCq
160
140
120
100
80
60
40
20
0
275,5
121,6
150,0
62,7
0,8
1,1
0,8
0,9
FCGR1
CXCL9
CXCL10
CXCL11
FCGR1
CXCL9
CXCL10
CXCL11
p006 latent
p040 healthy/ BCG vaccinated