

FIG. 1

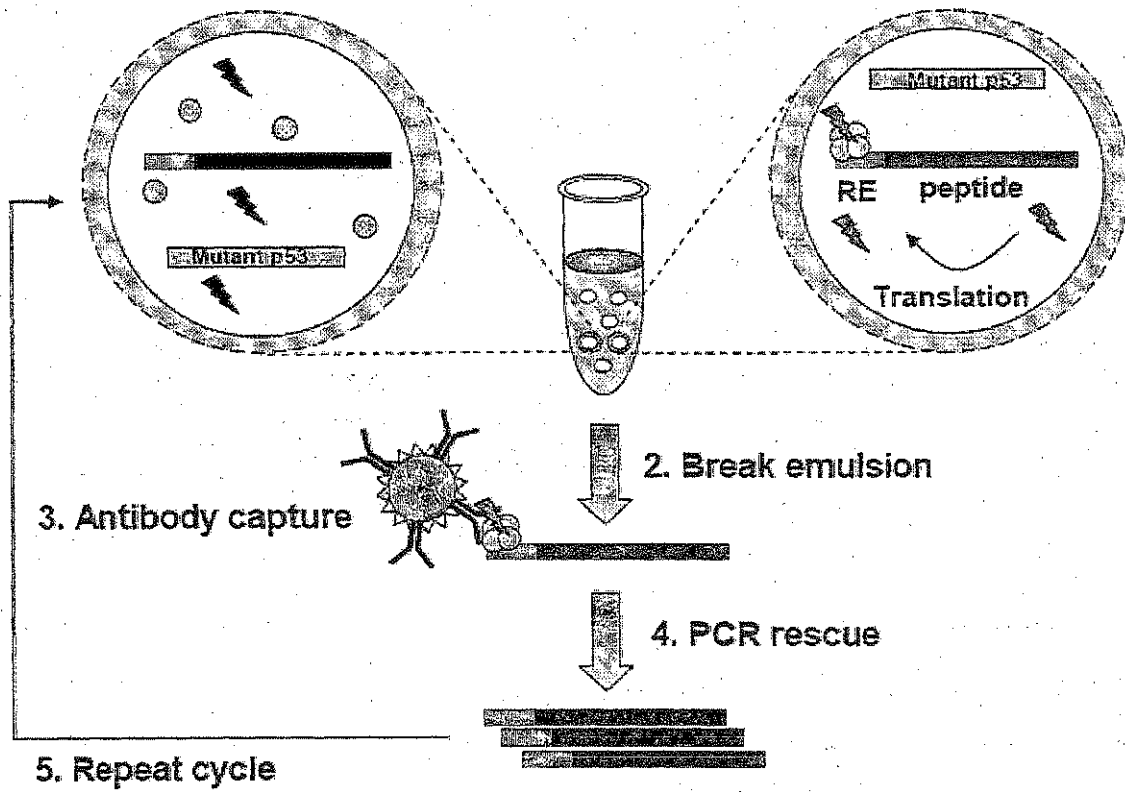
1. Compartmentalization

FIG. 2

A

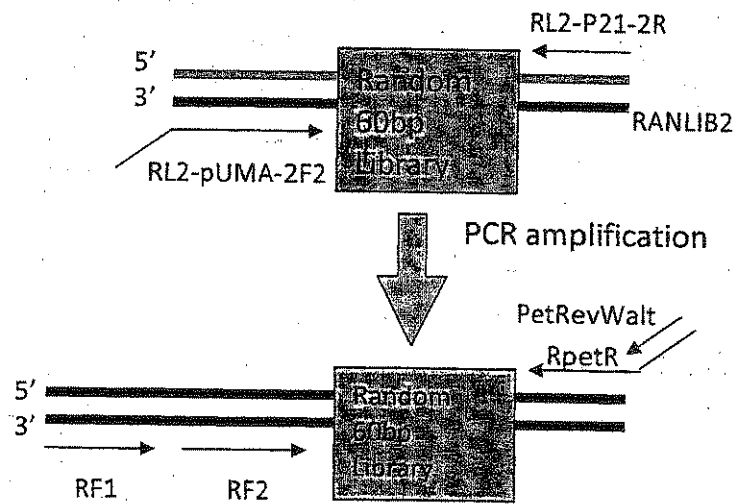


Fig. 2 (continued)

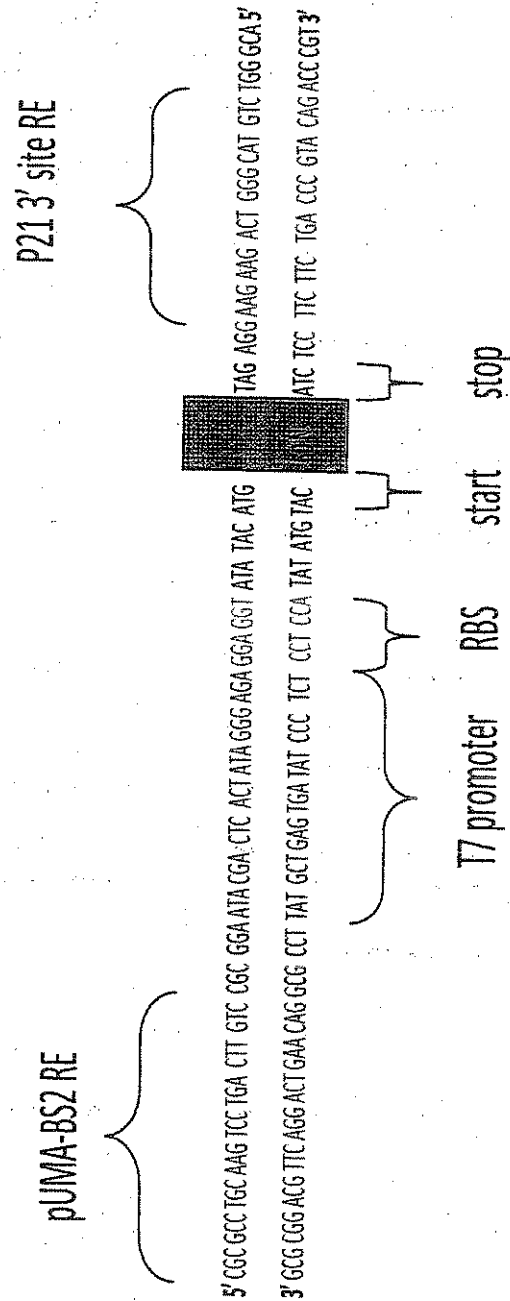
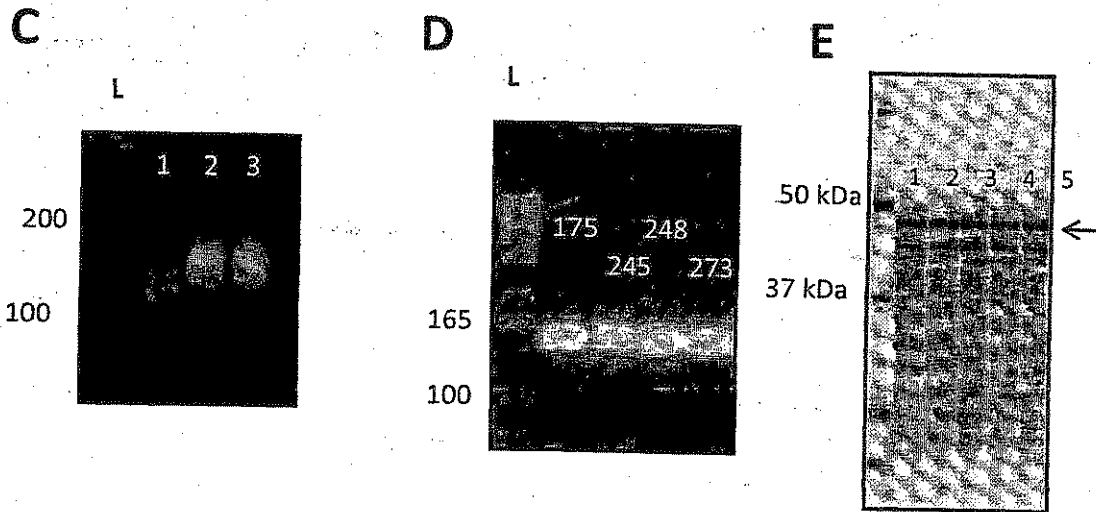
B

FIG. 2 (continued)



	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210
> Translate / Consensus															
RNU1B2-3.seq(1>272) (-)															
RNU1B2-5.seq(1>233) (-)															
RNU1B2-4.seq(1>229) (-)															
RNU1B2-2.seq(1>141) (-)															

FIG. 3

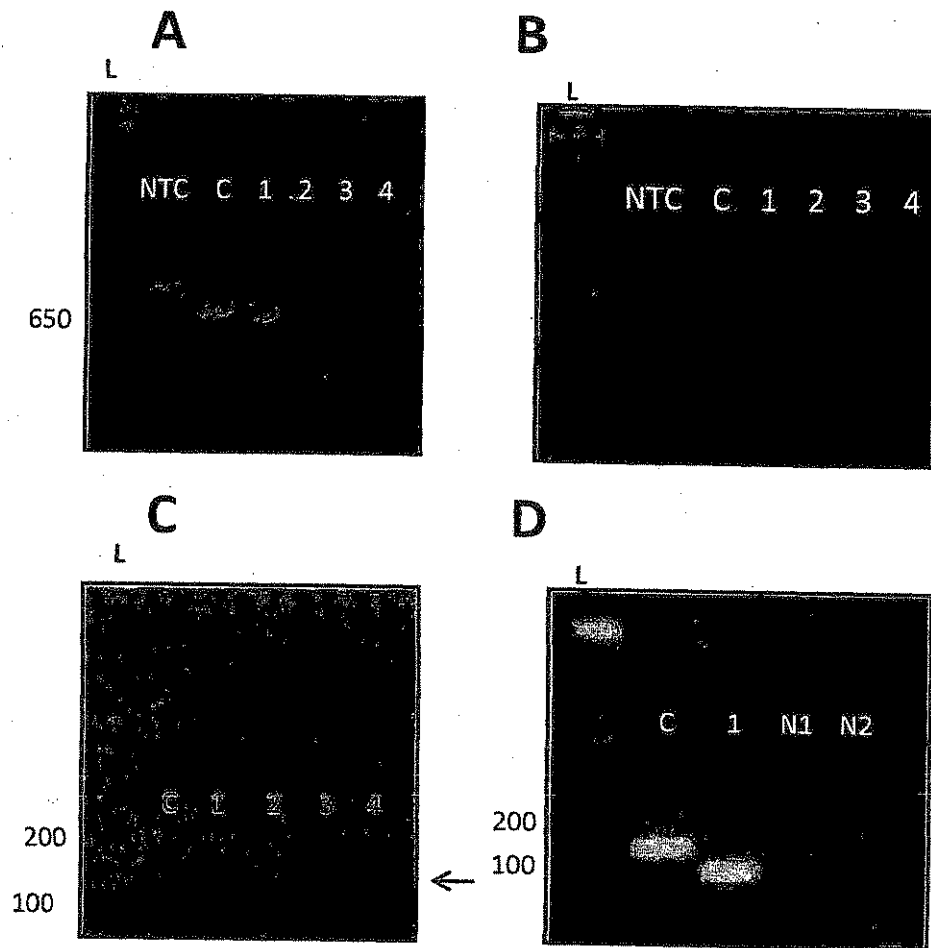


Fig. 4

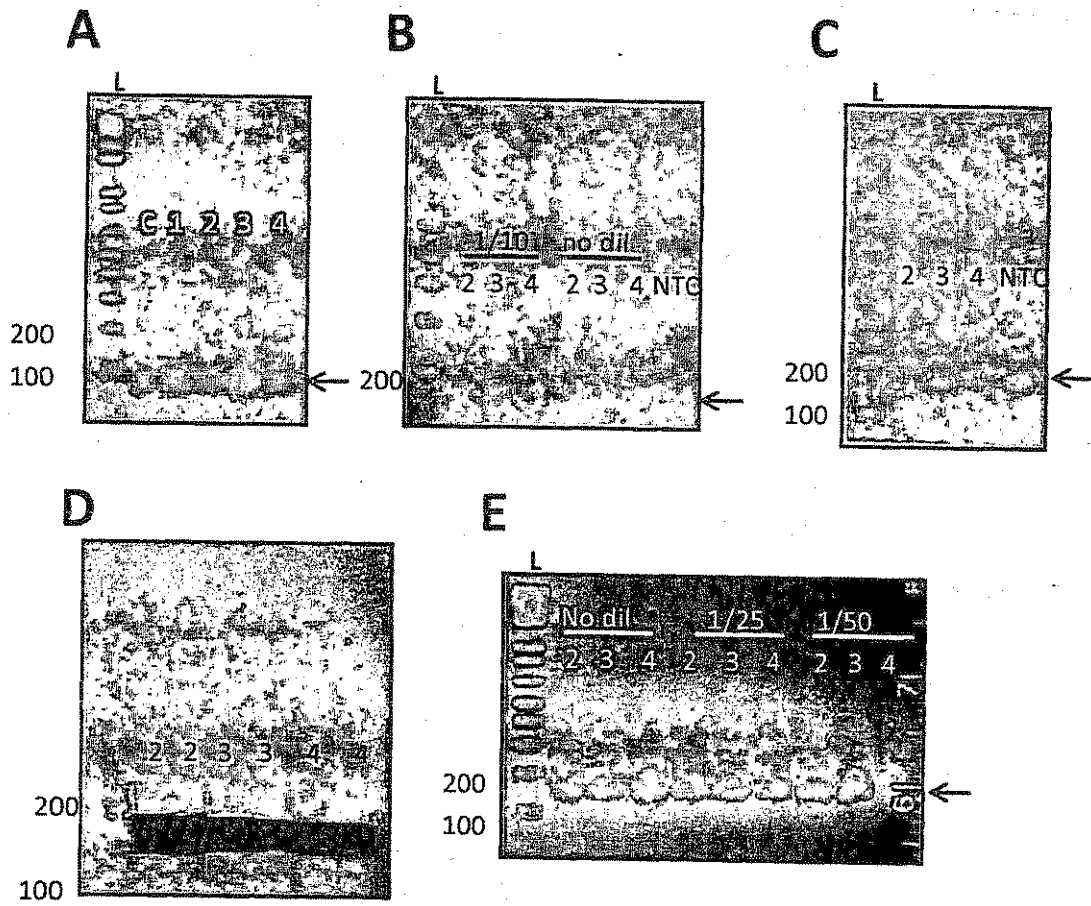


Fig. 5

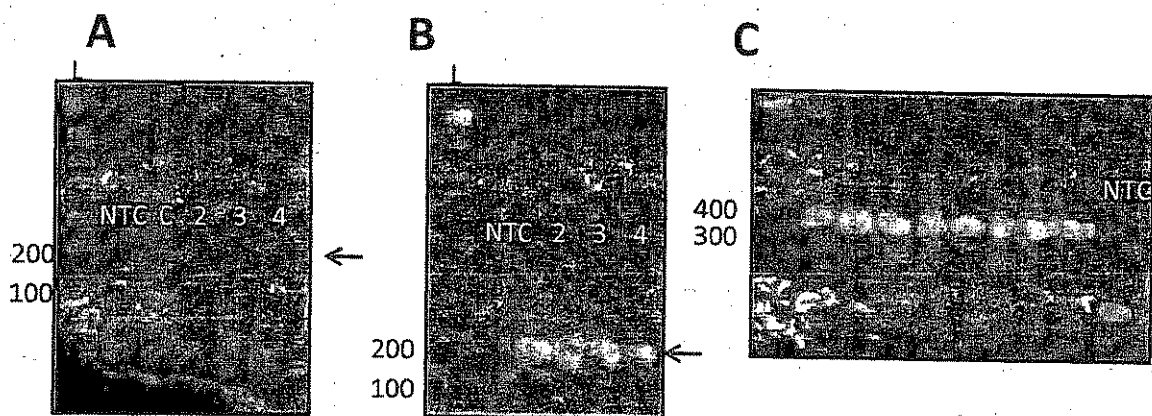


FIG. 6

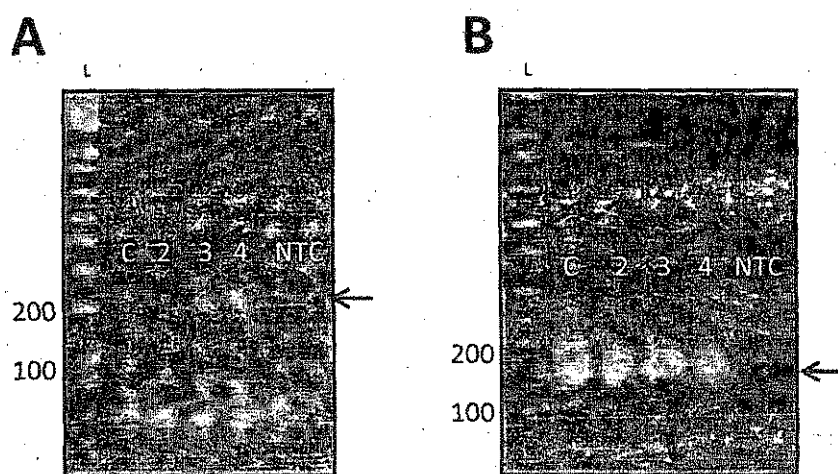


Fig. 6 (continued)

C

Clone	G245S	R248Q	R273H
1	SPNTNH	ILNVLPLLASRKP	RLQOV
2	MPHLMAC	VSWACVLELHCNYFPENPIEE EDWACLG	ARHQHVIGATI LGWK
3	SPTTNH	VSWACVLELHCNYFPENPIEE EDWACLG	VRHQHVIGATI LGWK
4	SPTTNH	ILNVLPLLASRKP	TALIDIWEHS VLGKGYPMS
5	DELVAIPVRLTY RGPNAI	ILNVLPLLASRKP	LM
6	SPTTNH	VSWACVLELHCNYFPENPIEE EDWACLG	TALIDIWEHS VLGKGYPMS
7	MPHLMAC	ILNVLPLLASRKP	RLQOV
8	SPTTNH	VSWACVLELHCNYFPENPIEE EDWACLG	VRHQHVIGATI LGWK
9	MPHLMAC	ILNVLPLLASRKP	RLQOV
10	ERRFPMGVNSPE GKMWPLI	VSWACVLELHCNYFPENPIEE EDWACLG	TALIDIWEHS VLGKGYPMS
11	SPTTNH	VSWACVLELHCNYFPENPIEE EDWACLG	TALIDIWEHS VLGKGYPMS
12	DELVAIPVRLTY RGPNAI	ILNVLPLLASRKP	VRHQHVIGATI LGWK
13	ERRFPMGVNSPE GKMWPLI	ILNVLPLLASRKP	RLQOV
14	SPTTNH	ILNVLPLLASRKP	VRHQHVIGATI LGWK
15	MPHLMAC	ILNVLPLLASRKP	TALIDIWEHS VLGKGYPMS
16	MPHLMAC	ILNVLPLLASRKP	VRHQHVIGATI LGWK

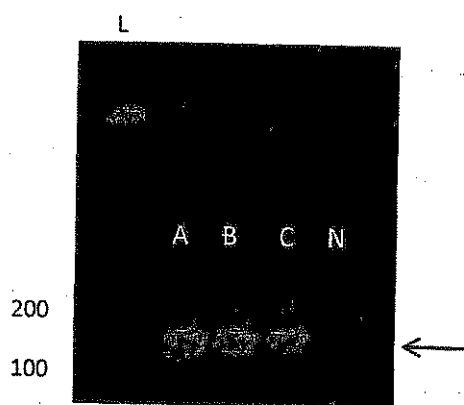
Fig. 6 (continued)

D

No.	Peptide Reference	Amino Acid Sequence	p53 mutant
1	Pap-SPT	SPTTNH	G245S
2	Pap-MPH	MPHLMAC	G245S
3	Pap-TAL	TALFDLWEHSVLGKGYPRMS	R273H/G245S
4	Pap-ILN	ILNVLPLLASRK P	R248Q
5	Pap-VSW	VSWSACVLEELCNYPENPIEEEDWACLG	R248Q
6	Pap-RLQ	RLQQV	R273H
7	Pap-VRH	VRHQHVGAILEGWK	R273H

Fig. 7

A



B

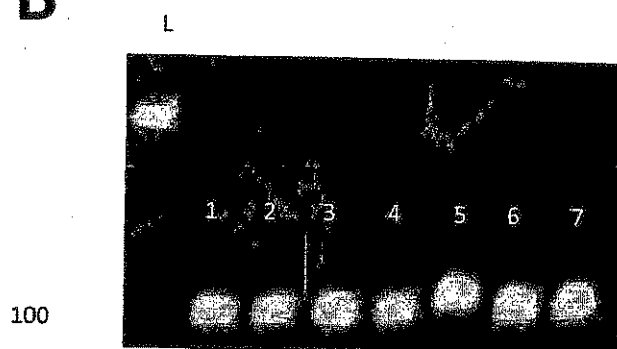
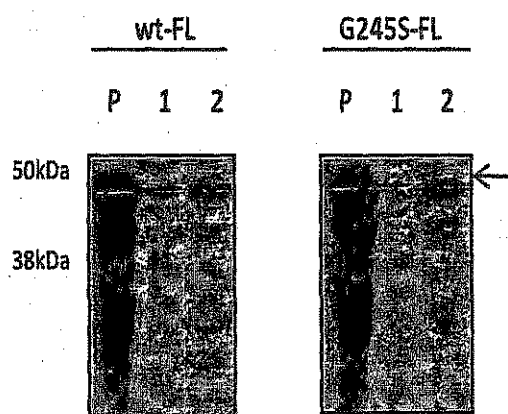


FIG. 8

A



B

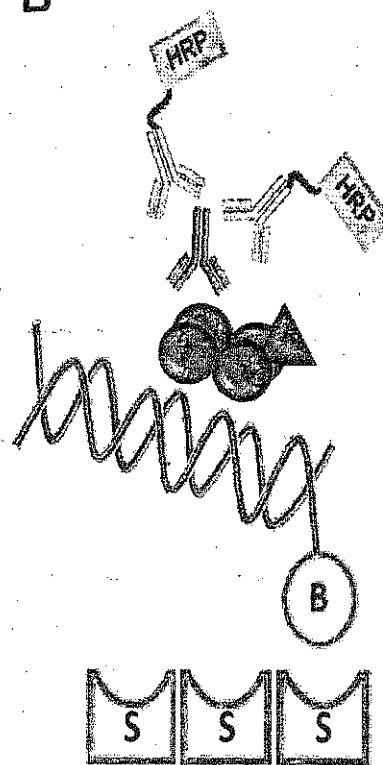


Fig. 9

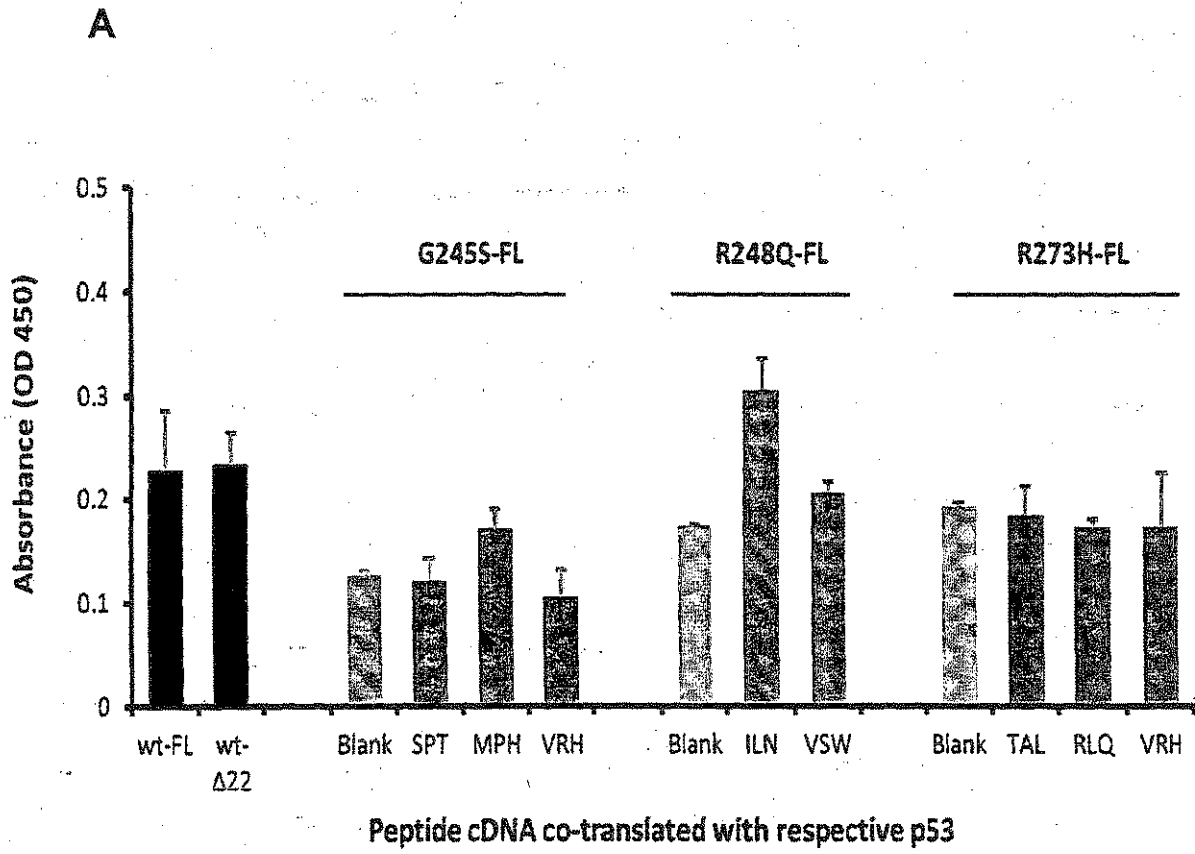


Fig. 9 (continued)

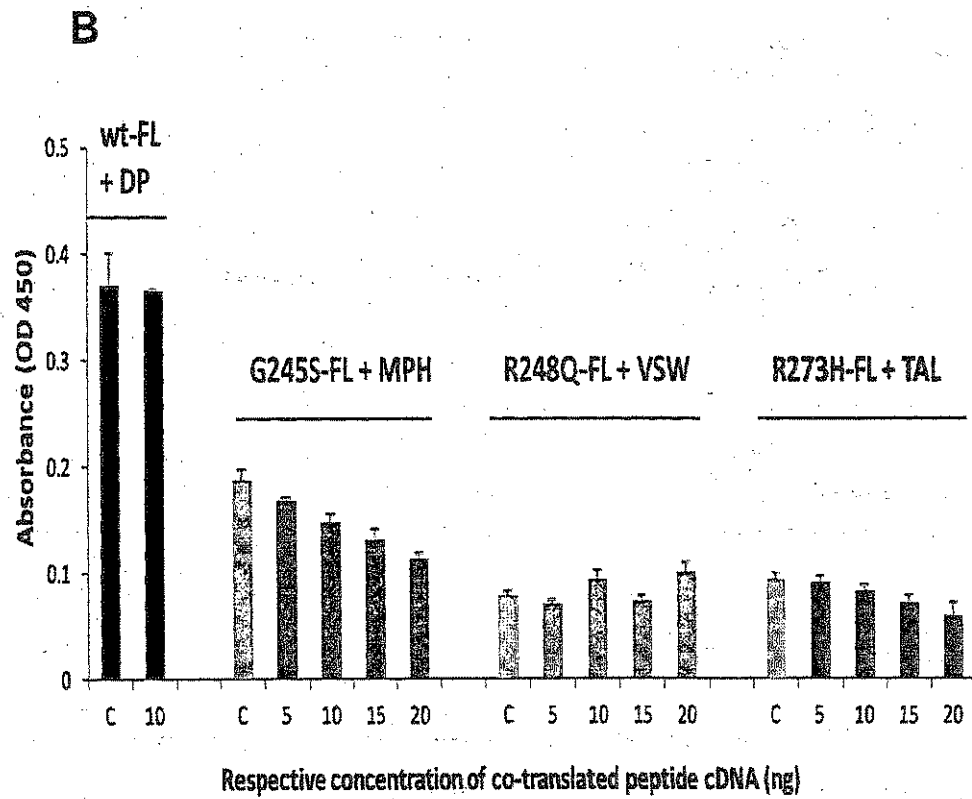


Fig. 9 (continued)

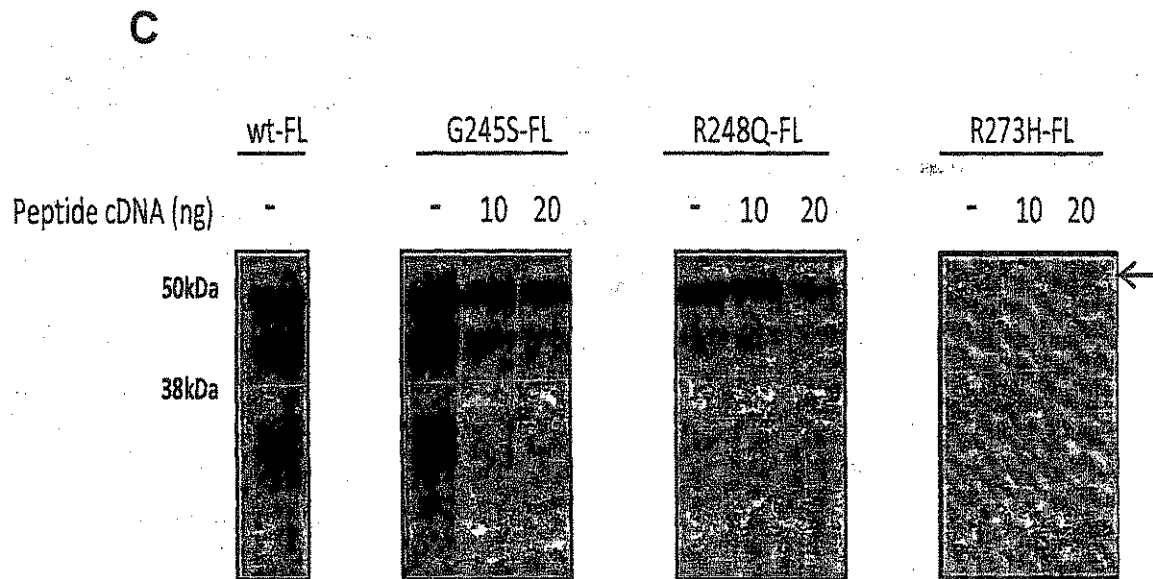
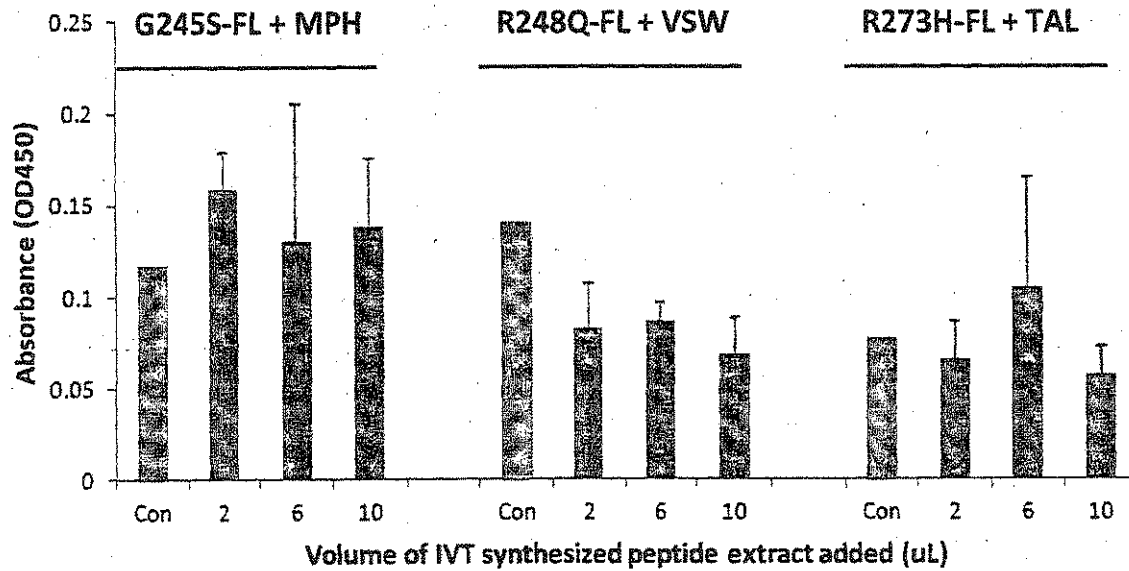
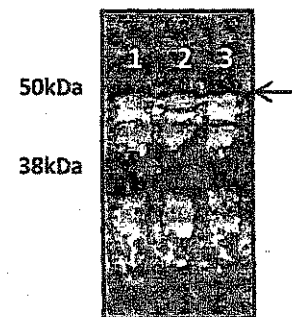
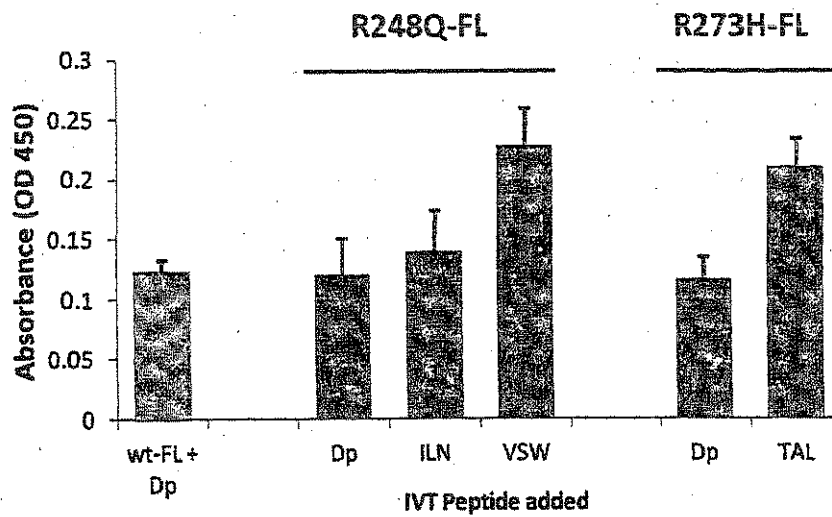


Fig. 9 (continued)

D**E**

A

M S P T T N H

2- S P T T N H -7
 φ2 1- A L T H F S S P F T N N -12
 * * * * #

B

3 - H E M A - C - 8

Hdm2 454- K T G H L M A C F T C -464
* * * * *

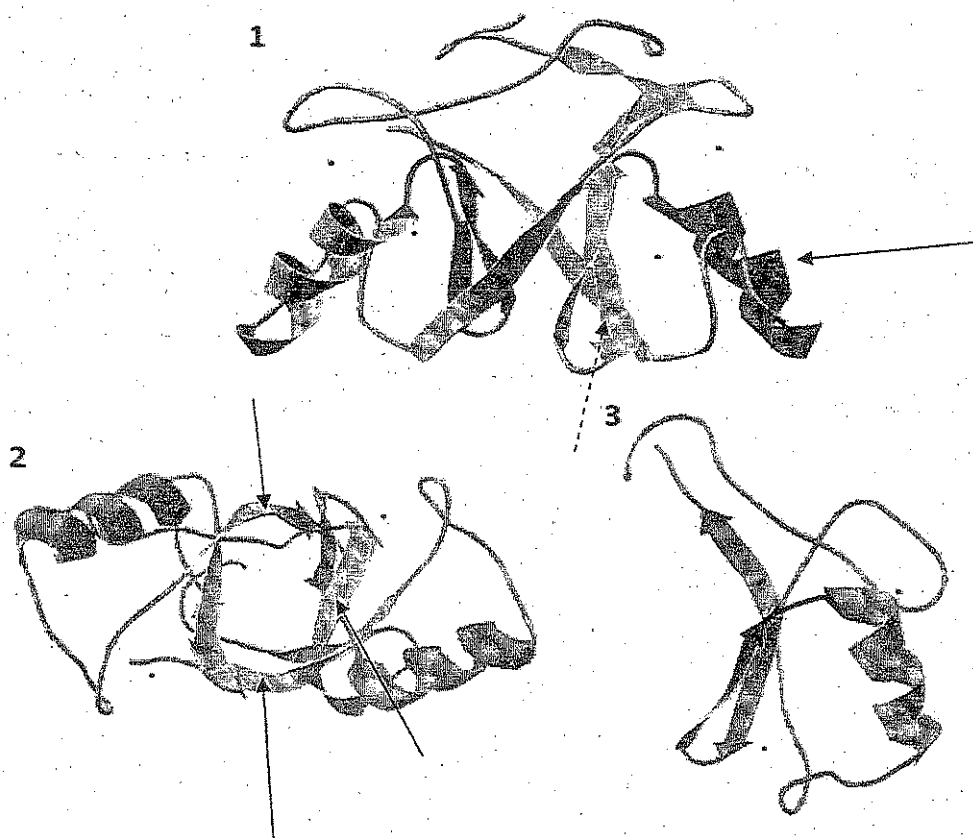


Fig. 10 (continued)

C

Pap-VSW

VSWSACVLLELCNYPENPIEEEDWACLG

Pap-VSW
PARP4 protein

11 - LCNYPENPIEEED - 24
118 - LC --- PDNATEED - 128
* * * # * † * * * *

Pap-VSW
PARP4 protein

13 - YFPENPIEE - 22
214 - YY - ENYTEE - 221
* # * * * * *

Pap-VSW
Peptide CDB3

20 - IEEEDWAC - 27
REDEDEIEW

D

Pap-TAL

TALIDIWEHSVLGKGYPRMS

Human Lymphoid
Tyrosine
Phosphatase Catalytic
Domain

1 - TALID - - - - IWEHSVL - 12
104 - GPLSTTLLDFWRMIWEYSVL I - 124
* # * # * * * * # * * * *

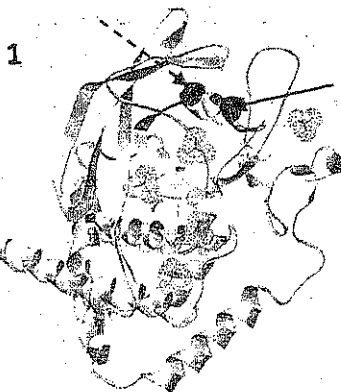


Fig. 11

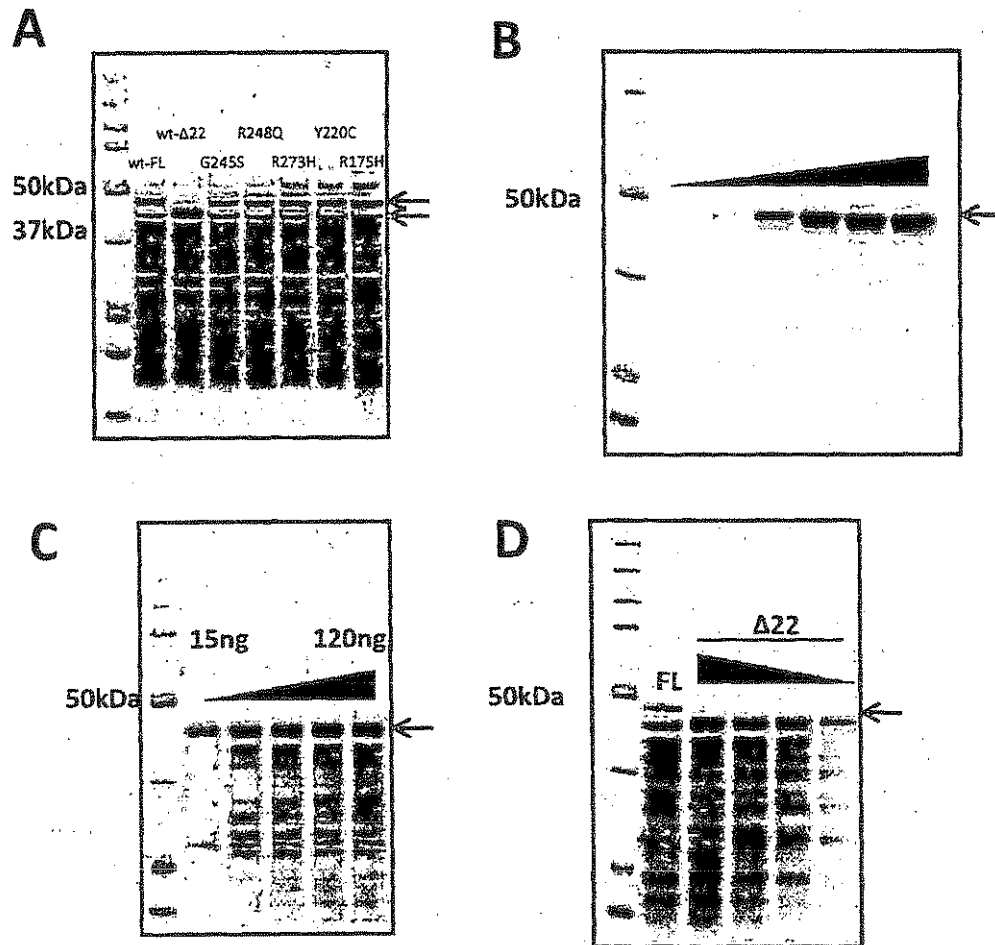


Fig. 11 (continued)

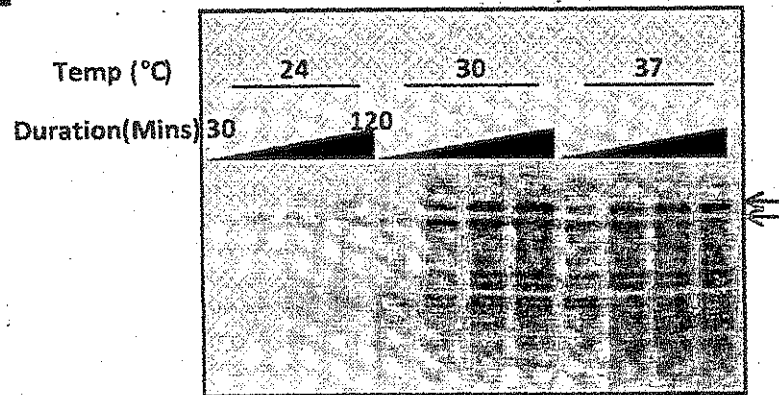
E

Fig. 12

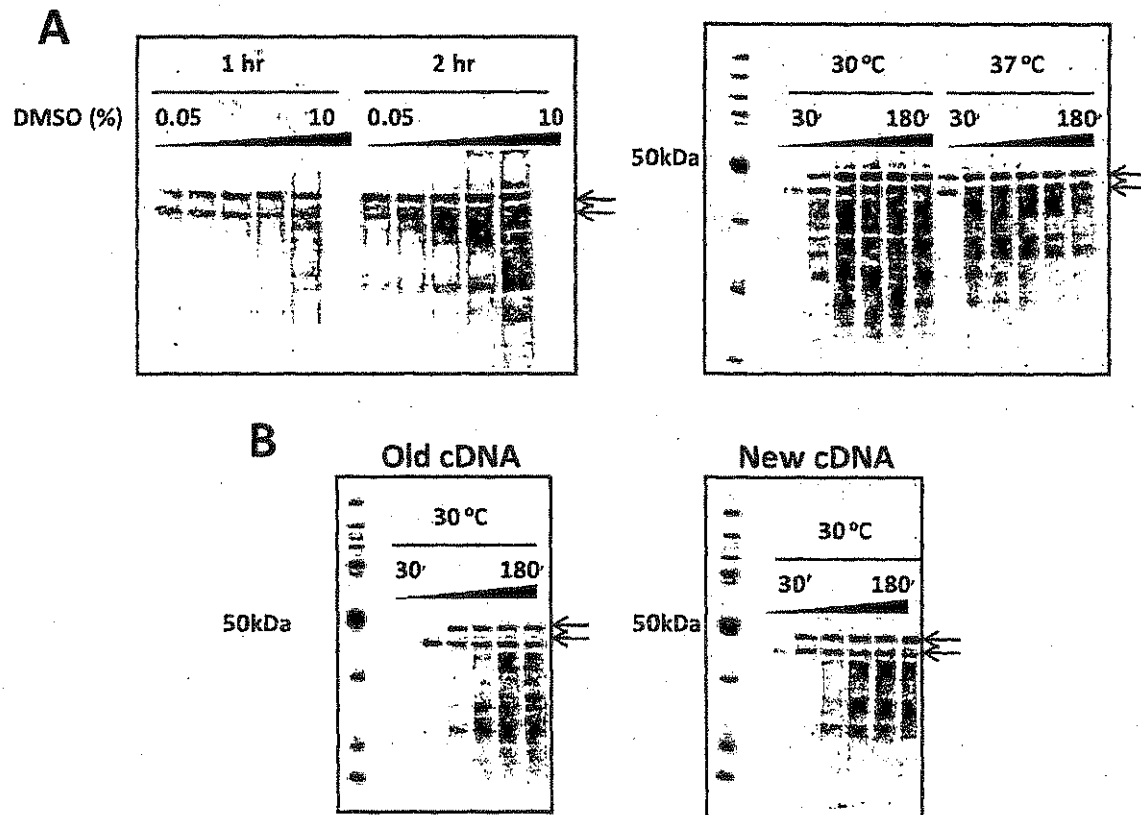


Fig. 12 (continued)

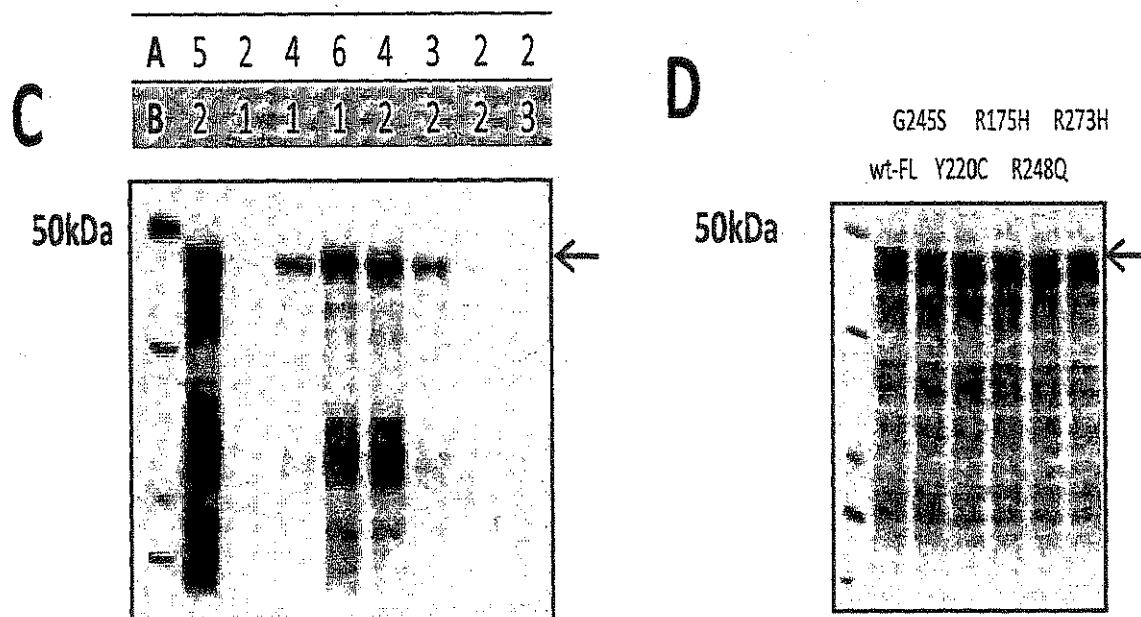
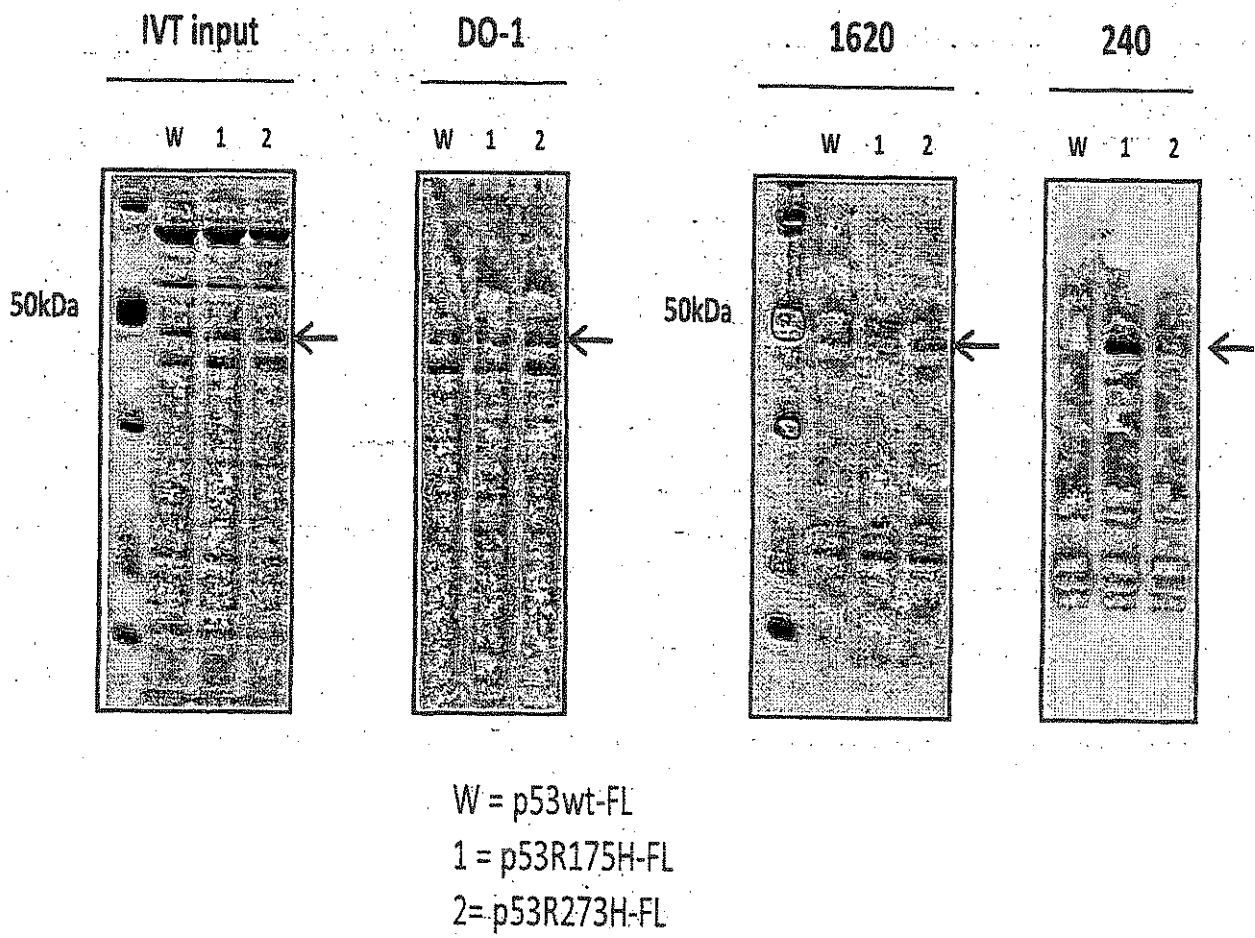


Fig. 13



25/82

Fig. 14

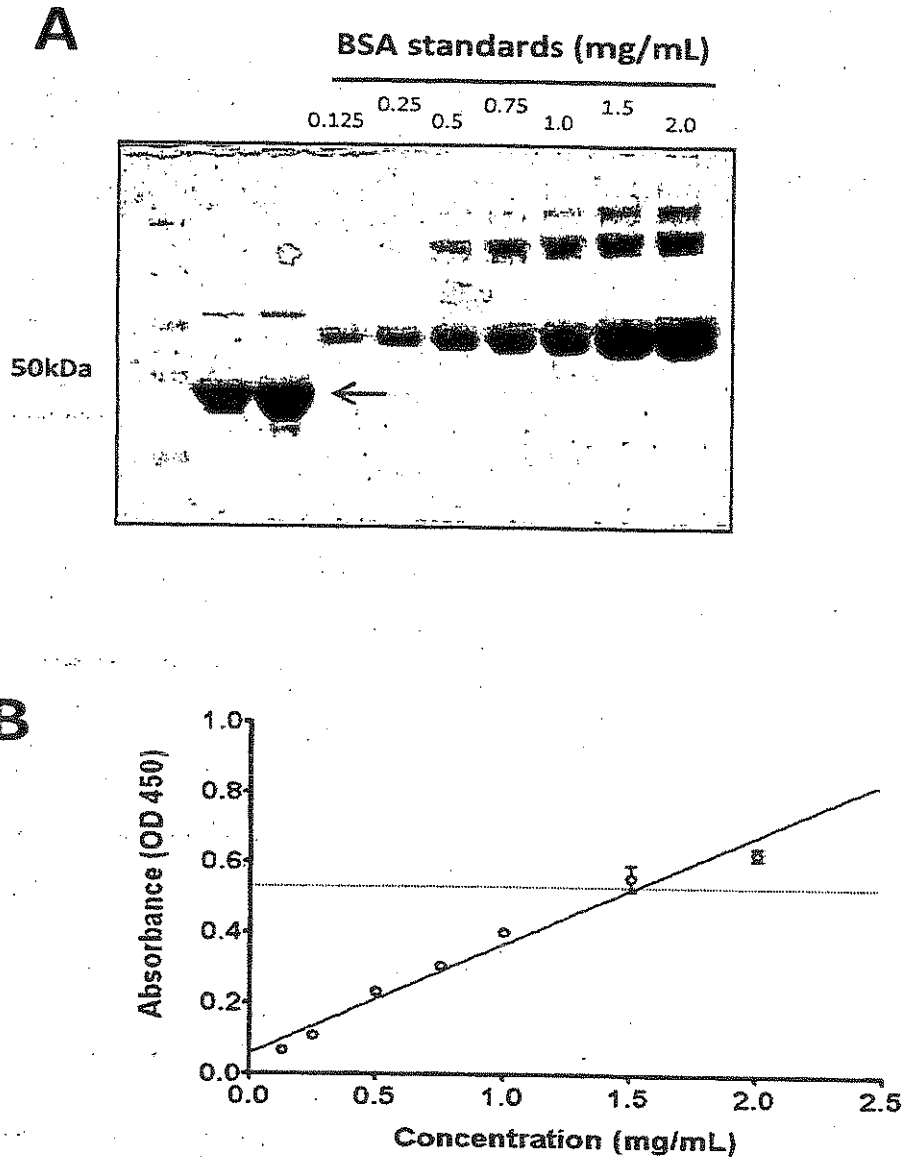
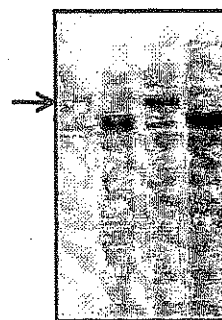
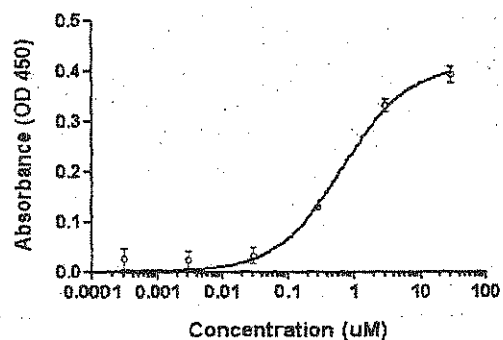
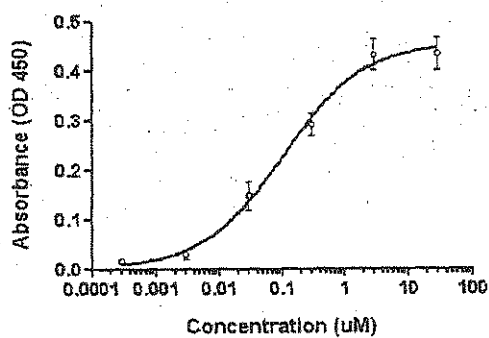


Fig. 14 (continued)

C



p53 Sample	DO-1 (uM)	Bp53 10.1 (uM)	Lane	Est. Conc. (nM)
wt-FL	0.086±0.008	0.072±0.018	1	65-80
wt-Δ22	0.177±0.029	<u>0.130</u>	2	200-300
wt-FL (5% DMSO)	0.310±0.05	0.273±0.084	3	200-250
wt-Δ22 (5% DMSO)	0.760±0.325	<u>0.295</u>	4	700-800

Fig. 15

A**Peptide****- +**

SPT



MPH



TAL



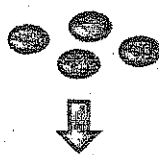
ILN



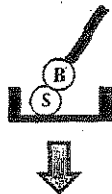
RLQ



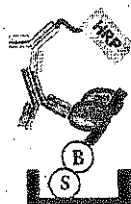
VRH

**B****1**

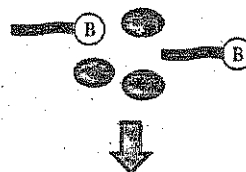
1. In-vitro
translate p53



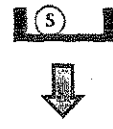
2. Incubate on
streptavidin plate
coated with
biotinylate peptide



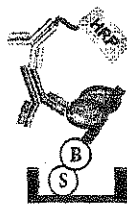
3. Detect via anti-p53
Ab and quantify
using HRP
conjugated
secondary Ab

2

1. In-vitro translate
p53 in the
presence of
biotinylated
peptides



2. Incubate on
streptavidin
plate



3. Detect via anti-p53
Ab and quantify
using HRP
conjugated
secondary Ab

Fig. 16

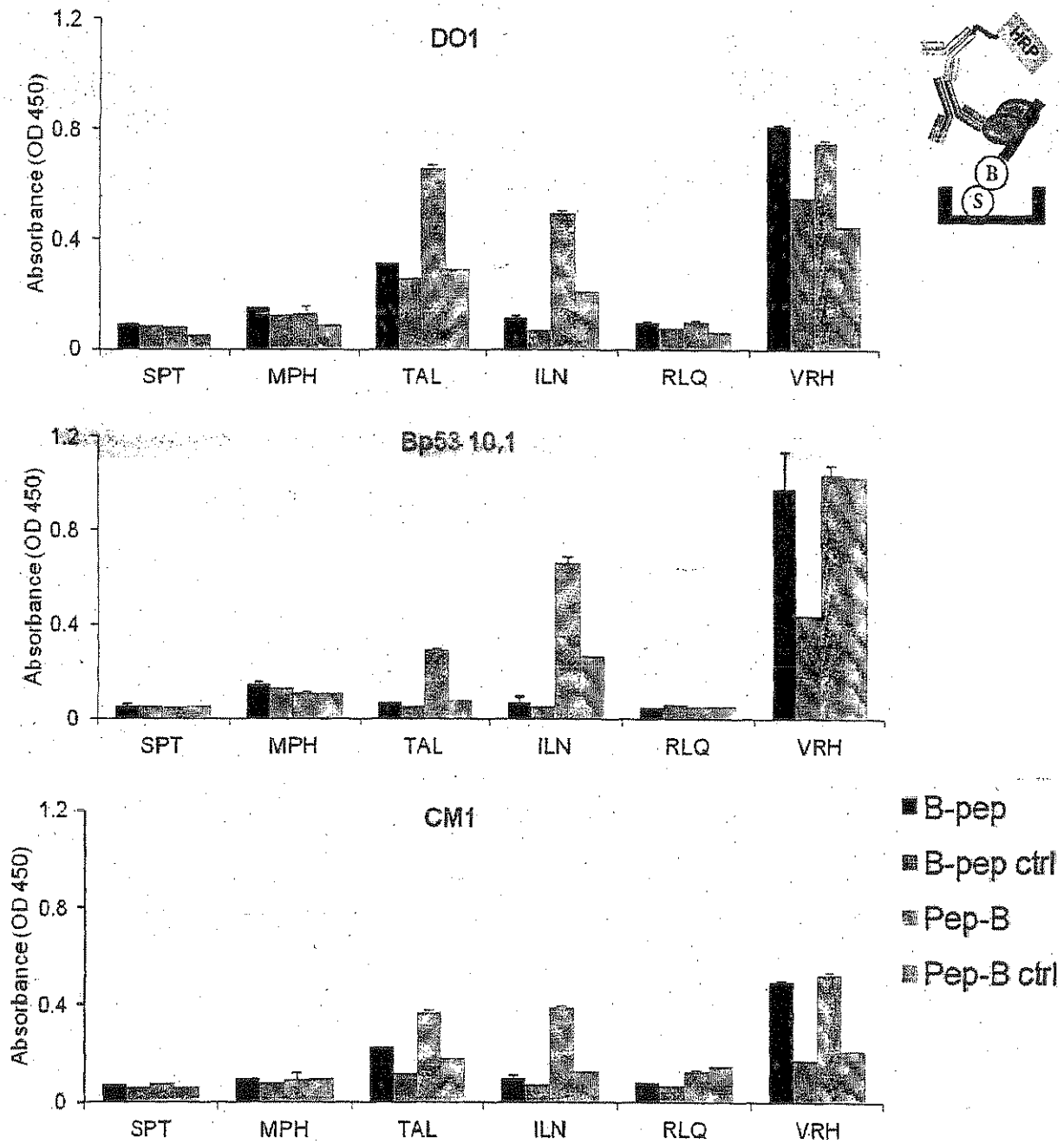


Fig. 17

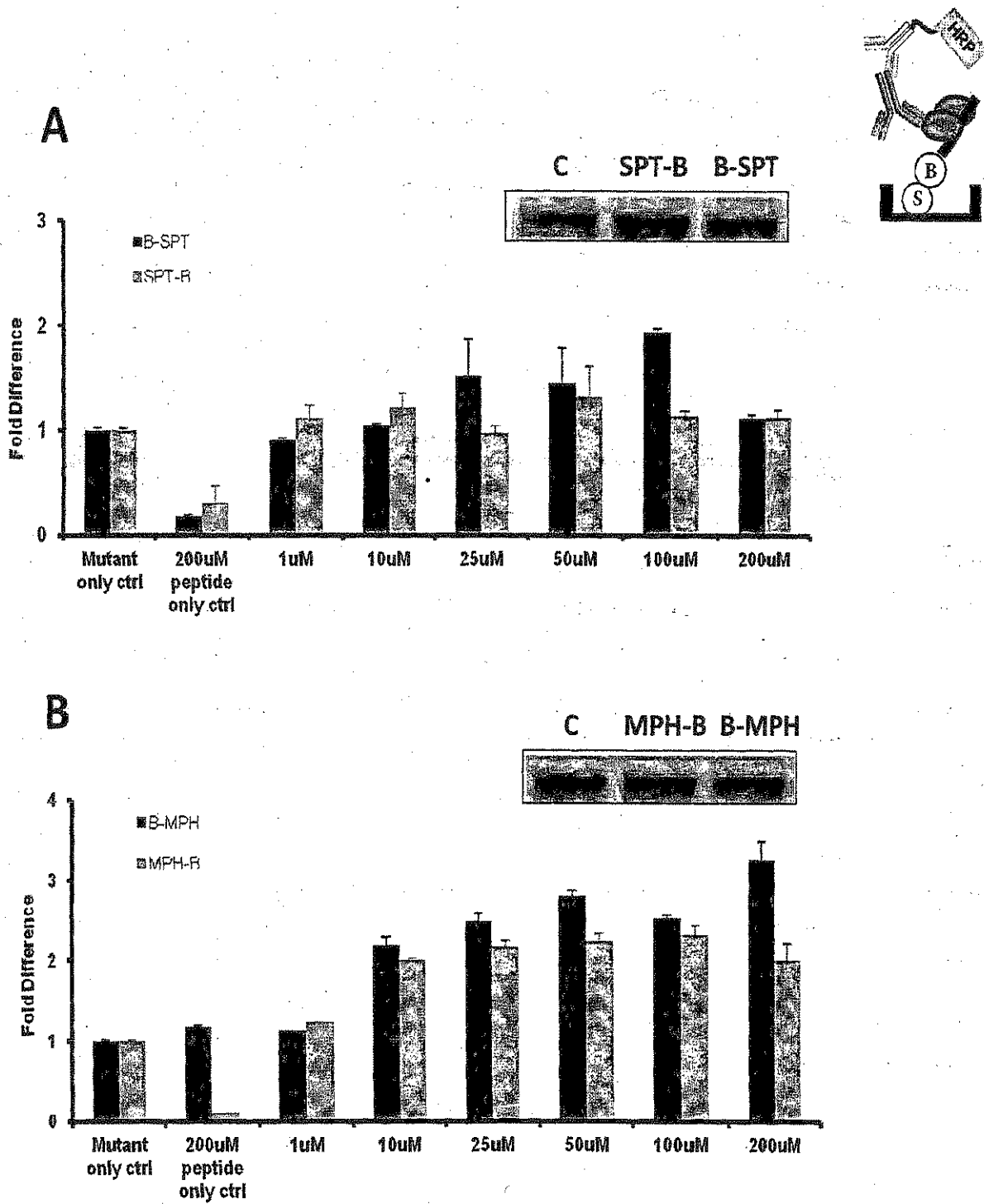


Fig. 17 (continued)

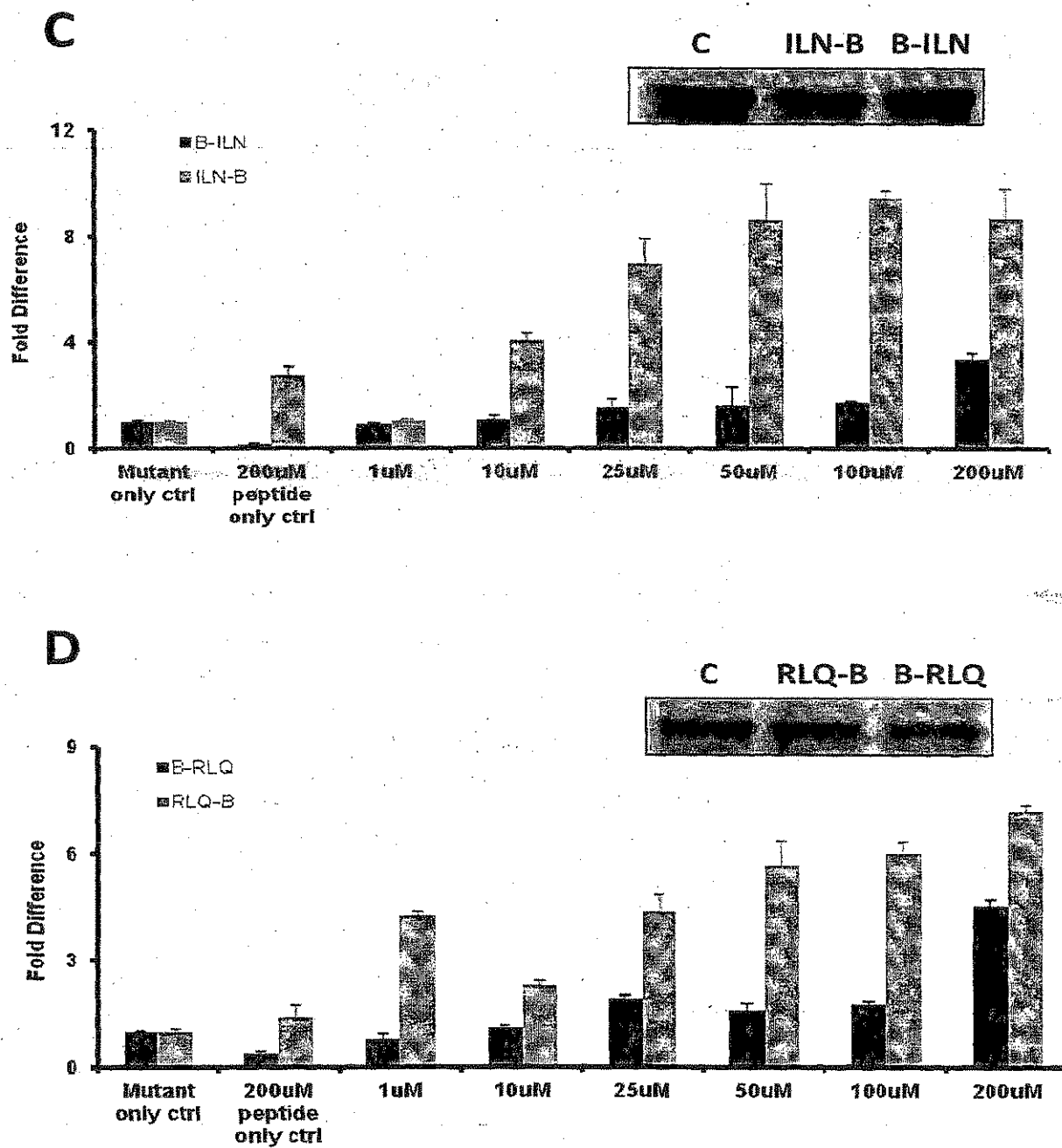


Fig. 17 (continued)

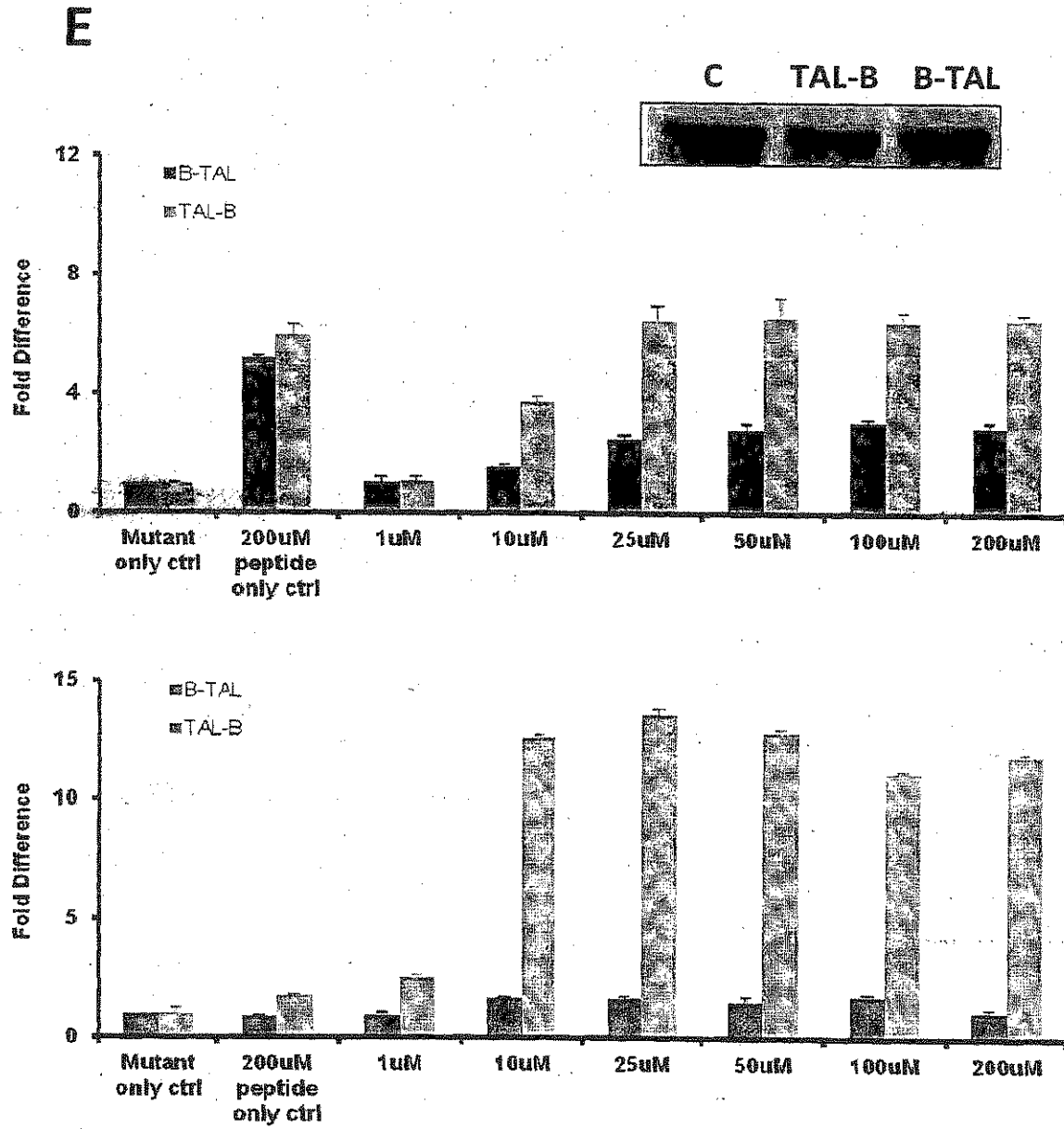


Fig. 17 (continued)

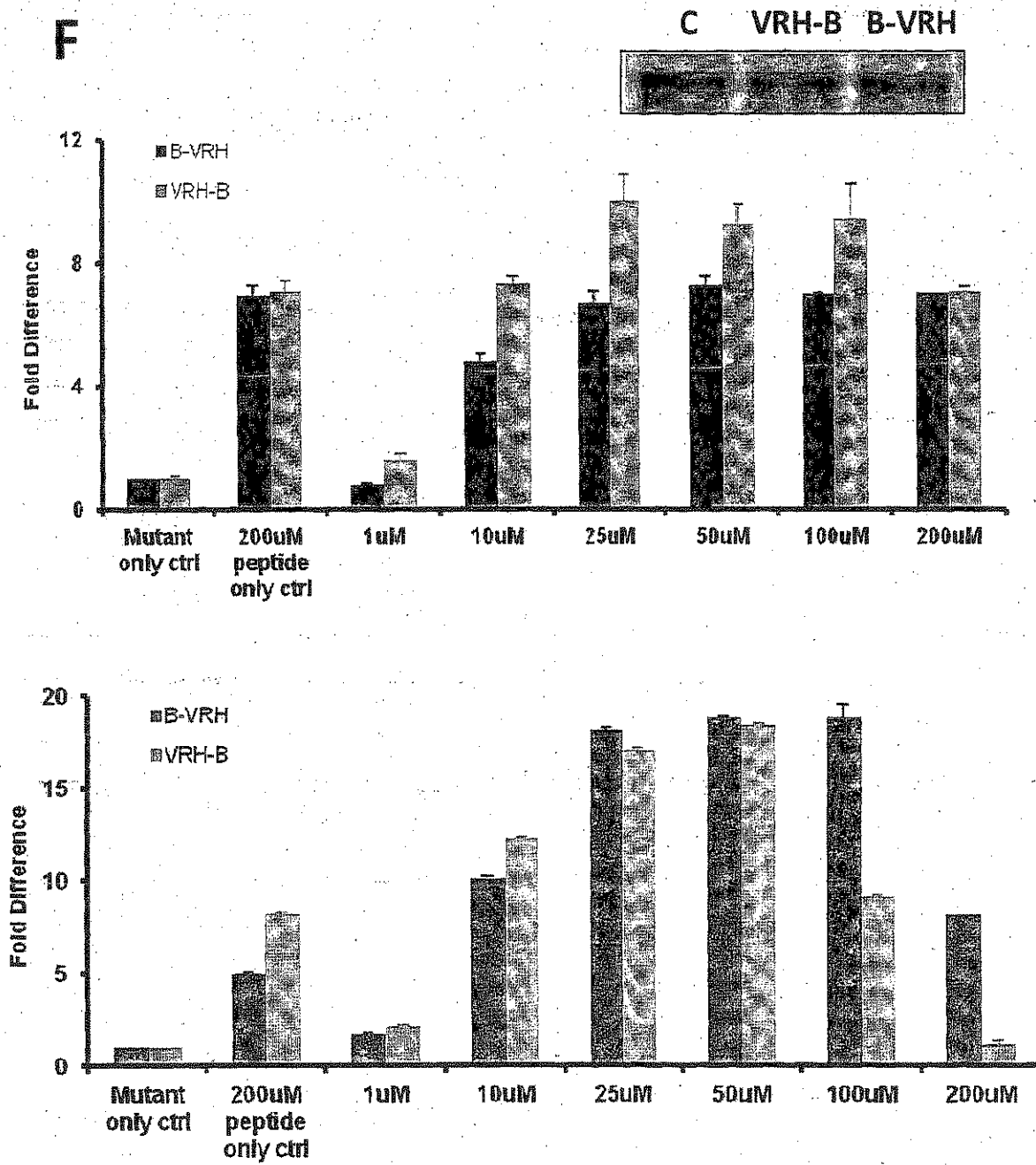


Fig. 18

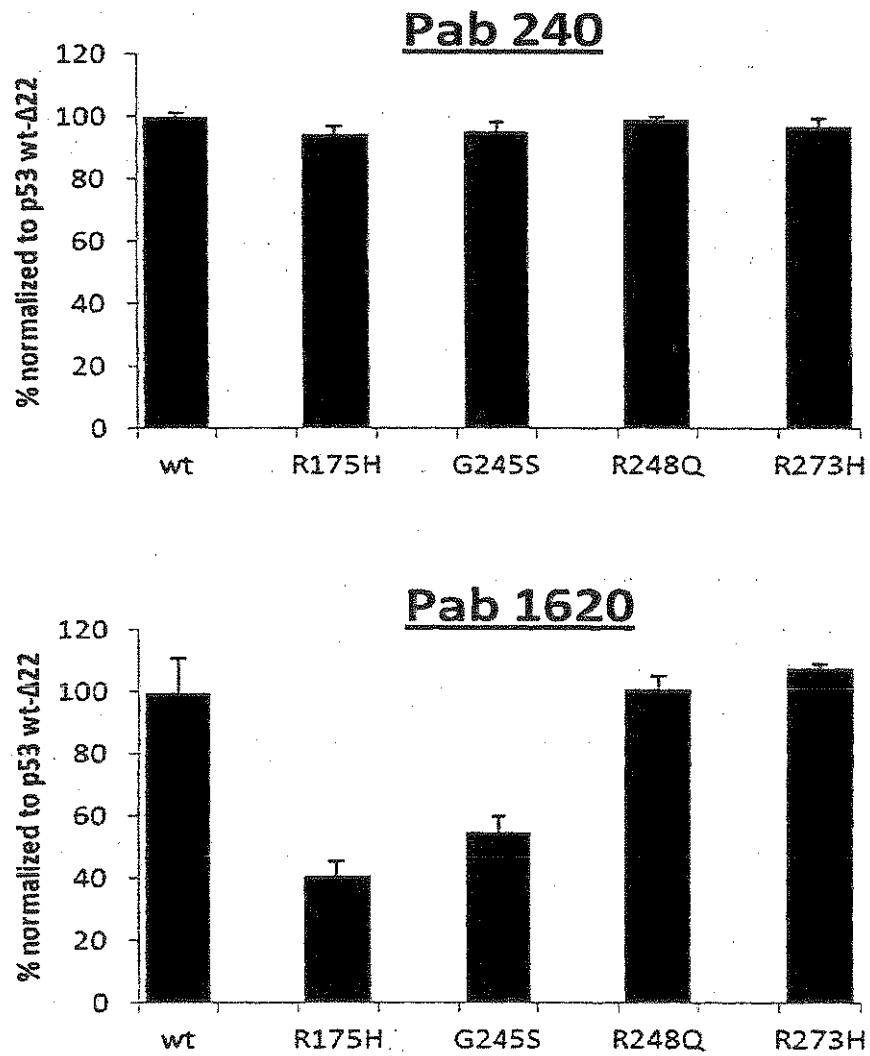
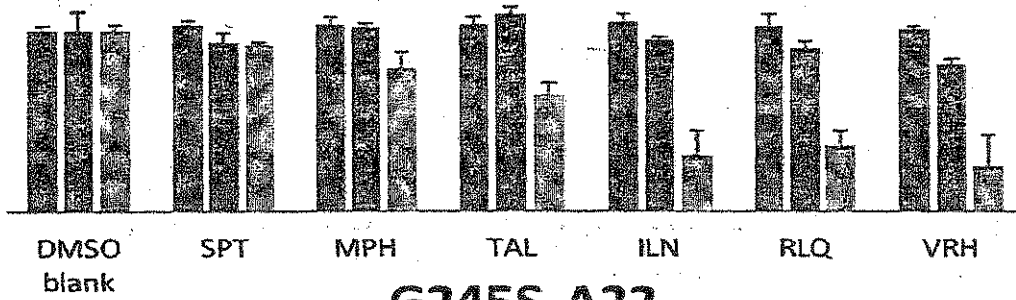
A

Fig. 18 (continued)

B**wt- $\Delta 22$**

■ DO-1 ■ 240 ■ 1620

**G245S- $\Delta 22$**

■ DO1 ■ 240 ■ 1620

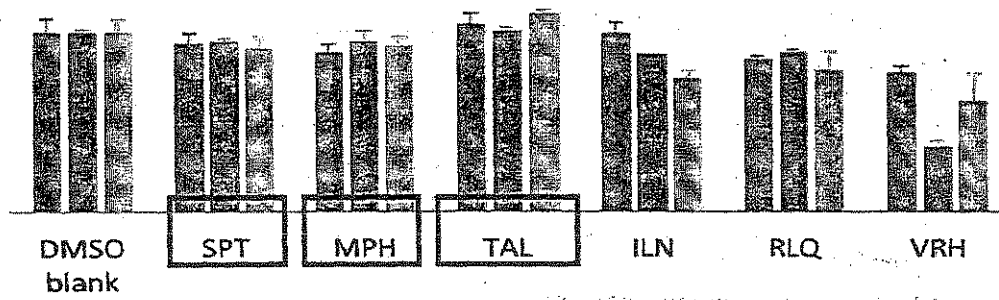
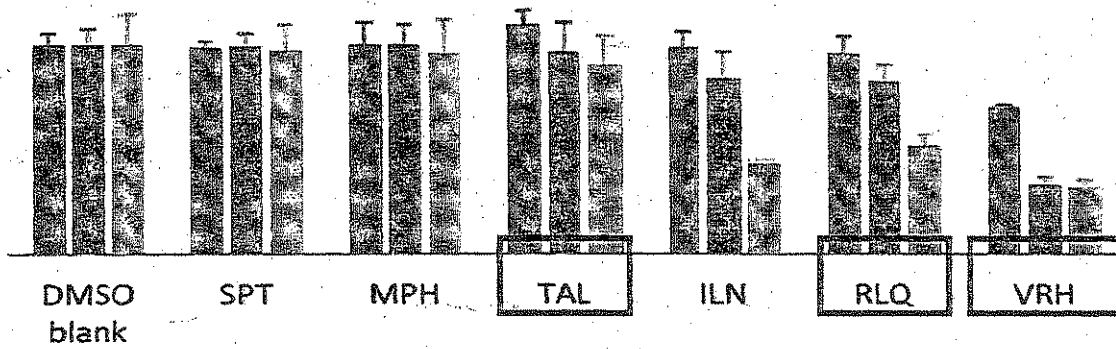


Fig. 18 (continued)

C**273Δ22**

■ DO1 ■ 240 ■ 1620

**248Δ22**

■ DO1 ■ 240 ■ 1620

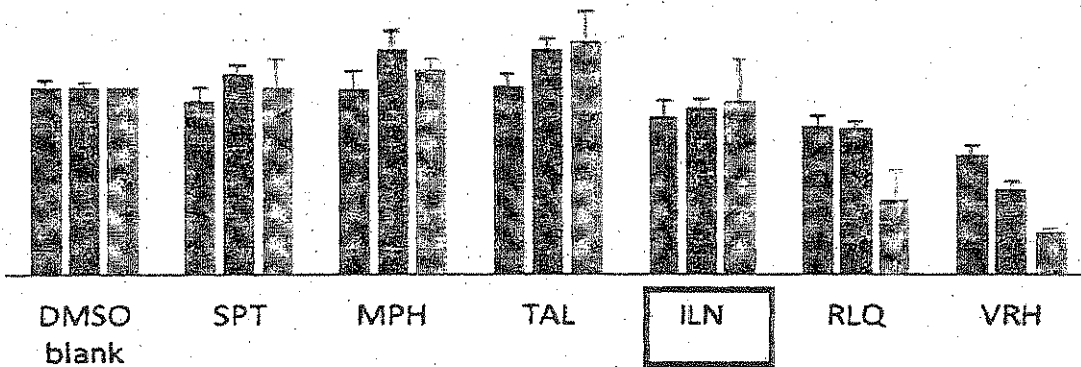
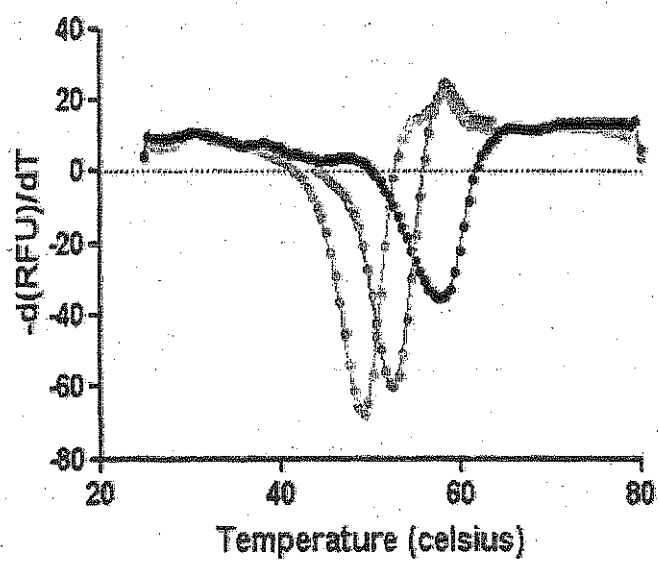
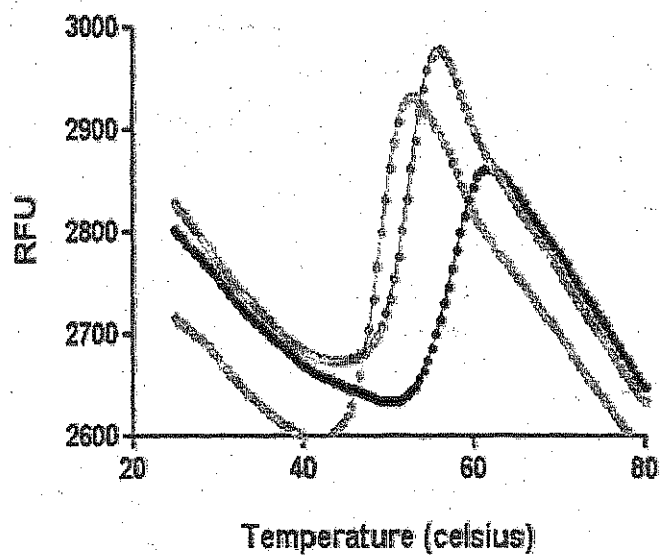


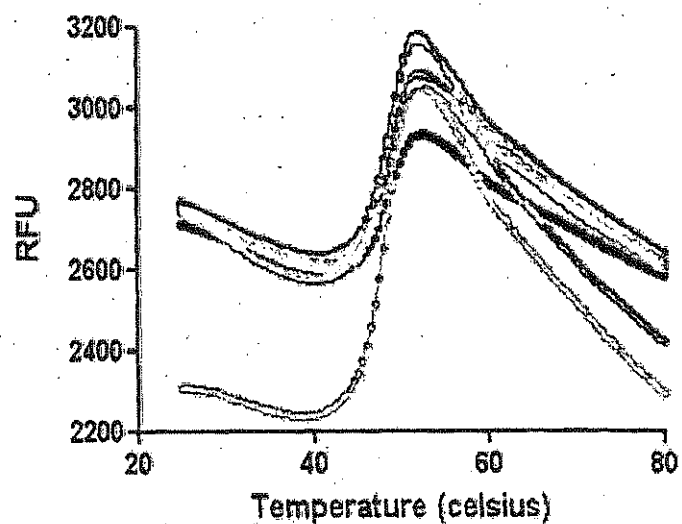
Fig. 19

A

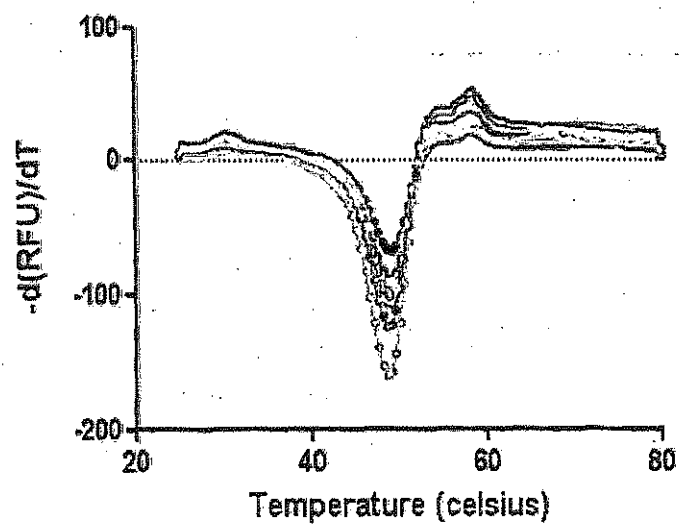


Sample	T_m (°C)
QM-FL	52.90 ± 0.5
QM-FL (p21)	62.95 ± 0.7
QM-FL (Scram)	55.68 ± 0.3

Fig. 19 (continued)

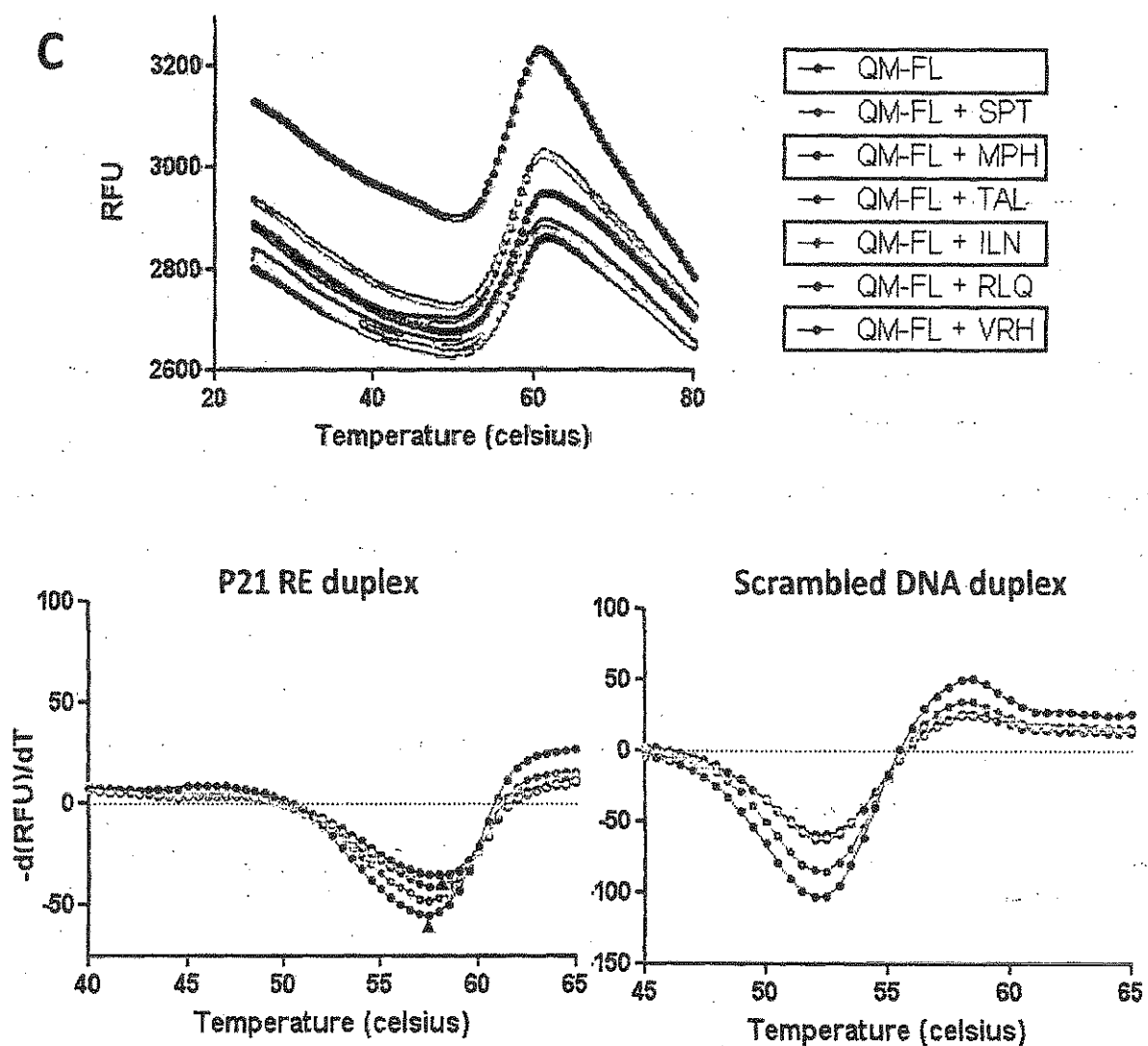
B

- QM-FL + DMSO blank
- QM-FL + SPT
- QM-FL + MPH
- QM-FL + TAL
- QM-FL + ILN
- QM-FL + RLQ
- QM-FL + VRH



Sample	T_m (°C)
QM-FL + DMSO	52.90 ± 0.5
QM-FL + SPT	52.72 ± 0.5
QM-FL + MPH	52.57 ± 0.5
QM-FL + TAL	52.34 ± 0.4
QM-FL + ILN	52.21 ± 0.5
QM-FL + RLQ	52.61 ± 0.5
QM-FL + VRH	52.36 ± 0.4

Fig. 19 (continued)



- QM-FL + DMSO blank
- QM-FL + MPH
- QM-FL + ILN
- QM-FL + VRH

Sample	P21-RE T_m ($^{\circ}\text{C}$)	Scram T_m ($^{\circ}\text{C}$)
QM-FL + DMSO	62.95 ± 0.5	55.90 ± 0.3
QM-FL + MPH	63.16 ± 0.9	56.06 ± 0.5
QM-FL + ILN	62.10 ± 0.6	55.98 ± 0.3
QM-FL + VRH	61.56 ± 0.4	55.73 ± 0.4

Fig. 20

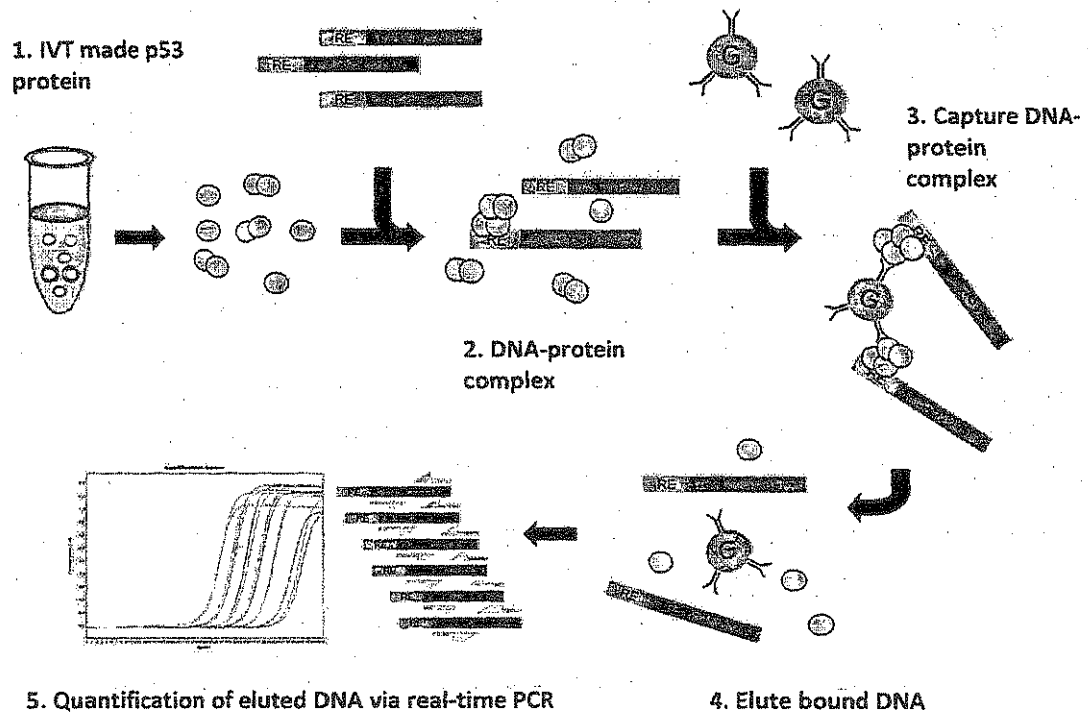


Fig. 21

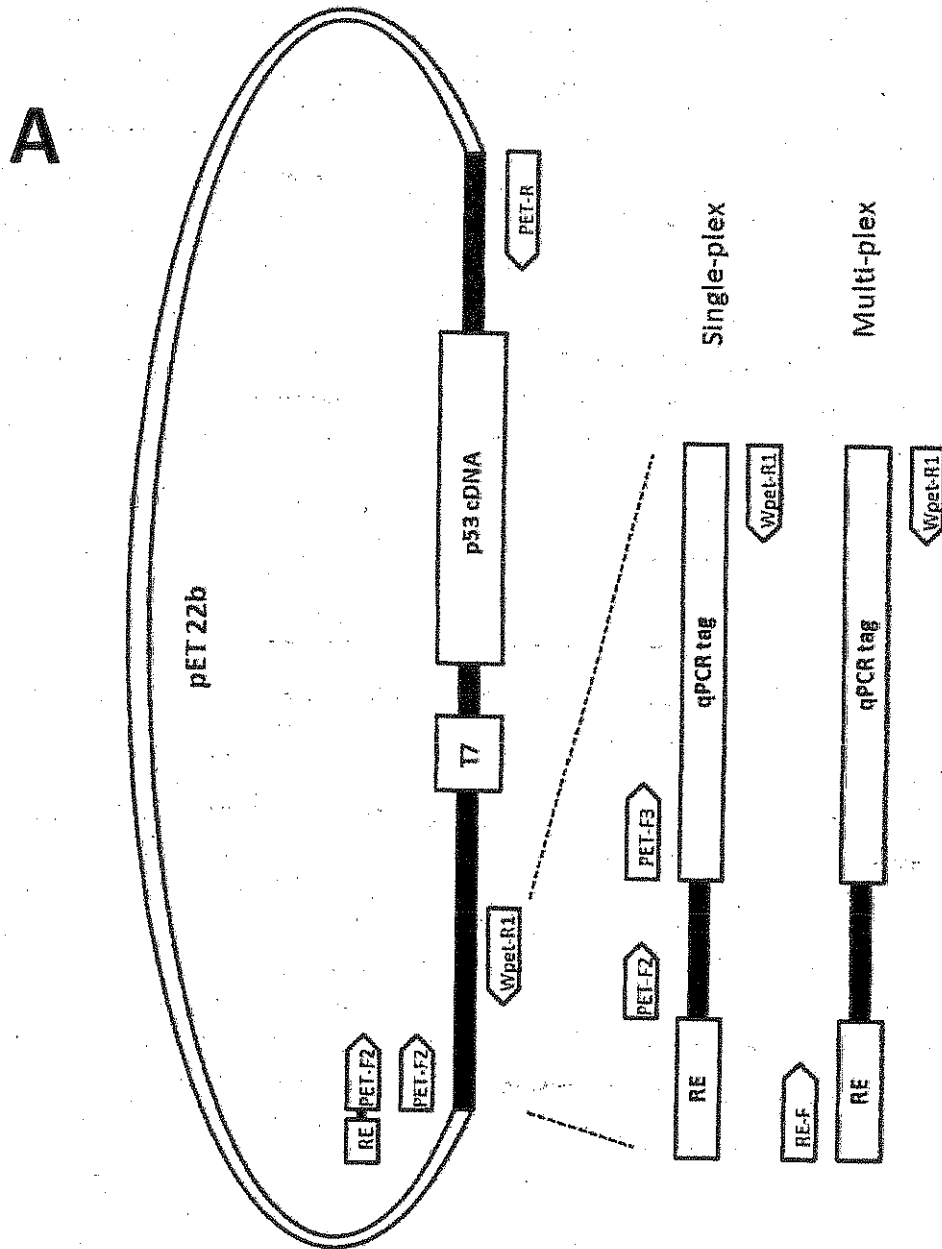


Fig. 21 (continued)

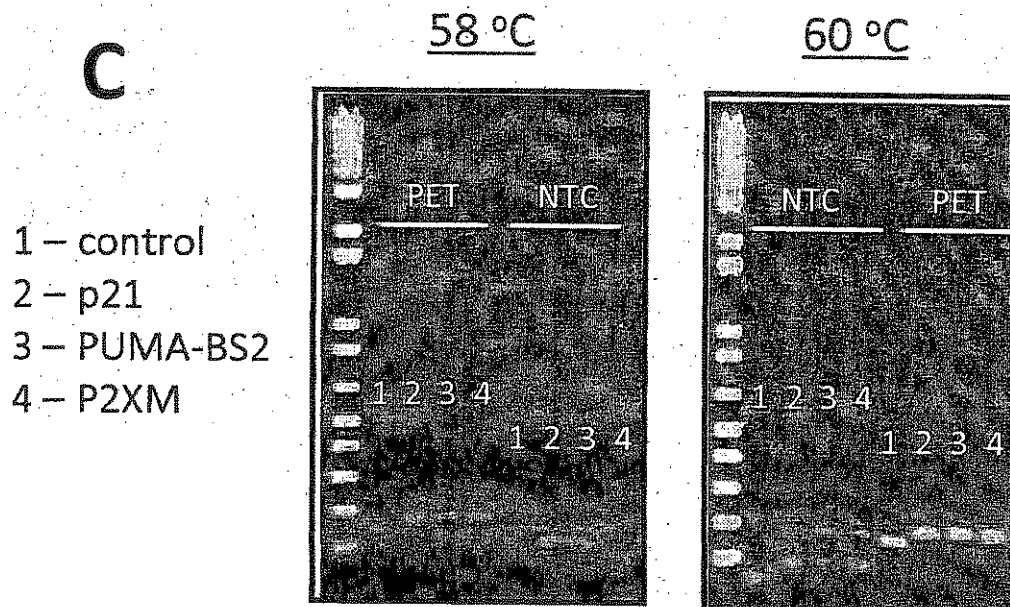
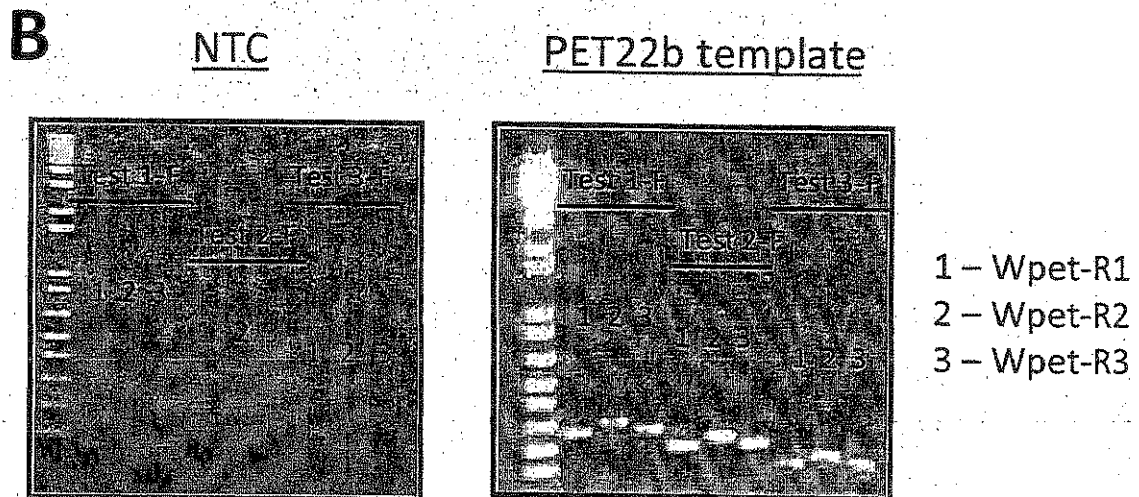


Fig. 21 (continued)

D

- 1 – control
- 2 – RGC
- 3 – p21
- 4 – PUMA-BS2
- 5 – P2XM

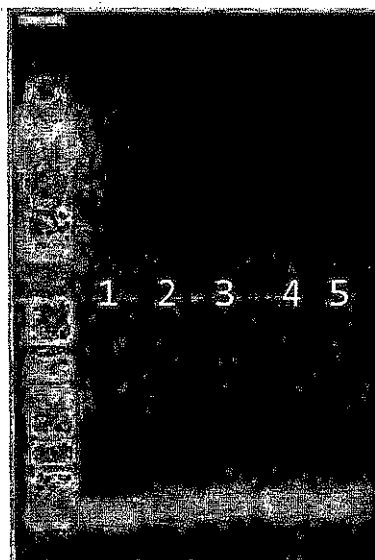


Fig. 22

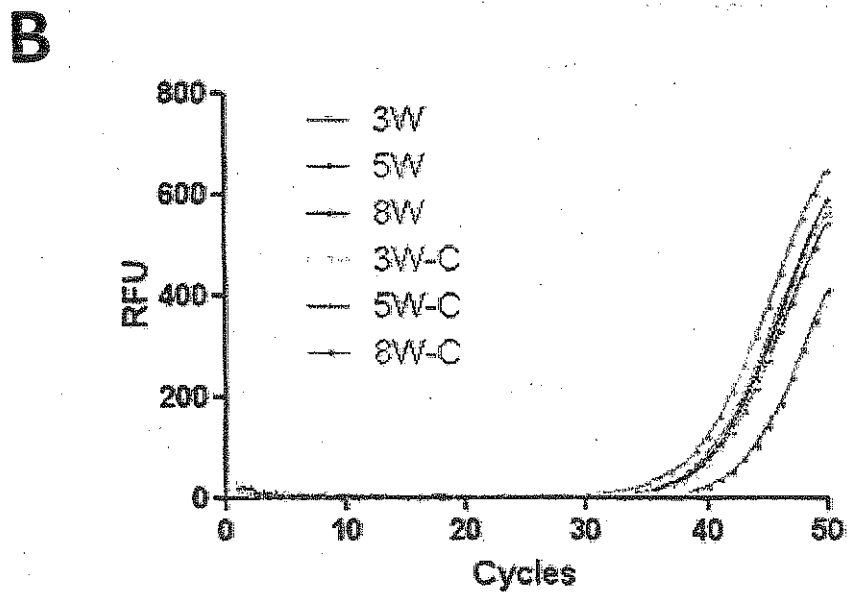
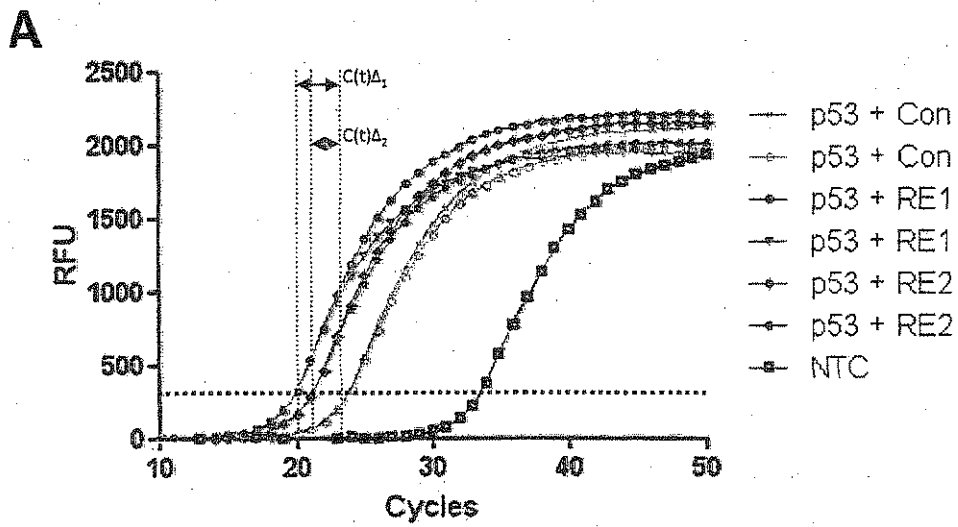


Fig. 22 (continued)

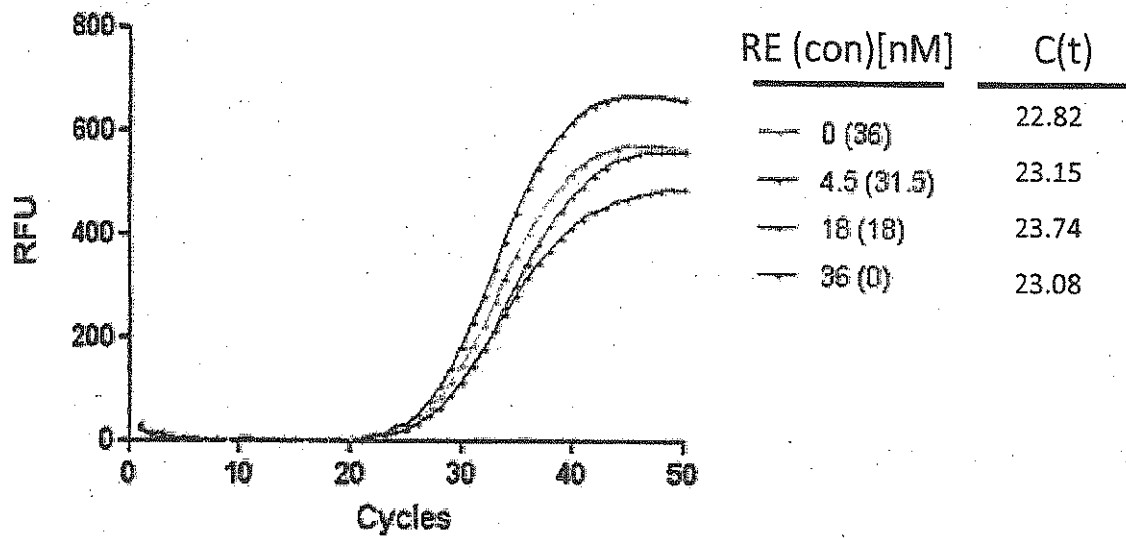
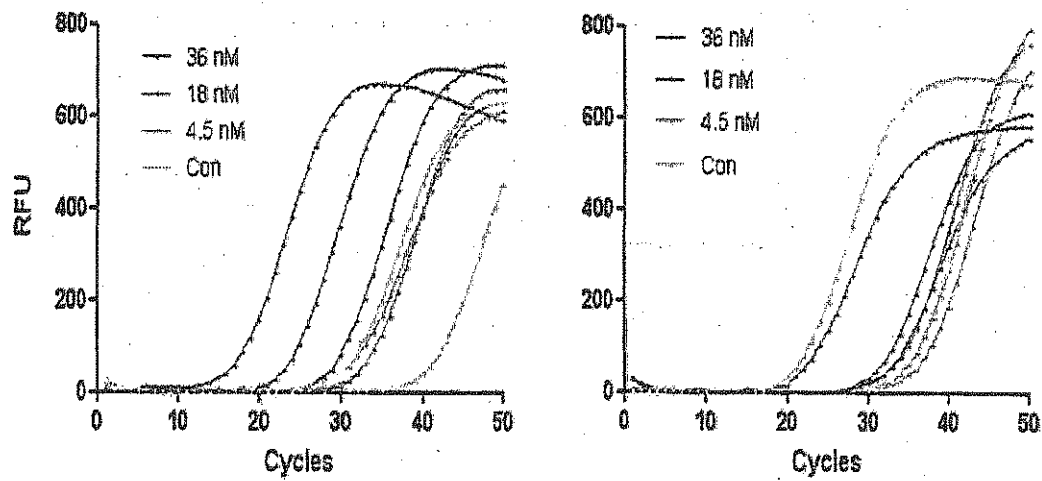
C**D**

Fig. 22 (continued)

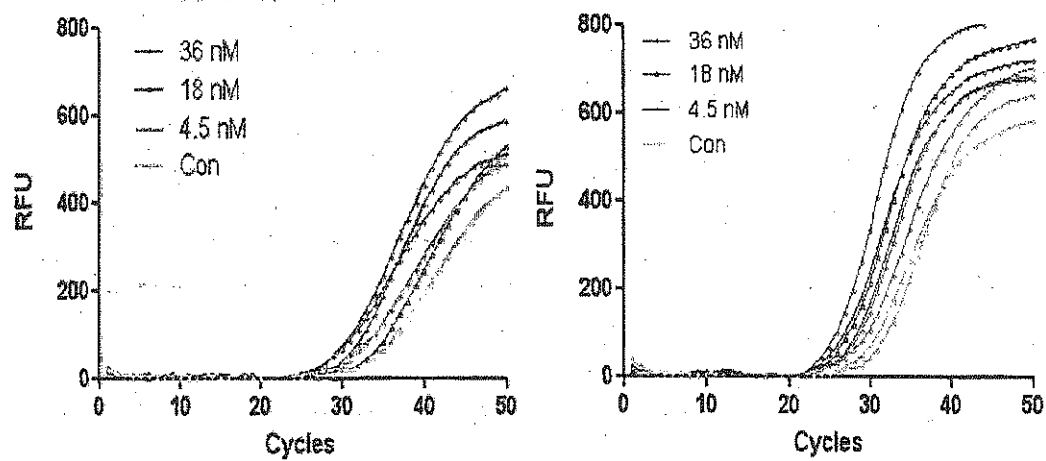
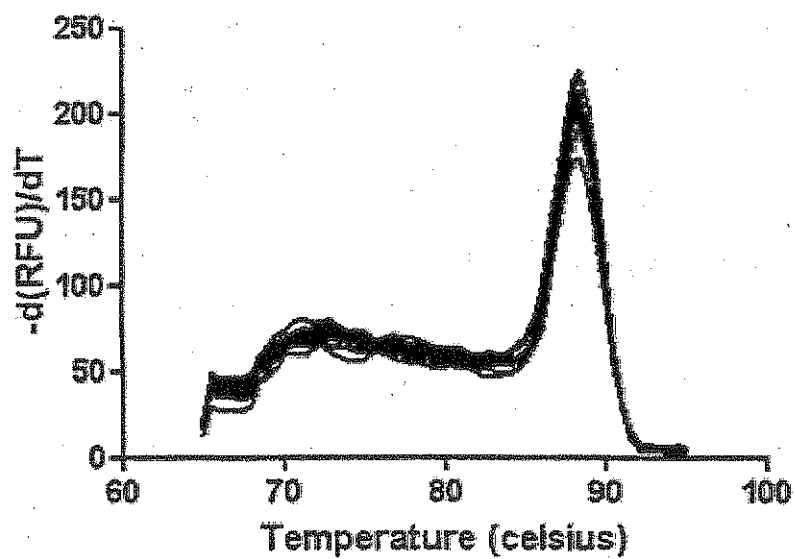
E**F**

Fig. 23

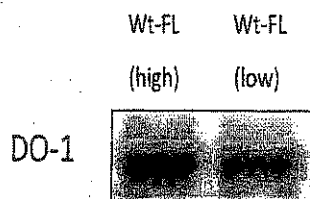
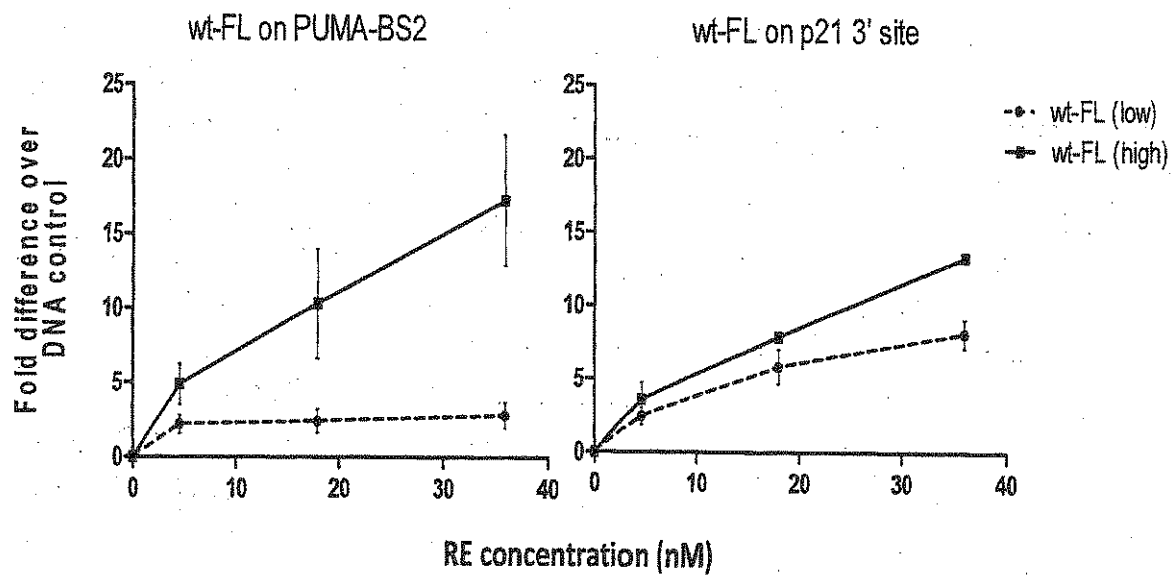


Fig. 24

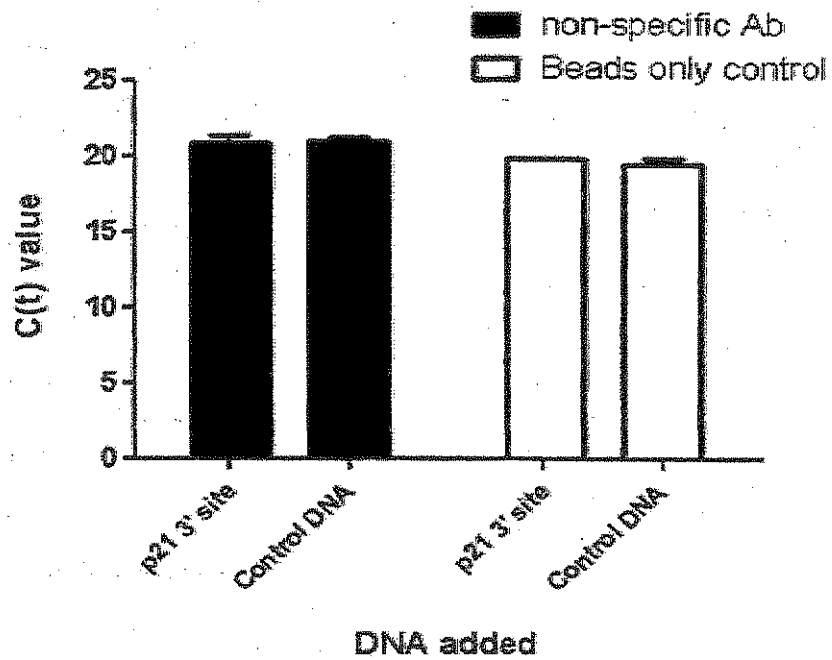
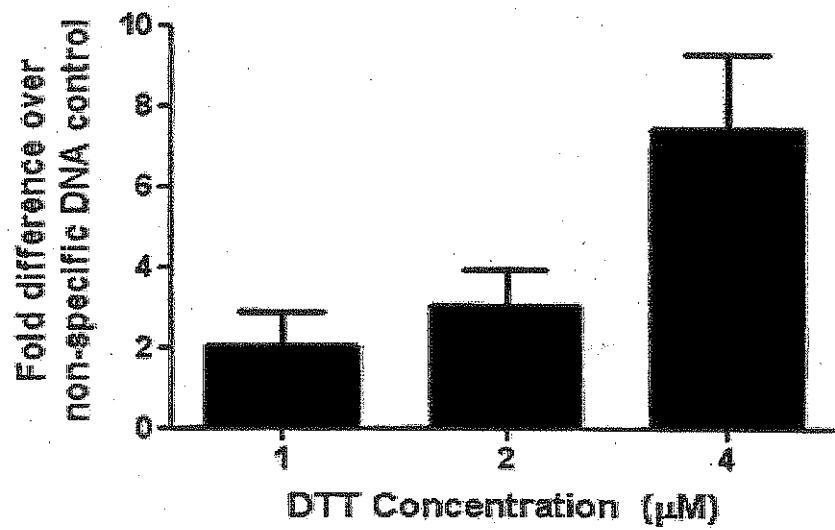
A**B**

Fig. 25

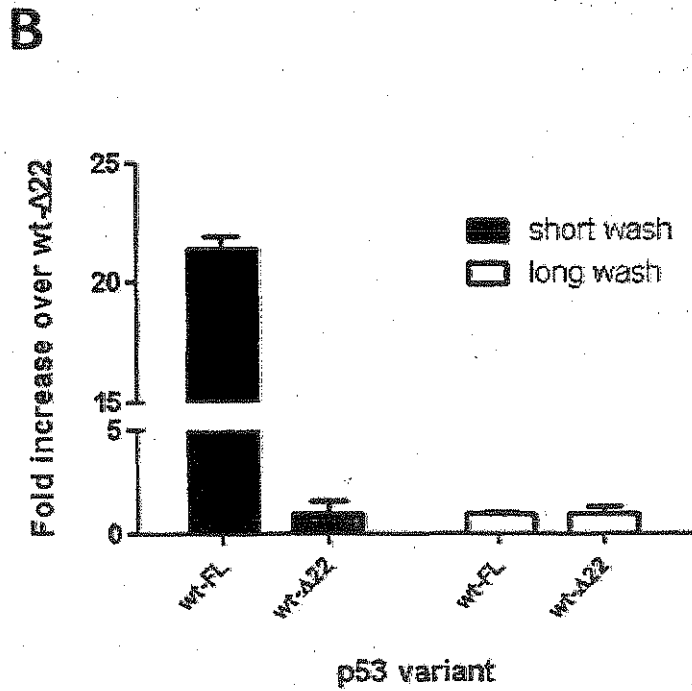
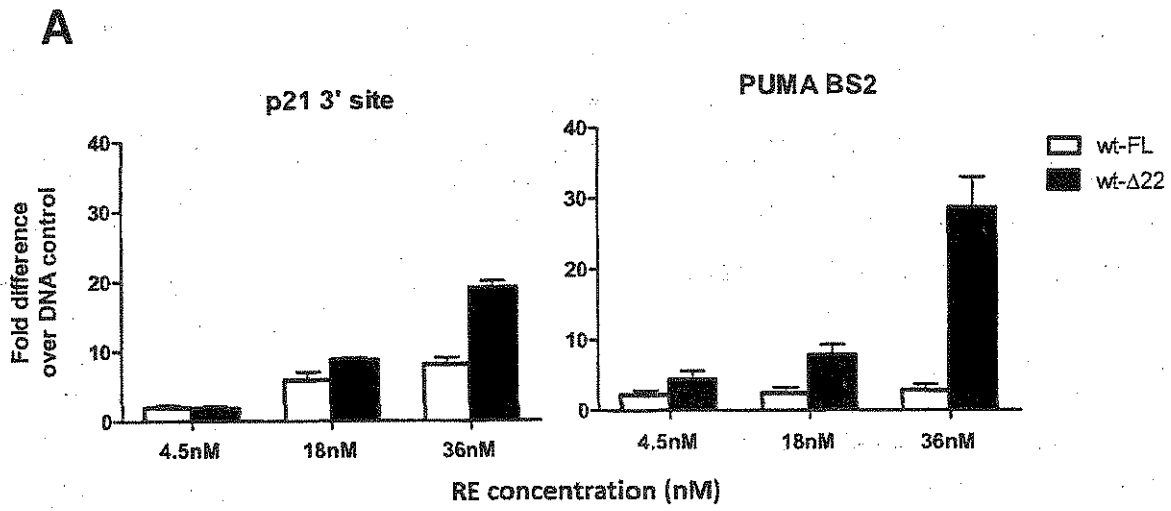


Fig. 26

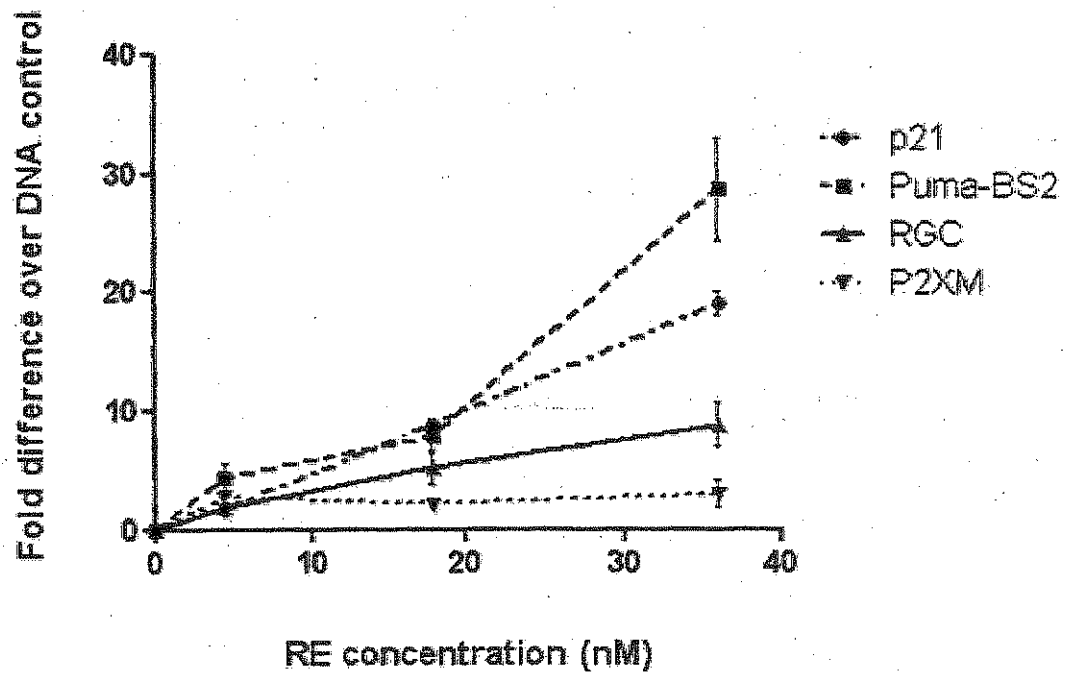


Fig. 27

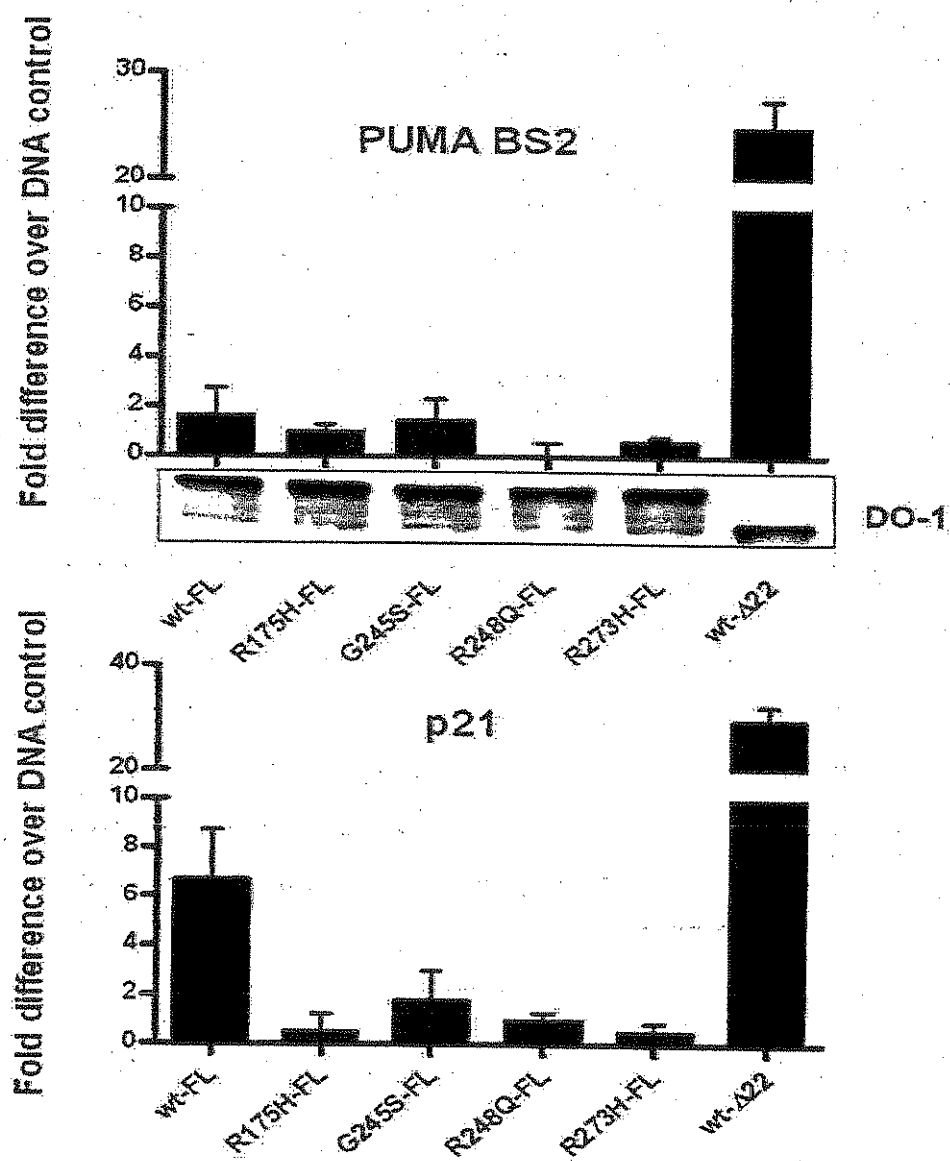


Fig. 28

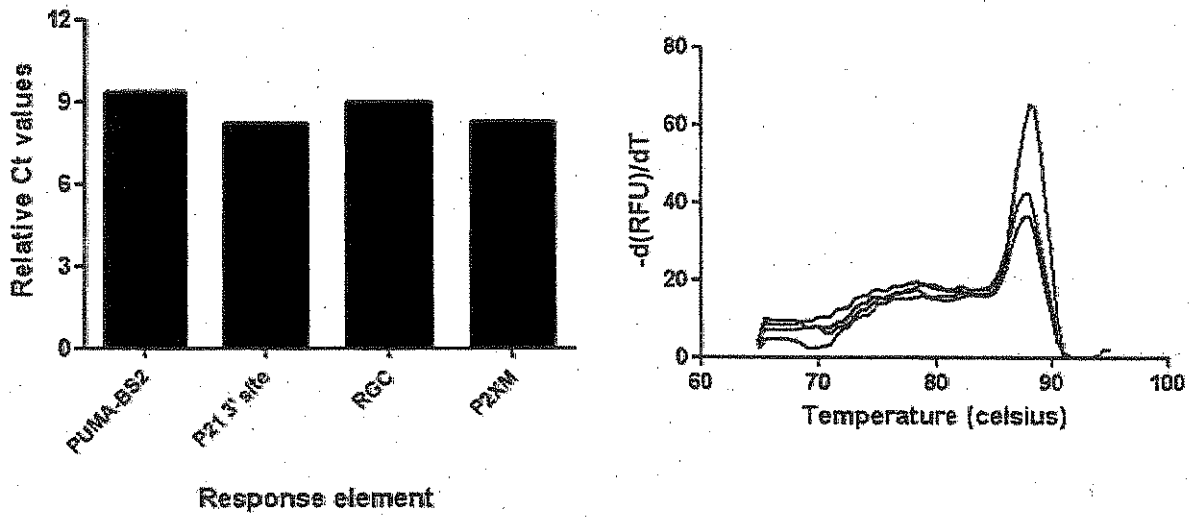
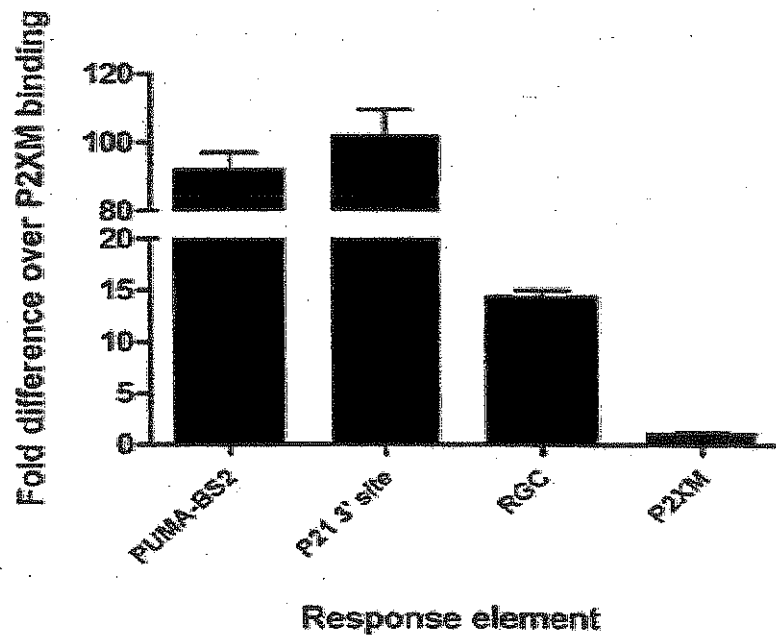
A**B**

Fig. 29

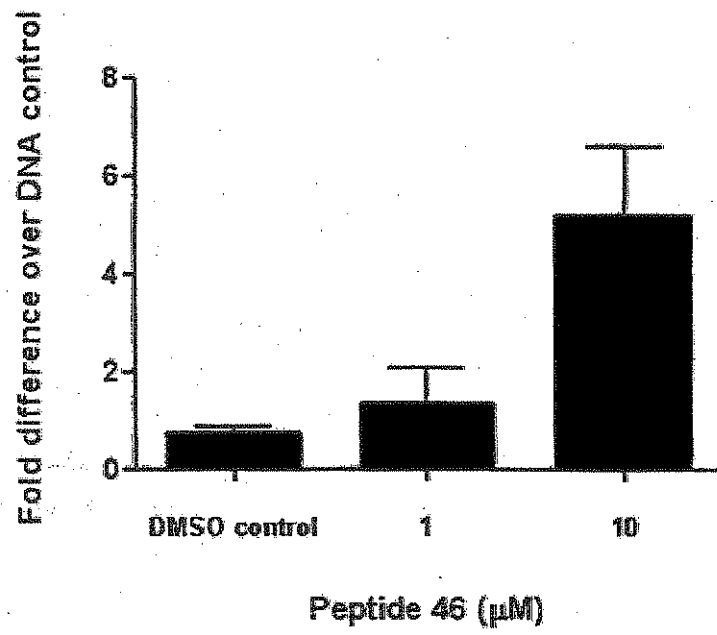


Fig. 30

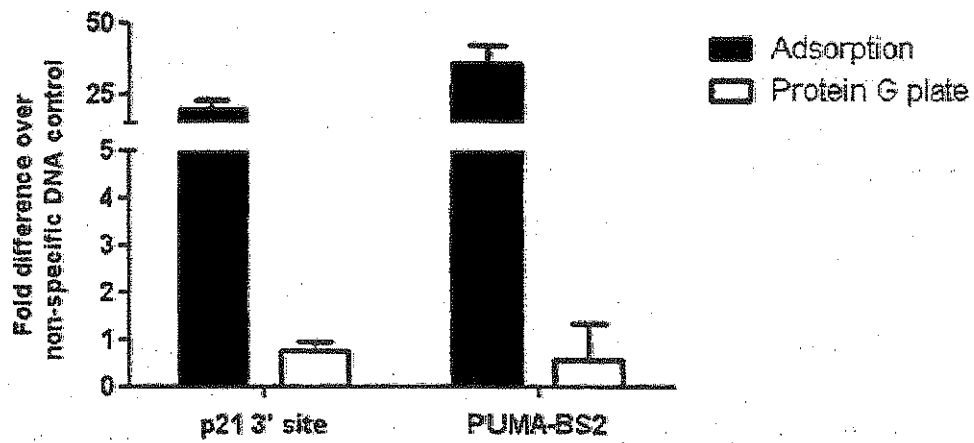
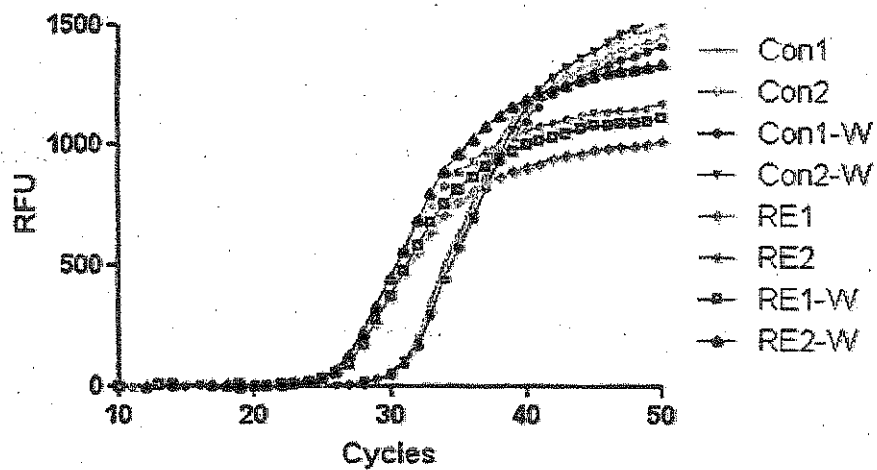
A**B**

Fig. 31

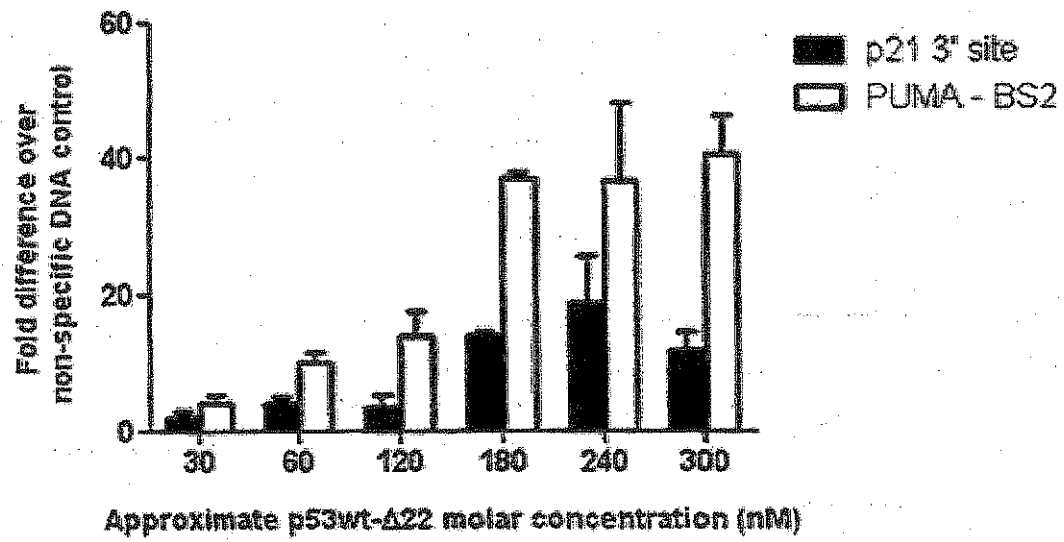


Fig. 32

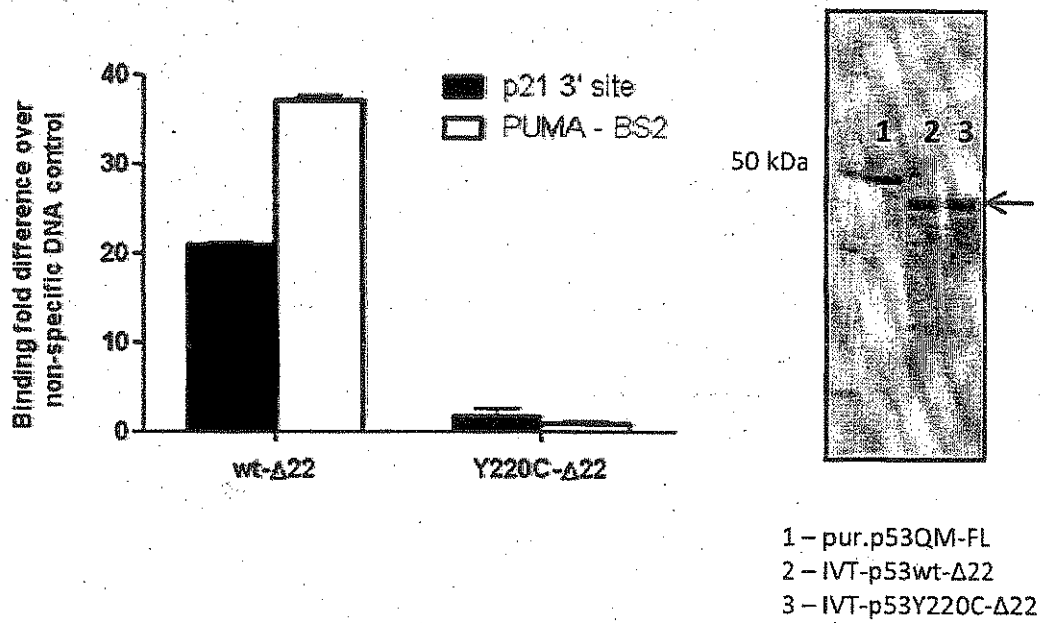
A

Fig. 32 (continued)

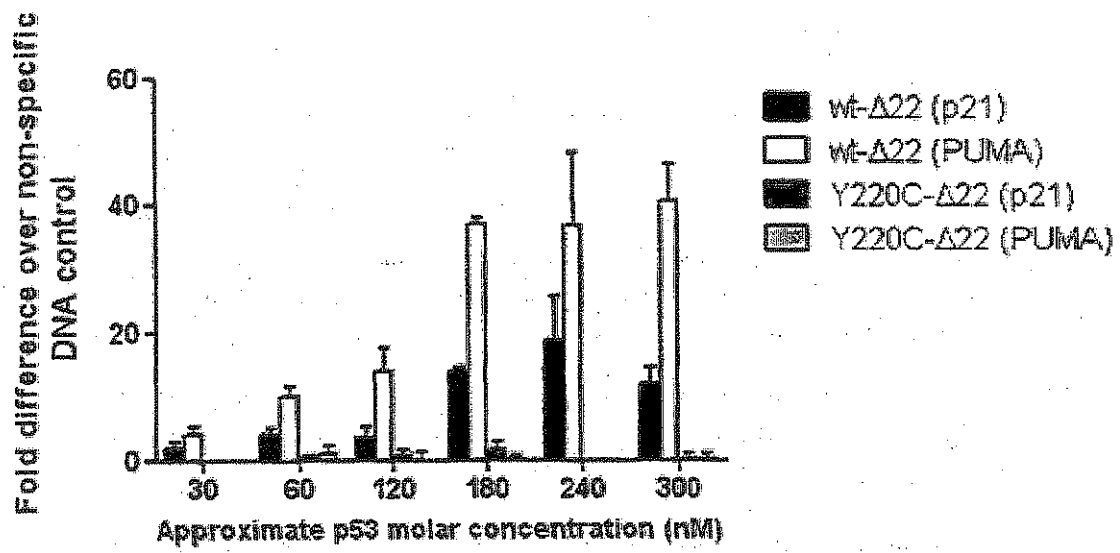
B

Fig. 33

A

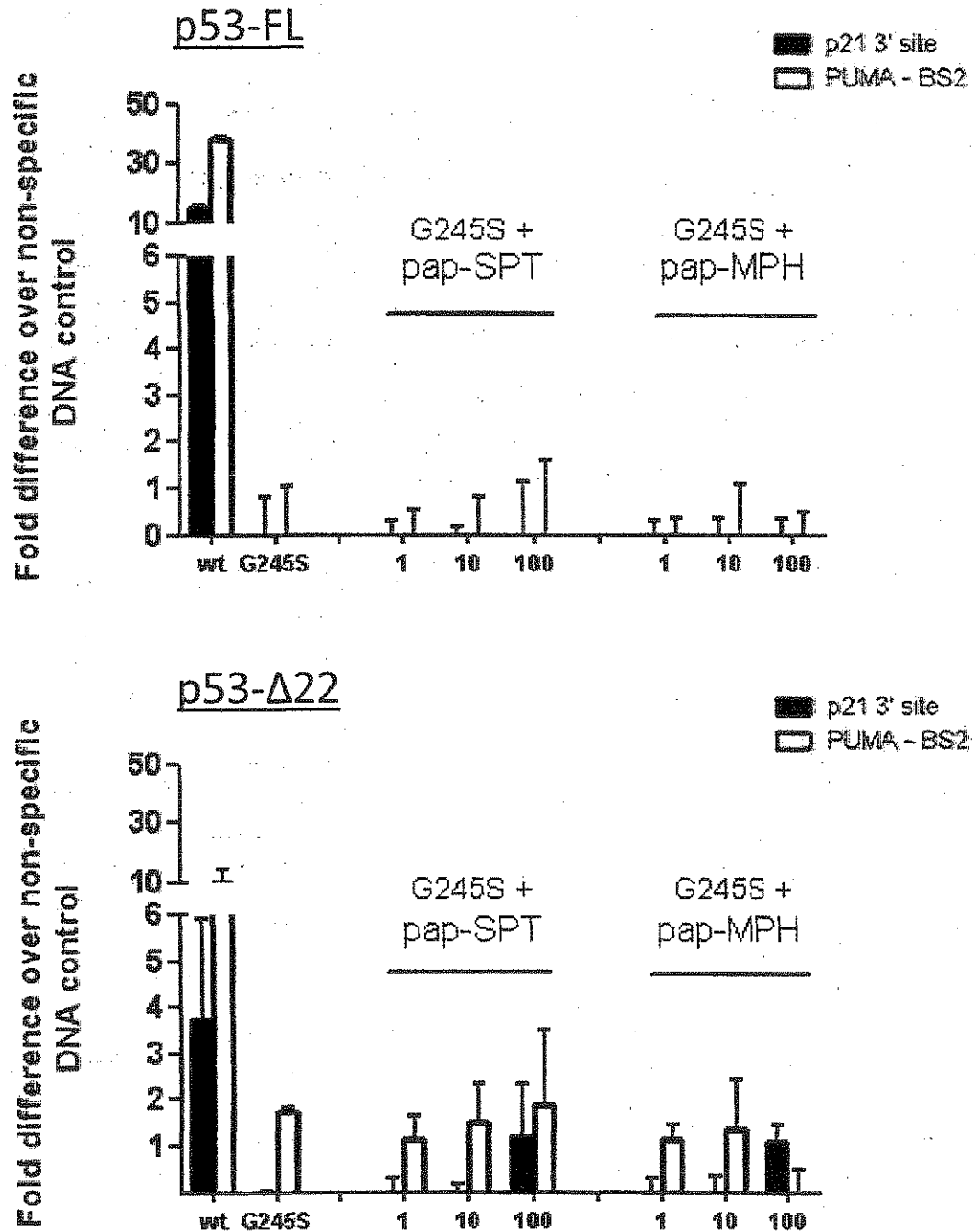


Fig. 34

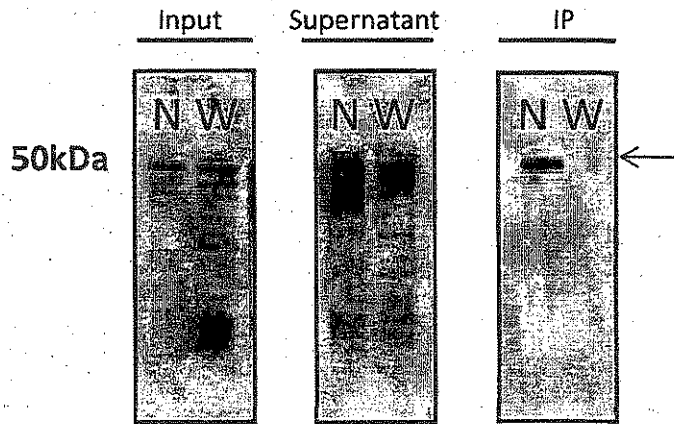
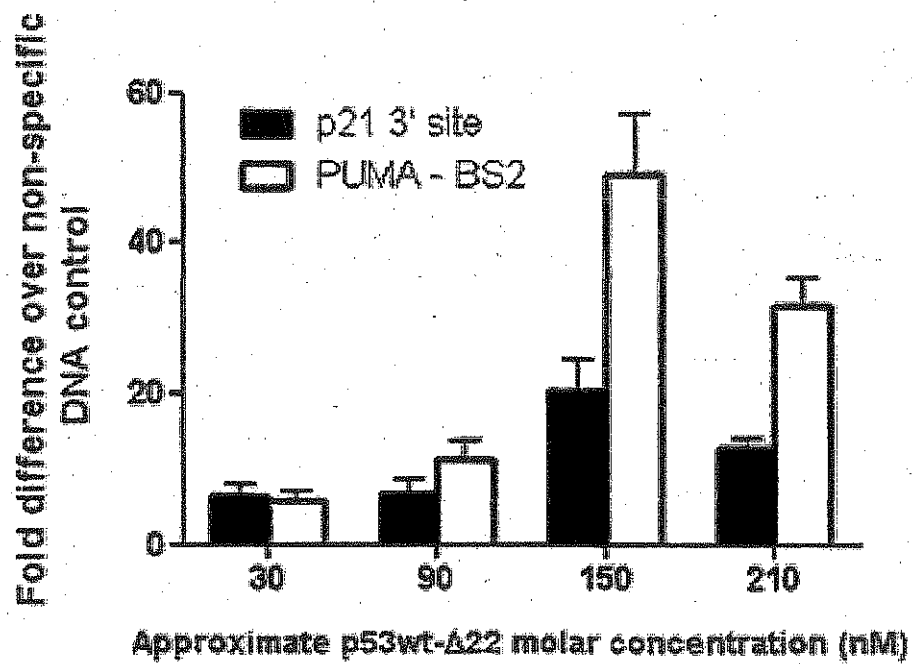
A**B**

Fig. 35

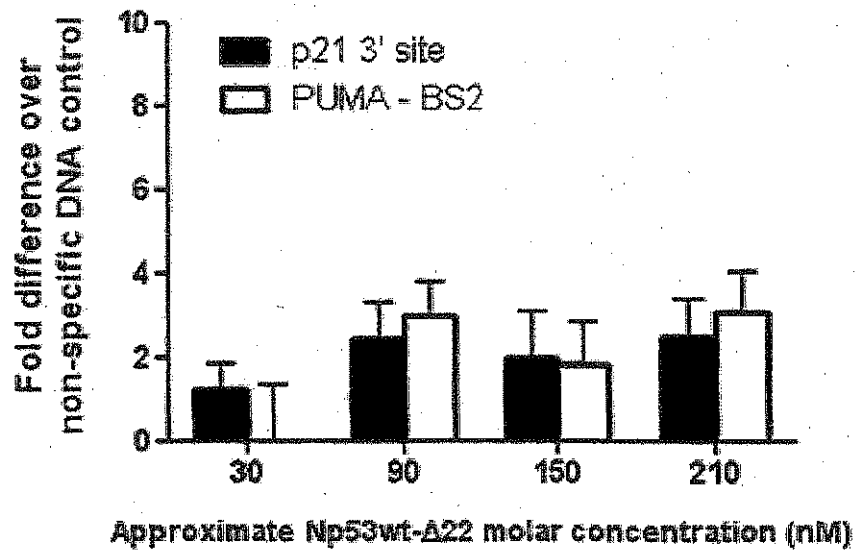
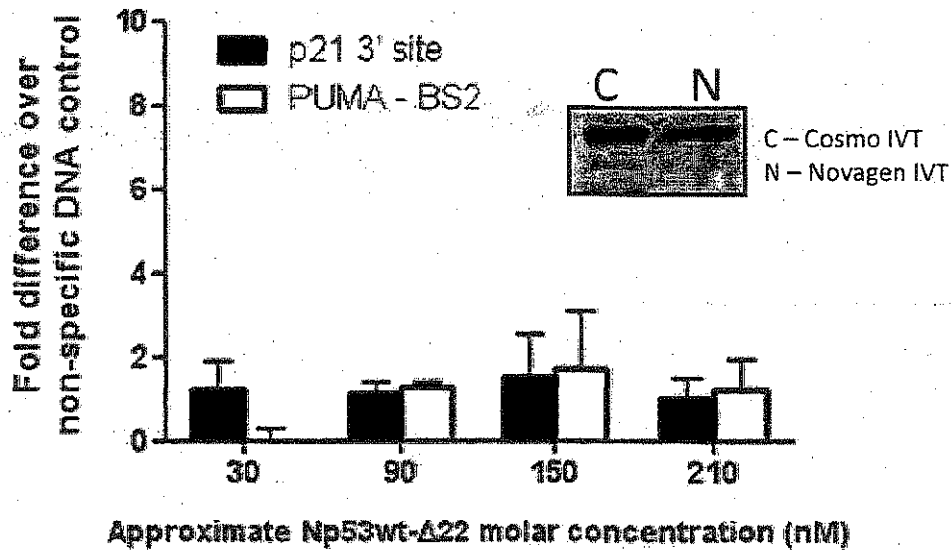
A

Fig. 36

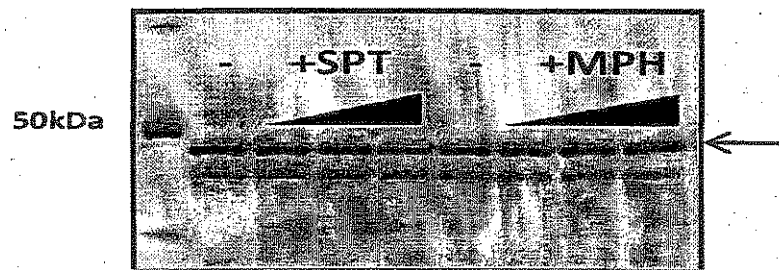
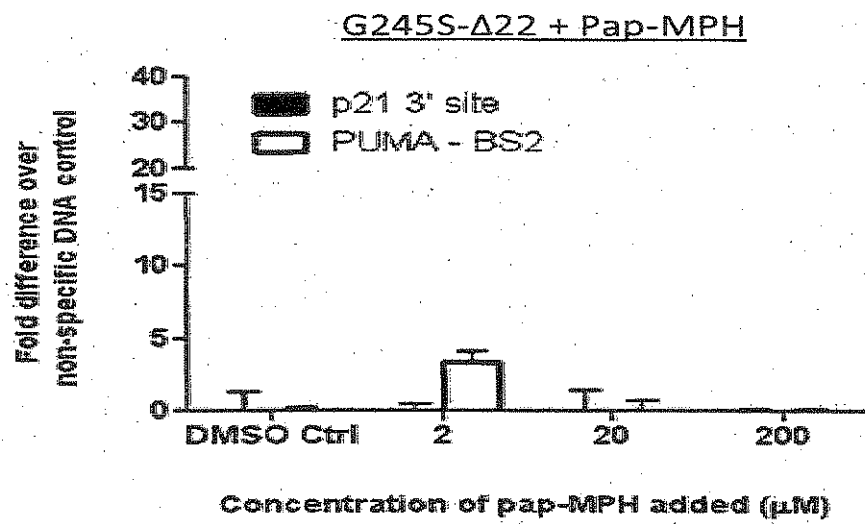
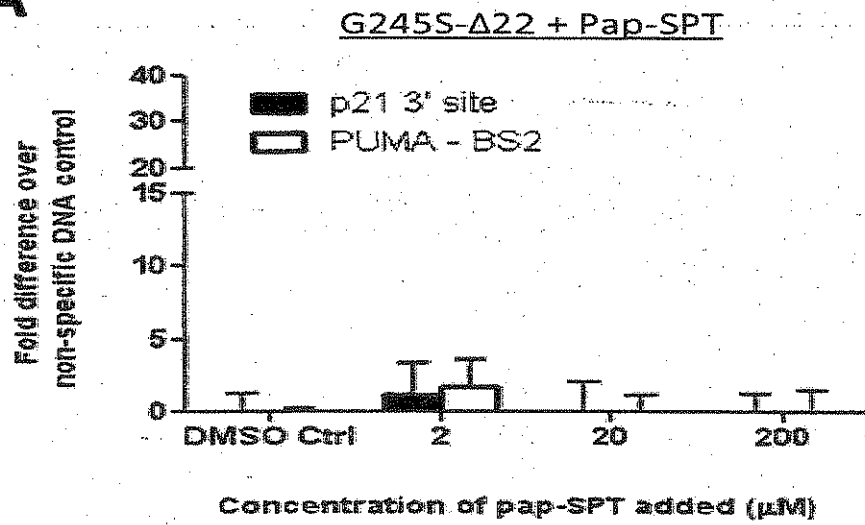
A

Fig. 36 (continued)

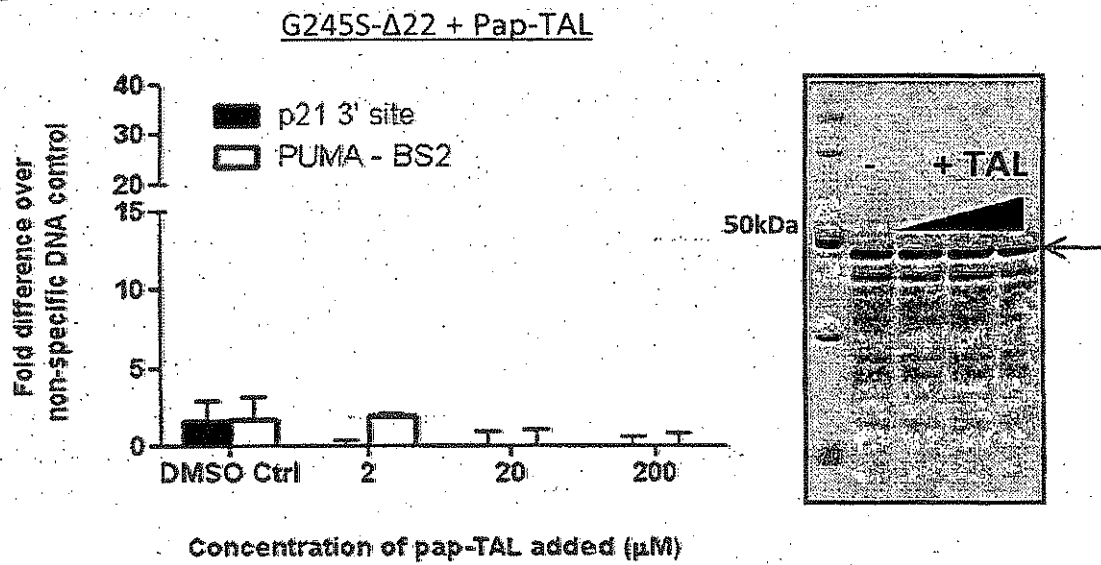
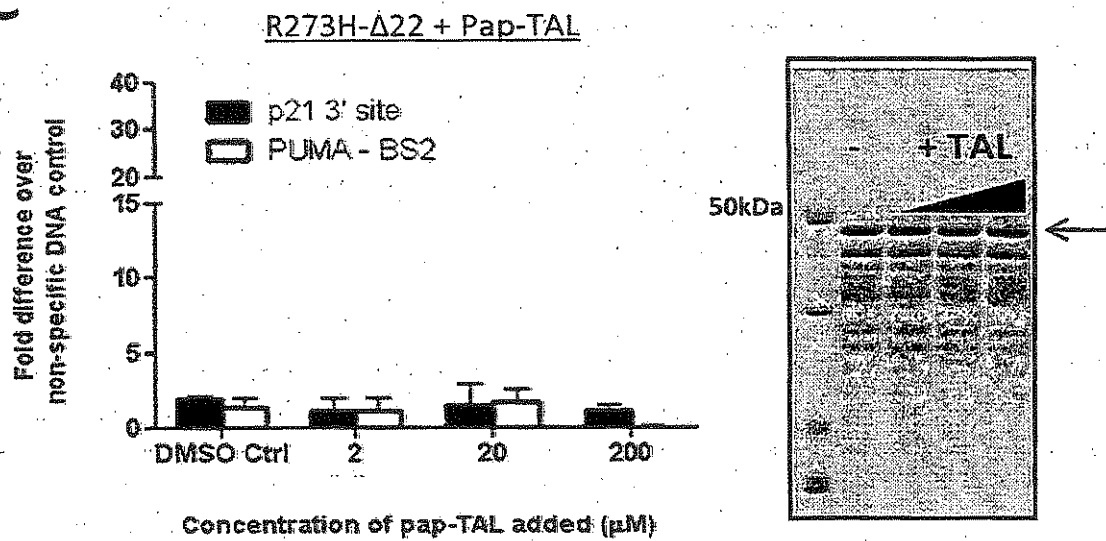
B**C**

Fig. 36 (continued)

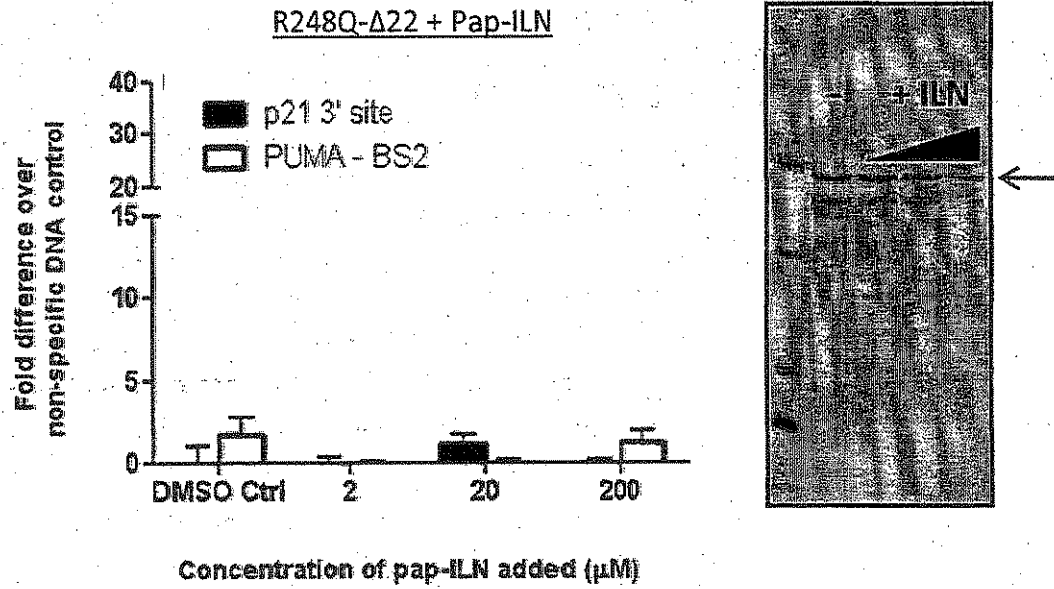
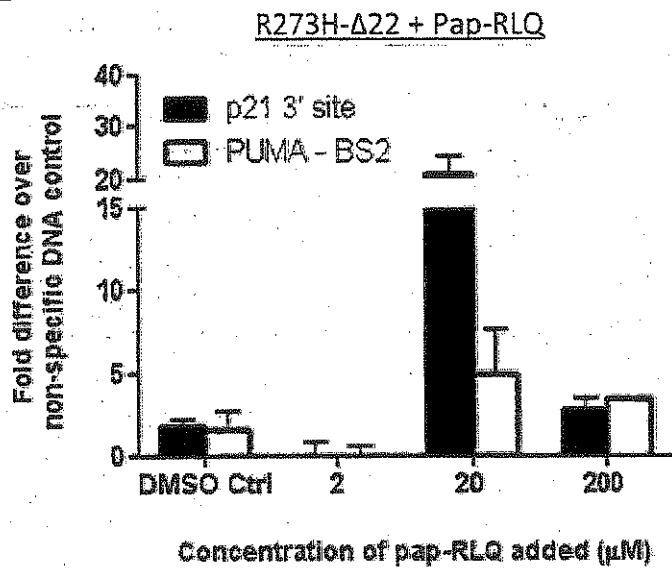
D**E**

Fig. 36 (continued)

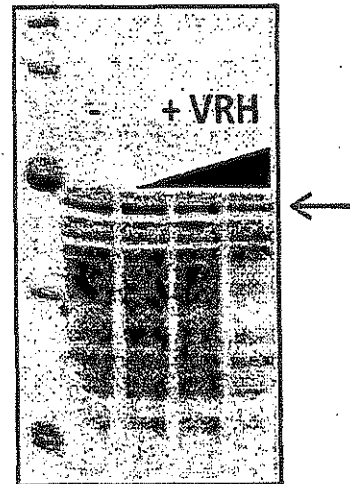
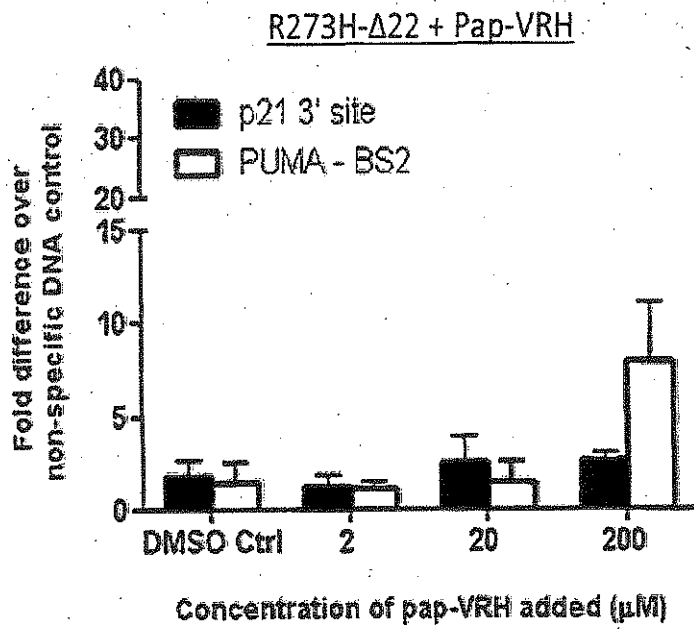
F

Fig. 36 (continued)

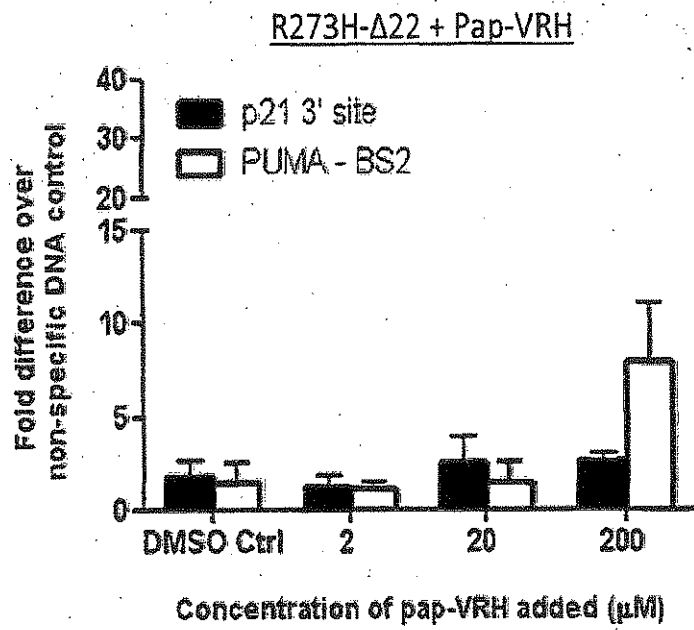
F

Fig. 37

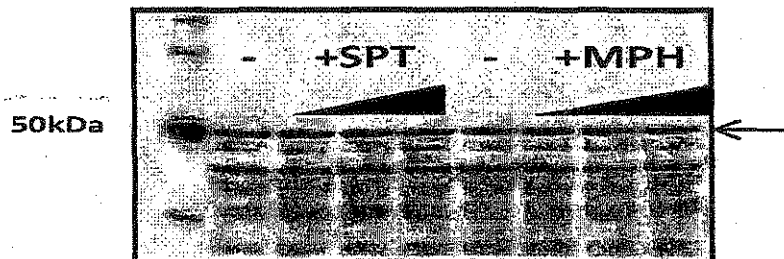
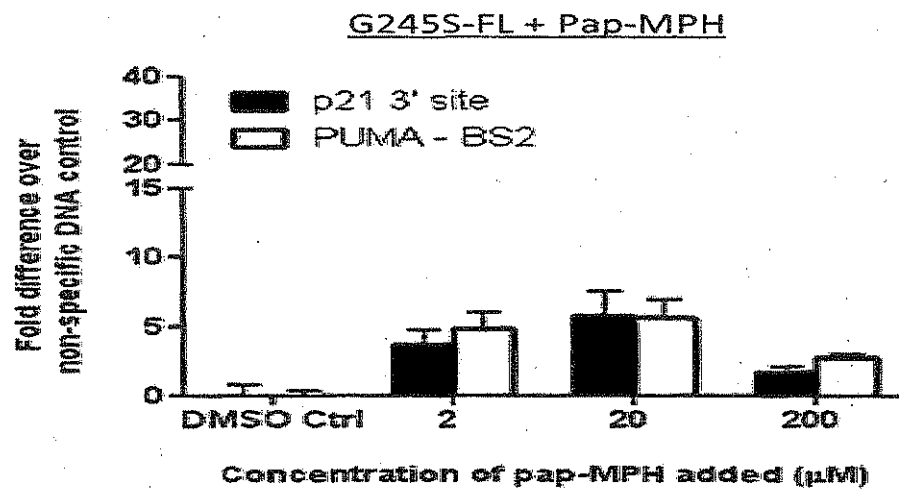
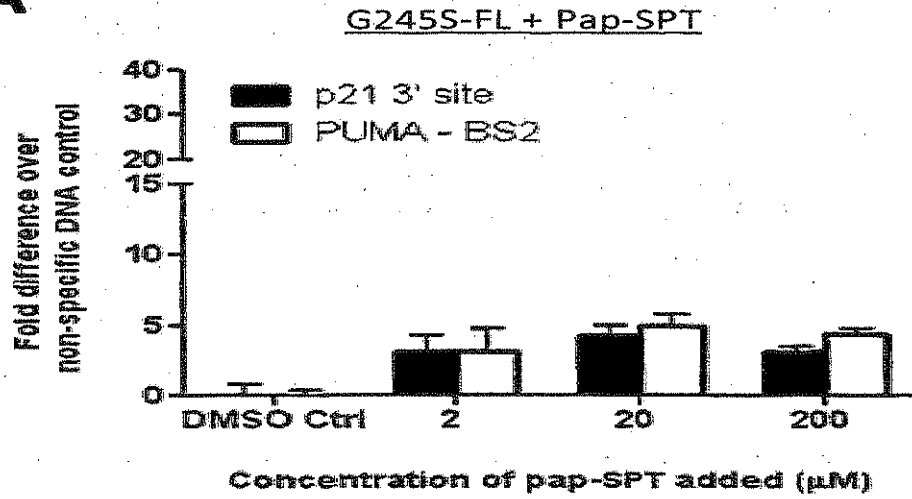
A

Fig. 37 (continued)

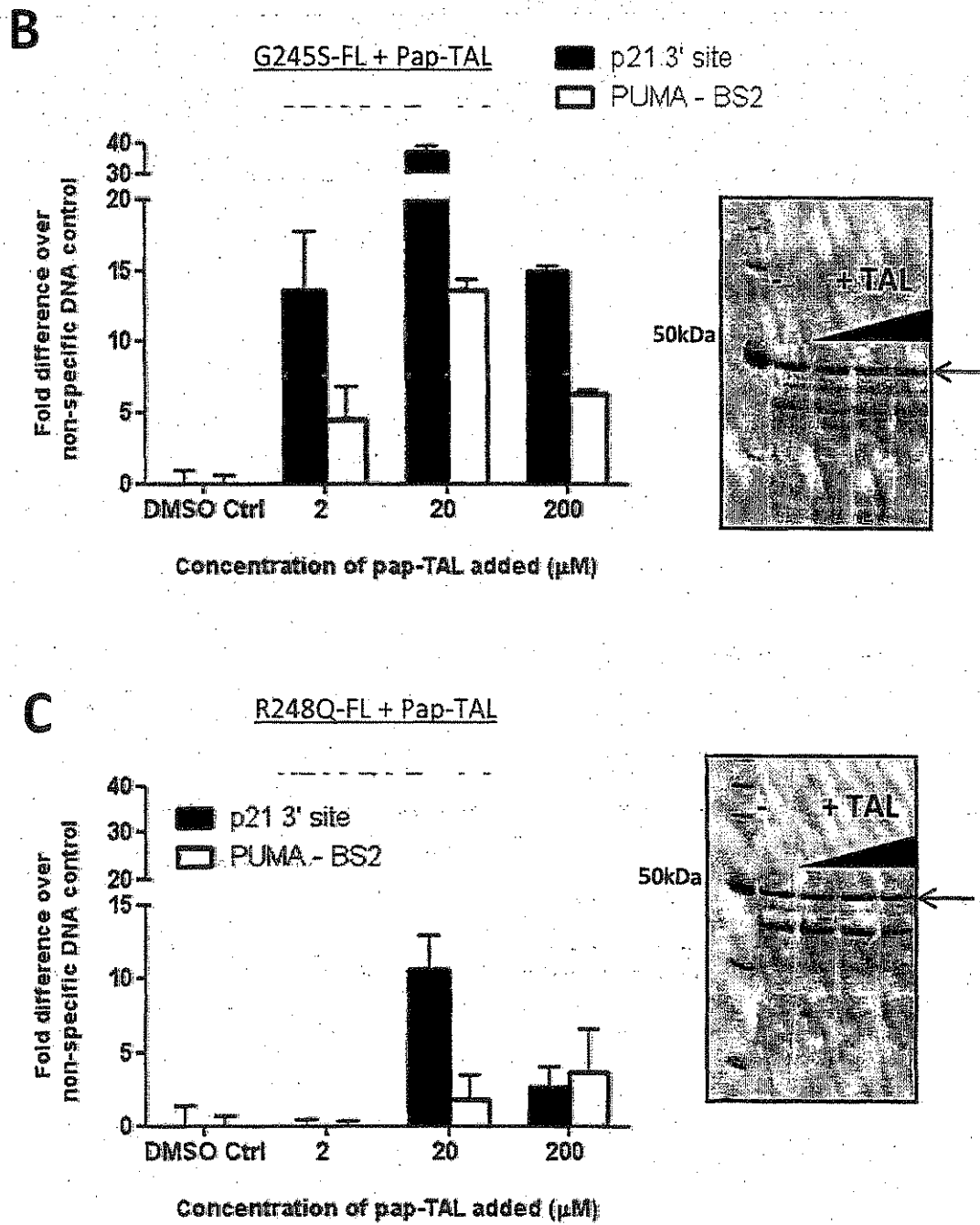


Fig. 37 (continued)

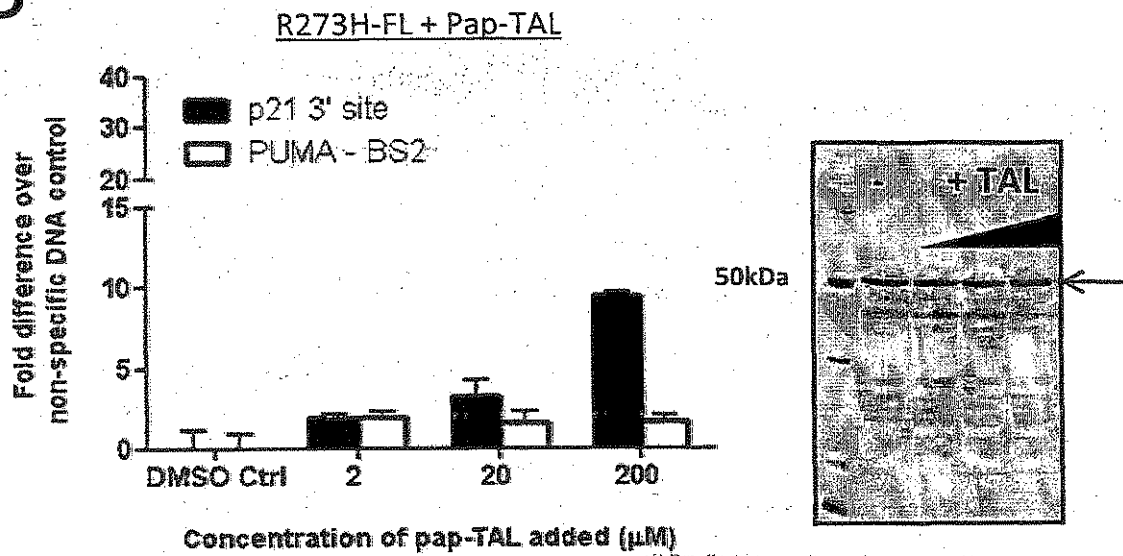
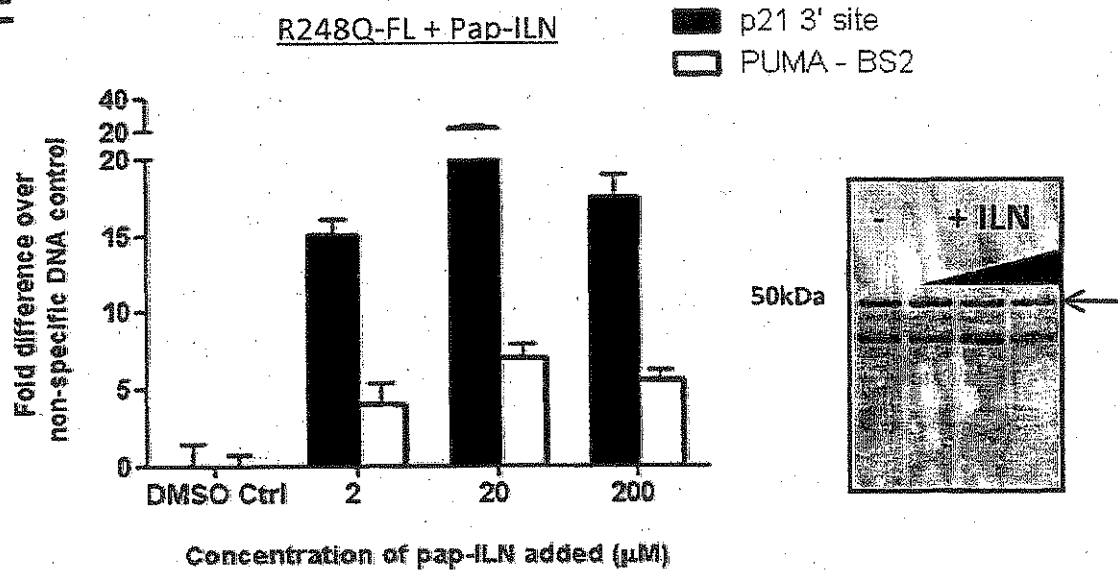
D**E**

Fig. 37 (continued)

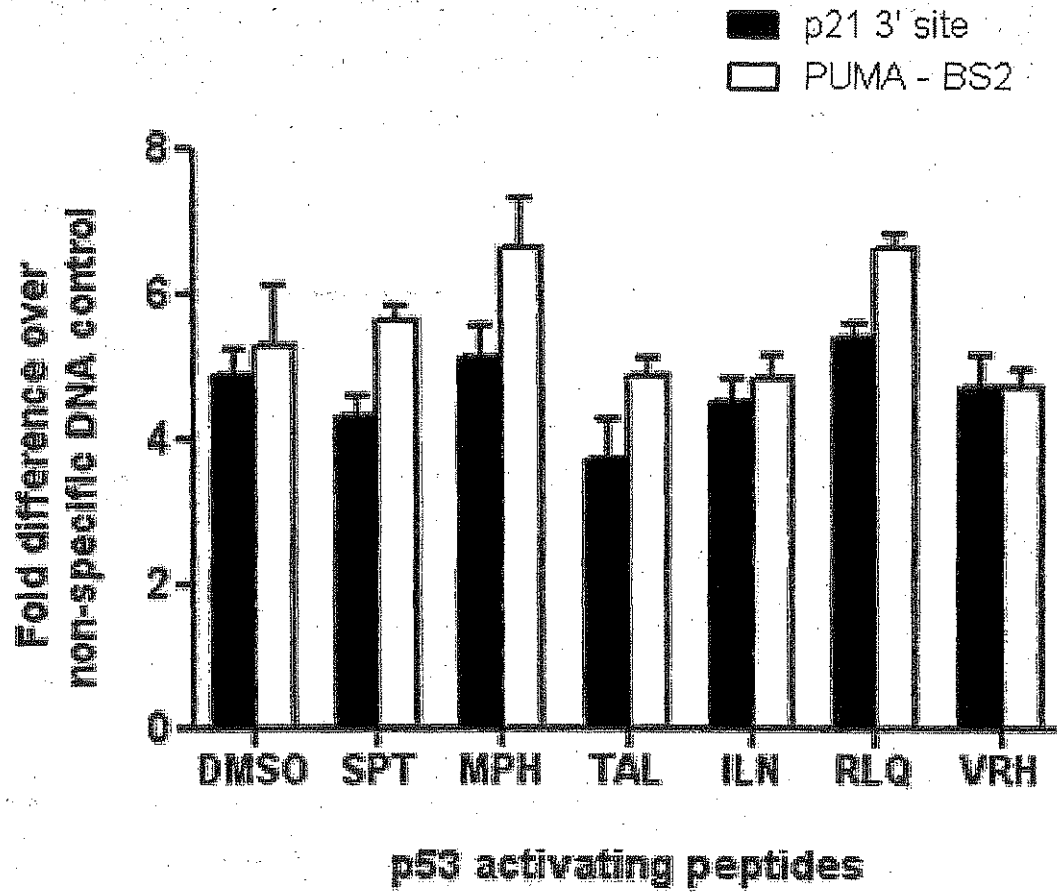
F

Fig. 38

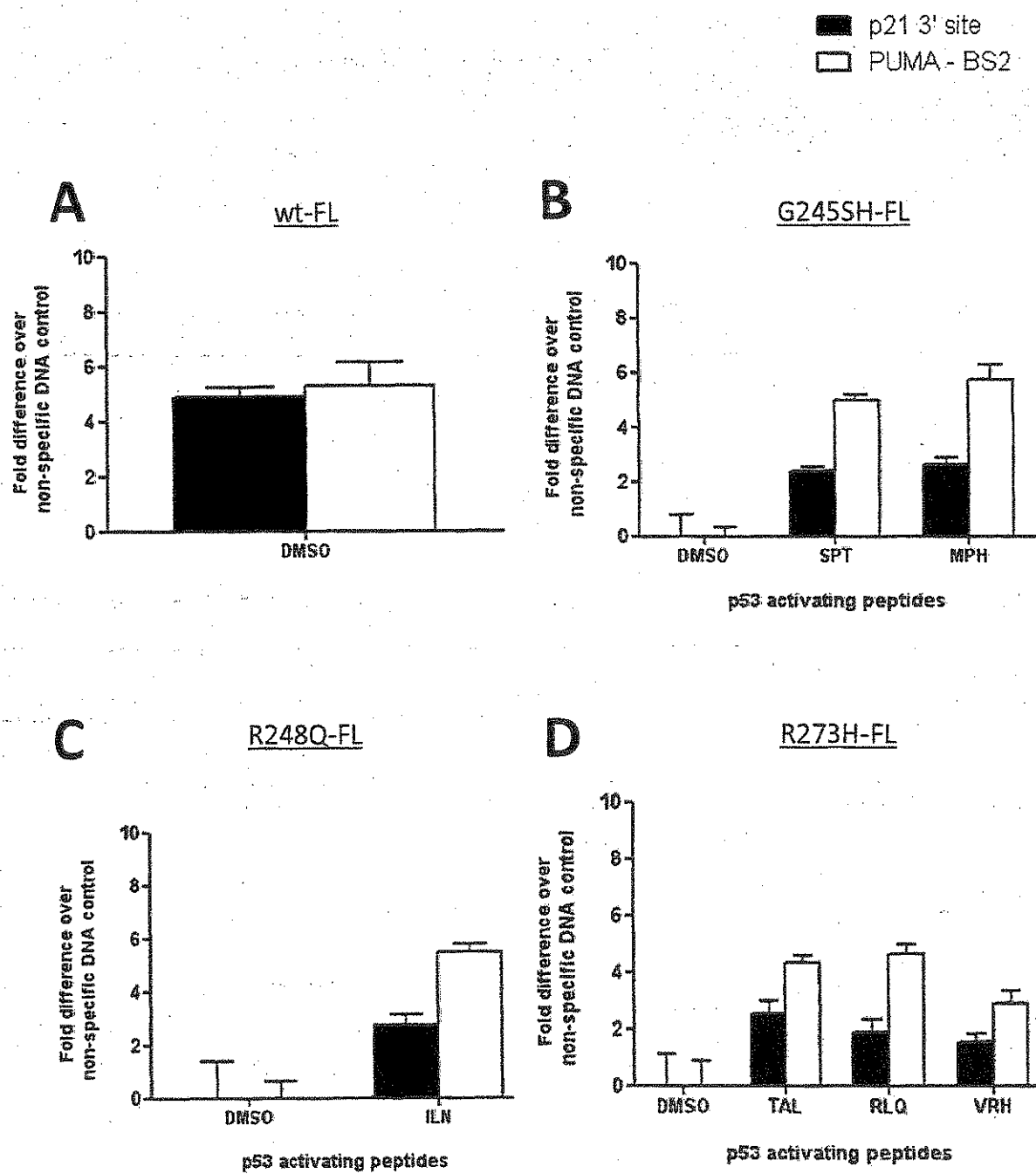


Fig. 39

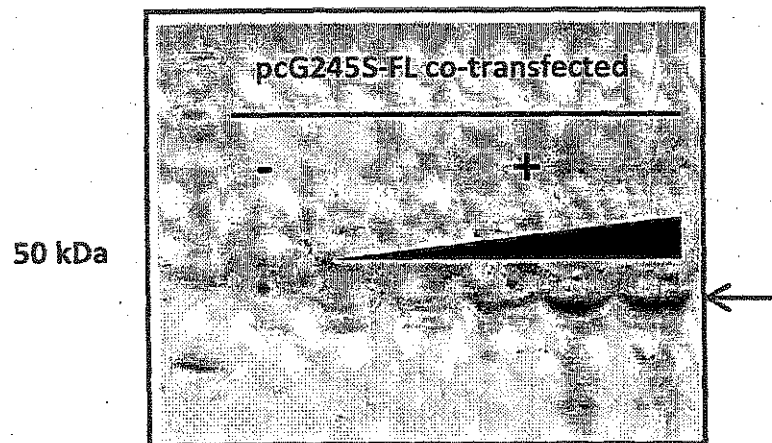
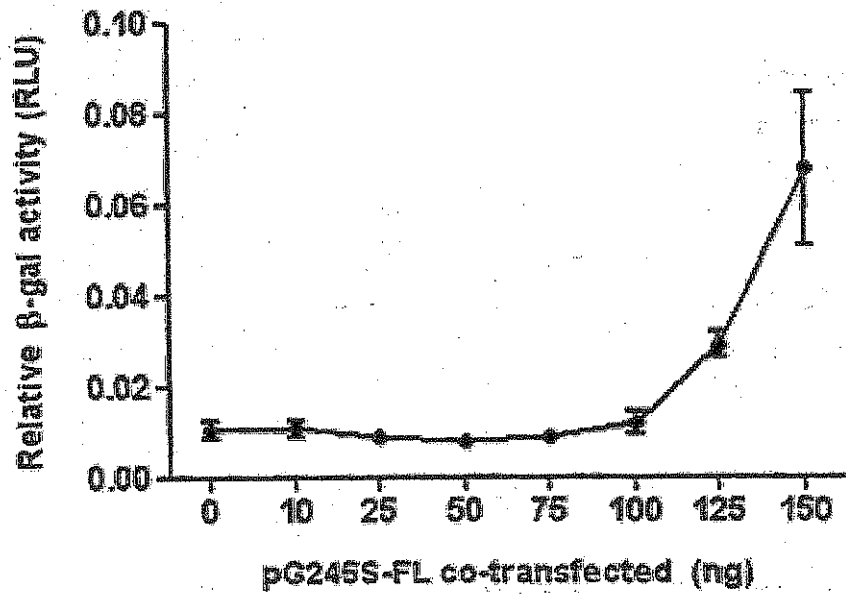
A

Fig. 40

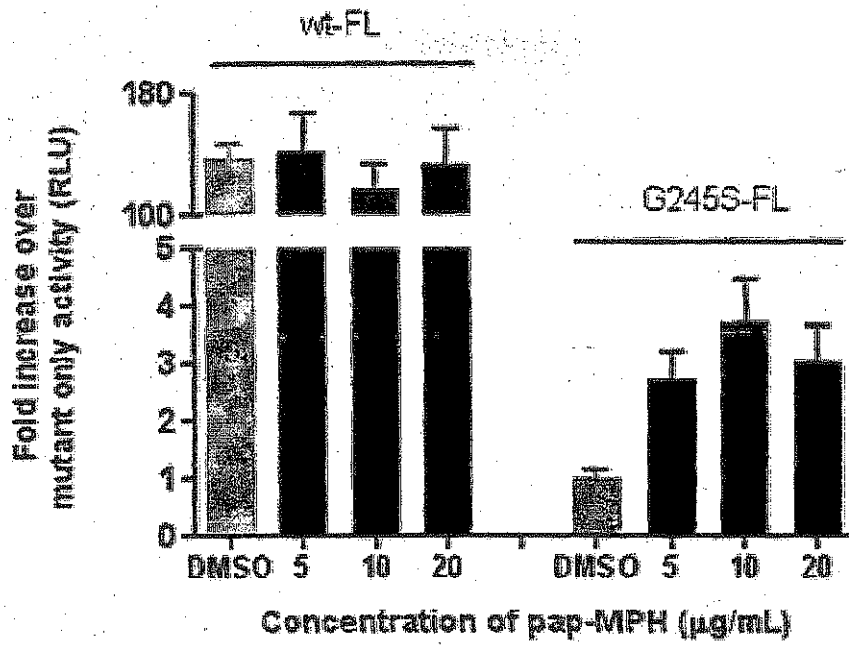
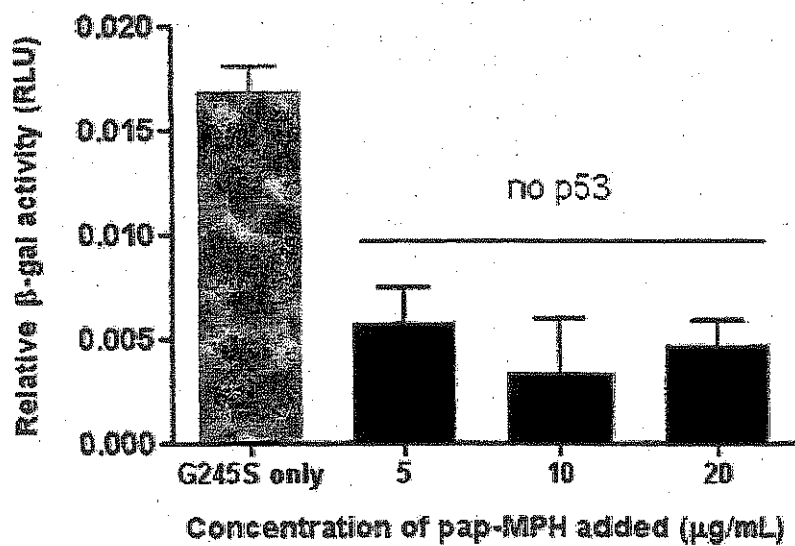
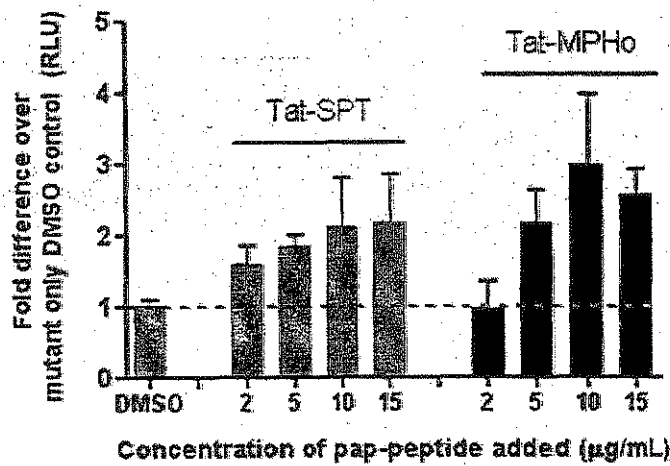
A**B**

Fig. 41

A

Peptide reference	Tat tag	p53 activating peptide sequence
Tat-SPT	GRKKRRQRRR	MSPNTINH
Tat-MPHo	GRKKRRQRRR	MMPHLMAC
Tat-MPHs	GRKKRRQRRR	MPHLMAC
Tat-Scram	GRKKRRQRRR	CMAPMLHM

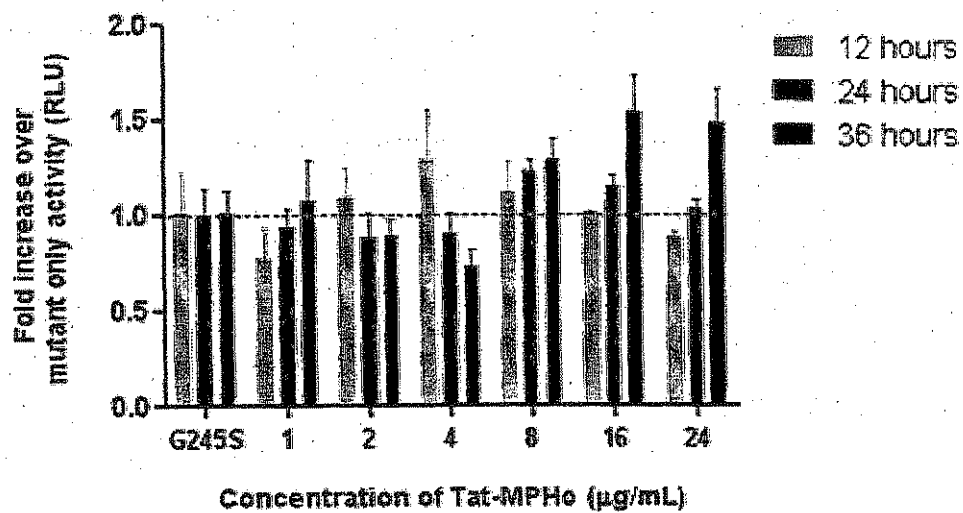
B

Fig. 41 (continued)

C

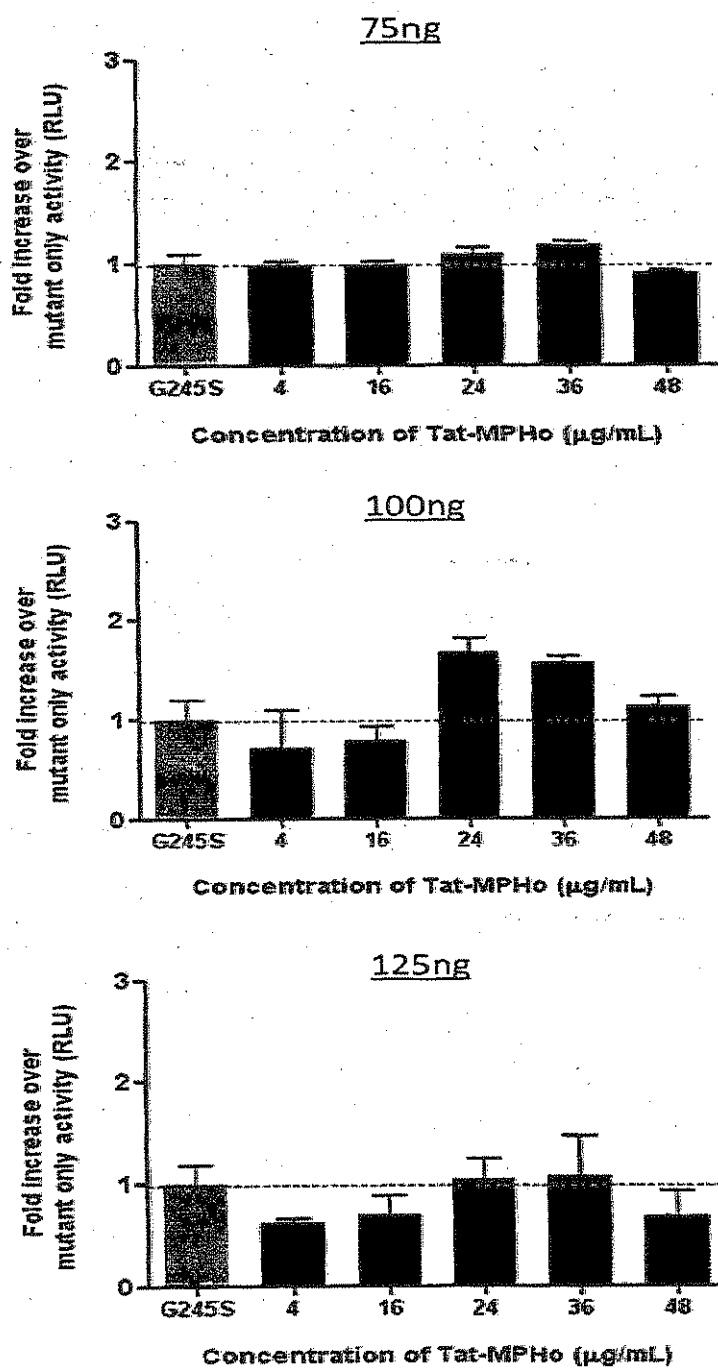


Fig. 41 (continued)

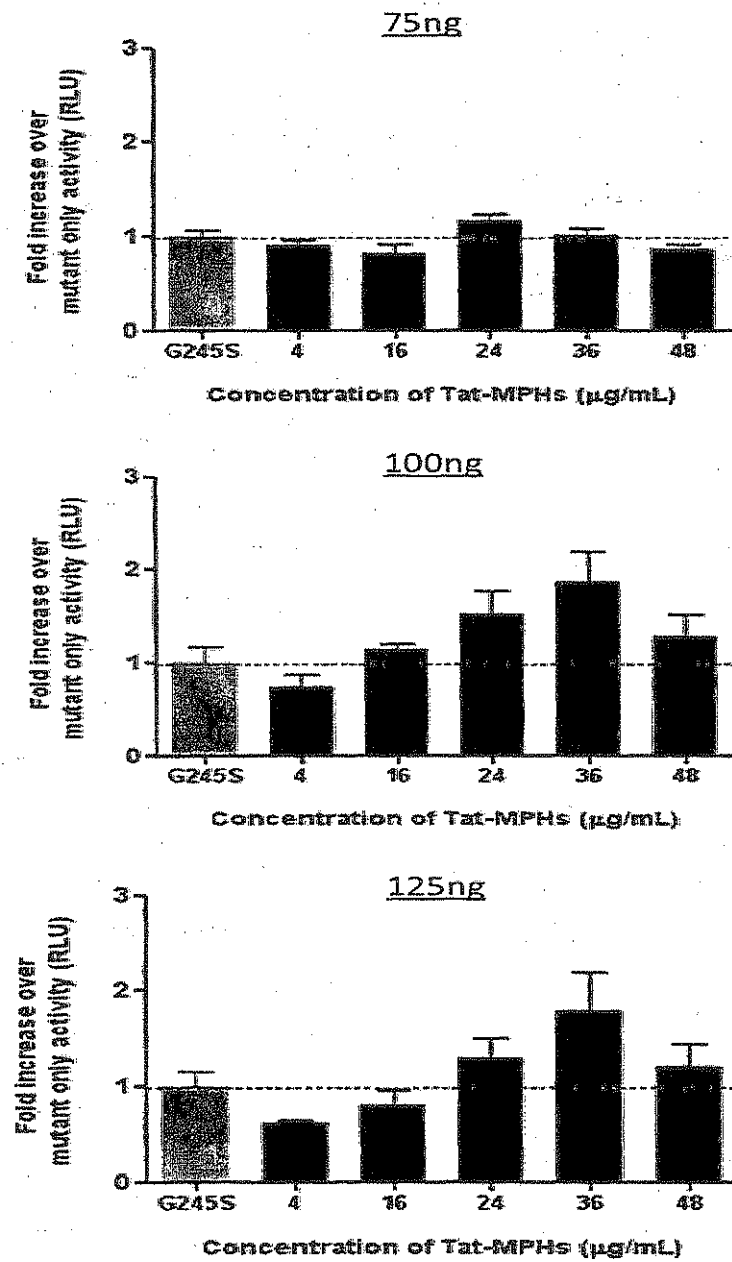
D

Fig. 41 (continued)

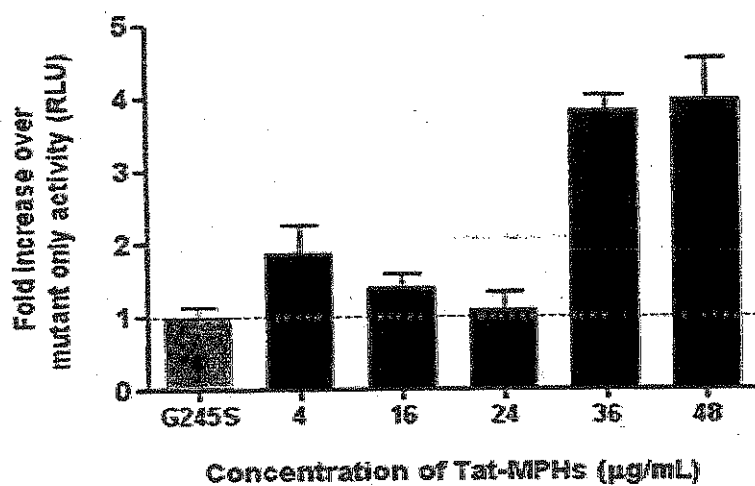
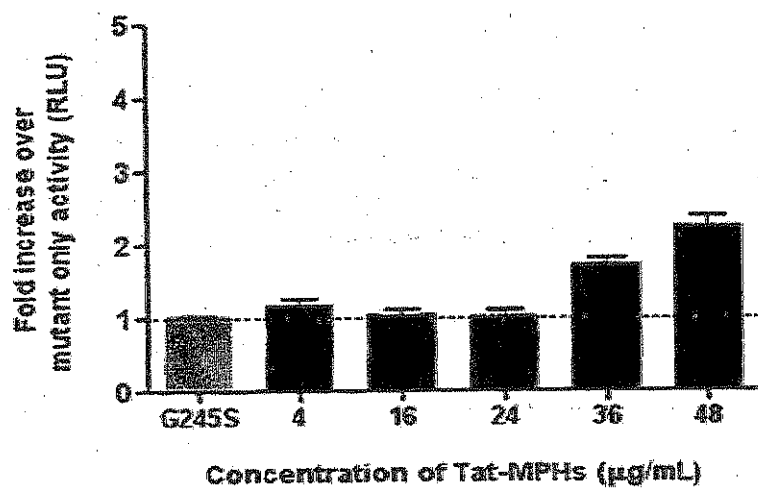
F

Fig. 41 (continued)

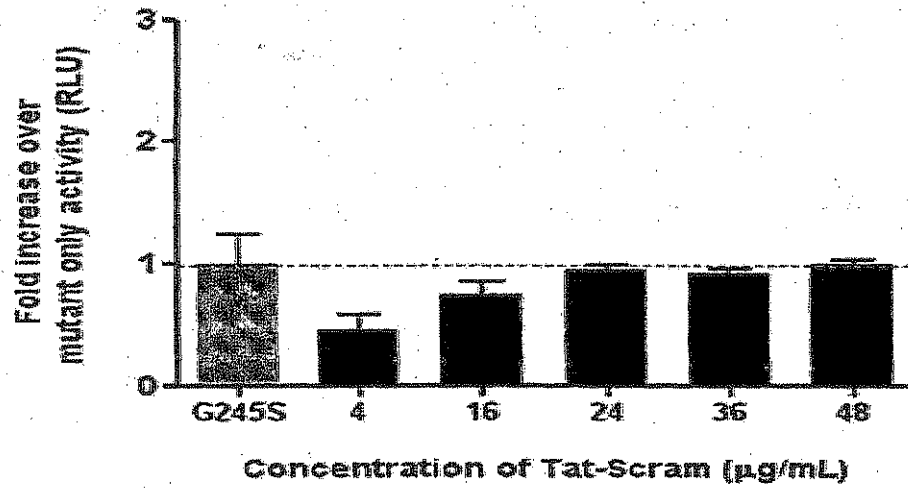
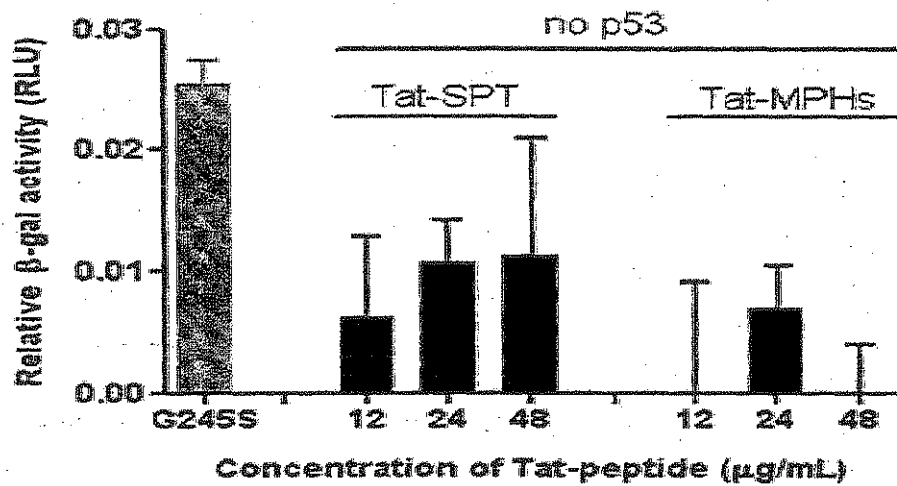
F**G**

Fig. 42

A**PCR**

Trx-MPHS [REDACTED] FWAEWCG MPHLMAC PCKMIA [REDACTED]

Trx-MPHo [REDACTED] FWAEWCG MMPHLMAC PCKMIA [REDACTED]

Trx-MPHScram [REDACTED] FWAEWCG CMAPMLHMPCKMIA [REDACTED]

Fig. 42 (continued)

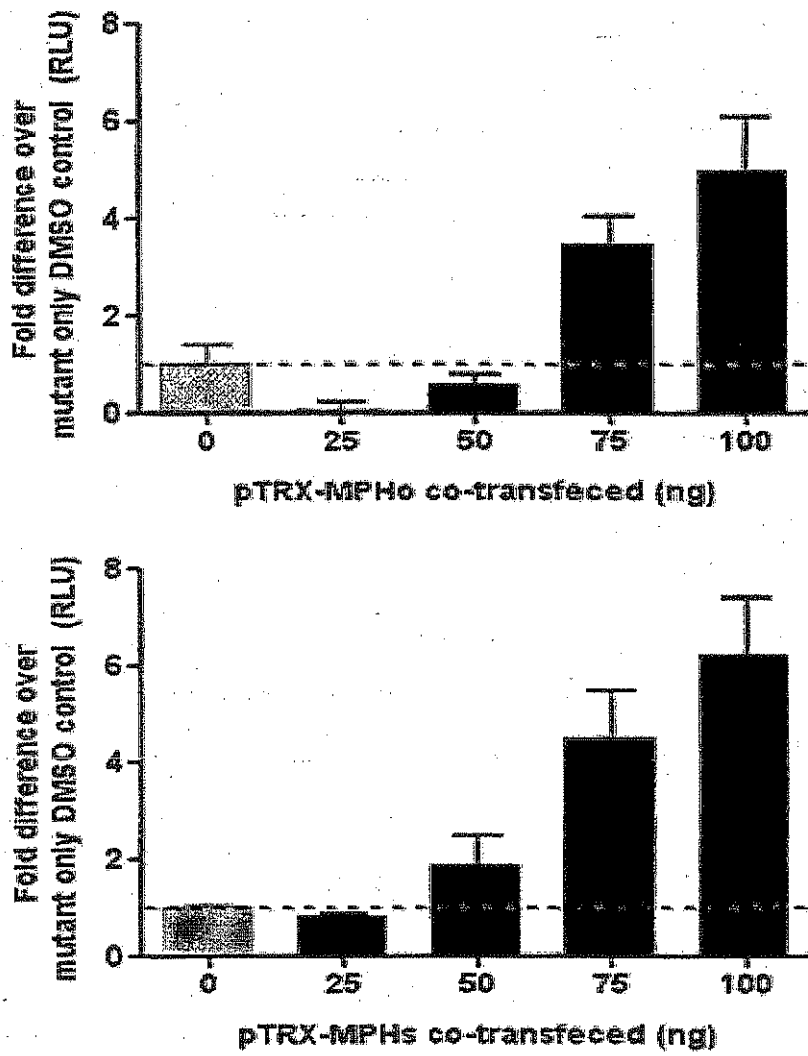
B

Fig. 42 (continued)

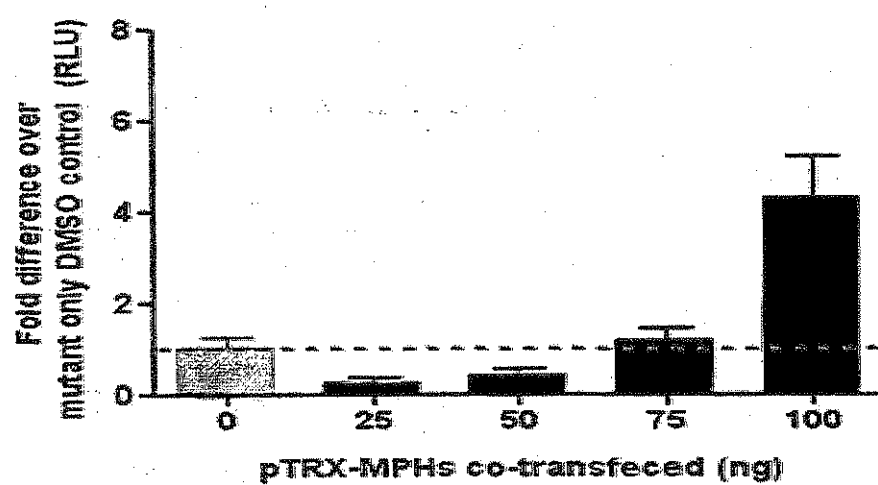
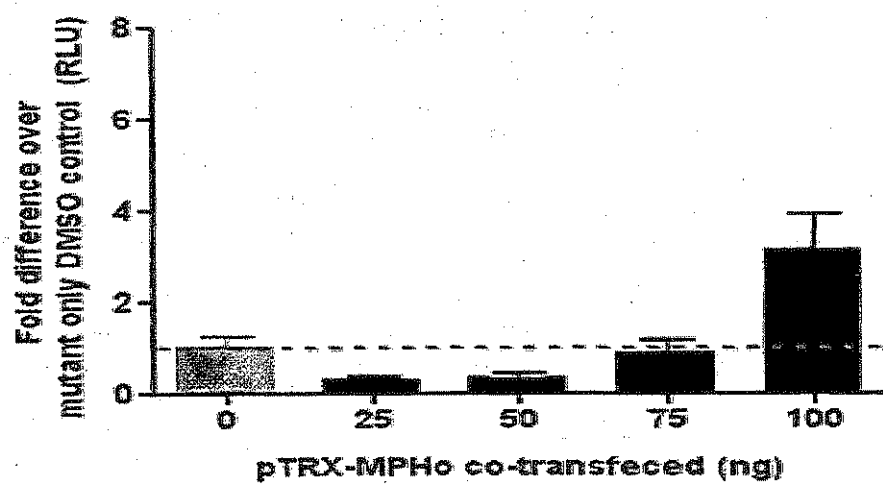
C

Fig. 43

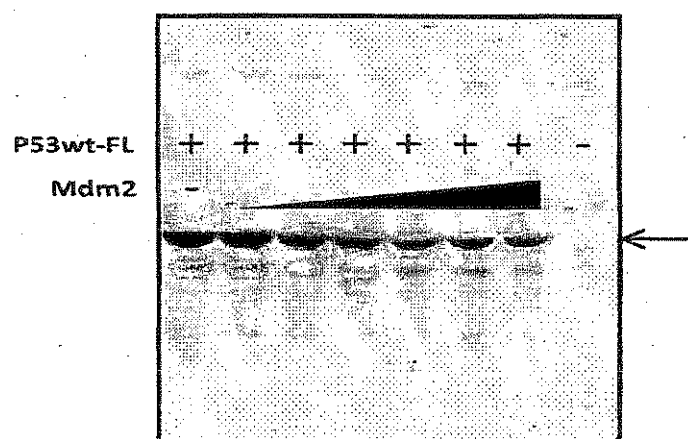
A

Fig. 43 (continued)

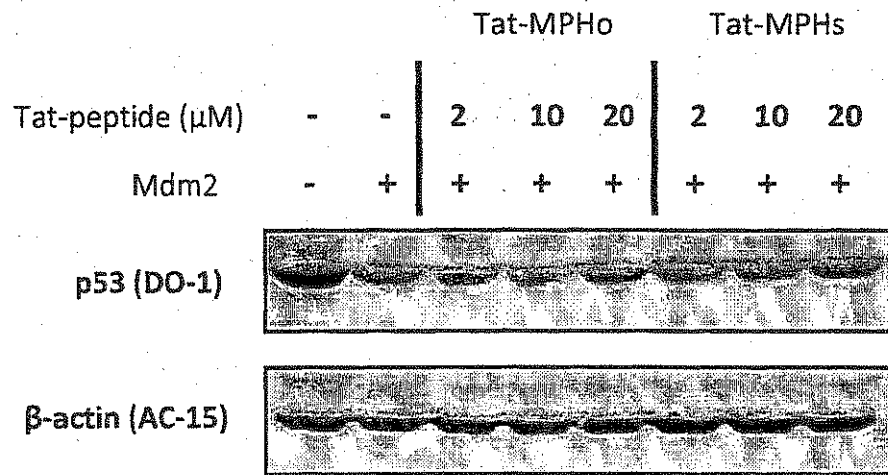
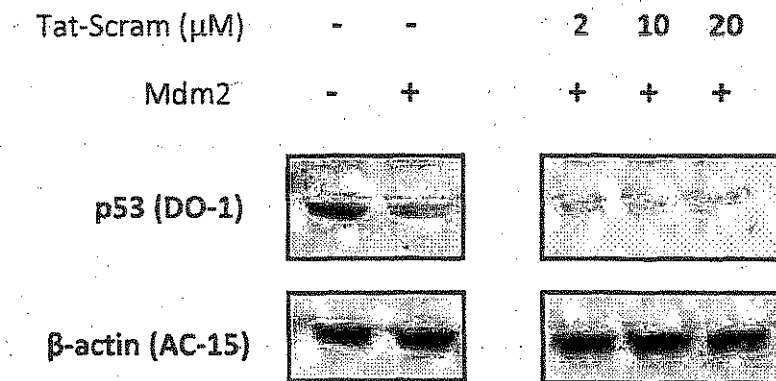
B**C**

Fig. 44

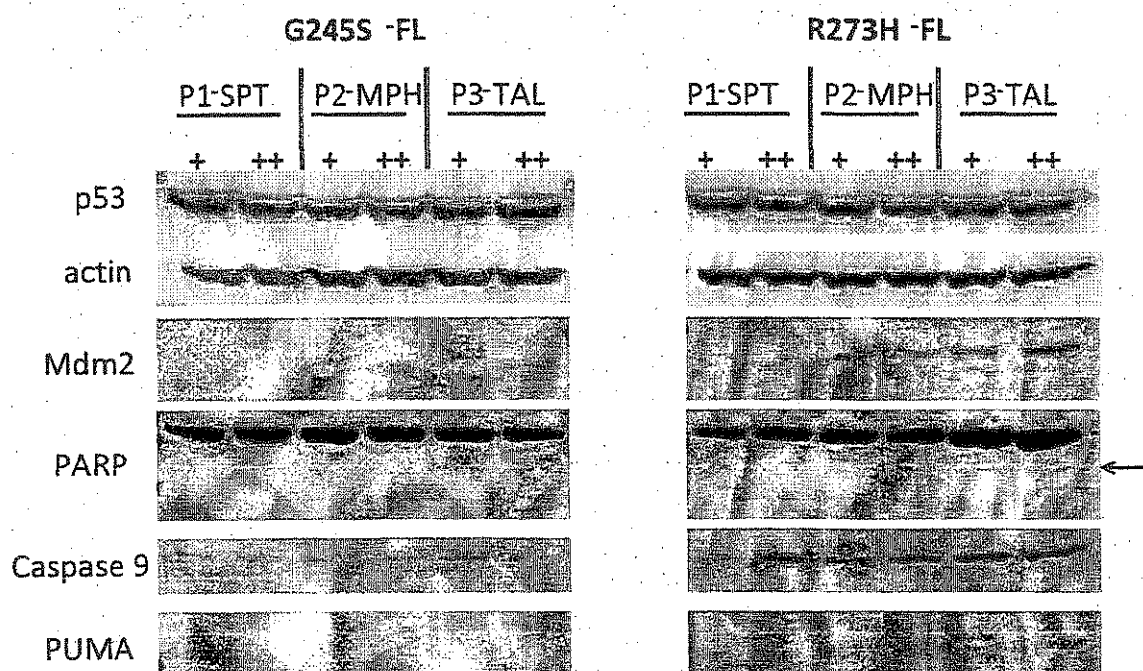
A**Tat-conjugated peptide activity on over-expressed mp53 in H1299 cells**

Fig. 44 (continued)

B

Tat-conjugated peptide activity in H1299 ecdysone inducible system

