Fig. 1a

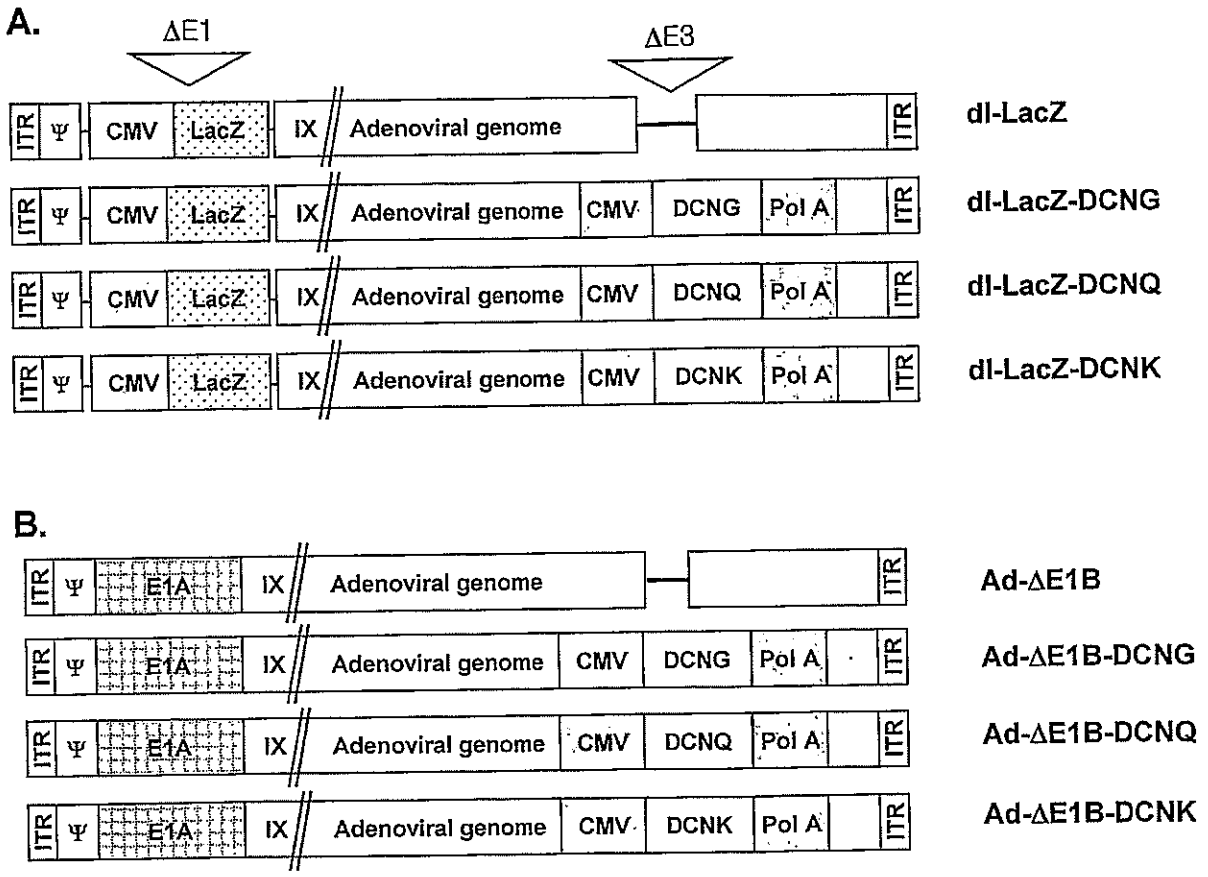

A.
ΔE1
ΔE3
ITR
Ψ
CMV
LacZ
IX
Adenoviral genome
CMV
DCNG
Pol A
ITR
dl-LacZ
dl-LacZ-DCNG
dl-LacZ-DCNQ
dl-LacZ-DCNK
B.
E1A
Ad-ΔE1B
Ad-ΔE1B-DCNG
Ad-ΔE1B-DCNQ
Ad-ΔE1B-DCNK

Fig. 1b

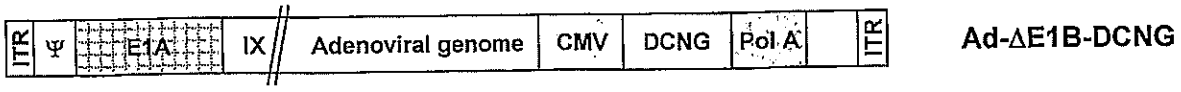

ITR
Ψ
E1A
IX
Adenoviral genome
CMV
DCNG
Pol A
ITR
Ad-ΔE1B-DCNG

Fig. 2

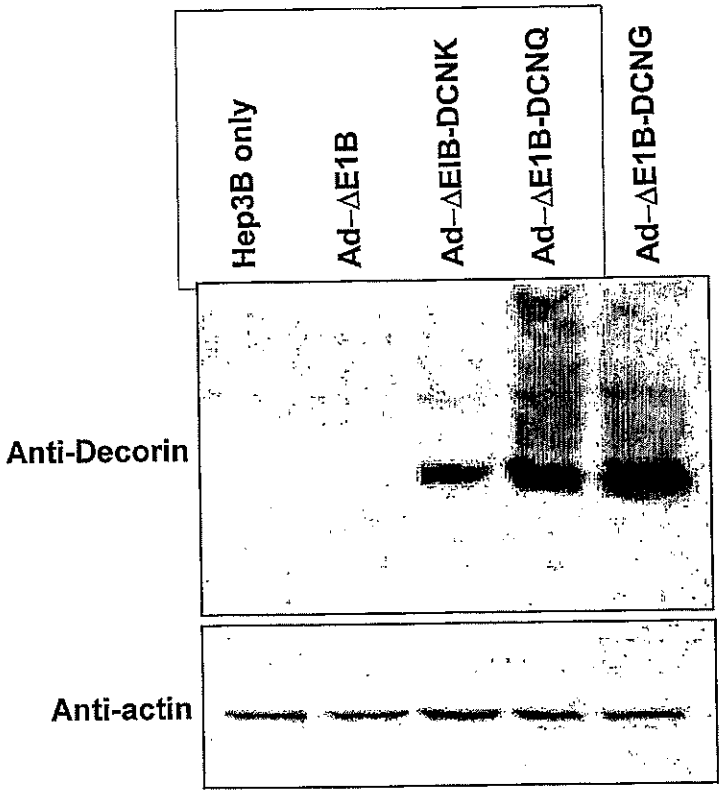

Hep3B only
Ad-ΔE1B
Ad-ΔEIB-DCNK
Ad-ΔE1B-DCNQ
Ad-ΔE1B-DCNG
Anti-Decorin
Anti-actin

Fig. 3a

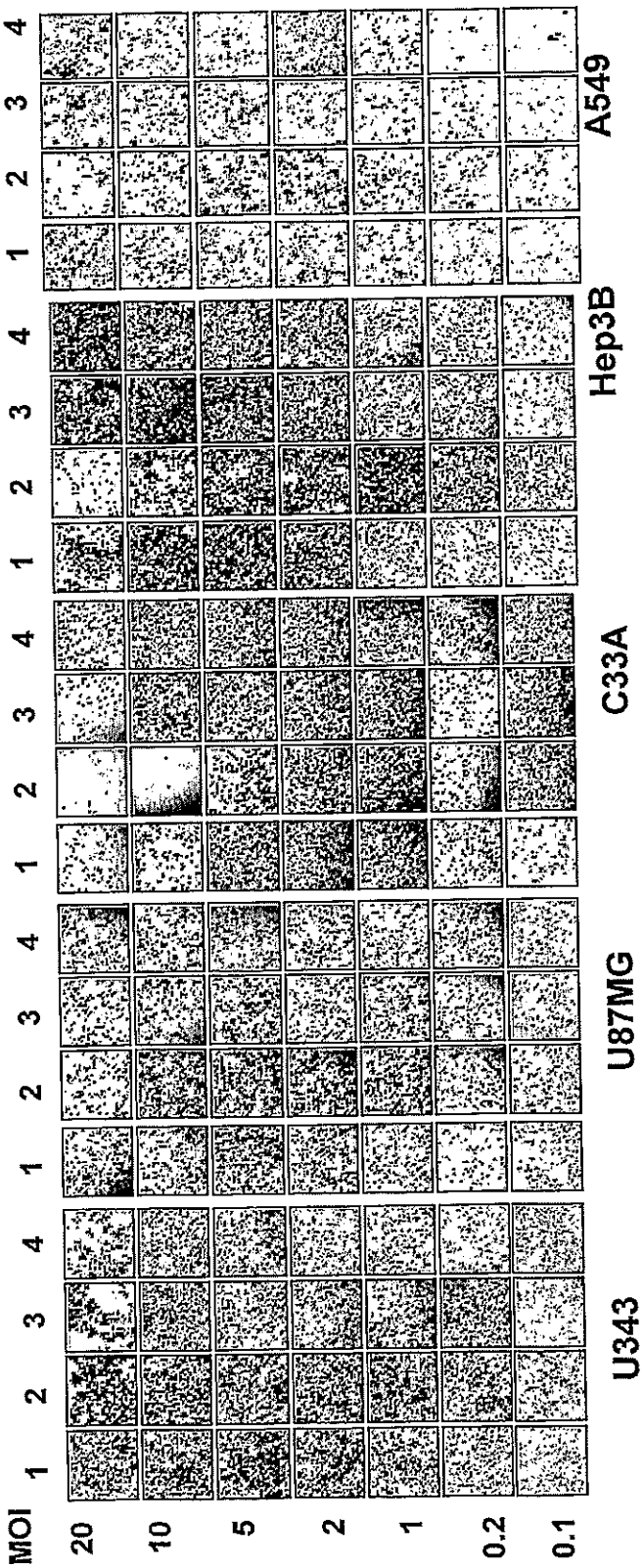

Cancer Cells
MOI
20
10
5
2
1
0.2
0.1
1 2 3 4
U343
U87MG
C33A
Hep3B
A549
1. dl-LacZ
2. dl-LacZ-DCNG
3. dl-LacZ-DCNQ
4. dl-LacZ-DCNK

Fig. 3b

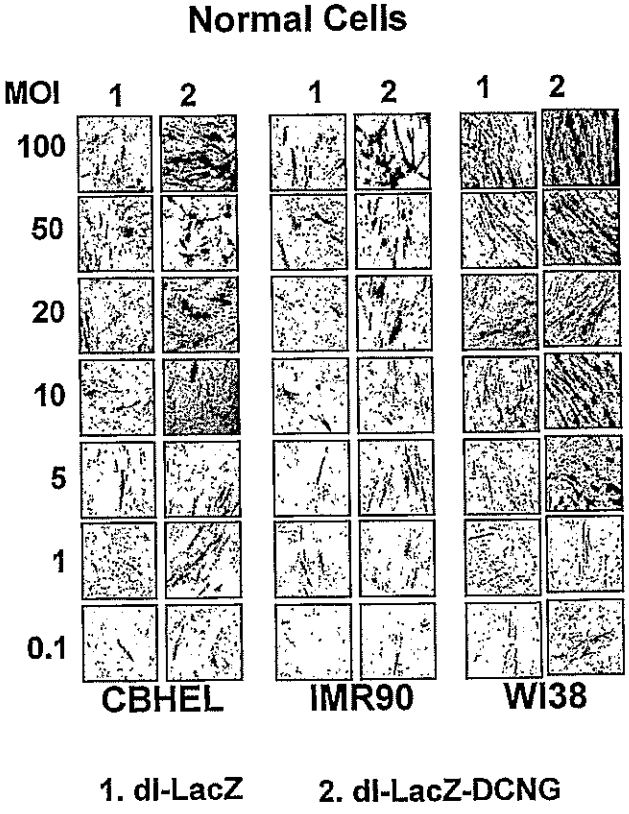

Normal Cells
MOI
1
2
1
2
1
2
100
50
20
10
5
1
0.1
CBHEL
IMR90
WI38
1. dl-LacZ
2. dl-LacZ-DCNG

Fig. 4

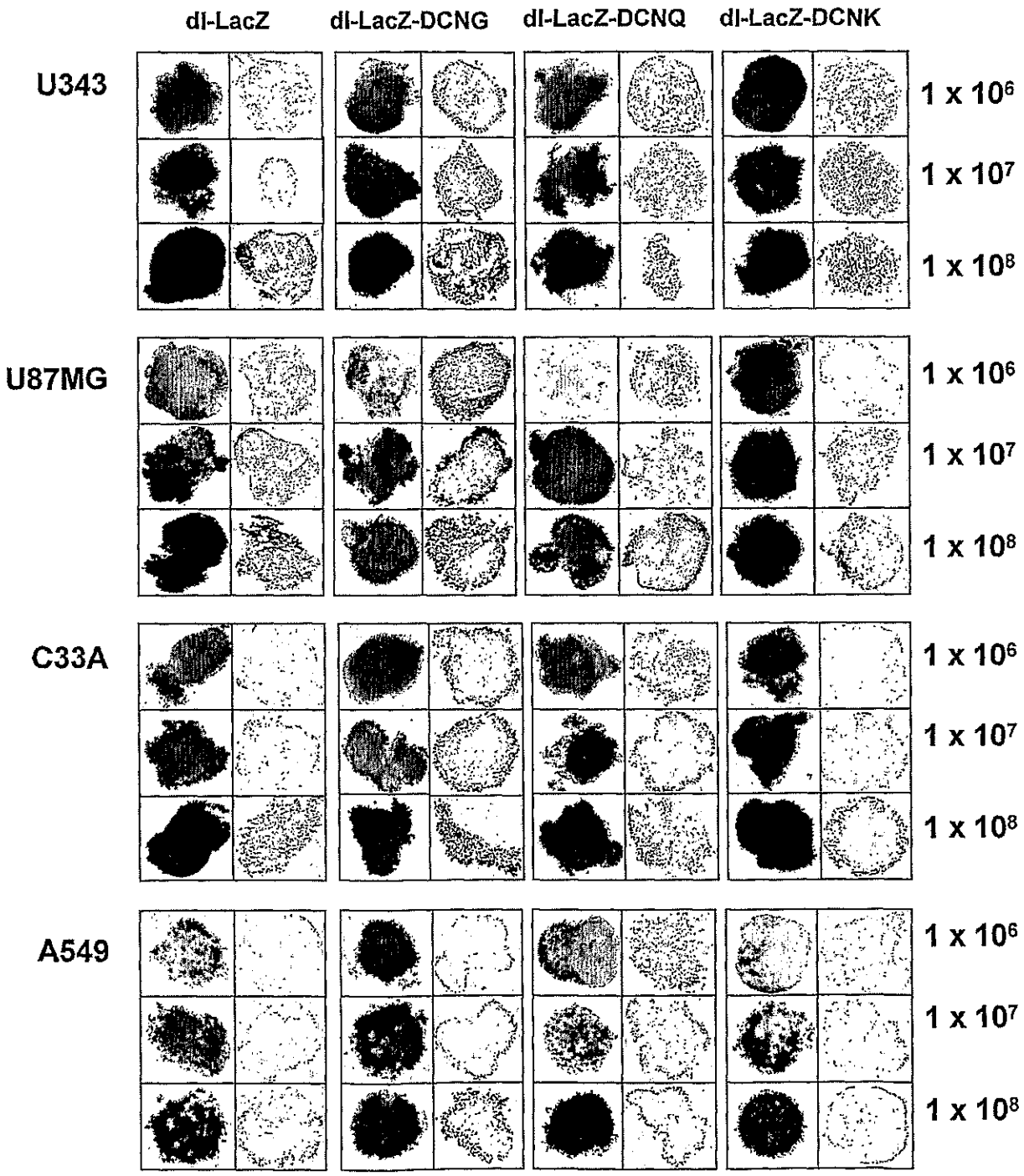

dl-LacZ
dl-LacZ-DCNG
dl-LacZ-DCNQ
dl-LacZ-DCNK
U343
U87MG
C33A
A549
1 x 10⁶
1 x 10⁷
1 x 10⁸

Fig. 5

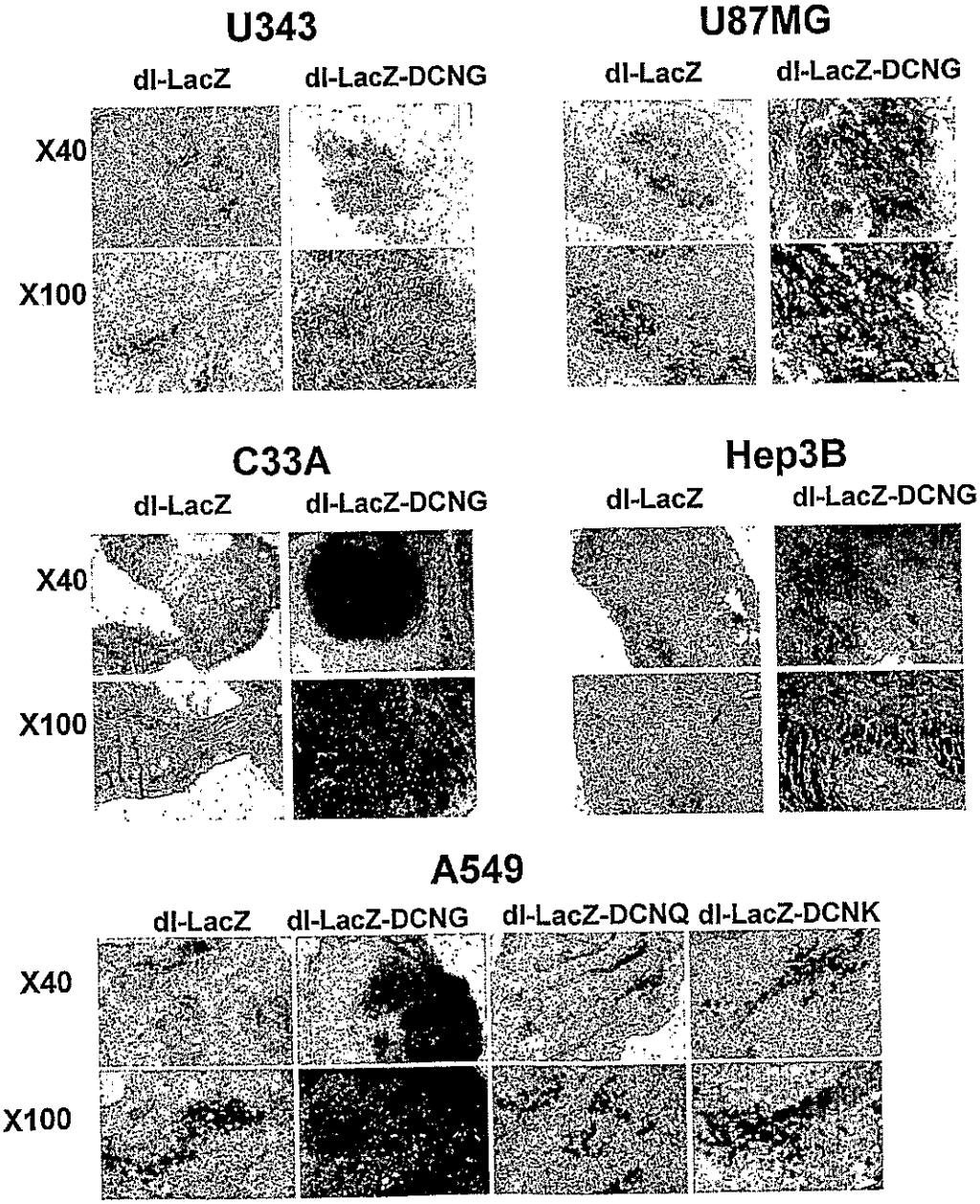

U343
dl-LacZ
dl-LacZ-DCNG
X40
X100
U87MG
dl-LacZ
dl-LacZ-DCNG
C33A
dl-LacZ
dl-LacZ-DCNG
X40
X100
Hep3B
dl-LacZ
dl-LacZ-DCNG
A549
dl-LacZ
dl-LacZ-DCNG
dl-LacZ-DCNQ
dl-LacZ-DCNK
X40
X100

Fig. 6

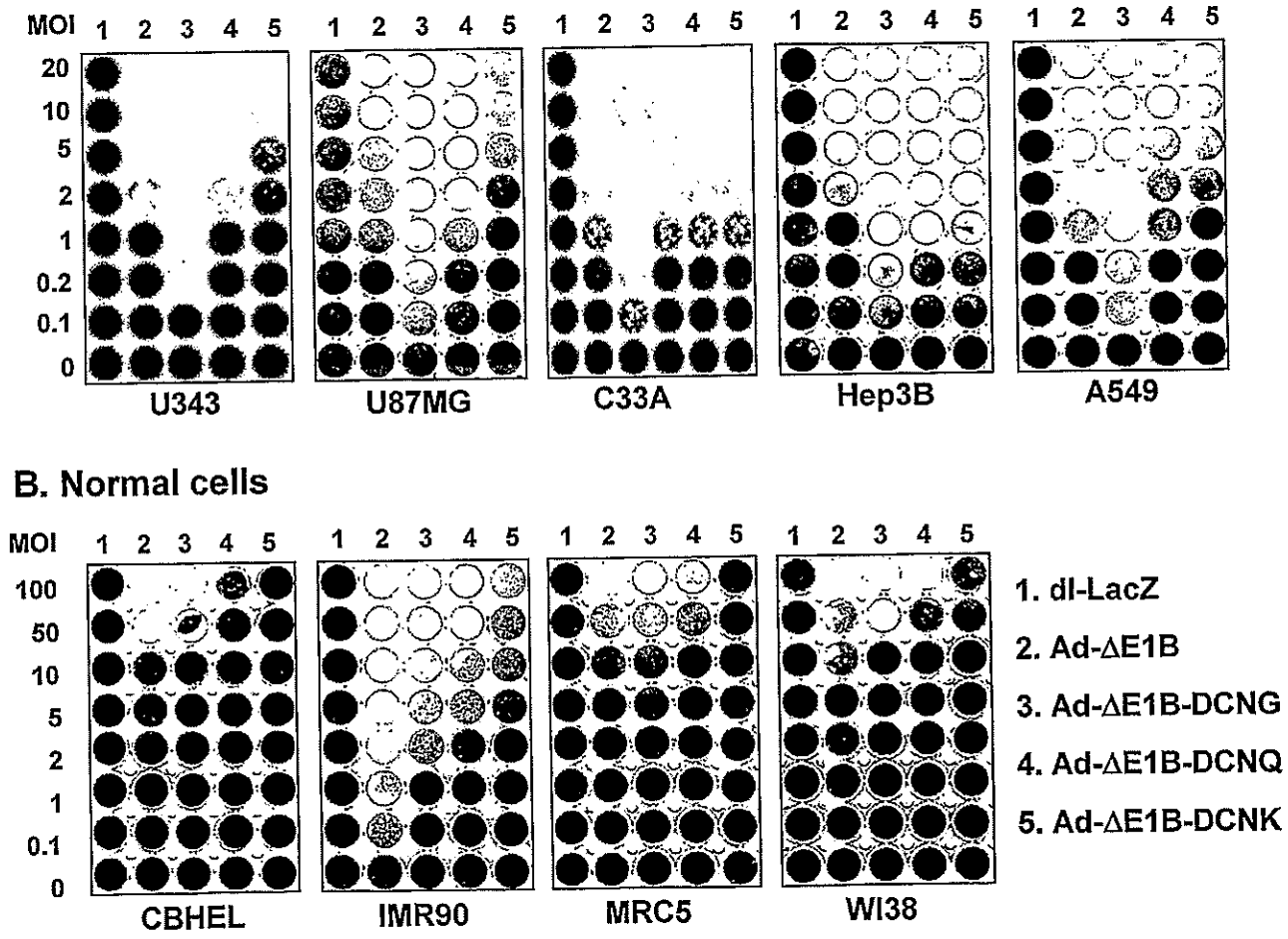

A. Cancer cells
MOI
1 2 3 4 5
20
10
5
2
1
0.2
0.1
0
U343
U87MG
C33A
Hep3B
A549
B. Normal cells
MOI
100
50
10
5
2
1
0.1
0
CBHEL
IMR90
MRC5
WI38
1. dl-LacZ
2. Ad-ΔE1B
3. Ad-ΔE1B-DCNG
4. Ad-ΔE1B-DCNQ
5. Ad-ΔE1B-DCNK

Fig. 7a

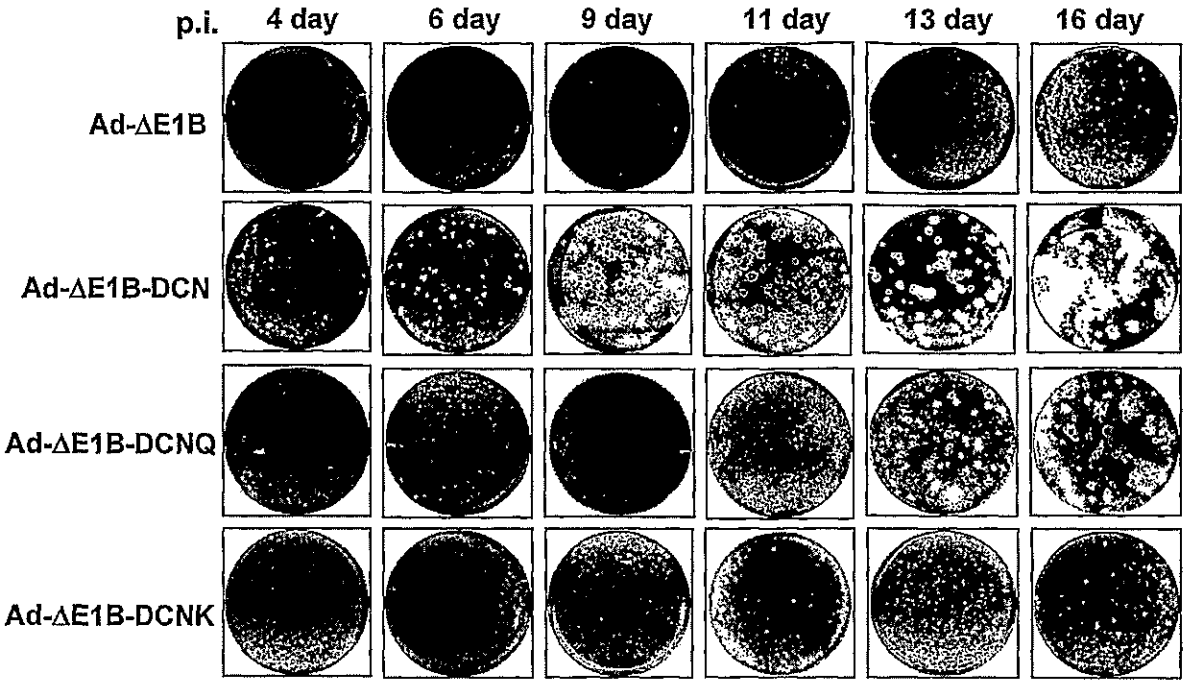

p.i.
4 day
6 day
9 day
11 day
13 day
16 day
Ad-ΔE1B
Ad-ΔE1B-DCN
Ad-ΔE1B-DCNQ
Ad-ΔE1B-DCNK

Fig. 7b

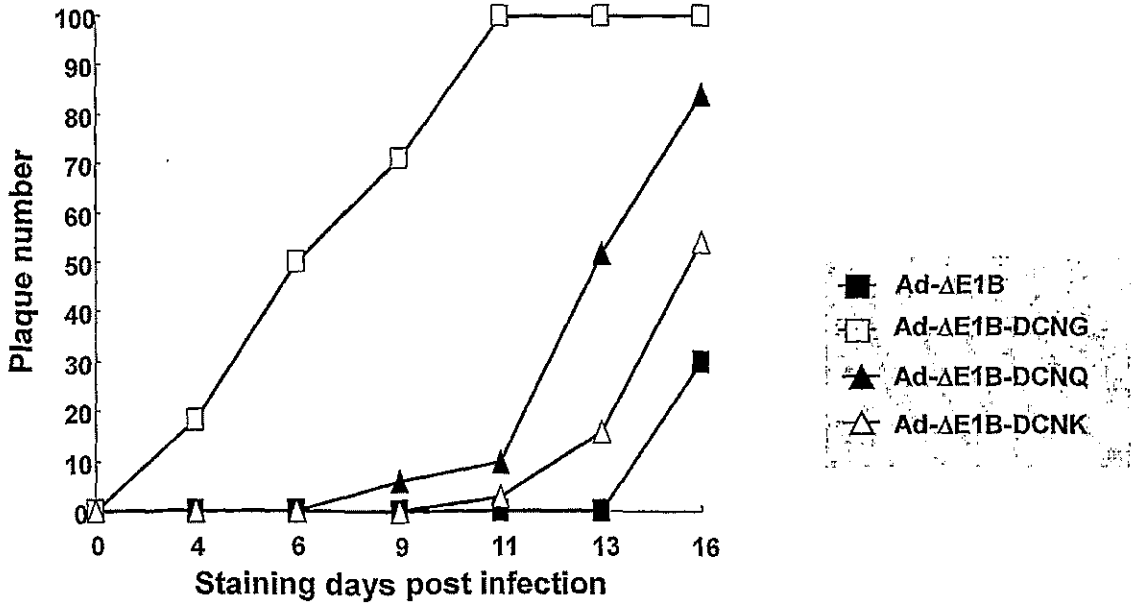

Plaque number
100
90
80
70
60
50
40
30
20
10
0
0
4
6
9
11
13
16
Staining days post infection
Ad-ΔE1B
Ad-ΔE1B-DCNG
Ad-ΔE1B-DCNQ
Ad-ΔE1B-DCNK

Fig. 8a

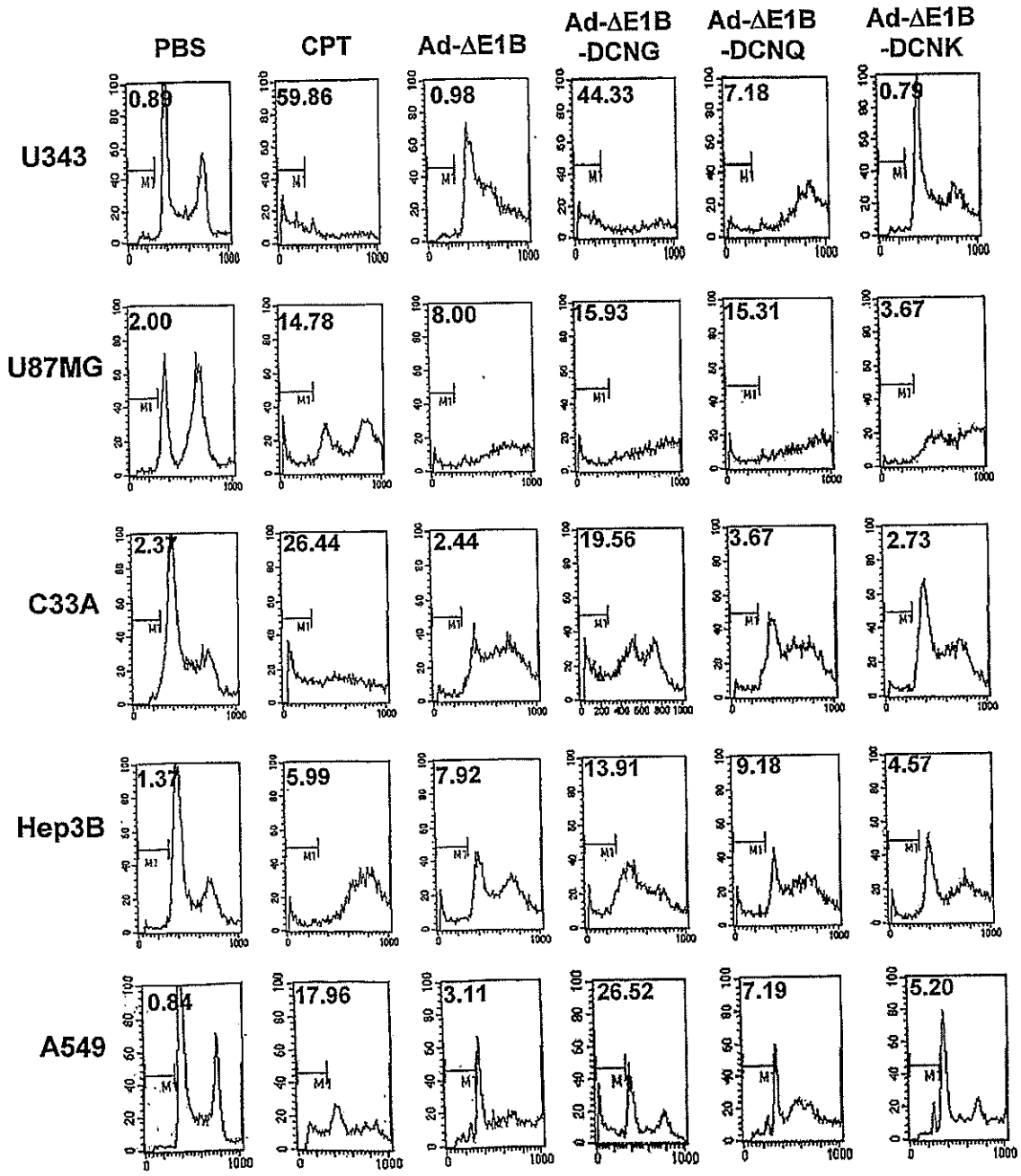

PBS
CPT
Ad-ΔE1B
Ad-ΔE1B -DCNG
Ad-ΔE1B -DCNQ
Ad-ΔE1B -DCNK
U343
U87MG
C33A
Hep3B
A549
0.89
59.86
0.98
44.33
7.18
0.79
2.00
14.78
8.00
15.93
15.31
3.67
2.37
26.44
2.44
19.56
3.67
2.73
1.37
5.99
7.92
13.91
9.18
4.57
0.84
17.96
3.11
26.52
7.19
5.20

Fig. 8b

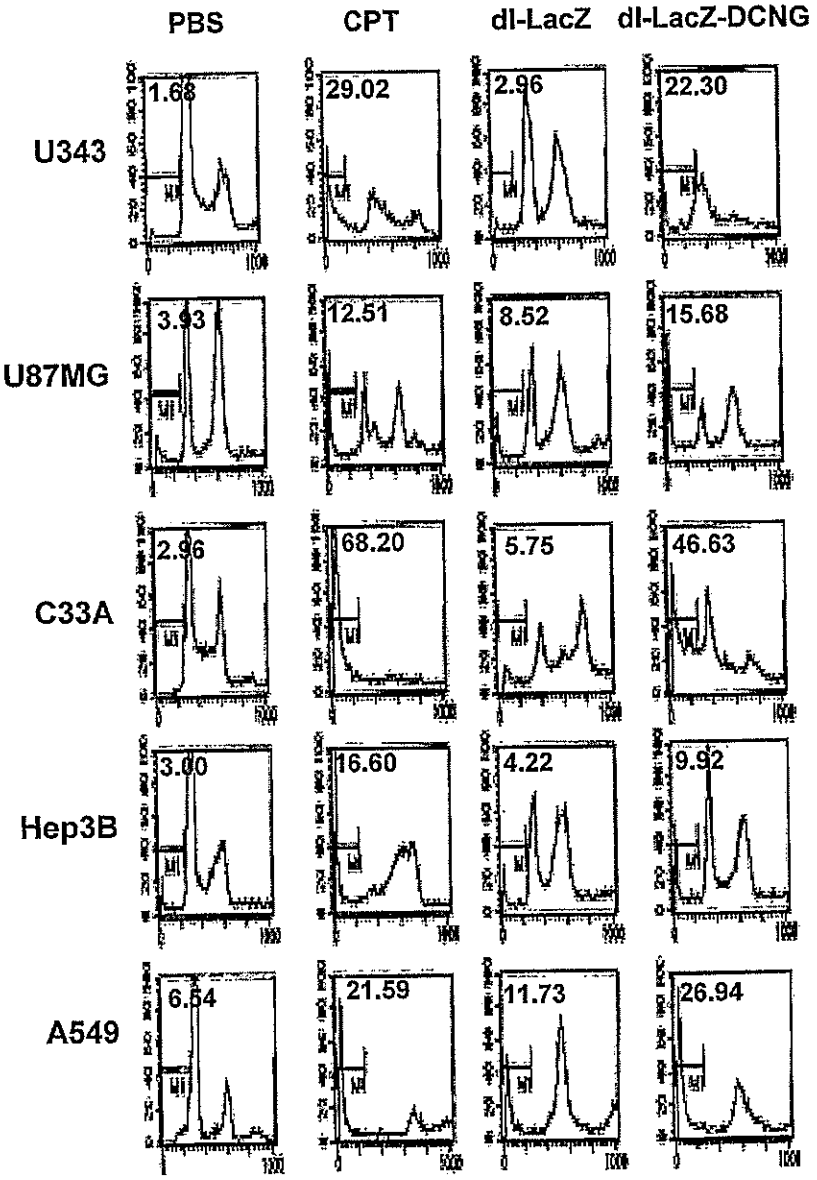

PBS
CPT
dl-LacZ
dl-LacZ-DCNG
U343
U87MG
C33A
Hep3B
A549
1.68
29.02
2.96
22.30
3.93
12.51
8.52
15.68
2.96
68.20
5.75
46.63
3.00
16.60
4.22
9.92
6.54
21.59
11.73
26.94

Fig. 9a

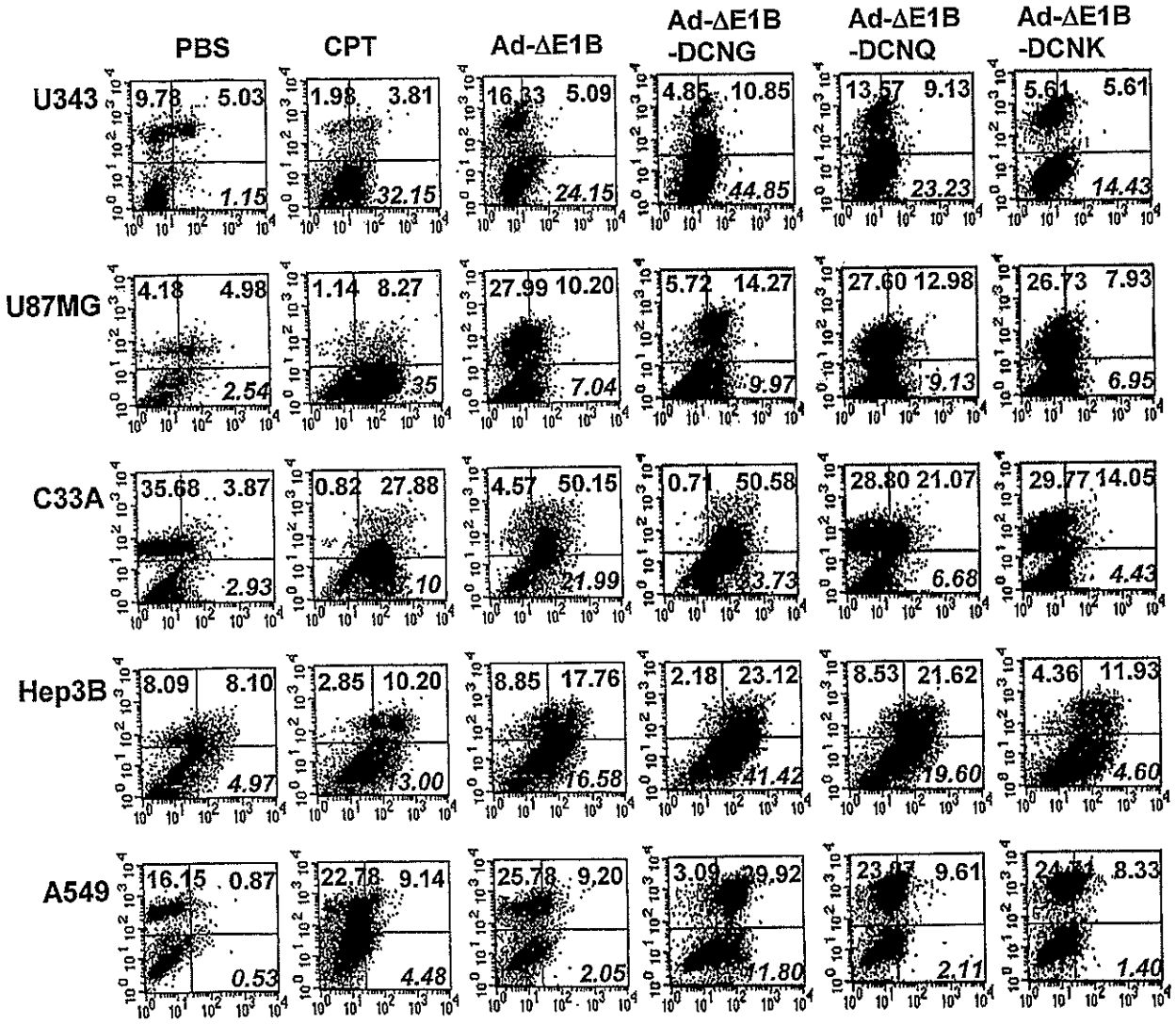

PBS
CPT
Ad-ΔE1B
Ad-ΔE1B -DCNG
Ad-ΔE1B -DCNQ
Ad-ΔE1B -DCNK
U343
U87MG
C33A
Hep3B
A549

Fig. 9b

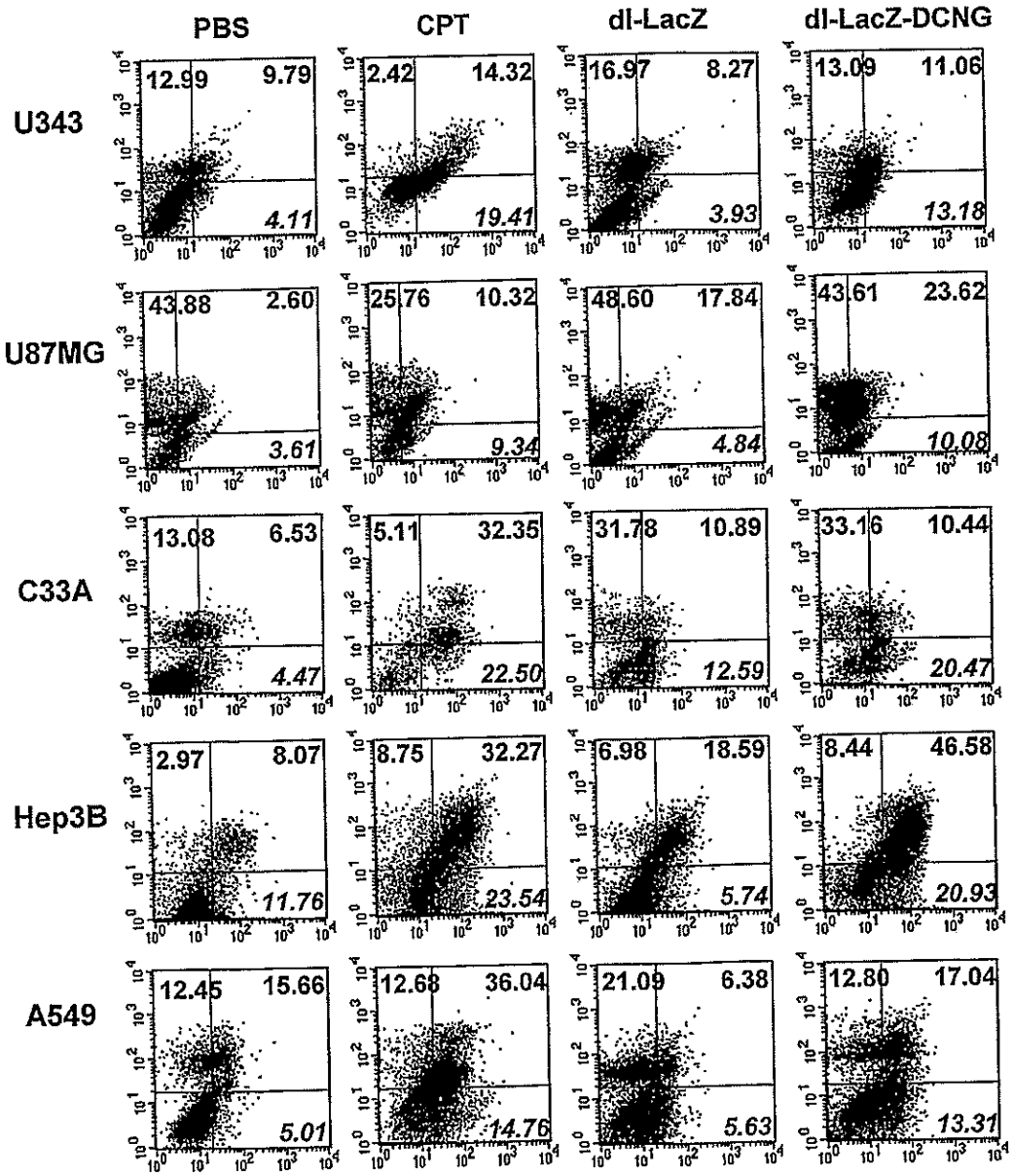

PBS
CPT
dl-LacZ
dl-LacZ-DCNG
U343
12.99
9.79
4.11
2.42
14.32
19.41
16.97
8.27
3.93
13.09
11.06
13.18
U87MG
43.88
2.60
3.61
25.76
10.32
9.34
48.60
17.84
4.84
43.61
23.62
10.08
C33A
13.08
6.53
4.47
5.11
32.35
22.50
31.78
10.89
12.59
33.16
10.44
20.47
Hep3B
2.97
8.07
11.76
8.75
32.27
23.54
6.98
18.59
5.74
8.44
46.58
20.93
A549
12.45
15.66
5.01
12.68
36.04
14.76
21.09
6.38
5.63
12.80
17.04
13.31

Fig. 10a

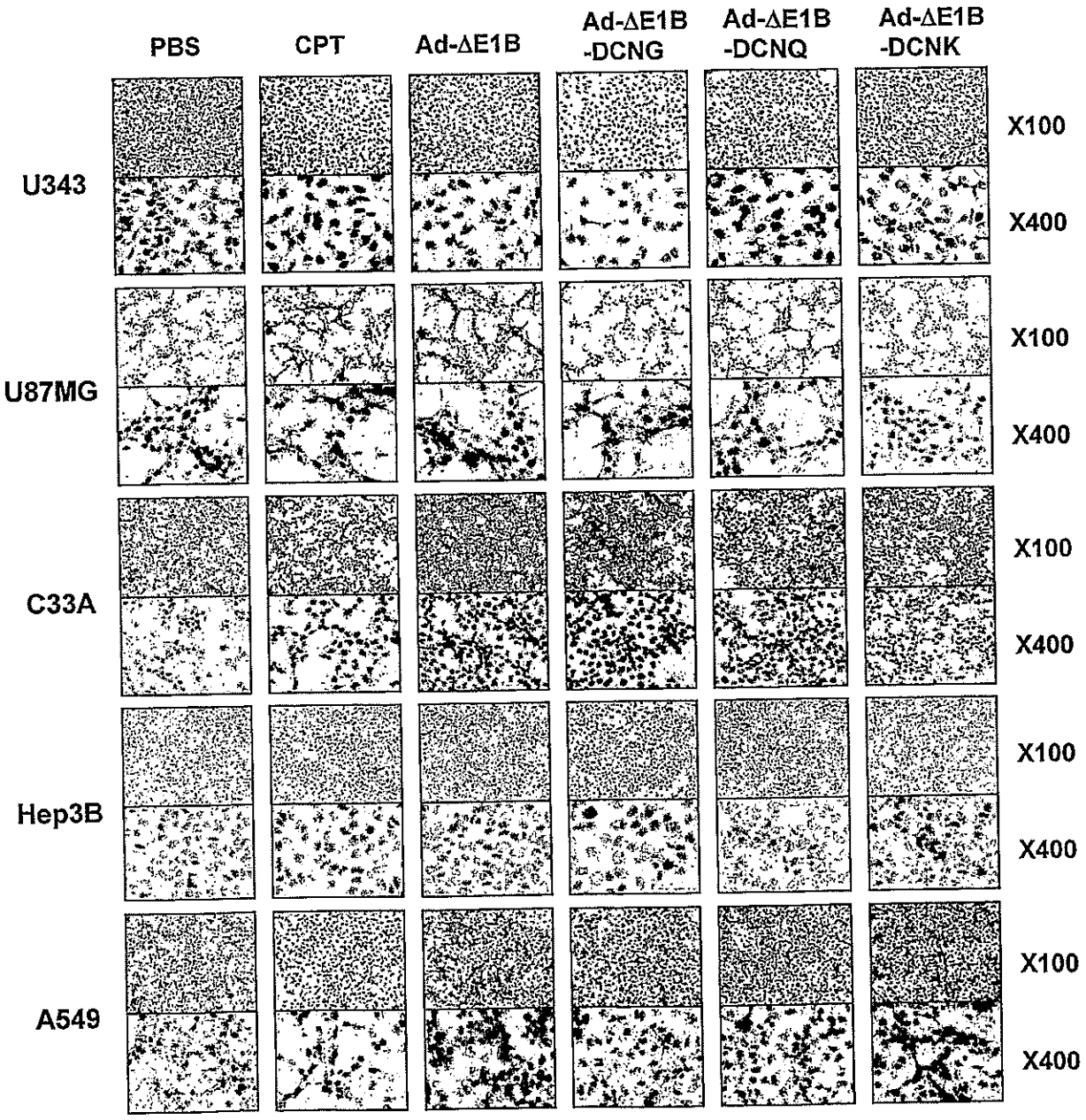

PBS
CPT
Ad-ΔE1B
Ad-ΔE1B -DCNG
Ad-ΔE1B -DCNQ
Ad-ΔE1B -DCNK
U343
U87MG
C33A
Hep3B
A549
X100
X400

Fig. 10b

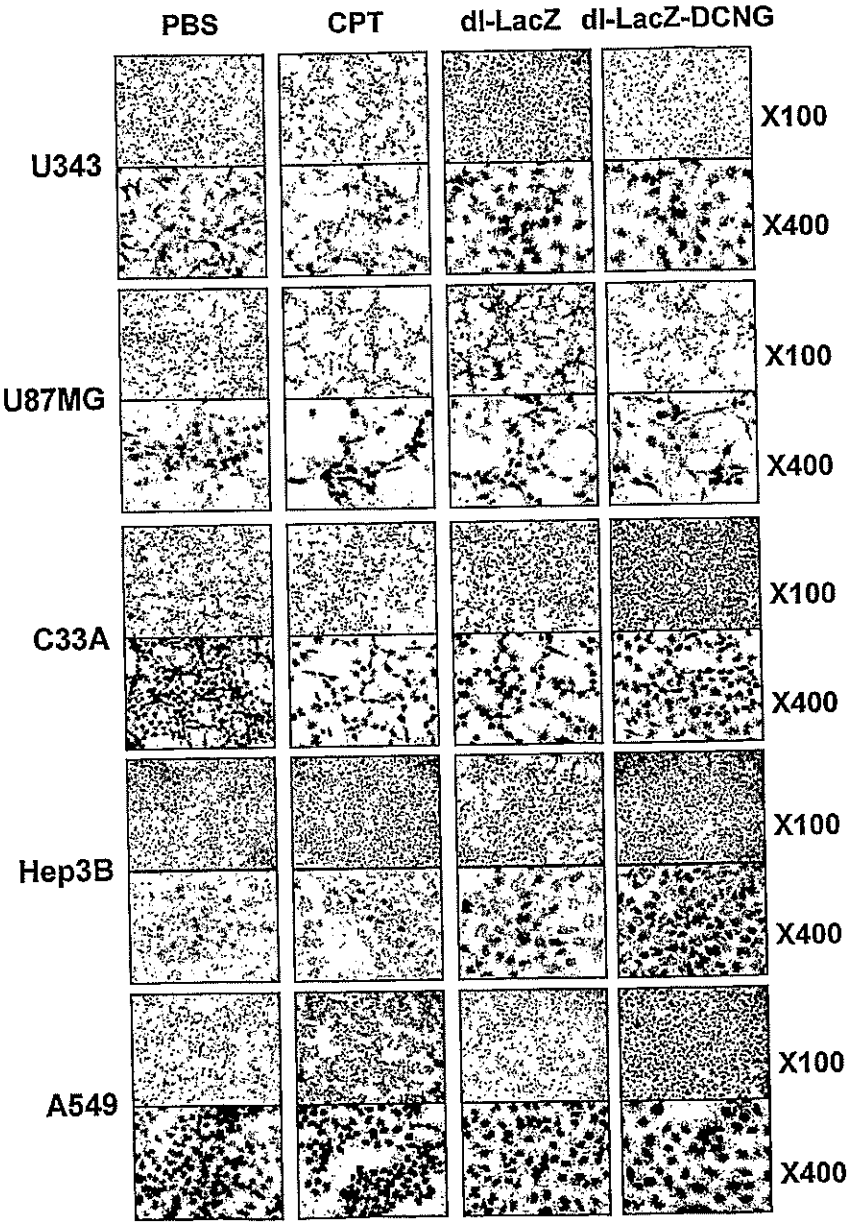

PBS
CPT
dl-LacZ
dl-LacZ-DCNG
U343
U87MG
C33A
Hep3B
A549
X100
X400

Fig. 11a

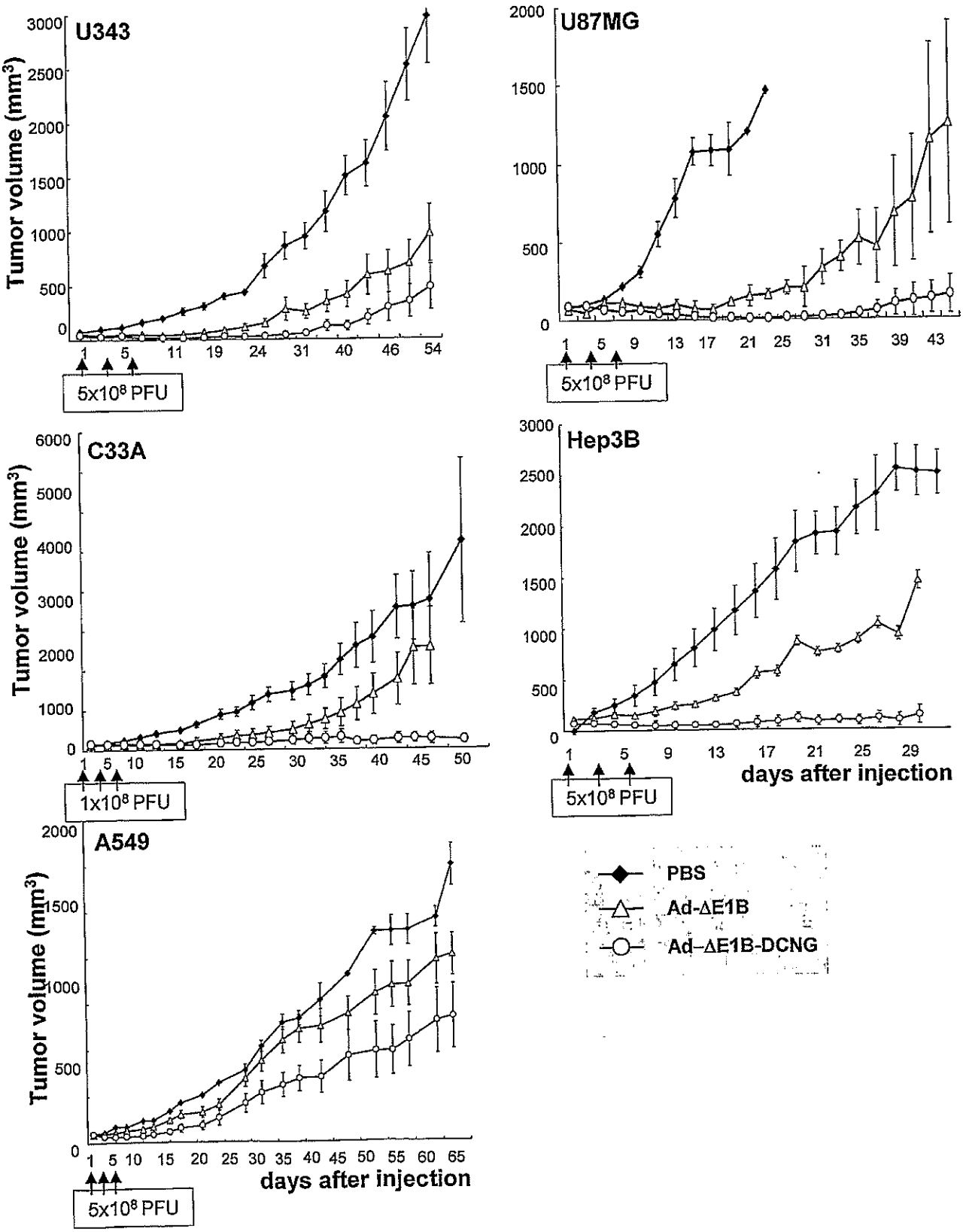

U343
Tumor volume (mm3)
5x10⁸ PFU
U87MG
5x10⁸ PFU
C33A
1x10⁸ PFU
Hep3B
5x10⁸ PFU
days after injection
A549
Tumor volume (mm3)
5x10⁸ PFU
days after injection
PBS
Ad-ΔE1B
Ad-ΔE1B-DCNG

Fig. 11b

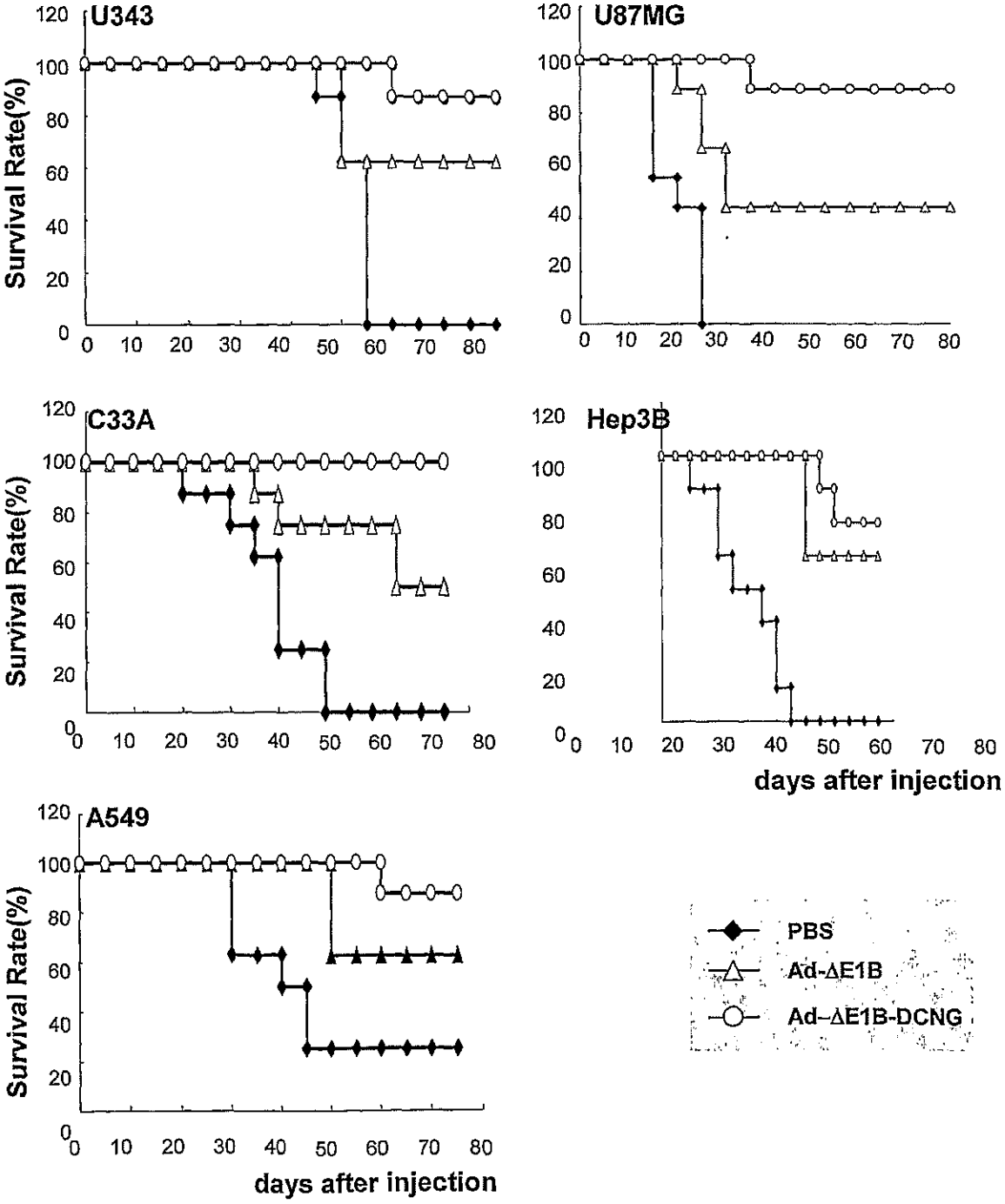

U343
U87MG
C33A
Hep3B
A549
Survival Rate(%)
days after injection
PBS
Ad-ΔE1B
Ad-ΔE1B-DCNG

Fig. 12a

U343

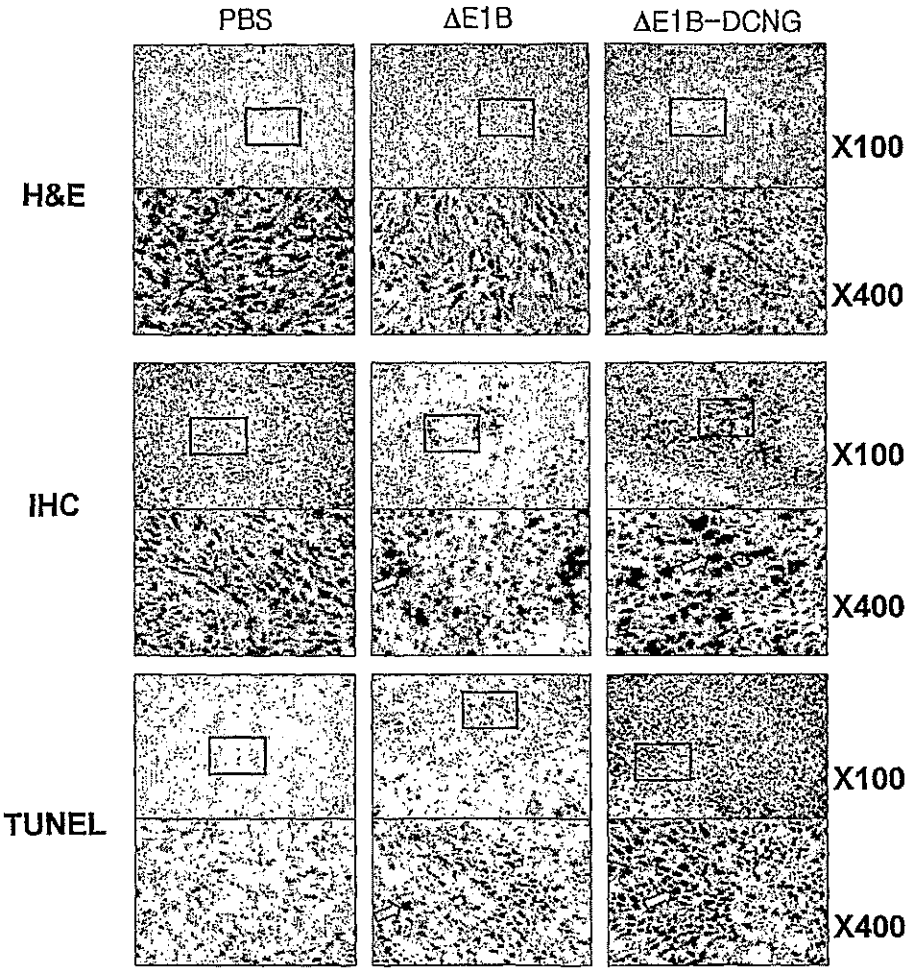


Fig. 12b

U87MG

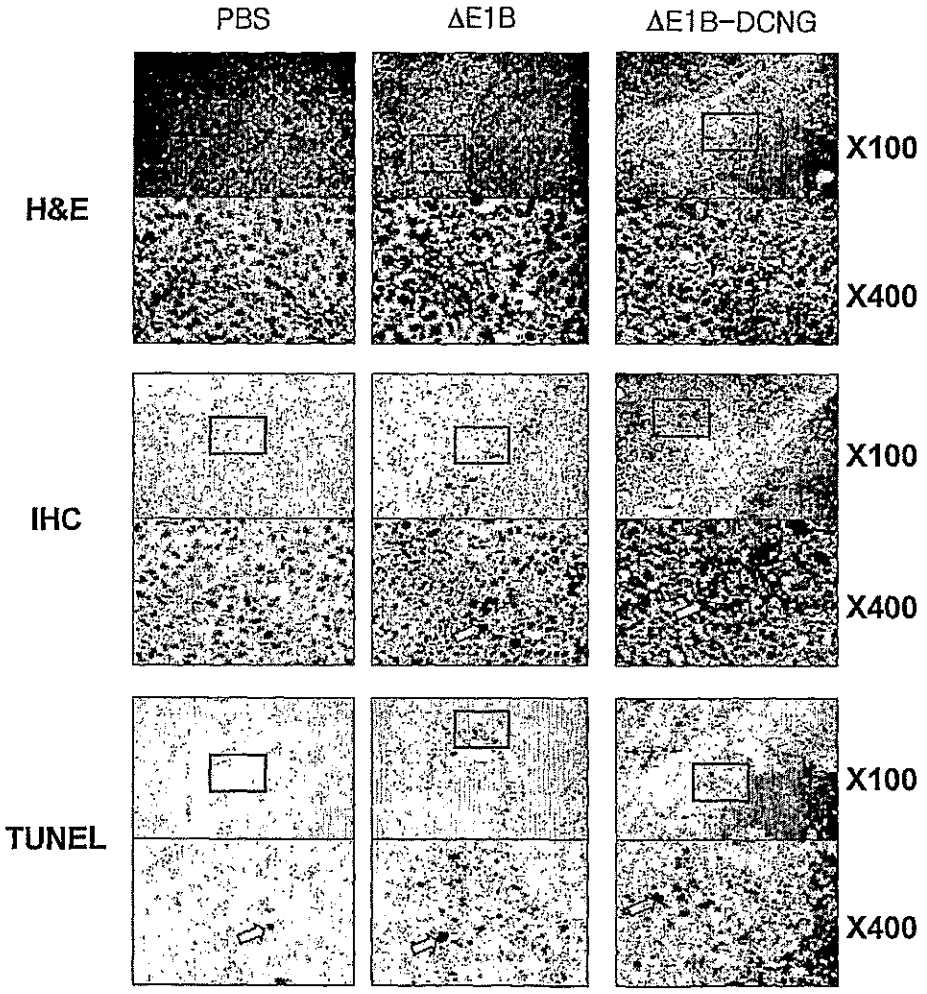


Fig. 12c

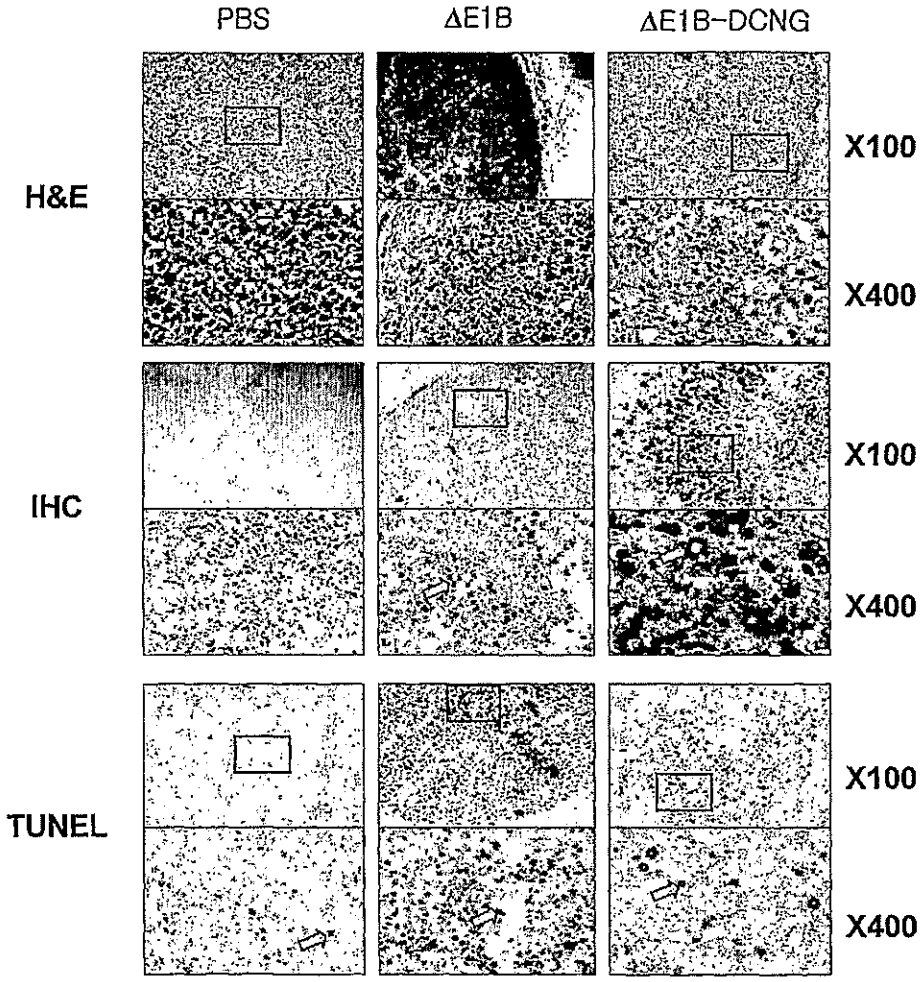

C33A
PBS
ΔE1B
ΔE1B-DCNG
H&E
IHC
TUNEL
X100
X400
X100
X400
X100
X400

Fig. 12d

Hep3B

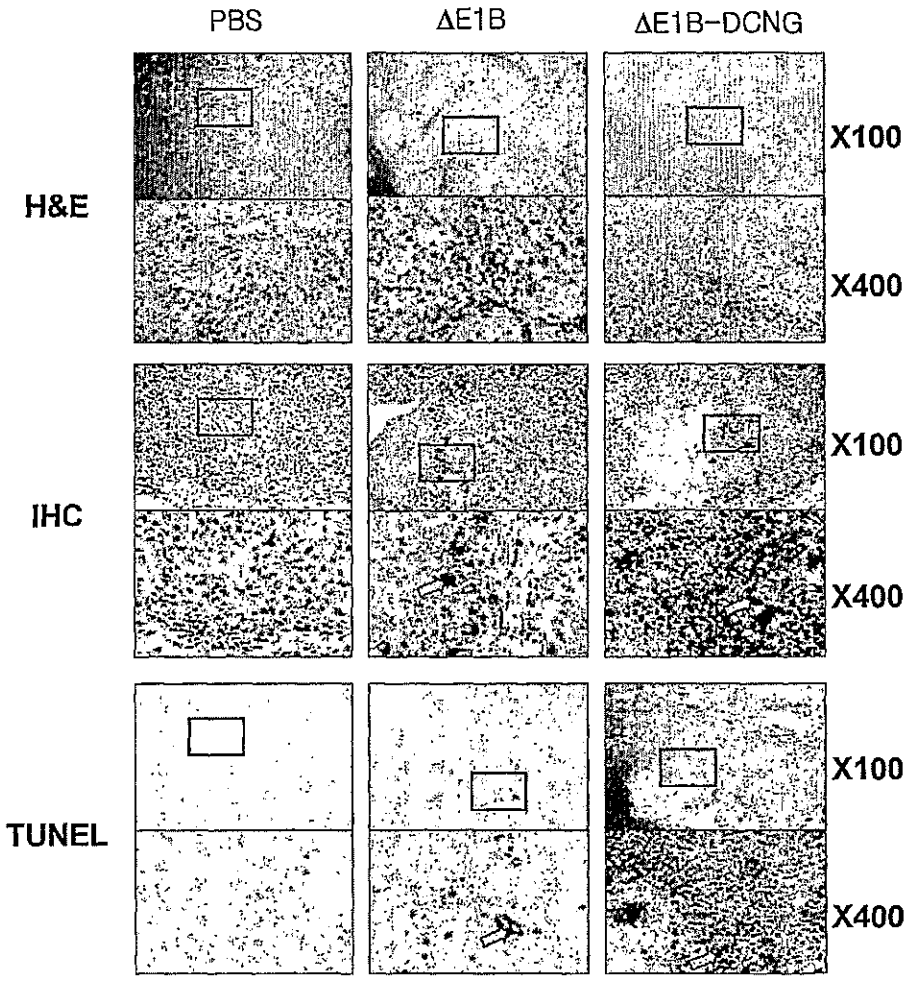


Fig. 12e

A549

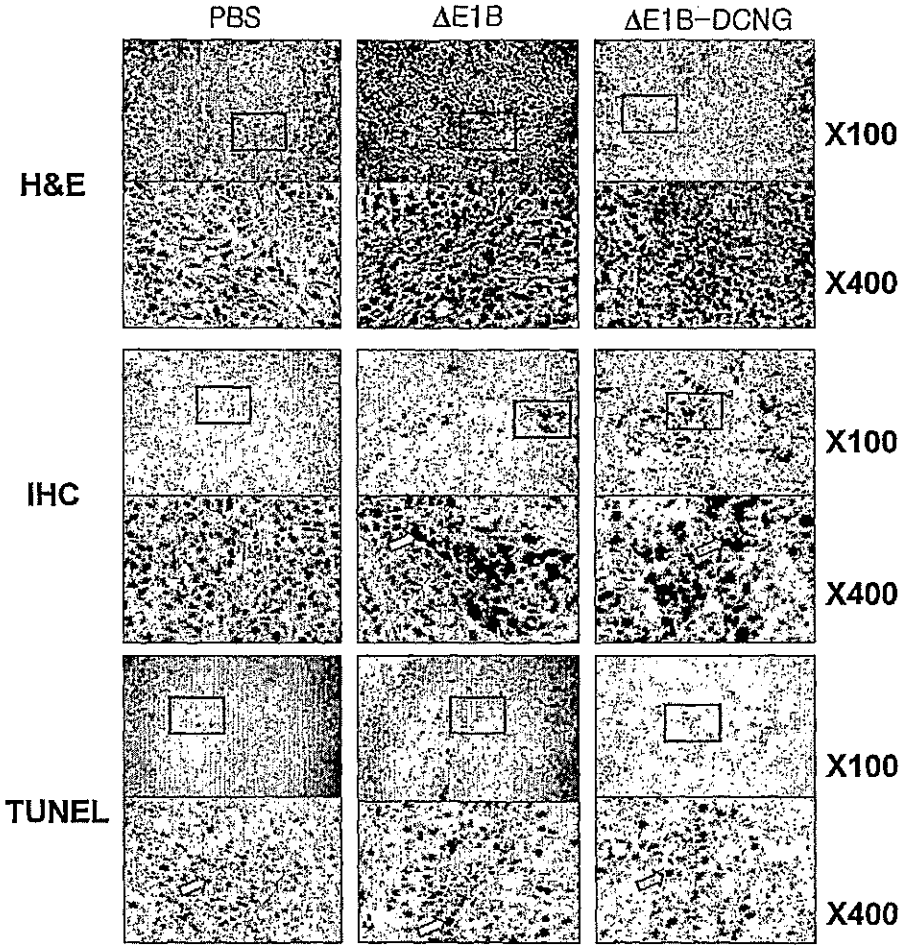


Fig. 13

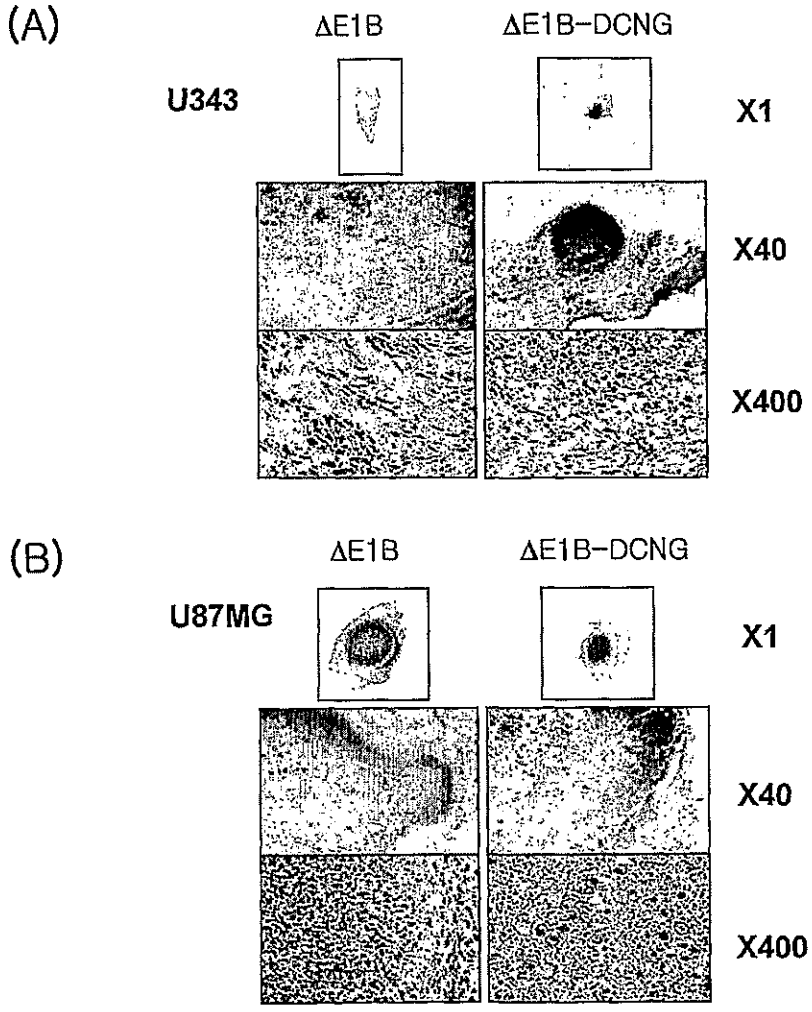

(A)
ΔE1B
ΔE1B-DCNG
U343
X1
X40
X400
(B)
ΔE1B
ΔE1B-DCNG
U87MG
X1
X40
X400

Fig. 14

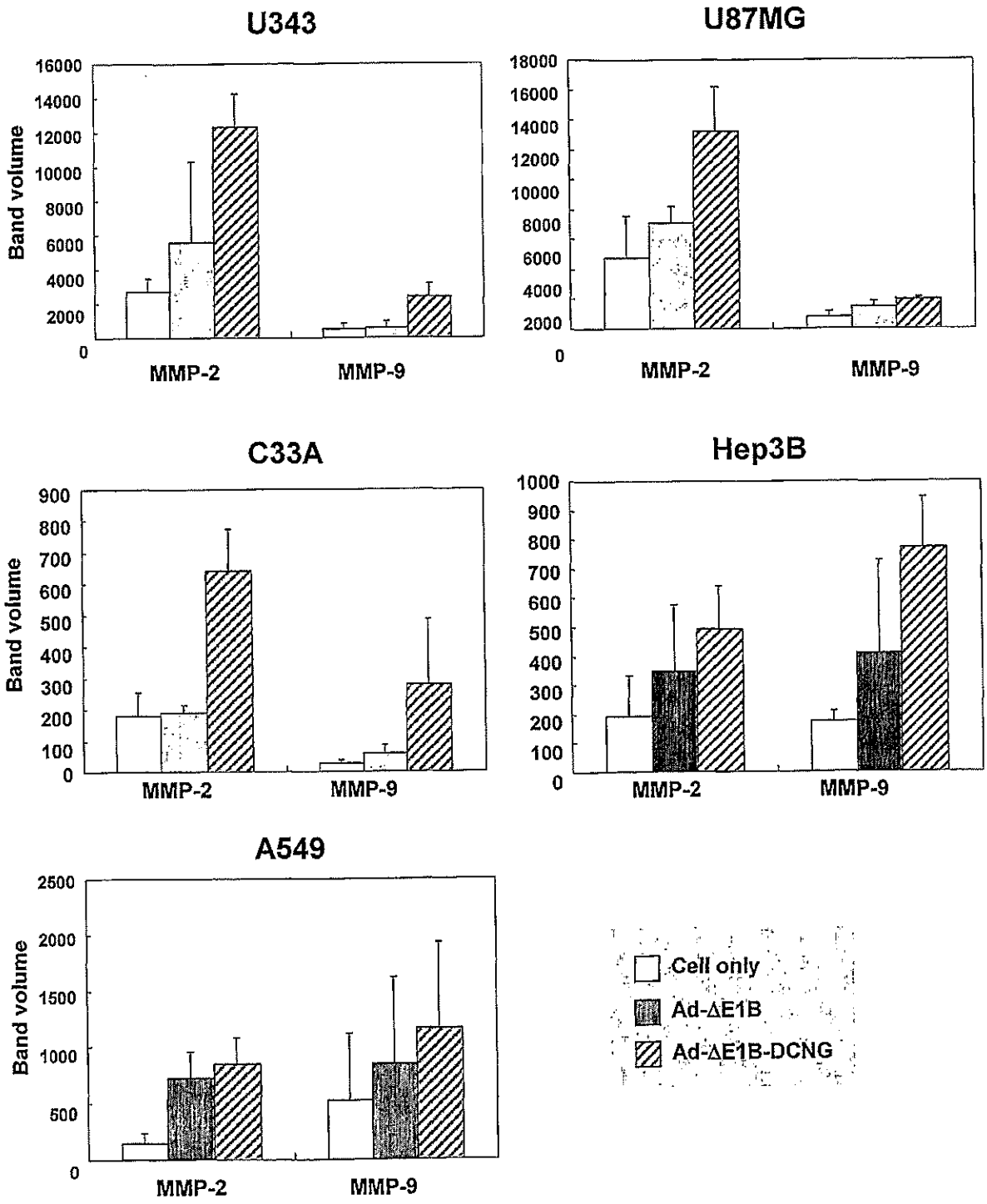
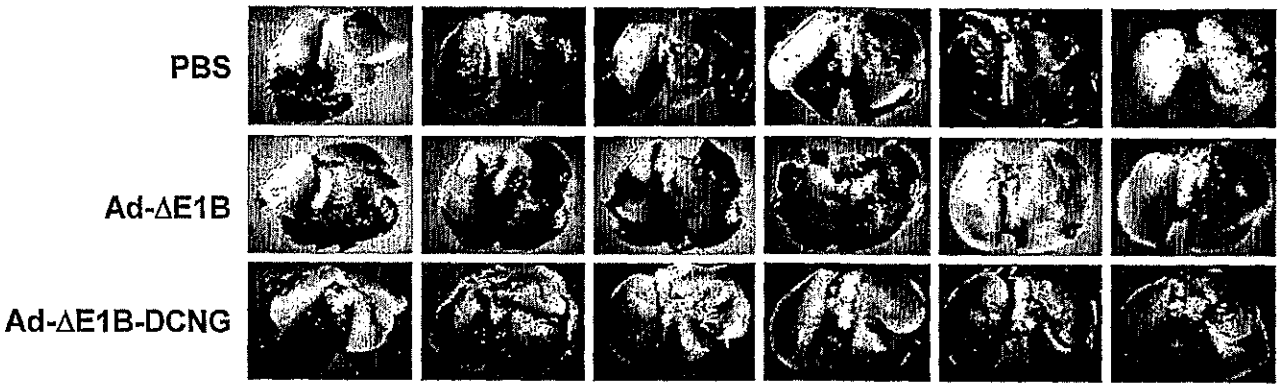

U343
U87MG
C33A
Hep3B
A549
Band volume
MMP-2
MMP-9
Cell only
Ad-ΔE1B
Ad-ΔE1B-DCNG

Fig. 15


PBS
Ad-ΔE1B
Ad-ΔE1B-DCNG

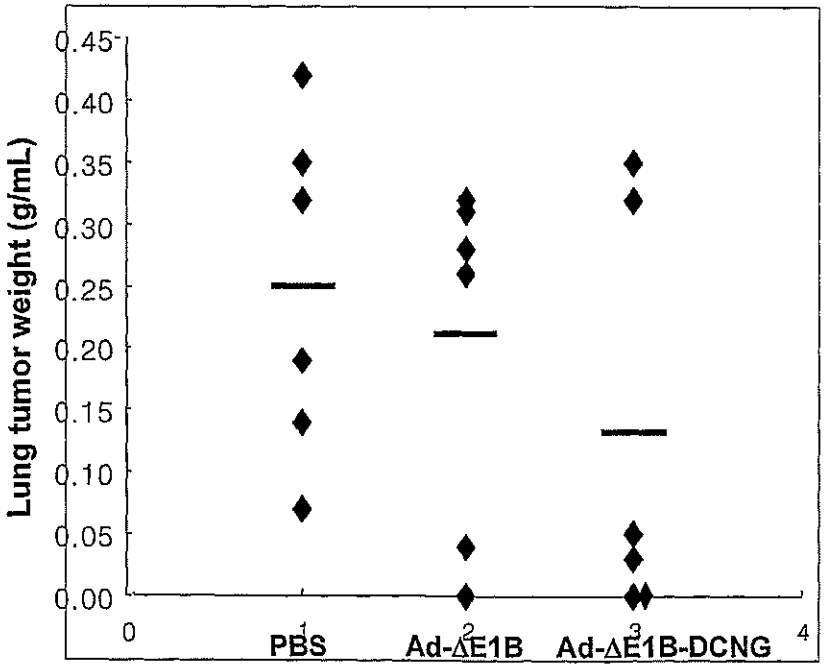

Lung tumor weight (g/mL)
0.45
0.40
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
0
1
PBS
2
Ad-ΔE1B
3
Ad-ΔE1B-DCNG
4

Fig. 16

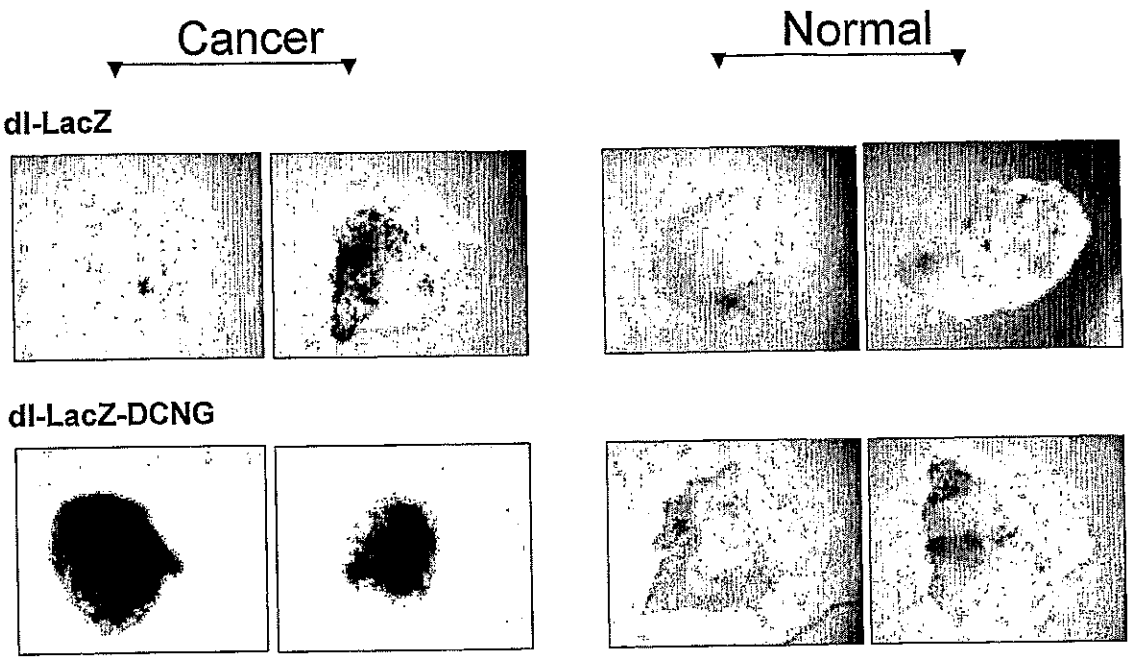


Fig. 17

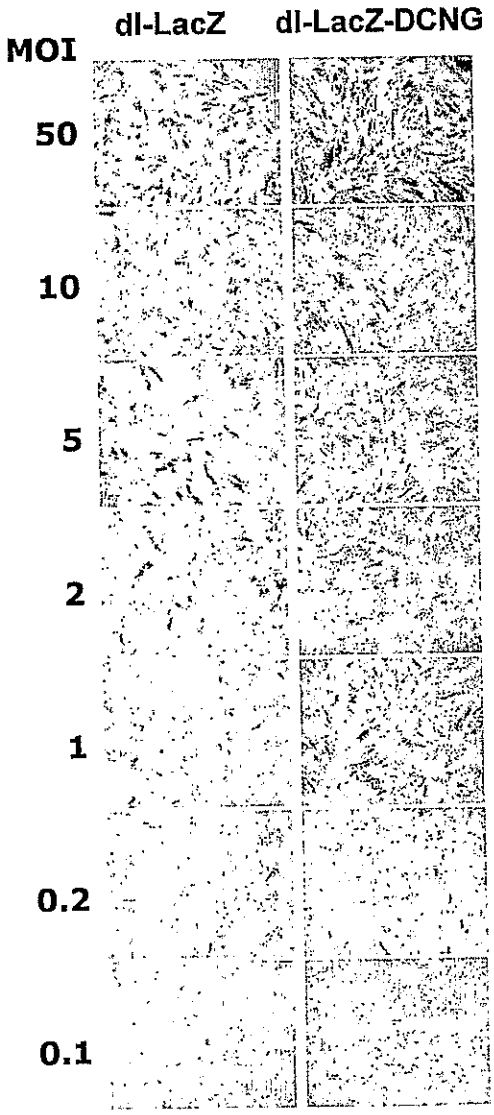


Fig. 18

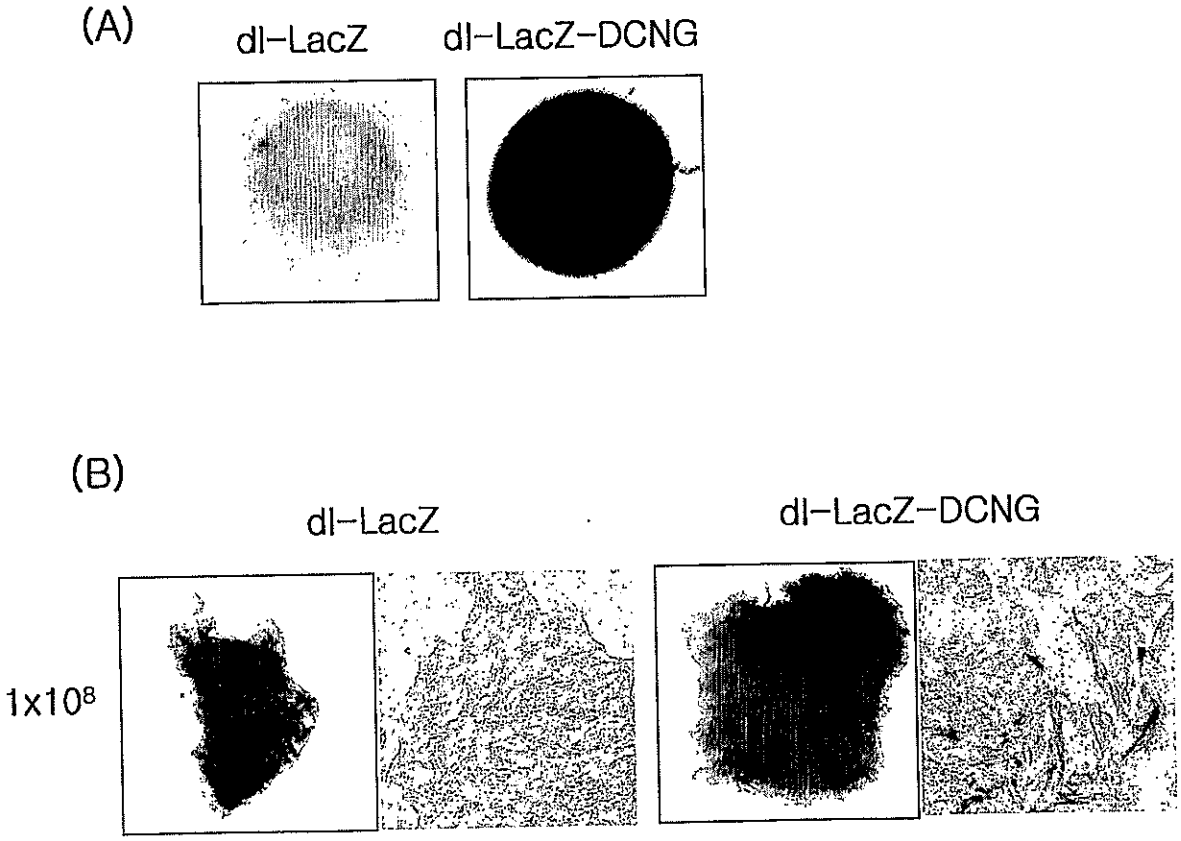


Fig. 19a

C33A tumor xenograft model

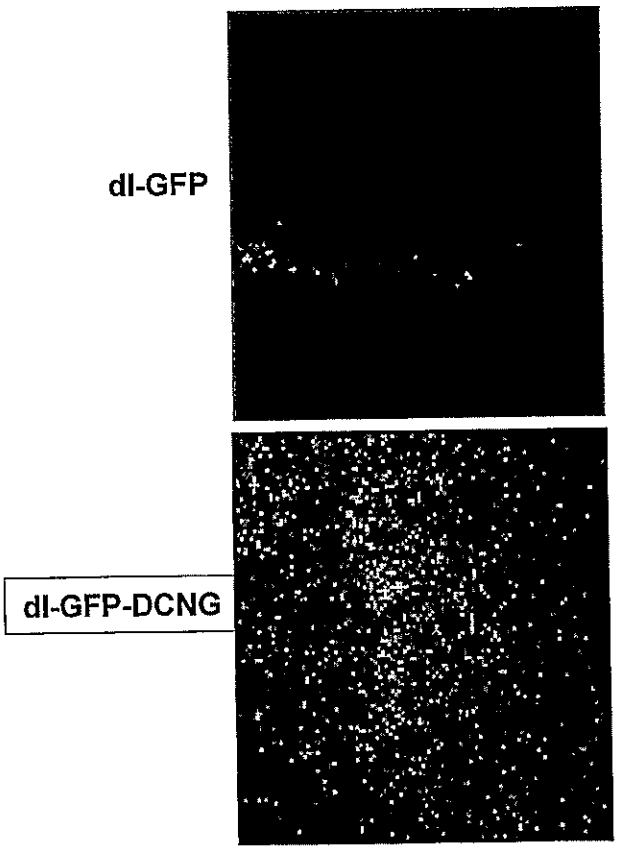


Fig. 19b

Breast cancer patient tumor

