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Adverse effects of industrial multiwalled carbon nanotubes on human pulmonary cells.

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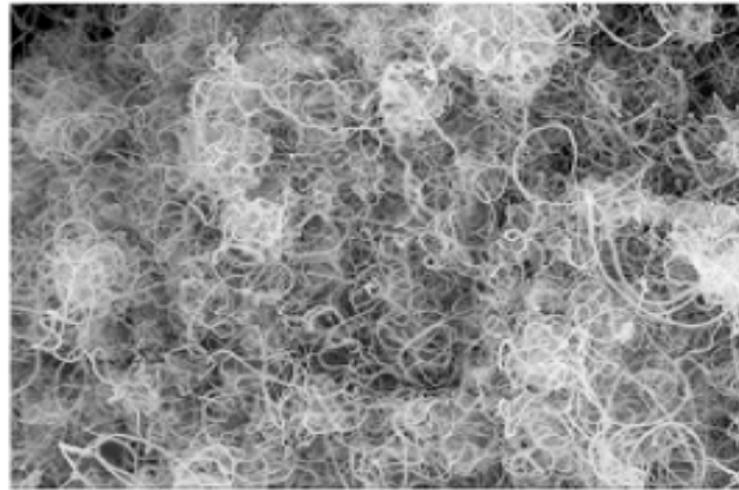
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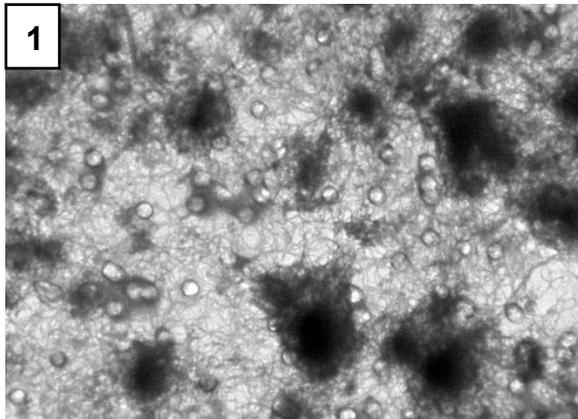
Figure 1

A

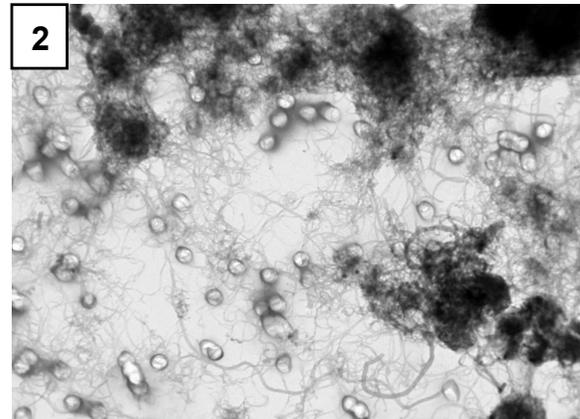


1 μm

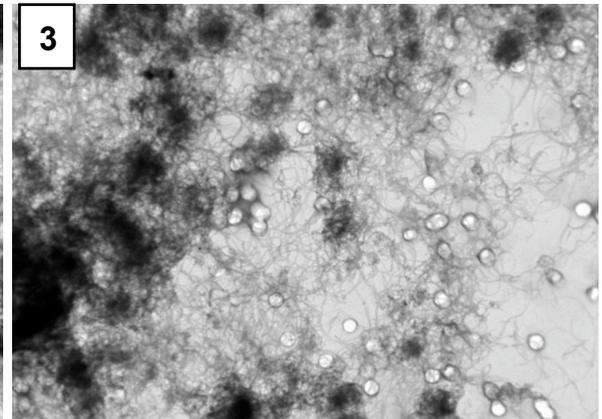
B



1 μm



1 μm



1 μm

Figure 2

A

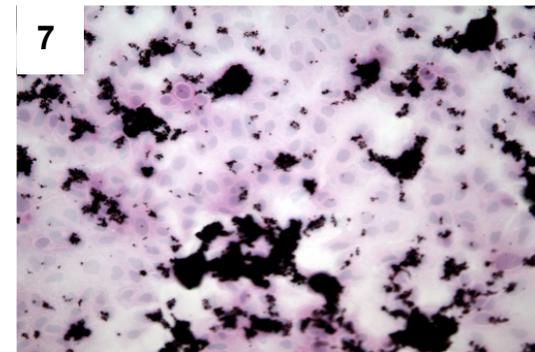
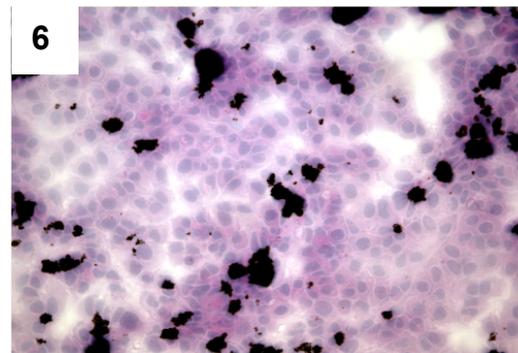
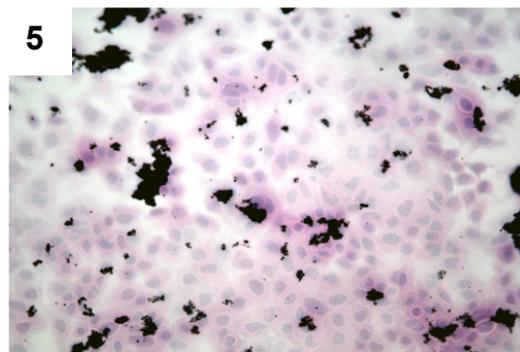
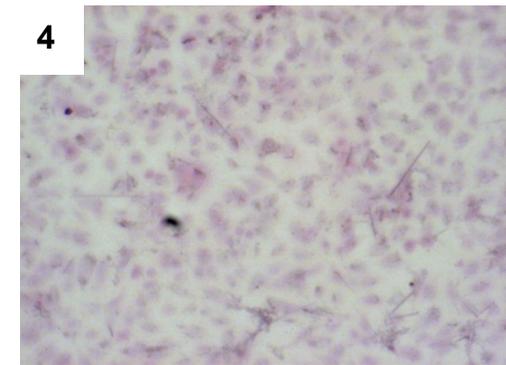
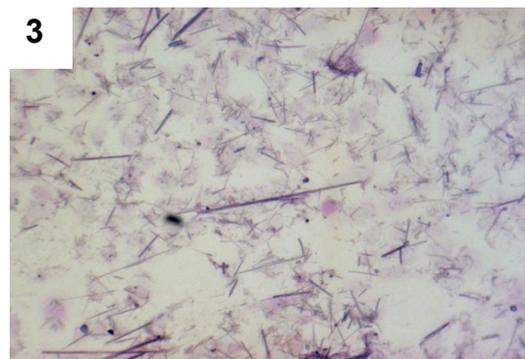
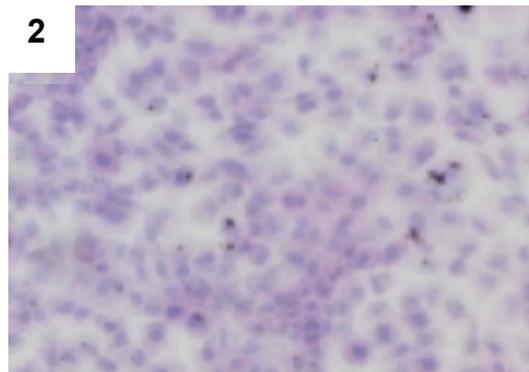
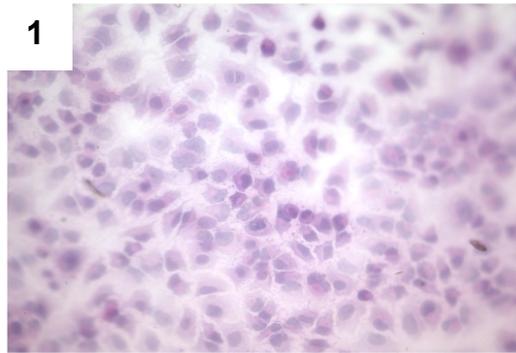


Figure 2

B

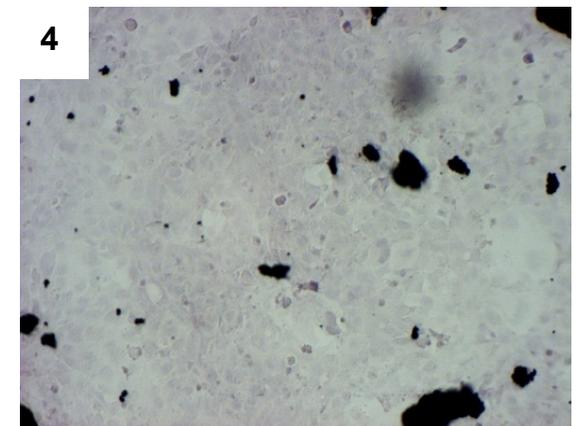
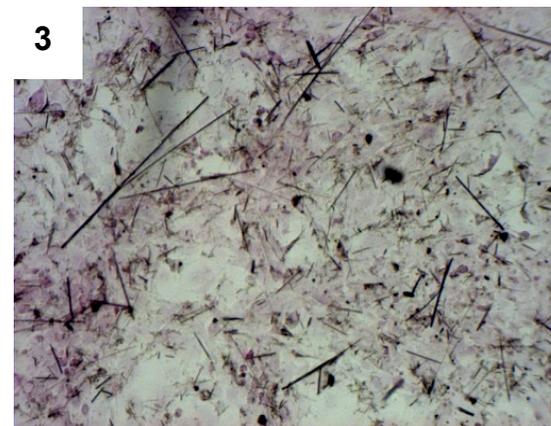
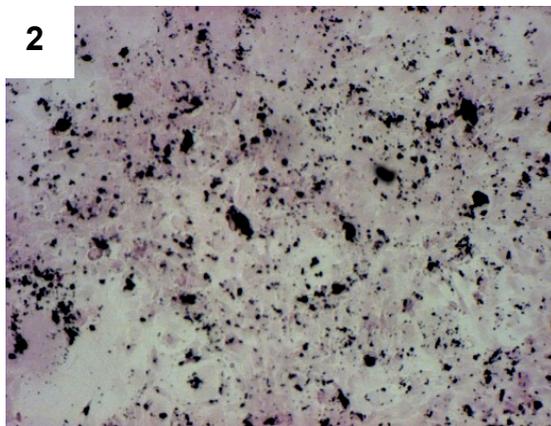
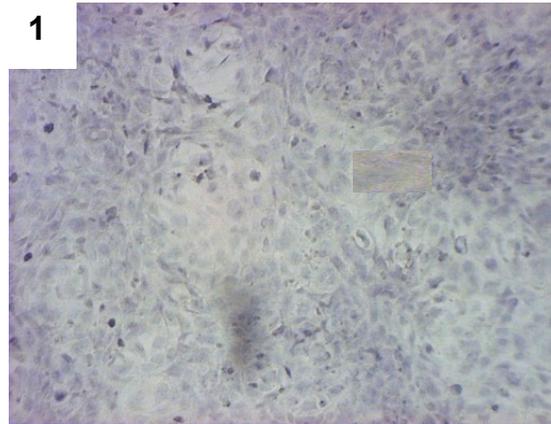


Figure 3

A

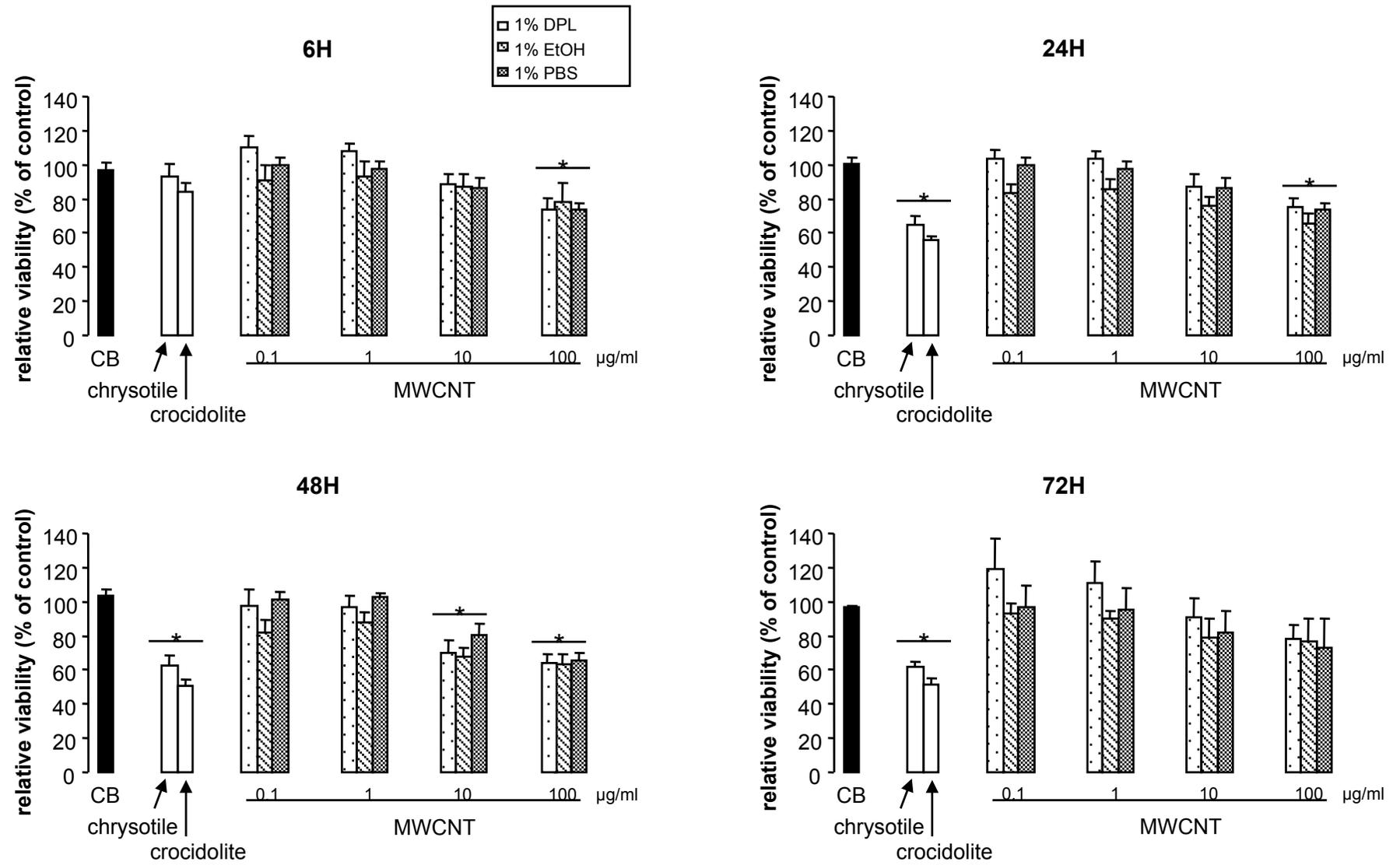


Figure 3

B

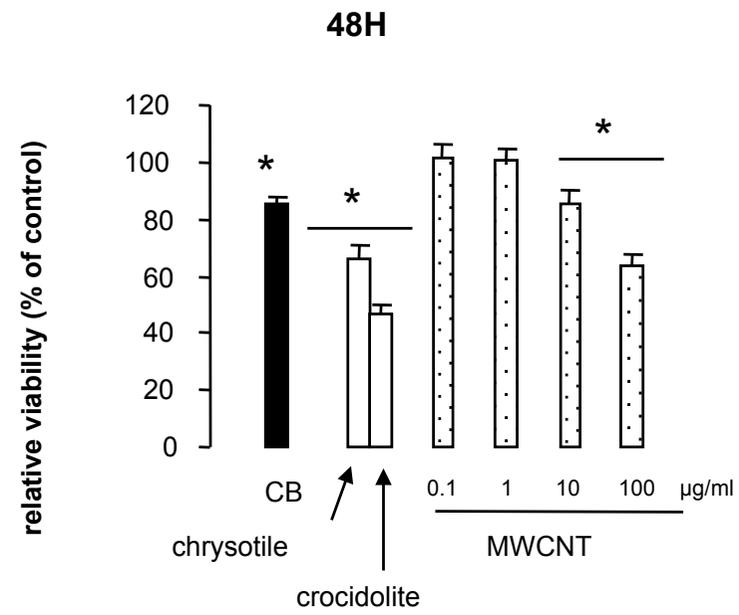
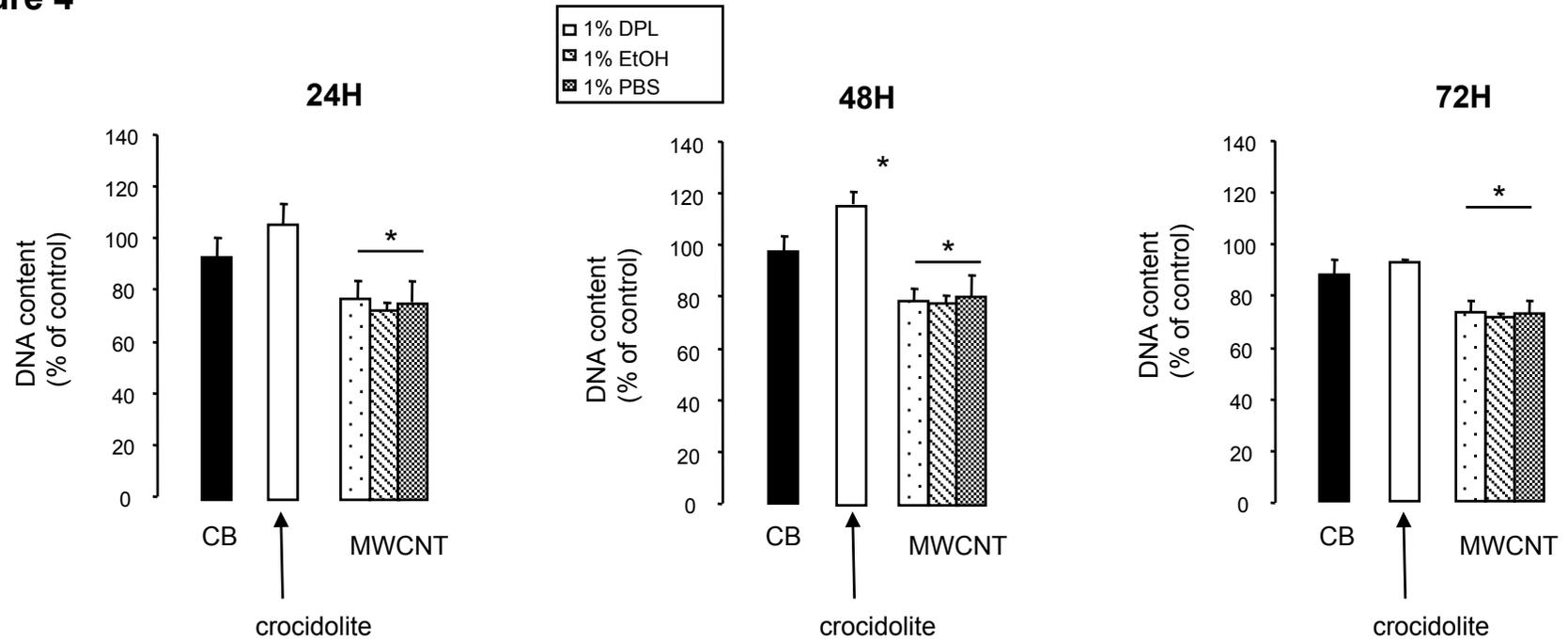


Figure 4

A



B

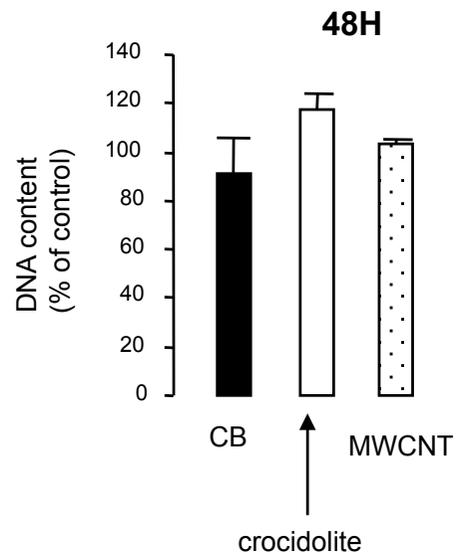
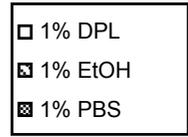
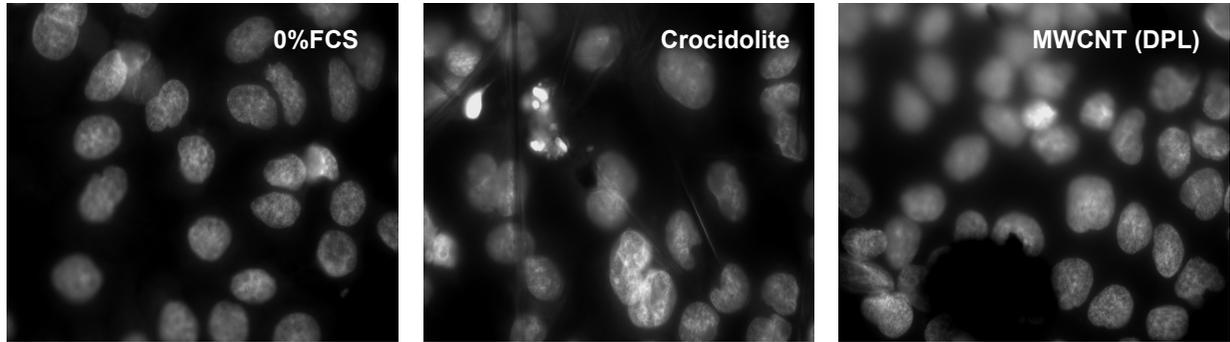


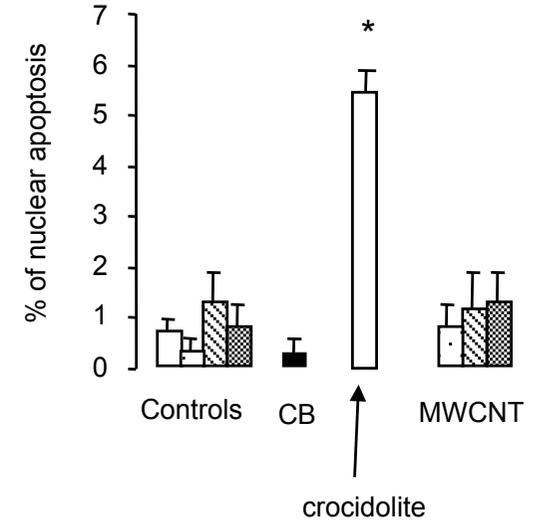
Figure 5



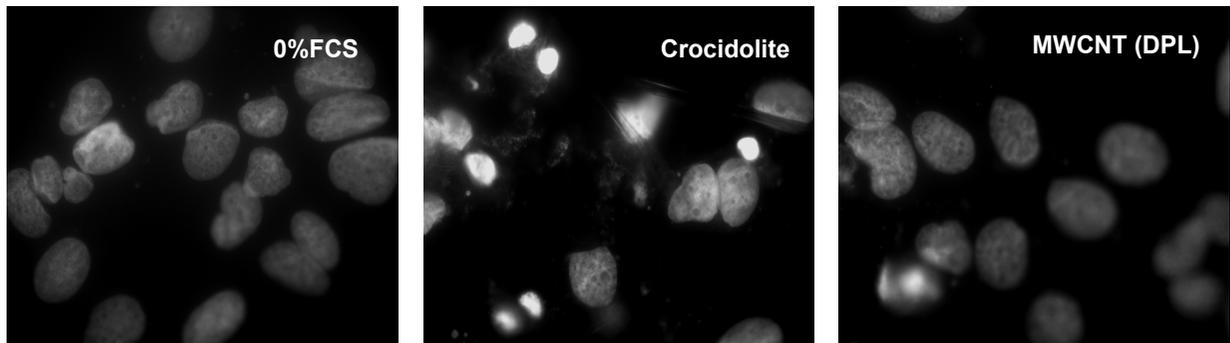
A



B



C



D

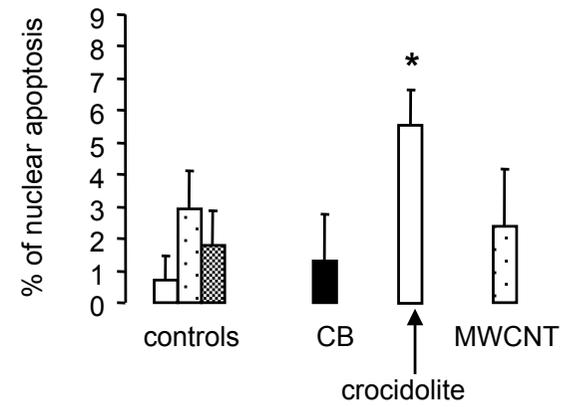
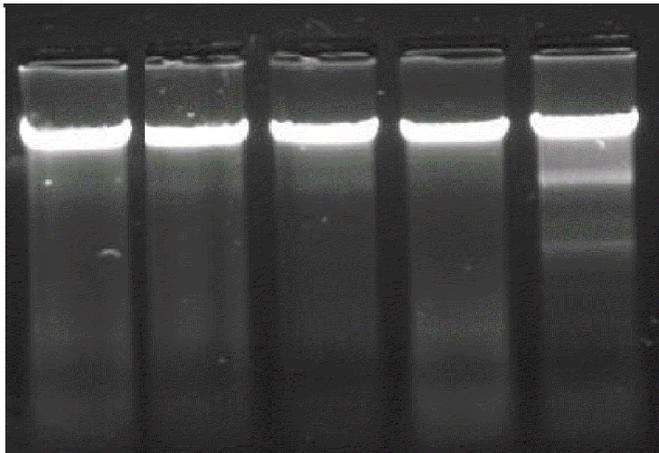


Figure 6

A

1 2 3 4 5



B

1 2 3 4 5

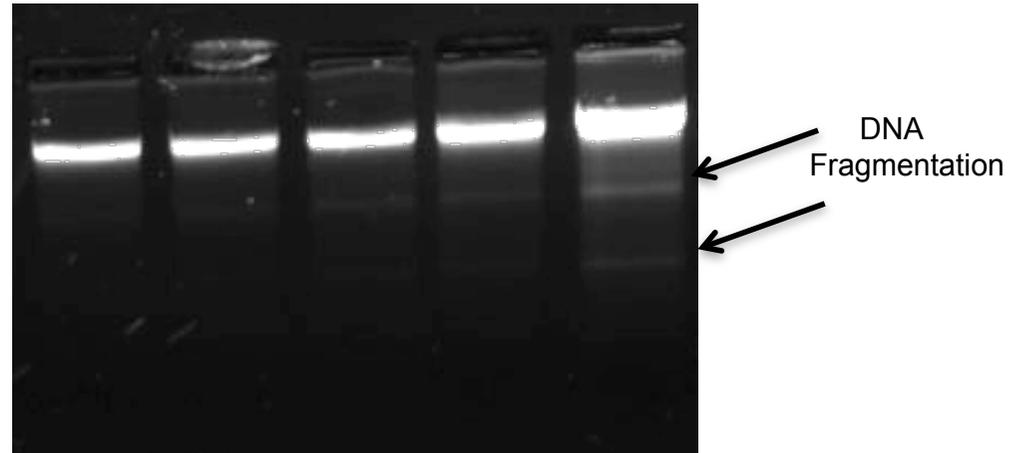
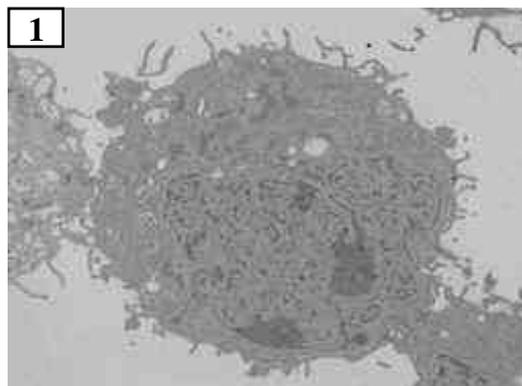
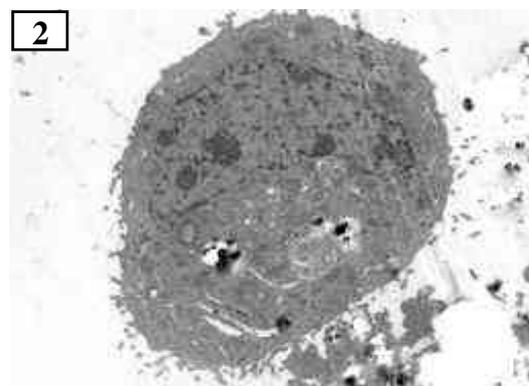


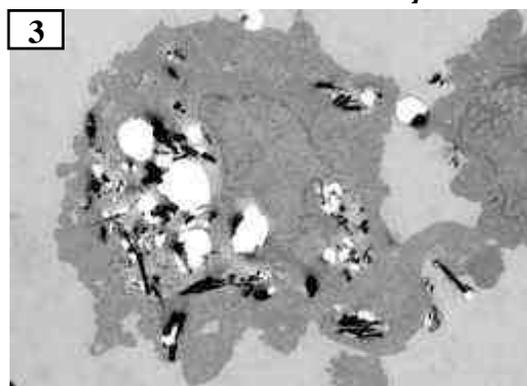
Figure 7



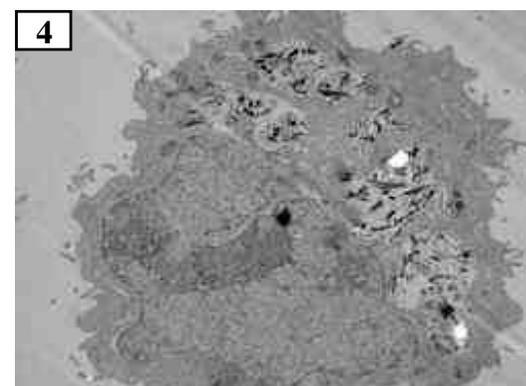
5 μ m



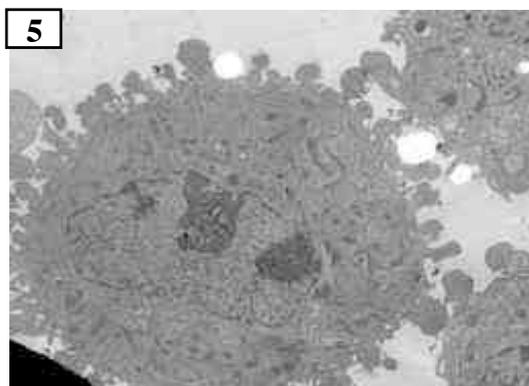
5 μ m



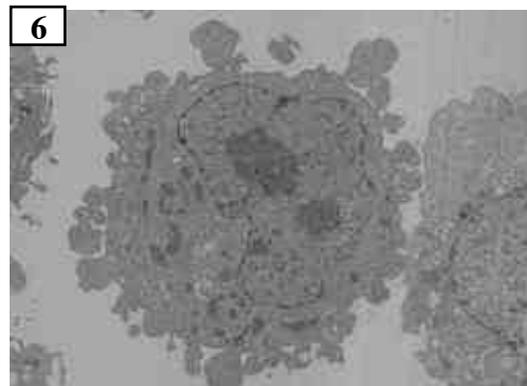
5 μ m



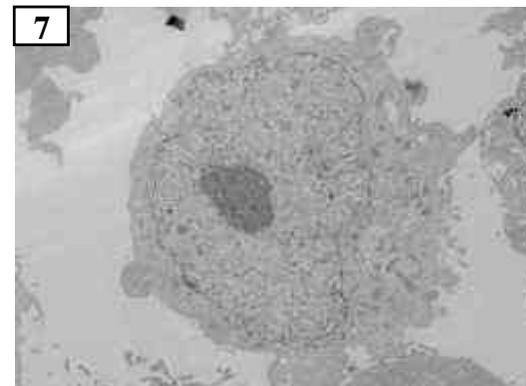
5 μ m



5 μ m



5 μ m



5 μ m

Table 1

Gas [gas-phase probe molecules]	N(CH₃)₃ [acidic sites]	HCl [basic sites]	CF₃COOH [basic sites]	NH₂OH [carbonyl functions]	O₃ [oxidizable sites]	NO₂ [oxidizable sites]
MWCNT	6.0 . 10¹³	1.6 . 10¹⁵	4.9 . 10¹⁴	4.7 . 10¹⁵	7.8 . 10¹⁶	2.3 . 10¹⁴

Table 2

	MWCNT aggregate area (μm^2)/field	MWCNT aggregate number/field
A549 (DPL)	16,64 \pm 1,50	154,50 \pm 7,23
(EtOH)	20,11 \pm 2,01	99,60 \pm 5,15 #
(PBS)	31,08 \pm 2,20 *	155,40 \pm 10,11
Met5A (DPL)	14,29 \pm 0,93	42,80 \pm 2,09