

Cadmium induced apoptosis in mouse primary hepatocytes: the role of oxidative stress-mediated ERK pathway activation and the involvement of histone H3 phosphorylation[†]

Jing Wang, Minglu Hao, Chunguang Liu, Rutao Liu*

School of Environmental Science and Engineering, Shandong University, China -America CRC for Environment & Health, Shandong Province, 27# Shanda South Road, Jinan 250100, P. R. China

To whom correspondence should be addressed: Rutao Liu, School of Environmental Science and Engineering, Shandong University, Jinan, Shandong province, P.R. China. Phone/Fax: 86-531-88365489. Email: rutaoliu@sdu.edu.cn

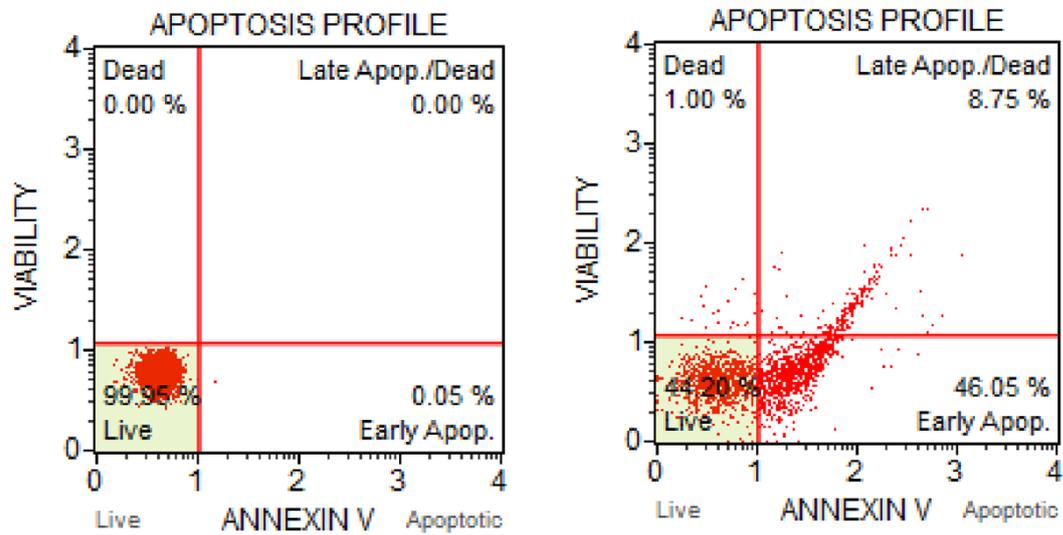


Fig.S1 Representative images of percentage of apoptotic cells. (Left), blank control, condition: 24 h incubation of the hepatocytes without Cd treatment. (Right), positive control, condition: 15 min incubation of the untreated hepatocytes (without Cd treatment) with 100 μ M H₂O₂.

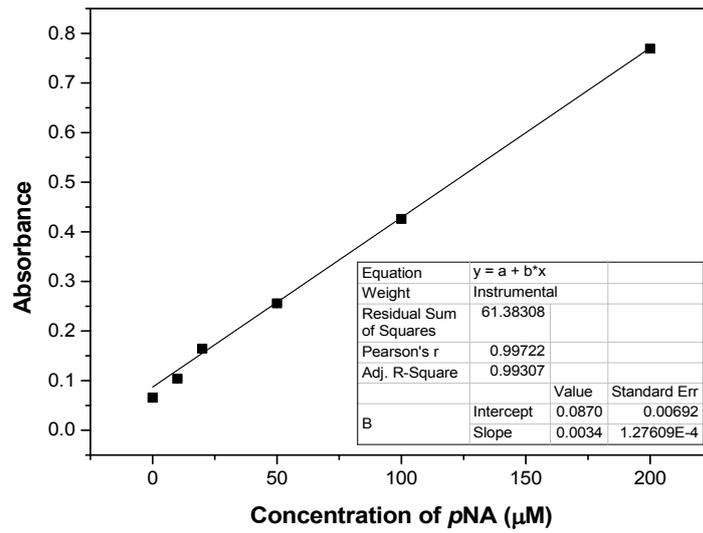


Fig.S2 Standard curve of caspase-3 assay. The equation and other parameters of the curve are inserted in the figure.

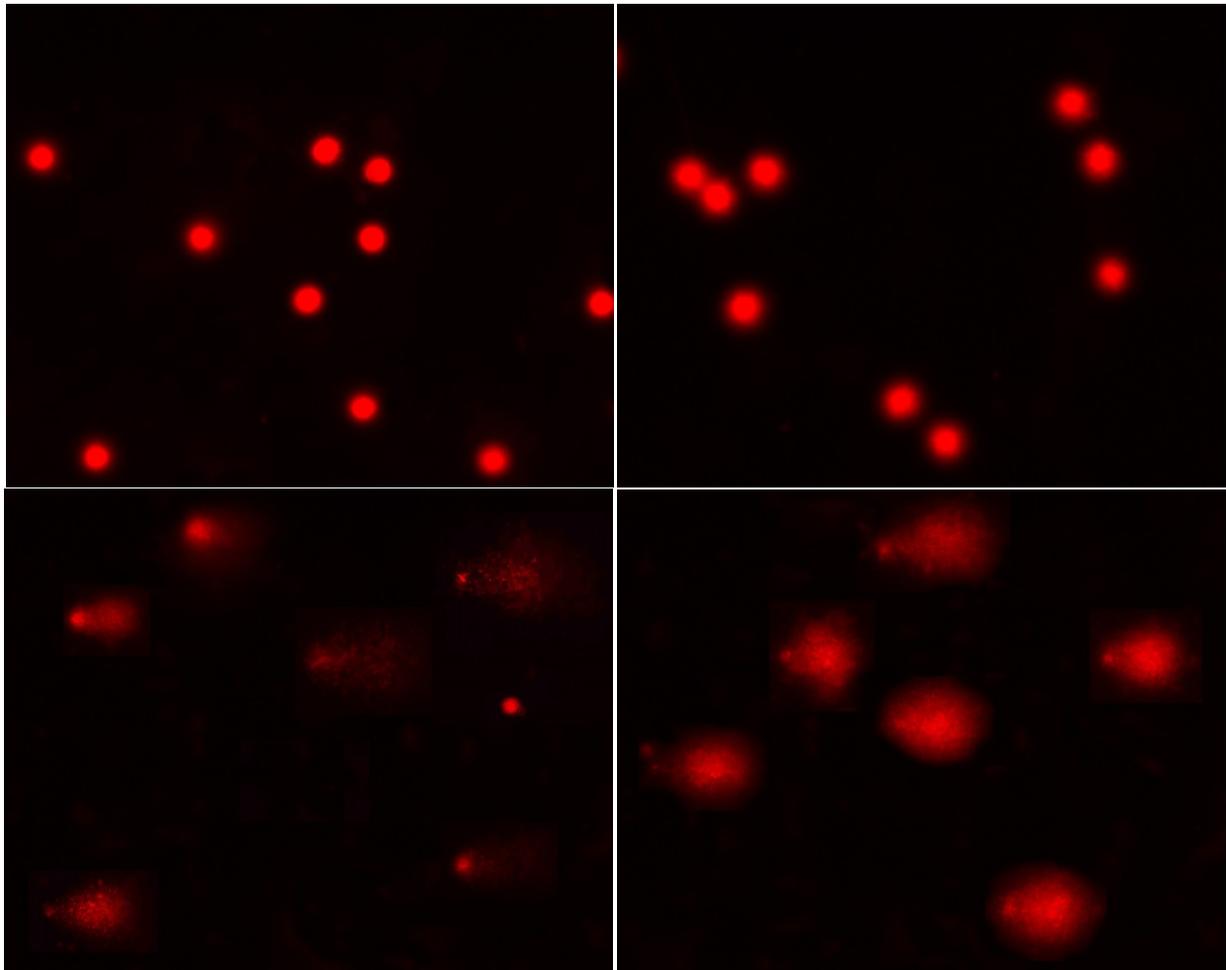


Fig.S3 Representative images of comet assay of positive controls and 6 h Cd treatment. (Left top), 6 h incubation of the hepatocytes without Cd treatment. (Right top), 6 h incubation of the hepatocytes with 10 μ M Cd treatment. (Left bottom), positive control of 6 h treatment, 30 min exposure of the untreated hepatocytes (without Cd treatment) with ultraviolet irradiation. (Right bottom), positive control of 24 h treatment, 30 min exposure of the untreated hepatocytes (without Cd treatment) with ultraviolet irradiation.

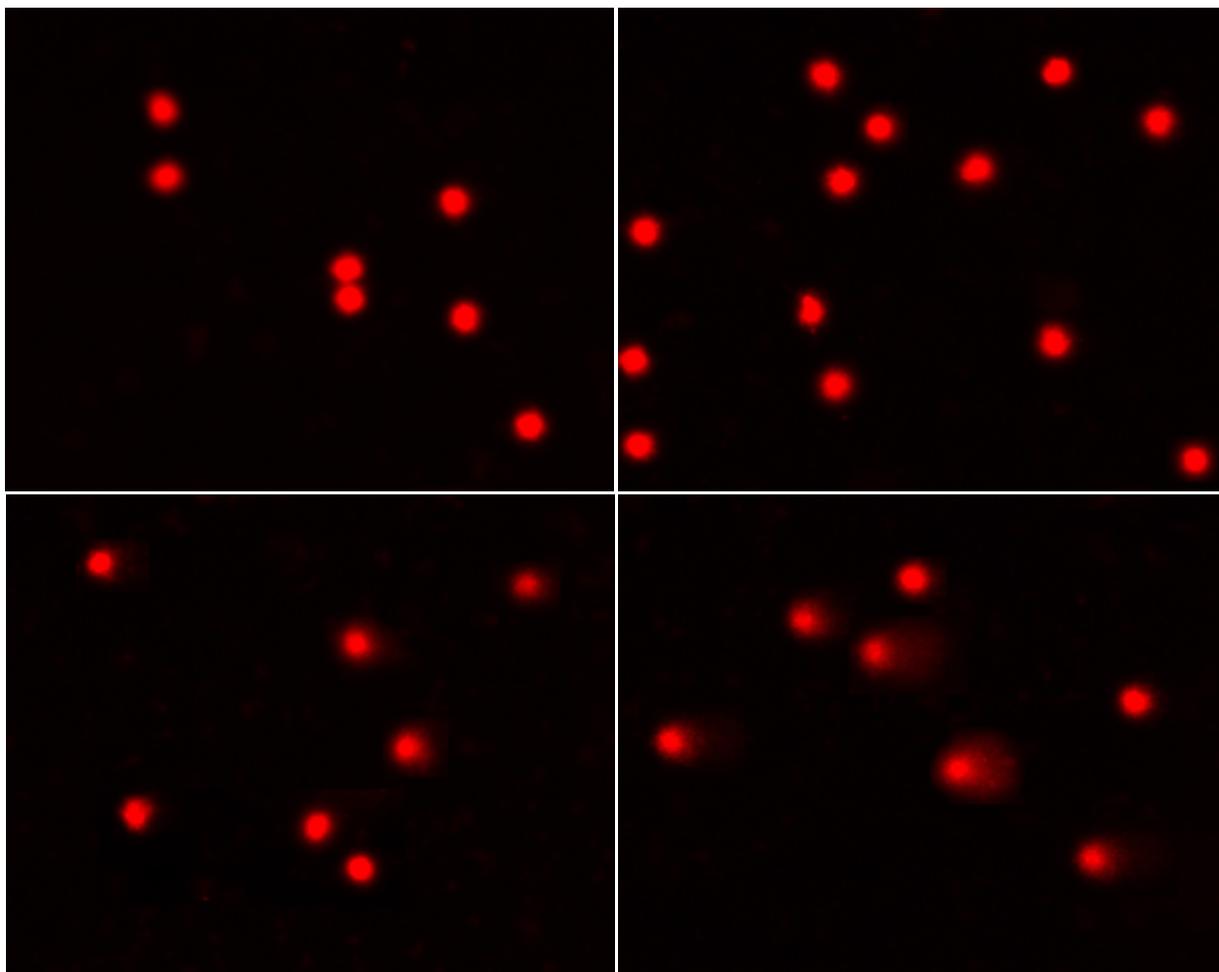


Fig.S4 Representative images of comet assay after 24 h Cd treatment without NAC pretreatment. Cd concentration: (Left top), 0 μ M. (Right top), 0.1 μ M. (Left bottom), 1 μ M. (Right bottom), 10 μ M.

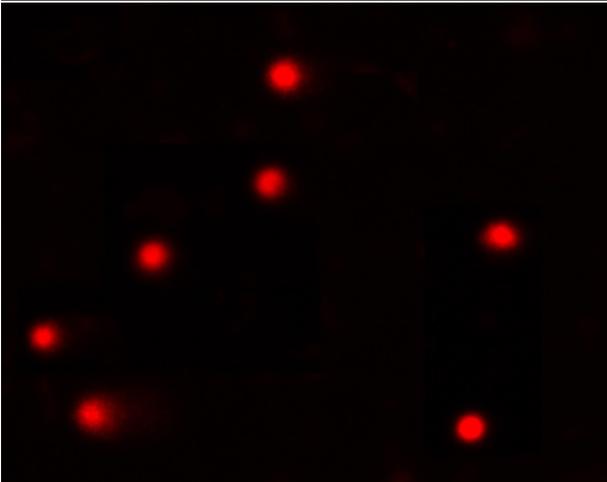
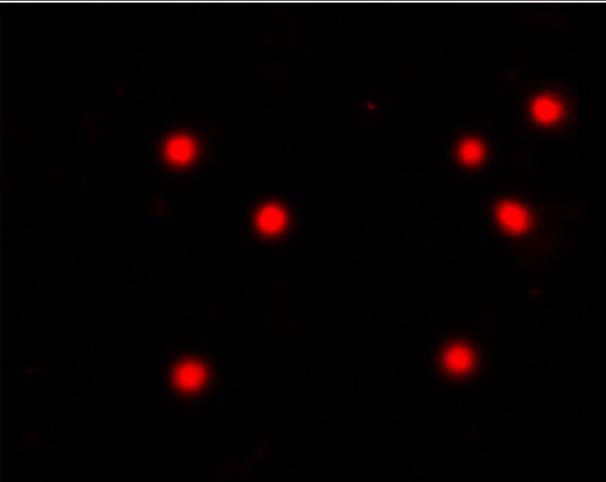
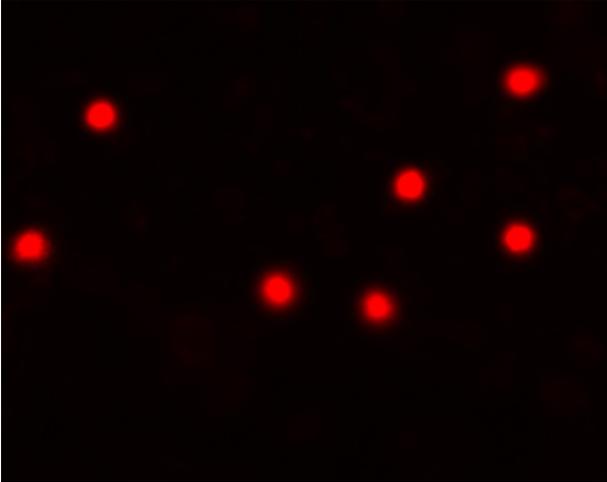
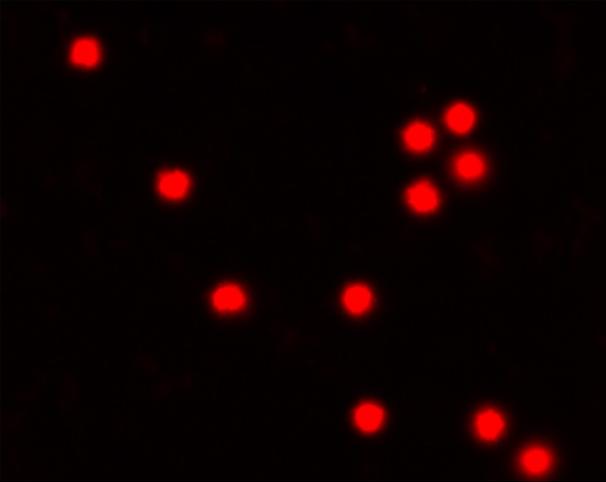


Fig.S5 Representative images of comet assay after 24 h Cd treatment with NAC pretreatment. Cd concentration: (Left top), 0 μ M. (Right top), 0.1 μ M. (Left bottom), 1 μ M. (Right bottom), 10 μ M.

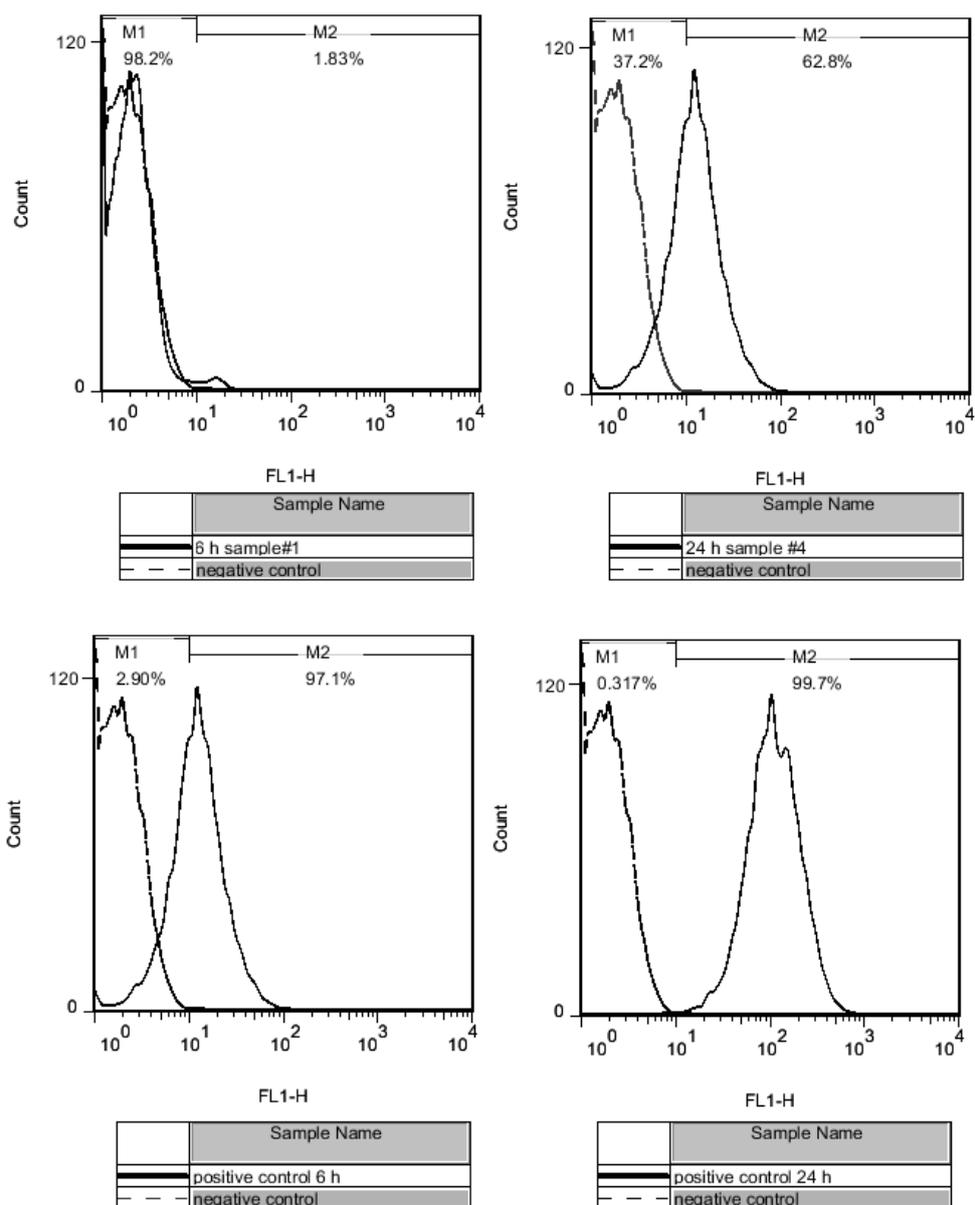


Fig.S6 Representative images of ROS level assay. Condition: (Left top), 6 h incubation of the hepatocytes without Cd treatment. (Right top), 24 h incubation of the hepatocytes with 10 μ M Cd treatment. (Left bottom), positive control of 6 h treatment, 15 min incubation of the untreated (without Cd treatment) hepatocytes with 100 μ M H_2O_2 . (Right bottom), positive control of 24 h treatment, 15 min incubation of the untreated (without Cd treatment) hepatocytes with 100 μ M H_2O_2 .

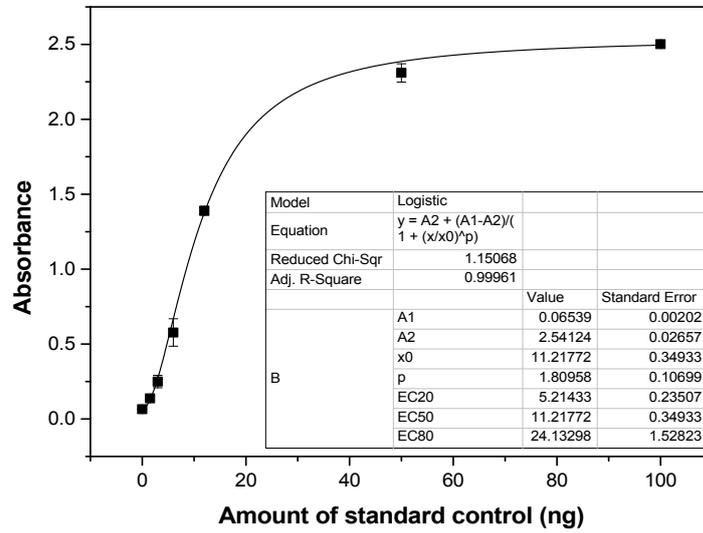


Fig.S7 Standard curve of histone H3 phosphorylation. The equation and other parameters of the curve are inserted in the figure.