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### Genotoxicity of Taxol and 10-Deacetyl Baccatin III Using Single Cell Gel Electrophoresis (Comet Assay) in Chinese Hamster Lung Fibroblast

Hyun-Joo Kim<sup>0</sup>, Kyung-Ran Kim, Ji-Youn Youn, Min-Hee Kim,  
and Jae-Chun Ryu

Toxicology Laboratory, Doping Control Center, Korea Institute of  
Science and Technology  
P.O. box 131, Cheongryang, Seoul, 136-650, Korea

Taxol is used as cancer therapeutic agent. It has been known as weak positive of chromosome aberration assay *in vitro* in our previous results (Ryu et al., 1996) and potent clastogens in the mouse bone marrow micronucleus (Tinwell and Ashby, 1994). We performed microgel electrophoresis to determine the effect of taxol and its precursor 10-deacetyl baccatin III (DAB) on DNA. Microgel electrophoresis is useful, rapid, simple, visual, and sensitive technique for measuring DNA breakage and repair mechanisms in mammalian cells. The range of concentration used for taxol were 854, 427, 213.5, 106.8, 53.4  $\mu\text{g}/\text{ml}$ , for DAB 910, 455, 227.5  $\mu\text{g}/\text{ml}$ . Cell viability always exceeded 85%. We analyzed the results by using the special software of image analyzer for this comet assay (Komet 3.0). By using this image analyzer software, we can get the result as the tail moment ((mean of tail length - mean of head length) x tail%DNA/100). A slight increase in DNA migration was observed for taxol at the concentration of 854  $\mu\text{g}/\text{ml}$  in the absence of S9 mixture. No increased DNA migration was observed after treatment with DAB.

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(책임 연구자)

성명 : 류 재천

주소 : 서울 성북구 하월곡동 39-1, KIST DCC

전화 : 958-5070

Fax : 958-5059