[PA4-23] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Cytotoxicity and Genotoxicity Study of CKD-712 in mammalian cell system

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CKD-712, named S-YS49 is a chiral compound derived from higenamine (one component of *Aconite spp.*) derivatives. To compare the cytotoxicity of CKD-712 between in the absence and in the presence of S9 metabolic activation system, we performed trypan blue dye exclusion assay in Chinese hamster lung (CHL) cell. In CHL cells, the cytotoxicity (IC_{50}) of CKD-712 was 92.9 ㎍/ml and 186.1 ㎍/ml in the absence and presence of S9 metabolic activation, respectively. And we also investigated the induction of DNA damages in mammalian cells. To perform the single cell gel electrophoresis, we determined optimum concentration in mouse lymphoma L5178Y cells using trypan blue dye exclusion assay. Each IC_{20} of CKD-712 was determined the concentration of 23.4 ㎍/ml and 24.8 ㎍/ml in the absence and presence of S9 metabolic activation, respectively. In the comet assay, DNA damage was not observed at the concentration range from 23.4 ㎍/ml to 5.9 ㎍/ml in the absence of S9 metabolic activation system. In the presence of S9 metabolic activation system, however, the concentration of 24.8 ㎍/ml was shown significant increase of tail moment. From these results, it is assumed that CKD-712 may be metabolized to less cytotoxic metabolite(s). However, these metabolite(s) may be involved in genotoxic effect.

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The Cytotoxic Activity of 13(E)-Labd-13-ene-8α,15-diol from Brachyglottis monroi

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The cytotoxic activity of 13(E)-Labd-13-ene-8α,15-diol(1), isolated from the ethanol extract of Brachyglottis monroi was evaluated against tumor cell lines such as P388, SNU-C4 MDA-MB231, B16 melanoma and A549 in vitro. By mean of spectral analysis particularly by the aid of various two dimensional NMR experiments, 1H-NMR and 13C-NMR signals of (1) was completely assigned, and thus the structure of (1) was established unambiguously.

[PA4-25] [04/17/2003 (Thr) 14:00 - 17:00 / Hall P]

Effect of Solanum lyratum Extract on Dimethylnitrosamine-Induced Liver Damage in Rats