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Evaluation of the Genetic Toxicity of Synthetic Chemicals (V)
- Chromosomal Aberration Assay With 11 compounds
in Chinese Hamster Lung Cells *in vitro* -

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We performed chromosomal aberration assay in Chinese Hamster Lung (CHL) cells *in vitro* to screen for possible mammalian mutagen and carcinogen of 11 synthetic chemicals which were listed in Toxicity Evaluation Program of Ministry of Environment of Republic of Korea in 1997. All of the chemicals were carried out MTT assay to determine the 50% cell growth inhibition concentration(IC₅₀) as the highest concentration. Cells were exposed for 6hrs to the compounds with and without S9 mixture in the first experiment. If negative results were obtained in the first experiment, continuous treatment for 24 hrs i.e., about 1.5 normal cell cycle length, were followed. P-nitroanisole, triphenyl phosphite, glycerol triacetate, 2-ethylhexyl acetate, benzyl ether, diethylmalonate, hexylcinnamic aldehyde, 1-chloro-3-bromopropane, n-hexylamine, n-octyl alcohol, dioctyl phthalate were tested with and without metabolic activation system. 1-chloro-3-bromopropane only revealed positive result at 165, 82.5 and 41.3 $\mu\text{g}/\text{ml}$ in the presence of metabolic activation system, and at 1,600, 800 and 400 $\mu\text{g}/\text{ml}$ in the absence of metabolic activation system in this study.

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