

EVALUATION OF GENETIC TOXICITY OF SYNTHETIC COMPOUNDS (V) : SUPRAVITAL STAINING MICRONUCLEUS ASSAY WITH 17 COMPOUNDS USING PERIPHERAL BLOOD RETICULOCYTES IN MICE

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Many kinds of environmental hazards related with industries have become of the subject of great interest. Damage to DNA, which ultimately leads to the formation of micronuclei may result from exposure to such chemicals. So Ministry of Environment (MOE) is concerned with hazardous effect of chemicals on human and environments. To evaluate the clastogenicity of 17 synthetic chemicals which were listed on toxicity evaluation program of MOE in 1997, we performed acridine orange supravital staining micronucleus assay (MN) in ICR male mice *in vivo* with p-nitroanisole, pyridine, dioctyl phthalate, anthraquinone, biphenyl, 4,4'-sulfonyldianiline, a,a-dimethyl benzylhydroperoxide, 1-naphthol, benzoyl peroxide, (epoxyethyl)benzene, benzoyl chloride, 2-nitro-p-anisidine, p-toluene sulfonic acid, p-chlorophenol, cyclohexanol, 2-phenoxy-ethanol, and 2,4-dichloro-phenyl p-nitrophenyl ether. At least 2000 reticulocytes per animal were scored for the incidence of micronucleated reticulocytes. All 17 test compounds showed no significant micronucleus formations of the mouse peripheral blood reticulocyte cells in the concentration ranges used in this experiment.

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