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Genotoxicity Studies of Chrysin

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Chrysin (5,7-dihydroxyflavone) is a flavonoid compound contained in many fruits, vegetables and honey. In our experiment, we investigated genotoxicity of chrysin using bacterial reverse mutaion assay, chromosomal aberration test, in vivo micronucleus test and DNA damage test. In bacterial reverse mutation assay, chrysin did not induce mutagenicity in Salmonella typhimurium TA98, TA100, TA1535, TA1537, TA102 with and without metabolic activation. In chromosome aberration test, chrysin did not also induce structural and numerical abberations regardless of metabolic activation in Chinese hamster lung fibroblast cells. In mouse micronucleus test, no significant increase in the occurrence of micronucleated polychromatic erythrocytes (MNPCE) was observed in ICR male mice orally administered with chrysin at the dose of 0.5, 1.0, 2.0g/kg body weight. Taken together these results, chrysin has no mutagenic potential in our experiment.

Keyword : genotoxicity, chrysin, 8-OHdG