



## *In Vivo* Genotoxicity Evaluation of Crude Extract from *Ledum palustre* and Protective Effects on Cyclophosphamide-Induced Genotoxicity in Mice

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**SUMMARY.** Extracts from *Ledum palustre* (LP) have shown many benefit activities, while, the toxicity of extracts from LP was seldom reported. In the present study, we evaluated the genotoxicity of crude extract from LP. Our results demonstrated that the maximal tolerance dose (MTD) of LP extract was more than 30 g/kg BW in mice (oral). LP extract at doses of 2.5, 5.0 and 10.0 g/kg BW had no genotoxicity in mice and could inhibit cyclophosphamide (CP), a well known anti-tumor drug, induced genotoxicity in mice. LP extract at concentrations of 0.05 g/mL, 0.005 g/mL, and 0.0005 g/mL had scavenging activity on O<sub>2</sub>-in a dose-related way. It was concluded that LP extract had protective effects on CP induced genotoxicity in mice and the protective mechanism of LP extract appeared to be related to antioxidant activity.

**KEY WORDS:** Acute toxicity, Antioxidant activity, Chromosome aberration test, *Ledum palustre*, Micronucleus test, Sperm morphology test.

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