

Absence of mutagenicity effects of *Psidium cattleyanum* Sabine (Myrtaceae) extract on peripheral blood and bone marrow cells of mice

T.D.A. Costa¹, S. Vieira¹, S.F. Andrade² and E.L. Maistro¹

¹Departamento de Fonoaudiologia, Faculdade de Filosofia e Ciências, Universidade Estadual Paulista, Marília, SP, Brasil

²Núcleo de Investigações Químico-Farmacêuticas, Universidade do Vale do Itajaí, Itajaí, SC, Brasil

Corresponding author: E.L. Maistro
E-mail: edson.maistro@marilia.unesp.br

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ABSTRACT. Cattley guava (*Psidium cattleyanum* Sabine) is a native fruit of Brazil that is popular both as a sweet food and for its reputed therapeutic properties. We examined whether it could damage DNA using the alkaline single-cell gel electrophoresis (comet assay) and the micronucleus test in leukocytes and in bone marrow cells of mice. *P. cattleyanum* leaf extract was tested at concentrations of 1000, 1500 and 2000 mg/kg. N-nitroso-N-ethylurea was used as a positive control. Peripheral blood leukocytes were collected 4 and 24 h after the treatments for the comet assay, and bone marrow cells were collected after 24 and 48 h for the micronucleus test. Unlike N-nitroso-N-ethylurea, *P. cattleyanum* extract failed to induce a significant increase in cell DNA damage, in micronucleated cell frequency, and in bone marrow toxicity. The lack of mutagenicity and cytotoxicity with high doses of this plant extract means that it can be safely used in traditional medicine.

Key words: *Psidium cattleyanum*; Comet assay; Micronucleus test; Single-cell gel electrophoresis; Mutagenesis