

Modulatory effects of *Duguetia furfuracea* (A. St. Hil) Benth. and Hook. f. in *Drosophila melanogaster* somatic and germinative cells

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Genet. Mol. Res. 10 (1): 75-85 (2011)

Received August 30, 2010

Accepted December 3, 2010

Published January 18, 2011

DOI 10.4238/vol10-1gmr983

ABSTRACT. Mutagenic and antimutagenic activities of the medicinal plant *Duguetia furfuracea* were assessed using SMART/wing and ring-X-loss tests. For the ring-X-loss test, 2- to 3-day-old *Drosophila melanogaster* ring-X-lineage males and virgin yw^{sn}³ females received *D. furfuracea* infusion at doses of 0.085, 0.042, or 0.014 g/mL for 24 h. We found that *D. furfuracea* did not produce any mutagenic effects in *D. melanogaster* germinative cells. The somatic cells of *D. melanogaster* were analyzed using the SMART/wing test involving three lineages - mwh, flr³, and ORR - and the same doses of *D. furfuracea* infusion employed in the ring-X-loss test, as well as 20 mM urethane. The results of both standard (ST) and high bioactivation (HB) crosses showed absence of mutagenic activity of *D. furfuracea*. In contrast, in both ST and HB crosses, we

observed a modulatory effect of *D. furfuracea* against the genotoxic activity of urethane.

Key words: Antimutagenicity; *Duguetia furfuracea*; Genotoxicity; Mutagenicity