

Cytotoxic, Hypoglycemic Activity and Phytochemical Analysis of *Rubus imperialis* (Rosaceae)

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Rubus imperialis, *Artemia salina*, 3-O-methylellagic-4'-O- α -rhamnose Acid

Screening of different extracts, fractions and compounds from *Rubus imperialis* Chum. Schl. (Rosaceae) has been conducted using the brine shrimp microwell cytotoxicity assay. Three parts of the plant (methanolic extract from leaves, roots and stems), three fractions from roots (hexane, ethyl acetate and butanol) and three isolated compounds (niga-ichigoside F1, 23-hydroxytormentonic acid, ellagic acid derivative) were tested. The most promising material (LC₅₀ <1000 μ g/ml) were the methanolic extract and ethyl acetate fraction from roots. However, there was little correlation observed in the degree of toxicities observed between the isolated compounds. On the other hand, the cytotoxicity and *in vivo* assays confirmed the hypoglycemic activity of methanolic extract and validated the Brazilian popular use of *R. imperialis* as an antidiabetic agent.