Antioxidant Activity and Acute oral Toxicity of *Phrygilanthus acutifolius* Flowers

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**SUMMARY.** Antioxidant activity of ethanol and water extracts and infusion of the flowers of *Phrygilanthus acutifolius* were evaluated. Total phenolic contents were determined using Folin- Ciocalteau reagent. The ethanol extract was more effective in scavenging radical 1,1 biphenyl -2-picrylhydrazyl (DPPH), with lower IC50 values. The water and ethanol extracts were the most effective antioxidants based on the inhibition of lipid peroxidation (β carotene bleaching method). The acute toxicity test in rats indicated that oral administration of 3,200 mg/Kg of flowers produced neither mortality, nor changes in behaviour or any other physiological activities. There were no significant differences in the body and organ weight between controls and treated animals. In blood chemistry analysis, aspartate transaminase, alanine transaminase, and alkaline phosphatase activities, no significant changes occurred. In view of the doses consumed empirically in traditional medicine of Amaicha del Valle, Tucumán, Argentina, there is a wide margin of safety for the therapeutic use of *Phrygilanthus acutifolius* flowers.