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Anti-Pyretic Activity of two Varieties of *Hibiscus rosa-sinensis* L

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Hibiscus rosa-sinensis **has been traditionally used by local communities to treat fever. However, there are only limited data have been published to support the antipyretic effects. The objective of this study is to investigate the antipyretic properties and possible mechanism of the ethanol extracts of *Hibiscus rosa-sinensis*L. (red colored flower) and *Hibiscus rosa-sinensis*var. *Alba* (white colored flower). Phytochemical analysis, heavy metals screening and acute toxicity test were done to evaluate the safety of extracts. The first model ran induced fever in rats by injecting Brewer's Yeast subcutaneously and then treated with 4 extracts at dosage 5 & 50 mg/kg. The dosages used for the study were obtained by the acute toxicity test. Ibuprofen was used as a reference drug, with dose 100 mg/kg. Temperatures of rats were measured using a digital thermometer. The results were expressed as mean ± S.E.M. and analyzed using the SAS system. The results of the study showed that white flower extract 5mg/kg and 50 mg/kg significantly ($p < 0.05$) reduced the total temperature when compared to positive control group. Therefore, this research suggests the probability for its therapeutic effectiveness as plant-based antipyretic agent as claimed by traditional medicine practitioners.**

Keywords: *Hibiscus rosa-sinensis*, Antipyretic, Toxicity.

Fever is a frequent medical sign of increased internal body temperature of human to level above normal, which is 36.8 ±0.7 °C (98.2±1.3 °F).Pyrexia or fever is an important brain-mediated response occurring as part of the acute phase reaction triggered by pyrogens during infections (Fabricio*et al*., 2005). It is the nearly universal and most important non-specific immune mechanism designed to combat the harmful effects of invading pathogens to neutralize or restore health of the afflicted host. Fever is the response of our body, involving the release of endogenous pyrogens (IL-1, TNF-á, etc.) by immune cells, the transfer of these immune signals to the brain, coordinated response of several brain regions to increase the thermoregulatory set point and consequently body temperature (Fairbanks *et al*., 2000).

Fever is usually accompanied by sickness behavior as the body's attempts to counteract the newly-perceivedhypothermia and reach the new thermoregulatory set-point.A feverish individual may complaints of feeling hot, followed by chills and tremblingdespite an increased body