

# Protective effects of a standard extract of *Mangifera indica* L. (VIMANG®) against mouse ear edemas and its inhibition of eicosanoid production in J774 murine macrophages

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A standard aqueous extract of *Mangifera indica* L., used in Cuba as antioxidant under the brand name VIMANG®, was tested in vivo for its anti-inflammatory activity, using commonly accepted assays. The standard extract of *M. indica*, administered orally (50-200 mg/kg body wt.), reduced ear edema induced by arachidonic acid (AA) and phorbol myristate acetate (PMA) in mice. In the PMA model, *M. indica* extract also reduced myeloperoxidase (MPO) activity. In vitro studies were performed using macrophage cell line J774 stimulated with pro-inflammatory stimuli lipopolysaccharide-interferon gamma (LPS-IFN $\gamma$ ) or calcium ionophore A23187 to determine prostaglandin PGE<sub>2</sub> or leukotriene LTB<sub>4</sub> release, respectively. The extract inhibited the induction of PGE<sub>2</sub> and LTB<sub>4</sub> with IC<sub>50</sub> values of 21.7 and 26.0  $\mu$ g/ml, respectively. Mangiferin (a glucosylxanthone isolated from the extract) also inhibited these AA metabolites (PGE<sub>2</sub>, IC<sub>50</sub> value=17.2  $\mu$ g/ml and LTB<sub>4</sub>, IC<sub>50</sub> value=2.1  $\mu$ g/ml). These results represent an i