Biochemical and pharmacological properties of the latex from *Himatanthus drasticus* (Mart.) Plumel


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The latex of *H. drasticus* is used in folk medicine to treat tumors and other inflammatory diseases. However little is known about its chemical, biochemical and pharmacological properties. The latex was fractionated and its rich protein fraction (HdLP) was studied. HdLP was examined by SDS-PAGE, proteolytic activity and chromatography. The whole latex and HdLP were further assayed to determine anti-inflammation and anti-nociception. HdLP represented 3.1% of latex and exhibited serine-type proteolysis and cysteine-type inhibition. The major protein fraction interacted with DEAE-Sepharose matrix (pH 5.0). The whole latex (0.27; 0.54; 1.09 ml/kg) and HdLP (1.0, 10 or 100 mg/kg) exhibited dose-dependent anti-inflammation when were given orally to rats suffering carrageenan-induced peritonitis, also increasing nitric oxide in plasma. HdLP (i.v.) reduced acetic acid-induced writhing (49 and 60%) and formalin inflammation (62 and 88%) at the doses 1.0 and 10 mg/kg, respectively. It is therefore concluded that the latex of *Himatanthus drasticus* exhibits both anti-inflammatory and anti-nociceptive activities claimed by their customers and HdLP plays an important role on the pharmacological properties.

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