

ABSTRACT

Recent spike of focus towards plant-based medicines has prompted the search for alternatives to commercialized drugs, namely anti-inflammatory medications. *Laportea decumana* (daun gatal) is a plant native to Papua, whose leaves have been traditionally used as pain remedies. Due to its effect bearing resemblance to classical anti-inflammatory drugs, the need to investigate this phenomenon is supported with the fact that plants originating from the same family has proven other beneficial effects. This study primarily aims to explore the possibility of using *L. decumana* leaves extracted with hexane as an anti-inflammatory agent through *in vitro* assessment of its capability to inhibit bovine serum albumin denaturation and qualitatively assess the presence of flavonoid and saponin compounds using thin layer chromatography (TLC) to implicate these compounds as principal sources of anti-inflammatory effect. The results suggested inhibition of denaturation of albumin was most significant in groups treated with *L. decumana* leaves extract at 0.06 mg/mL with a percentage of 59.42 ± 5.3 , higher than diclofenac sodium ($43.4 \pm 3.08\%$). TLC detection showed positive presence of saponin and flavonoid compounds, hence implication was made possible.

Keyword(s): daun gatal, anti-inflammatory, saponins, flavonoids, albumin denaturation inhibition, thin layer chromatography.