## Abstract

As one of the defense mechanisms of the body, inflammation has both beneficial and detrimental roles to the body. Inflammation Is a process involving the immune system to eliminate harmful substances that invade the body, thus beginning the healing process. Inflammation could also cause several detrimental effects, such as tissue injury and protein denaturation, which increases vascular permeability due to membrane instability.

There are several well-known anti-inflammatory medicines in the market; although synthetic medicine could produce several adverse effects with continuous administration. Herbal medicine is considered the answer due to its efficacy and minimal side effects. *Laportea decumana*, known as Daun Gatal (Itchy Leaf) in Indonesian, is an indigenous plant of Papua. Natives use the plant in various ways, but mainly in alleviating pain and muscle soreness.

The phytochemicals contained in the leaf are suspected to have anti-inflammatory properties, although it lacks the studies to confirm it. It is shown that several plants in the same species (*Laportea sp.*) have various benefits, but mainly ranges within the anti-microbial area. Due to this fact, it is suspected that *Laportea decumana* will exhibit similar benefits. *Laportea decumana* leaf is extracted with maceration method using methanol as solvent. Phytochemical components will be observed with qualitative methods to identify the available phytochemicals, and anti-inflammatory test was done using BSA protein denaturation testing. It was found that methanol extract of *Laportea decumana* contain flavonoids in moderate amount, leading to its activity in the inhibition in protein denaturation.