

## **Anti-inflammatory and Antinociceptive activities of untreated, germinated and fermented mung bean aqueous extract**

### **ABSTRACT**

Evaluation of anti-inflammatory and antinociceptive activities of untreated mung bean (MB), germinated mung bean (GMB), and fermented mung bean (FMB) was performed on both in vitro (inhibition of inflammatory mediator, nitric oxide(NO)) and in vivo (inhibition of ear oedema and reduction of response to pain stimulus) studies. Results showed that both GMB and FMB aqueous extract exhibited potent anti-inflammatory and antinociceptive activities in a dose-dependent manner. In vitro results showed that GMB and FMB were potent inflammatory mediator (NO) inhibitors at both 2.5 and 5 mg/mL. Further in vivo studies showed that GMB and FMB aqueous extract at 1000 mg/kg can significantly reduce ear oedema in mice caused by arachidonic acid. Besides, both 200 mg/kg and 1000 mg/kg concentrations of GMB and FMB were found to exhibit potent antinociceptive effects towards hotplate induced pain. With these, it can be concluded that GMB and FMB aqueous extract exhibited potential anti-inflammatory and antinociceptive effects.

**Keyword:** Anti-inflammatory agent; Antinociceptive agent; Untreated mung bean (MB); Germinated mung bean (GMB); Fermented mung bean (FMB)