

## Abstract

The aim of the study was to ascertain the analgesic properties of *Mondia whytei* roots and to isolate and characterize the active constituents. Bioactivity guided fractionation of the chloroform root extract yielded stigmasterol and 9-hexacosene. Stigmasterol (15 mg/kg) and 9-hexacosene (30 mg/kg) significantly ( $p < 0.05$ ) inhibited chemical nociception induced by intraperitoneal acetic acid. Stigmasterol (7.5, 15, 30 and 100 mg/kg) dose dependently reduced the time spent in pain behavior in both the early and late phases of the formalin test. 9-hexacosene dose dependently caused significant ( $p < 0.001$ ) antinociceptive effect on the late phase of the formalin test. Co-administration of naloxone failed to antagonize the analgesic activity of stigmasterol and 9-hexacosene in the formalin test. We concluded that both stigmasterol and 9-hexacosene possess potential analgesic effects which are most likely mediated by their anti-inflammatory activities rather than through opioid receptor system.