

Kurkumin telah terbukti memiliki efek analgetik yang poten. Senyawa garam dari Kalium 4-(4'-hidroksi-3'-metoksifenil)-3-buten-2-on (Kalium mono-gamavuton-0, KMGVT-0) merupakan garam dari analog kurkumin yang diduga memiliki efek analgetik yang lebih poten dibandingkan kurkumin. Penelitian ini bertujuan untuk menguji efek analgetik pada mencit jantan galur BALB/C dengan metode *modified hot plate* serta membandingkan ED<sub>50</sub> nya dengan parasetamol.

Sebanyak 70 mencit jantan galur BALB/C, dibagi dalam 10 kelompok secara acak, masing masing 7 mencit. Mencit diberi sediaan uji secara per-oral, setelah 90 menit mencit diinduksi karagenan 50,0 µL secara intraplantar, lalu diuji di atas lempengan *hot plate*. Kelompok I merupakan control normal, kelompok II diberi CMC Na 0,5%, kelompok III-VI diberi parasetamol 100, 50, 25 dan 12,5 mg/kg BB; Kelompok VII-X diberi sediaan uji KMGVT-0 dosis 40, 20, 10 dan 5 mg/kg BB. Setelah 90 menit lalu diinduksi 50,0 µL karagenan secara intraplantar pada kaki kiri mencit, dan diamati waktu latensinya.

nilai  $r_{hitung}$  sebesar 0,9708 yang lebih besar daripada  $r_{tabel}$  (0,6664, P = 95%), dengan kata lain, ada hubungan yang proporsional antara peningkatan dosis KMGVT-0 dengan persen daya analgetiknya. Nilai ED<sub>50</sub> senyawa KMGVT-0 sebagai analgetik pada nyeri akut sebesar 16,46 mg/kg BB > ED<sub>50</sub> Parasetamol 31,68 mg/kg BB, artinya KMGVT-0 lebih berpotensi sebagai analgetika akut.

**Kata kunci** : analog Kurkumin, Kalium mono-gamavuton-0, analgetik, *modified hot plate*

## ABSTRACT

Curcumin form has been shown to have potent analgesic effect. The Potassium salt of 4-(4'-hydroxy-3'-methoxyphenyl)-3-Buten-2-on (Potassium mono-gamavuton-0, KMGVT-0) is a salt of an analog of curcumin which is thought to have a more potent analgesic effect compared to curcumin. This study aimed to test the analgesic effect in male mice strain BALB/C with a method modified hot plate and compares it with ED<sub>50</sub> of paracetamol.

A total of 70 male mice BALB/C strain, divided into 10 groups randomly, each 7 mice. Mice were given the test preparation in per-oral, after 90 minutes the mice induced by intraplantar carrageenan 50.0 mL, then tested on slabs hot plate. Group I is normal control, group II were given CMC Na 0,5%, group III-VI were given paracetamol 100, 50, 25 and 12.5 mg/kgBW; Group VII-X were given the test preparation KMGVT-0 doses of 40, 20, 10 and 5 mg/kgBW. After 90 minutes induced intraplantar left hind paw of mice with 50,0 µL carrageenan and then Observations latency time.

$r_{\text{calculate}}$  value of 0.9708 greater than  $r_{\text{table}}$  (0.6664, P = 95%), in other words, there is a proportional relationship between increasing doses of KMGVT-0 by the percent of the power analgesic. ED<sub>50</sub> value of compound KMGVT-0 as an analgesic in acute pain amounting to 16.46 mg/kgBW > ED<sub>50</sub> paracetamol 31.68 mg/kgBW, meaning KMGVT-0 is more potential as an analgesic acute.

Keywords: analog Curcumin, Potassium mono-gamavuton-0, analgesic, modified hot plate