

## ABSTRACT

**Background :** One of the plants that grows in the Jambi Province is Jernang. Jernang resin contains flavonoid compounds and triterpenoid compounds. Flavonoids are efficacious as analgesics by inhibiting the action of the cyclooxygenase enzyme by reducing the production of prostaglandins by arachidonic acid, thereby reducing pain. In the preliminary test, it was found that jernang resin had analgesic activity against white male mice at a dose of 500 mg.

**Methods :** This study was experimental in a completely randomized design (CRD) using 5 treatment groups (K-, K+, P1, P2, P3). Each treatment consisted of 5 male mice with swiss webstar strain. This research was carried out in several stages, namely characterization of jernang resin (character of specific parameters and character of non-specific parameters), and testing the effect of giving jernang resin on the analgesic effect in mice using chemical stimulation and heat stimulation methods. The parameters observed were the number of wriggling and tail larvae of mice. Observational data were analyzed using One Way ANNOVA and continued with the Least Significant Different (LSD test).

**Results :** Research results indicates that the resin extract of jernang contains alkaloids, flavonoids and terpenoids. Jernang resin extract has analgesic activity against white male mice. The effective dose that provides an analgesic effect is 750mg/KgBW. In the chemical stimulation method, the results of the % analgesic protection were 32.38% and the % effectiveness was 64.15%, while the % analgesic protection was 153.49% and the % effectiveness was 75.71% on the heat stimulation method.

**Conclusion :** Jernang resin extract has analgesic activity against white male mice. The effective dose that provides an analgesic effect is 750mg/KgBW.

**Keywords :** *Analgesic, (Daemonorops draco (Willd.) Blume).*

## ABSTRAK

**Latar Belakang :** Salah satu tanaman yang tumbuh di daerah Provinsi Jambi adalah Jernang. Resin jernang mengandung senyawa flavonoid dan senyawa triterpenoid. Flavonoid berkhasiat sebagai analgesik dengan cara menghambat kerja enzim siklooksigenase dengan cara mengurangi produksi prostaglandin oleh asam arakidonat sehingga mengurangi rasa nyeri. Pada uji pendahuluan didapatkan bahwa resin jernang memiliki aktivitas analgetik terhadap mencit putih jantan dengan dosis 500mg.

**Metode :** Penelitian ini bersifat eksperimental dengan rancangan acak lengkap (RAL) menggunakan 5 kelompok perlakuan (K-, K+, P1, P2, P3). Setiap perlakuan terdiri dari 5 ekor mencit jantan bergalur *swiss webstar*. Penelitian ini dilaksanakan dalam beberapa tahap yaitu karakterisasi resin jernang (karakter parameter spesifik dan karakter parameter non spesifik), dan uji pengaruh pemberian resin jernang terhadap efek Analgesik pada mencit menggunakan metode rangsang kimia dan rangsang panas. Parameter yang diamati adalah jumlah geliat dan jentik ekor mencit. Data hasil pengamatan dianalisis menggunakan One Way ANNOVA dan dilanjutkan dengan uji Least Significant Different (LSD test).

**Hasil :** Hasil penelitian menunjukkan bahwa ekstrak resin jernang mengandung senyawa alkaloid, flavonoid dan terpenoid. Ekstrak resin jernang memiliki aktivitas analgesik terhadap mencit putih jantan. Dosis efektif yang memberikan efek analgesik adalah 750mg/KgBB. Pada metode rangsang kimia, hasil % proteksi analgetik sebesar 32,38% dan % efektivitas 64,15%, sedangkan % proteksi analgetik 153,49% dan % efektivitas 75,71% pada metode rangsang panas.

**Kesimpulan :** Ekstrak resin jernang memiliki aktivitas analgetik terhadap mencit putih jantan. Dosis efektif yang memberikan efek analgesik adalah 750mg/KgBB.

**Kata Kunci :** *Analgesik, Resin Jernang (Daemonorops draco (Willd.) Blume).*

