

**AKTIVITAS ANTIHIPERURISEMIA EKSTRAK ETANOL RIMPANG  
KENCUR (*Kaempferia galanga* L.) TERHADAP MODEL HEWAN  
SINDROM METABOLIK**

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**ABSTRAK**

Hiperurisemia merupakan kondisi terjadinya peningkatan kadar asam urat diatas batas kadar normal. Peningkatan kadar asam urat menjadi faktor risiko terjadinya hipertensi, diabetes, penyakit kardiovaskuler dan liver pada pasien sindrom metabolik. Salah satu tanaman yang diduga memiliki aktivitas antihiperurisemia adalah rimpang kencur yang mengandung senyawa etil *p*-metoksisinamat dan flavonoid. Penelitian bertujuan mendapatkan efektivitas dosis ekstrak rimpang kencur (*Kaempferia galanga* L.) sebagai antihiperurisemia terhadap model hewan sindrom metabolik. Penelitian eksperimental *posttest only control group design* dengan tikus Wistar jantan yang didistribusikan dalam 5 kelompok (n=5) yang dibuat menjadi kelompok model sindrom metabolik dengan diberikan induksi fruktosa 25%, kelompok Normal (CMC Na 0,5%), kelompok Positif (kalium oksonat 4,5 mg), kelompok Pembanding (allopurinol 1,8 mg), dan kelompok ekstrak uji rimpang kencur dosis 50 mg/kgBB dan 100 mg/kgBB. Semua kelompok kecuali kelompok normal menerima fruktosa 25% dalam air minum selama 28 hari. Pengukuran dilakukan terhadap bobot badan, *heart rate*, *pulse wave velocity* dan pengujian serum terhadap kadar asam urat, glukosa dan trigliserida. Kelompok Normal secara signifikan berbeda bermakna dengan kelompok Positif ( $p < 0,05$ ). ERK 100 mg/kgBB secara signifikan menurunkan *heart rate*, *pulse wave velocity*, asam urat, glukosa dan trigliserida dibanding ERK 50 mg/kgBB. Berdasarkan hasil tersebut, ekstrak rimpang kencur menunjukkan efek antihiperurisemia terhadap model hewan sindrom metabolik dan dosis optimum sebagai antihiperurisemia pada sindrom metabolik adalah ERK 100 mg/kgBB.

**Kata kunci:** Hiperurisemia, sindrom metabolik, *Kaempferia galanga*, kalium oksonat, fruktosa

**ANTIHYPERURICEMIC ACTIVITY OF EXTRACT ETHANOL  
KENCUR RHIZOME (*Kaempferia galanga* L.) ON METABOLIC  
SYNDROME ANIMAL MODELS**

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**ABSTRACT**

Hyperuricemia is a condition characterised by elevated uric acid levels above the normal range. Increased uric acid levels are a risk factor for hypertension, diabetes, cardiovascular diseases, and liver disorders in patients with metabolic syndrome. One plant suspected to have anti-hyperuricemia activity is the *Kaempferia galanga*, which contains ethyl *p*-methoxycinnamate and flavonoids. This study aims to determine the effective dose of *Kaempferia galanga* extract as an anti-hyperuricemia agent in a metabolic syndrome animal model. This experimental study used a post test-only control group design with male Wistar rats distributed into five groups (n=5) induced with 25% fructose to create a metabolic syndrome model. The groups were Normal group (0.5% CMC Na), Positive group (potassium oxonate 4.5 mg), Comparator group (allopurinol 1.8 mg), and *Kaempferia galanga* extract doses of 50 mg/kgBB and 100 mg/kgBB. All groups except the normal group received 25% fructose in drinking water for 28 days. Measurements were taken of body weight, heart rate, pulse wave velocity, and serum tests for uric acid, glucose, and triglycerides levels. The Normal group significantly differed from the Positive group ( $p < 0.05$ ). The 100 mg/kgBB *Kaempferia galanga* extract significantly reduced heart rate, pulse wave velocity, uric acid, glucose, and triglycerides compared to the 50 mg/kgBB extract. Based on these results, *Kaempferia galanga* extract shows anti-hyperuricemia effects in the metabolic syndrome animal model, with the 100 mg/kgBB dose being optimal for hyperuricemia treatment in metabolic syndrome.

**Keywords:** Hyperuricemia, metabolic syndrome, *Kaempferia galanga*, potassium oxonate, fructose