UJI EFEKTIVITAS NEFROPROTEKTOR FRAKSI N-HEKSANA DAN FRAKSI KLOROFORM RIMPANG KENCUR (*Kaempferia galanga* L) PADA TIKUS PUTIH JANTAN YANG DIINDUKSI GENTAMISIN

ABSTRAK

Rimpang kencur (*Kaempferia galanga* L) mengandung beberapa kelompok senyawa metabolit sekunder diantaranya alkaloid, flavonoid, fenolik, terpen dan steroid yang memiliki aktivitas sebagai nefroprotektor. Tujuan penelitian ini adalah untuk mengetahui efektivitas nefroprotektor fraksi *n*-heksana dan fraksi kloroform rimpang kencur (*Kaempferia galanga* L) pada tikus putih jantan yang diinduksi gentamisin. Parameter yang diamati adalah nilai volume urine, kadar kreatinin urine, kreatinin serum, bersihan kreatinin, dan rasio organ ginjal. Hewan uji yang digunakan sebanyak 35 ekor tikus putih jantan galur wistar yang dibagi menjadi 7 kelompok. Kelompok kontrol negatif diberikan suspensi Na CMC 0,5% secara oral, kelompok kontrol positif diinduksikan gentamisin 80 mg/kgBB secara intraperitoneal (i.p), kelompok pembanding diberikan vitamin C 200 mg/kgBB secara oral kemudian 2 jam setelahnya diberikan injeksi i.p gentamisin 80 mg/kgBB, kelompok fraksi *n*-heksana dan fraksi kloroform masing-masing dibagi menjadi 2 dosis yaitu 15 mg/kgBB dan 30 mg/kgBB. Masing-masing suspensi fraksi diberikan secara oral dan 2 jam setelahnya diberikan injeksi i.p gentamisin 80 mg/kgBB. Semua perlakuan diberikan selama 14 hari. Data hasil penelitian dianalisis menggunakan uji statistik Anova Satu Arah dan dilanjutkan dengan uji *Post Hoc Duncan*. Hasil penelitian menunjukkan fraksi *n*-heksana dan fraksi kloroform rimpang kencur (*Kaempferia galanga* L) memiliki efektivitas nefroprotektor dengan efek paling baik terlihat pada fraksi kloroform dosis 30 mg/kgBB.

Kata Kunci: *Kaempferia galanga* L, nefroprotektor, fraksi *n*-heksana, fraksi kloroform, kreatinin, vitamin C, gentamisin.

NEPHROPROTECTIVE EFFECTIVENESS TEST ON N-HEXANE FRACTION AND CHLOROFORM FRACTION OF GALANGAL RHIZHOME (*Kaempferia galanga* L) ON MALE WHITE RATS INDUCED BY GENTAMICIN

ABSTRACT

Galangal rhizome (*Kaempferia galanga* L) contains several groups of secondary metabolite compounds including alkaloids, flavonoids, phenolics, terpenes and steroids which have activity as nephroprotectors. The purpose of this study was to determine the effectiveness of the nephroprotector of the *n*-hexane fraction and chloroform fraction of galangal rhizome (*Kaempferia galanga* L) in male white rats induced by gentamicin. The parameters observed were urine volume values, urine creatinine levels, serum creatinine, creatinine clearance, and kidney organ ratio. The test animals used were 35 male white rats of the Wistar strain which were divided into 7 groups. The negative control group was given 0.5% Na CMC suspension orally, the positive control group was induced with 80 mg/kgBB gentamicin intraperitoneally (i.p), the comparison group was given 200 mg/kgBB vitamin C orally then 2 hours later given i.p injection of 80 mg/kgBB gentamicin, the *n*-hexane fraction and chloroform fraction groups were each divided into 2 doses, namely 15 mg/kgBB and 30 mg/kgBB. Each fraction suspension was given orally and 2 hours later given i.p injection of 80 mg/kgBW gentamicin. All treatments were given for 14 days. The research data were analyzed using the One Way Anova statistical test and continued with the Duncan Post Hoc test. The results of the study showed that the *n*-hexane fraction and chloroform fraction of galangal rhizome (*Kaempferia galanga* L) had nephroprotective effectiveness with the best effect seen in the chloroform fraction at a dose of 30 mg/kgBB.

Keywords: *Kaempferia galanga* L, nephroprotector, *n*-hexane fraction, chloroform fraction, creatinine, vitamin C, gentamicin.