INTISARI

Buah kepel (*Stelechocarpus burahol*) telah terbukti sebagai antioksidan penangkap radikal bebas secara *in vitro*. Secara umum, penelitian ini bertujuan untuk mengetahui potensi buah kepel sebagai antioksidan secara *in vivo*. Secara khusus, penelitian ini bertujuan untuk mengetahui pengaruh pemberian ekstrak metanol buah kepel dan fraksi-fraksinya terhadap kadar enzim katalase pada liver tikus yang diinduksi CCl_4 secara akut.

Buah kepel diperoleh dari Dusun Mriyan, Margomulyo, Seyegan, Sleman, Yogyakarta. Daging buah kepel dimaserasi dengan pelarut metanol, dilanjutkan dengan fraksinasi secara bertahap dengan berbagai pelarut. Ekstrak metanol buah kepel dan fraksi-fraksinya dianalisis secara kualitatif dengan KLT. Pengujian secara *in vivo* dilakukan pada tikus betina galur *Sprague-Dawley* sebanyak 64 ekor yang terbagi dalam 8 kelompok, yaitu kontrol negatif, kontrol pembawa, kontrol CCl_4 dosis 1,5 mL/kg BB, kontrol vitamin C dosis 200 mg/kg BB, ekstrak metanol buah kepel dosis 150 mg/kg BB, fraksi petroleum eter, fraksi diklorometan dan fraksi etil asetat buah kepel dosis 150 mg/kg BB. Tikus dikorbankan sebagian pada jam ke 24 dan sisanya pada jam ke 72 untuk dilakukan isolasi organ liver. Sampel liver tikus digunakan untuk pengukuran kadar enzim katalase menggunakan *Catalase* ELISA Kit. Data yang diperoleh dianalisis secara statistika dengan menggunakan uji ANOVA dan Kruskal Wallis taraf kepercayaan 95%.

Dalam penelitian ini, ekstrak metanol buah kepel, fraksi petroleum eter, fraksi diklorometan dan fraksi etil asetat buah kepel dengan dosis 150 mg/kg BB tidak mempengaruhi perubahan kadar enzim katalase secara signifikan pada liver tikus yang diinduksi dengan CCl_4 secara akut.

Kata kunci : Buah kepel, antioksidan, katalase, CCl_4

ABSTRACT

Kepel fruit (*Stelechocarpus burahol*) has been approved as an *in vitro* antioxidant – free radical scavenging. Principally, this study was aimed to investigate the potential of kepel fruit as an *in vivo* antioxidant, whereas particularly this study was aimed to identify the effects of methanol extract of kepel fruit and its fractions addition to catalase level against rat which had been inducted by CCl_4 acutely.

Kepel fruits were obtained from from Mriyan Village, Margomulyo, Seyegan District, Sleman Regency, Special Region of Yogyakarta. Kepel fruit's flesh was macerated with methanol, and was fractioned subsequently with various solvents afterward. Methanol extract of kepel fruit and its fractions were analyzed qualitatively by Thin-Layer Chromatography (TLC). *In vivo* assessment was done to 64 female *Sprague-Dawley* rats which were divided into 8 observatory groups : negative control, carrier control, 1.5 mL/kg body weight of CCl_4 control, 200 mg/kg body weight of vitamin C control, 150 mg/kg body weight of methanol extract of kepel fruit, 150 mg/kg body weight of petroleum ether fraction, dichloromethane fraction, and ethyl acetate fraction of kepel fruit. Partial numbers of rats were sacrified at 24h post-injection of CCl_4 and the rest at 72h post-injection of CCl_4 for the isolation of the liver. The liver samples were used to determine catalase level by Catalase ELISA Kit. The data acquired was analyzed statistically by deploying analysis of variance (ANOVA) and Kruskal Wallis test with a significance level of 95%.

This study showed that methanol extract of kepel fruit, petroleum ether fraction, dichloromethane fraction, and ethyl acetate fraction of kepel fruit with a dose of 150 mg/kg body weight didnot affect catalase level significantly against rat which had been inducted with CCl_4 acutely.

Keywords: Kepel fruit, antioxidant, catalase, CCl_4