INTISARI

Temulawak (*Curcuma xanthorrhiza* Roxb.) merupakan tanaman obat yang sering digunakan masyarakat. Temulawak diteliti memiliki aktivitas sebagai hepatoprotektor, sehingga berpotensi dikembangkan menjadi produk obat herbal terstandar. Salah satu pengembangan tersebut menjadi produk tablet. Namun belum ada penelitian yang meguji potensi ketoksikannya, sehingga belum bisa didaftarkan sebagai obat herbal terstandar. Oleh sebab itu, penelitian ini dimaksudkan untuk memperoleh informasi gambaran ketoksikannya menggunakan uji toksisitas akut.

Penelitian ini berdasarkan metode uji toksisitas akut OECD *Guideline* 420 *Fixed Dose* pada tikus jantan galur *Wistar*. Metode ini menggunakan dosis awal uji utama berdasarkan hasil uji pendahuluannya. Pada penelitian ini diketahui bahwa dosis 2000 mg/kgBB tidak menimbulkan kematian pada uji pendahuluan, sehingga dosis tersebut ditetapkan sebagai dosis awal pada uji utama. Selanjutnya dilakukan pengamatan. Pengamatan kualitatif meliputi gejala-gejala toksik yang timbul setelah pemberian yang diamati selama 14 hari, hasil pemeriksaan *gross* patologi, dan hasil pemeriksaan histopatologi organ vitalnya meliputi lambung, hepar, jantung, paru-paru, limpa, dan ginjal. Sedangkan pengamatan kuantitatif meliputi jumlah kematian hewan uji tiap kelompok, purata kenaikan bobot badan per hari, dan rasio bobot organ yang dianalisis menggunakan SPSS 22 dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan bahwa (1) potensi ketoksikan akut akibat pemberian sediaan tablet berbahan baku temulawak menurut GHS digolongkan pada kategori 5 yang bermakna potensi ketoksikan akutnya relatif rendah dengan nilai LD_{50} *cut-off* 2000-5000 mg/kgBB, (2) tidak terdapat gejala toksik yang ditimbulkan dan tidak terdapat perbedaan signifikan pada perubahan bobot badan, (3) serta tidak terdapat wujud efek toksik pada gambaran *gross* patologi organ, analisis penimbangan bobot organ, dan gambaran histopatologi organ.

Kata kunci : Temulawak (*Curcuma xanthorrhiza* Roxb.), Uji Toksisitas Akut, OECD *Guideline* 420 *Fixed Dose*

ABSTRACT

Temulawak (*Curcuma xanthorrhiza* Roxb.) is a medicinal plant that often used by people. Temulawak was studied to have an activity as hepatoprotector, so it has the potential to be developed as a standardized herbal medicinal product. One of these development is become a tablet product. However there are no studies that examine the potential for it's toxicity, so it cannot be registered as an standardized herbal medicinal yet. This study aims to obtain information on toxicity profile of Temulawak using acute toxicity test.

This study was based on the OECD Guideline 420 Fixed Dose acute toxicity test method in male Wistar rats. This method uses the initial main test dose based on the sigthing study result. In this study it was known that the dose of 2000 mg/kgBW did not cause death in the sigthing study, so it was used as the initial dose in the main test. Qualitative observations carried out were observations of toxic symptoms arising after administration which were observed for 14 days, gross pathology examination results, and histopathological examination results of vital organs including the stomach, liver, heart, lungs, spleen, and kidneys. While the quantitative observations carried out were observations of the number of deaths of test animals in each group, the average increase in body weight per day, and the organ weight ratio analyzed statistically using SPSS 22 with a confidence level of 95%.

The result showed that (1) the acute toxicity potential due to the administration of tablets made from temulawak based on GHS was classified in category 5, which means the potential for acute toxicity was relatively low with LD_{50} cut-off 2000-5000 mg / kgBW; (2) there was no toxic symptoms shown and there was no significant difference in changes of body weight; (3) and there was no toxic effects shown on gross profile of organ pathology, analysis of weighing organs, and histopathological profile of organs.

Keyword : Temulawak (*Curcuma xanthorrhiza* Roxb.), Acute Toxicity Test, OECD *Guideline* 420 *Fixed Dose*