

## INTISARI

Senyawa analog kurkumin B115 merupakan senyawa kurkumin yang dimodifikasi untuk meningkatkan efektivitas dan selektivitasnya. Senyawa analog kurkumin B115 berpotensi dikembangkan sebagai obat antiinflamasi karena mampu menurunkan produksi sitokin IL-6 dan menghambat produksi NO. Dalam penjaminan keamanan dalam penggunaannya, perlu dilakukan pengujian berupa uji toksisitas akut. Penelitian ini bertujuan untuk mengetahui nilai LD<sub>50</sub> dan melihat gejala klinis toksik serta gambaran histopatologi akibat pemberian senyawa uji.

Prosedur uji toksisitas akut mengacu pada Peraturan BPOM No.10 Tahun 2022 dengan *fixed dose procedure method* dan subjek uji mencit betina galur BALB/c. Uji utama pada dosis 2000 mg/kg BB. Pengukuran kualitatif dilakukan dengan melihat jumlah kematian, gejala toksik, pengamatan gross patologi dan histopatologi. Pengukuran kuantitatif dilihat dari purata kenaikan berat badan per hari dan rasio bobot organ yang dianalisis dengan uji statistik *Independent t-test*.

Hasil penelitian menunjukkan pemberian senyawa analog kurkumin B115 dosis 2000 mg/kg BB tidak menimbulkan kematian dan gejala toksik pada mencit. Tidak ditemukan pula wujud efek toksik pada organ hati, ginjal, jantung, paru, dan limpa baik pada pengamatan gross patologi maupun histopatologi. Senyawa analog kurkumin B115 tidak toksik dan masuk dalam kategori 5 (tidak terklasifikasi) dengan LD<sub>50</sub>>2000 mg/kg BB.

**Kata kunci : toksisitas akut, analog kurkumin, B115, histopatologi**

## **ABSTRACT**

*Curcumin analog compound B115 is a curcumin compound that is modified to increase its effectiveness and selectivity. Curcumin analog compound B115 has the potential to be developed as an anti-inflammatory drug because it can reduce IL-6 cytokine production and inhibit NO production. In guaranteeing safety in its use, it is necessary to conduct testing in the form of acute toxicity tests. This study aims to determine the LD<sub>50</sub> value and see toxic clinical symptoms and histopathological images due to the administration of test compounds.*

*Acute toxicity test procedure refers to BPOM Regulation No.10 of 2022 with fixed dose procedure method and female mice test subjects BALB/c strain. The main test at a dose of 2000 mg/kg BW. Qualitative measurements were made by looking at the number of deaths, toxic symptoms, gross pathology and histopathology observations. Quantitative measurements were seen from the average body weight gain per day and the ratio of organ weights analyzed by the Independent t-test statistical test.*

*The results showed that the administration of curcumin analog compound B115 at a dose of 2000 mg/kg BW did not cause death and toxic symptoms in mice. No toxic effects were found in the kidneys, heart, lungs, and spleen both in gross pathology and histopathology observations. Curcumin analog compound B115 is not toxic and falls into category 5 (unclassified) with LD<sub>50</sub>>2000 mg/kg BW.*

**Keywords:** *acute toxicity, curcumin analog, B115, histopathology*