

## INTISARI

Penemuan senyawa analog kurkumin 2,6-bis(5'-bromo-2'-metoksibenziliden)sikloheksanon (A115) yang memiliki aktivitas antiinflamasi, disertai dengan kebutuhan uji praklinik yaitu uji toksisitas akut. Tujuan dari penelitian ini adalah untuk melakukan uji toksisitas akut pada senyawa A115 untuk mengidentifikasi potensi ketoksikannya dan memperoleh informasi tentang bahaya terhadap manusia apabila terpajan.

Uji toksisitas akut yang dilakukan sesuai pedoman OECD Nomor 420 dengan metode *Fixed Dose Procedure*. Satu ekor mencit betina digunakan dalam uji pendahuluan dosis 300 mg/kgBB dan 4 ekor tambahan untuk uji utama dosis 2000 mg/kgBB. Senyawa A115 diberikan dalam dosis tunggal secara oral dan diamati gejala klinis/toksisitas maupun kematiannya selama 14 hari. Pada hari ke-15, dilakukan nekropsi dan diamati gros patologi organ vitalnya serta eksaminasi histopatologi. Data kualitatif disajikan secara deskriptif dan data kuantitatif dilakukan uji normalitas Shapiro Wilk dan *independent sample T-Test* taraf kepercayaan 95%.

Hasil pengamatan menunjukkan tidak terdapat gejala klinis/toksisitas maupun kematian yang terjadi pada dosis 2000 mg/kgBB. Senyawa A115 secara signifikan tidak mempengaruhi berat badan dan rasio bobot organ vital. Pemeriksaan gros patologi dan histopatologi pada organ jantung, ginjal, paru, hati dan limpa juga tidak menunjukkan perubahan antara kelompok uji dan kontrol, sehingga senyawa A115 memiliki LD<sub>50</sub> > 2000 mg/kgBB dan termasuk senyawa kategori 5/*unclassified* (tidak toksik) menurut klasifikasi GHS.

**Kata Kunci : Toksisitas Akut, A115, Turunan Kurkumin**

## ABSTRAK

The discovery of the curcumin analogue compound 2,6-bis(5'-bromo-2'-methoxybenzylidene)cyclohexanone (A115) which has anti-inflammatory activity, is accompanied by the need for preclinical testing, namely acute toxicity testing. The aim of this research is to conduct an acute toxicity test on the A115 compound to identify its potential toxicity and obtain information about the dangers to humans if exposed.

The acute toxicity test was carried out according to OECD guideline Number 420 using the Fixed Dose Procedure method. One female mouse was used in the sighting study at a dose of 300 mg/kgBW and 4 additional mice for the main study at a dose of 2000 mg/kgBW. The A115 compound was given in a single dose orally and clinical symptoms/toxicity and death were observed for 14 days. On the 15th day, a necropsy was performed and gross pathology of vital organs was observed and histopathological examination was carried out. Qualitative data is presented descriptively and quantitative data is subjected to the Shapiro Wilk normality test and independent sample T-Test with a confidence level of 95%.

Observation results showed that there were no clinical symptoms/toxicity or death occurred at a dose of 2000 mg/kgBW. Compound A115 did not significantly affect body weight and vital organ weight ratios. Gross pathology and histopathology examination of the heart, kidneys, lungs, liver and spleen also showed no changes between the test and control groups, so that compound A115 has an LD50 > 2000 mg/kgBW and is included in category 5/unclassified (non toxic) according to the GHS classification.

**Kata Kunci : Acute Toxicity, A115, Curcumin Analogue**