INTISARI

Pengobatan dengan obat antikanker dirasa masih kurang memuaskan dan mahal sehingga pengobatan dengan obat tradisional menjadi pilihan alternatif. Salah satu obat tradisional yang telah digunakan sebagai antitumor adalah daun tumbuhan tembelekan (*Lantana camara* L.) (Raghu *et al.*, 2004). Langkah awal untuk mengetahui apakah daun tumbuhan tembelekan beraktivitas antikanker dilakukan dengan menggunakan metode *Brine Shrimp Lethality Test* sehingga didapatkan informasi toksisitas ekstrak kloroform daun tumbuhan tembelekan terhadap larva *Artemia salina* Leach (artemia).

Penelitian ini bersifat eksperimental murni dengan rancangan *posttest only control group design*. Penelitian menggunakan artemia yang diberi perlakuan ekstrak kloroform daun tumbuhan tembelekan berkonsentrasi 50, 100, 200, 400, dan 800 µg/ml. Setiap pengujian disertai kontrol berupa air laut buatan dan dilakukan 5 kali replikasi. Jumlah larva yang mati dihitung setelah didiamkan selama 24 jam perlakuan. Data persentase kematian larva artemia dianalisis menggunakan analisis probit untuk menghitung nilai LC_{50}. Ekstrak dikatakan toksik jika nilai LC_{50} < 1000 µg/ml, yang diharapkan berupa efek sitotoksik yang merupakan syarat utama senyawa yang beraktivitas antikanker. Ekstrak kloroform daun tumbuhan tembelekan kemudian diidentifikasi kandungan senyawa flavonoid dan triterpenoidnya menggunakan kromatografi lapis tipis.

Hasil penelitian menunjukkan ekstrak kloroform daun tumbuhan tembelekan bersifat toksik dengan LC_{50} sebesar 221,7 µg/ml. Identifikasi kandungan senyawa kimia dengan kromatografi lapis tipis menunjukkan ekstrak kloroform daun tumbuhan tembelekan diduga mengandung senyawa golongan triterpenoid.

Kata kunci : *Brine Shrimp Lethality Test*, *Lantana camara* L., *Artemia salina* Leach, toksisitas

ABSTRACT

Medication using anticancer medicine is still considered less satisfying and expensive, so that traditional medicine is chosen as the alternative. One traditional medicine which has been used as antitumor is *tembelekan* leaves (*Lantana camara* L.) (Raghu *et al.*, 2004). The first step to know whether *tembelekan* leaves has anticancer activity or not can be done by using *Brine Shrimp Lethality Test* method so that the information about the chloroform extract of *tembelekan* leaves toward *Artemia salina* Leach (artemia) larva.

This research is a pure experimental research with a *posttest only control group design*. This research is using artemia which were given chloroform extract of *tembelekan* leaves with 50, 100, 200, 400, and 800 µg/ml concentrations. Every test was accompanied with a control that is artificial sea water and five-time replication. The dead larvas were counted after 24 hours treatment. The percentage of the dead artemia larva was analysed using probit analysis to count the value of LC_{50}. An extract is considered as toxic when the value of LC_{50} is below 1000 µg/ml, which is supposed to be a sitotoxic effect. It is the main requirement for a compound whose activity is anticancer. The flavonoid compound and triterpenoid of the chloroform extract of *tembelekan* leaves then was identified using thin-layered chromatography.

This study shows that the chloroform extract of *tembelekan* leaves has toxic characteristics containing LC_{50} 221,7 µg/ml. The identification of chemical compound using thin-layered chromatography shows that chloroform extract of *tembelekan* leaves are suspected to contain a triterpenoid-class compound.

Key words: *Brine Shrimp Lethality Test*, *Lantana camara* L., *Artemia salina* Leach, toxicity