

INTISARI

Kanker merupakan salah satu penyakit yang dapat menyebabkan kematian. Saat ini penggunaan tanaman sebagai bahan alternatif pengobatan kanker sedang digalakkan. Sirih merah (*Piper crocatum* Ruiz & Pav) adalah salah satu tanaman obat potensial yang secara empiris digunakan sebagai antikanker. Tujuan dari penelitian ini adalah untuk mengetahui potensi efek sitotoksik dan nilai LC₅₀ fraksi etanol daun sirih merah terhadap kultur sel Raji.

Penelitian ini termasuk jenis penelitian eksperimental murni dengan mengikuti rancangan acak lengkap pola searah. Uji sitotoksitas dilakukan dengan memberi perlakuan terhadap sel Raji dengan fraksi etanol daun sirih merah dengan kadar 150; 175; 200; 225; 250; 275; dan 300 µg/ml. Uji sitotoksitas fraksi etanol daun sirih merah dilakukan dengan metode *Direct Counting*. Persentase kematian sel dinyatakan sebagai hasil perhitungan. Analisis akhir dilakukan dengan perhitungan nilai LC₅₀ (µg/mL) menggunakan analisis probit. Berdasarkan hasil penelitian diperoleh nilai LC₅₀ fraksi etanol daun sirih merah terhadap sel Raji sebesar 174,16 µg/ml.

Kata kunci : sitotoksitas, fraksi etanol, *Piper crocatum* Ruiz & Pav, LC₅₀, sel Raji

ABSTRACT

Cancer is one of diseases that can cause death. Currently, the use of plant as alternative medication of cancer medication is being emboldened. Celebes pepper (*Piper crocatum* Ruiz & Pav) is one of potential medicinal plants that is used as an empirical anticancer. The objective of this research was to identify the cytotoxicity potential and the LC₅₀ of ethanol fraction of celebes pepper leaves against Raji cell Culture.

This research was experimental research with following complete random of unidirectional pattern. Cytotoxicity test had been done by giving treatment to Raji cell with the ethanol fraction of celebes pepper leaves with level 150, 175, 200, 225, 250, 275, and 300 µg/ml. Ethanol fraction cytotoxicity test of celebes pepper leaves had been done by direct counting method. A percentage of cell death was stated as a result of the calculation. The end of analysis had been done by accounting the value of LC₅₀ (µg/mL) using probit analysis. Based on the result, there was obtained that the value of LC₅₀ ethanol faction of celebes pepper leaves toward Raji cell was 174.16 µg/ml.

Keywords: Cytotocity, ethanol fraction, *Piper crocatum* Ruiz & Pav, LC₅₀, Raji cell