

ABSTRACT

ARIEF PRASETIYO. Cytotoxicity Test of Simpor Leaf Extract (*Dillenia suffruticosa* Martelli) Origin of Belitung Against Cell Line MCF-7 and HepG2. Supervised by Ns. Sri Rahayu, M. Biomed and drh. Atin Supiyani, M. Biomed.

Cancer is a disease caused by cells that grow abnormally. Simpor leaf extract contains phytochemicals such as saponins, triterpenoids, sterols, and polyphenols which are cytotoxic to cell lines. The purpose of this study was to determine the cytotoxicity of *Dillenia suffruticosa* leaf extract against cell lines MCF-7 and HepG2. The method used is an experimental research design with Completely Randomized Design (CRD). The treatment group consisted of simpor leaf extract 500, 1.000, 2.000, 5.000 and 9.000 ppm for the BSLT test, simpor leaf extract 10, 15, 20, 25 and 50 ppm for the MTT test and control (without extract). The data on the BSLT test was determined by looking at the LC_{50} value which was tested using probit analysis, while the MTT test was determined by looking at the IC_{50} and analyzed statistically using Anova. In the BSLT test the results obtained showed that the simpor leaf extract was not toxic. However, when simpor leaf extract was tested on the cell line MCF-7 and HepG2, it had cytotoxicity. The LC_{50} value is 5.221 ppm. The administration of simpor leaf extract with a concentration of 50 ppm showed the highest yield to the MCF-7 cell line and a concentration of 25 ppm showed the highest yield to the HepG2 cell line.

Keywords: Cytotoxicity, BSLT, Simpor Leaf, Cell Line