

ABSTRACT

Nuzula, Firdausi. 2013. Cytotoxicity Experiment on Soursop Leave Stew (*Annona muricata* Linn) to the Primer Hamster Baby Brain Cell Culture, by Using 7,12 Dimentilbenz(α)antrasen (DMBA).

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Key word : *Annona muricata* Linn, 7,12 Dimentilbenz(α)antrasen (DMBA), primer brain cell culture, Cytotoxicity experiment.

Cancer is a disease in which in the short time causing high death rate on many countries. Furthermore, brain is one of the organ that infected easily. Brain is the organ organizing all of the human and animal activities or actions. As one of the death disease, it is needed an effective medicine for overcoming that. In addition, the availability of bioactive material in the plant can be used as the alternative choice, soursop leave (*Annona muricata* Linn) for instance. This plant contains of active compounds *Annonaceous acetogenin* anticancer. This experiment has a purpose to identify the respond and the proper concentration on the brain cell of hamster baby by using 7,12 Dimentilbenz(α)antrasen (DMBA) which have given soursop leave stew.

This is experimental research, the sample used is hamster baby brain cell which is 3 days old and grow up in DMEM media (*Dulbecco's Modified Eagle's Medium*). In this research there are several treatment such as, the use of DMBA with concentration 0,1 $\mu\text{g/ml}$ during 48 hours and the distribution of soursop leave stew with concentration 0 $\mu\text{g/ml}$, 10 $\mu\text{g/ml}$, 20 $\mu\text{g/ml}$, 40 $\mu\text{g/ml}$, 80 $\mu\text{g/ml}$, 160 $\mu\text{g/ml}$. The observed results of this research are the konfluenitas percentage, cytotoxisitas, and apoptosis. Then all of them are analyzed by Probit analysis to determine LC50 (*Lethal Concentration 50%*).

The result of this research shows that the soursop leave stew (*Annona muricata* Linn) are able to reduce the konfluenitas percentage with the lowest score $13\% \pm 0.03$ to the primer hamster baby brain cell by using DMBA in vitro. The experimental cytotoxisitas in this research shows the value of LC50 as 19,21 $\mu\text{g/ml}$ after get 48 hours incubation. The high death cell in this research up to 80,38%. Based on the data above, it can be concluded that there is an effect of soursop leave stew (*Annona muricata* Linn) to the primer hamster baby brain cell by using 7,12 dimentilbenz(α)antrasen (DMBA).