ABSTRACT

UJI SITOTOKSISITAS EKSTRAK KENCUR (Kaempferia galanga) TERHADAP KULTUR SEL FIBROBLAS BHK-21

CYTOTOXITY TEST OF KAEMPFERIA GALANGA EXTRACT ON CULTUR FIBROBLAST CELLS BHK-21

Background: Kaempferia galanga one of herbal plants can be used to alternative drugs after tooth extraction. Natural ingridients do not cause toxic effect, but scientific studies have not been performed to prove that the natural material is not toxic. Cytotoxic test was conducted to determine the effect of substance on cell viability. Purpose: The aim of this study is to determine the toxicological propities of Kaempferia galanga extract on fibroblast cells BHK-21. **Methods:** The extraction method used in this study was maseration technique with 96% ethanol solvent and Kaempferia galanga extract was made in a series of concentrations by the method of dilution with a concentrations of 100%, 50%, 25%, 12,5%, 6,25%, 3,125%, 1,56%, and 0,78%. Futhermore, the cytotoxic test against fibroblast cell BHK-21 using MTT assay. Microplate containing fibroblast cell BHK-21 that had been exposed to eight concentrations was incubated 5% CO₂ at a temperature of 37 °C in incubator for 24 hours. The result of MTT assay can be seenfrom the absorbent solution formazan crystal through specific wavelength 620 with elisa reader. Results: This study showed that extract at concentrations of 3,125%, 1,56%, and 0,78% had IC₅₀ values above 50% is equal to 61%, 76%, and 81% of fibroblast cells BHK-21. At concentrations of 100%, 50%, 25%, 12,5%, and 6,25% have IC₅₀ values below 50% which amount 25%, 27%, 27%, 26,9%, and 27%. **Conclusion:** It can be concluded that the Kaempferia galangal extract is toxic to cultur of fibroblast cells BHK-21 at concentrations of 100%, 50%, 25%, 12,5%, and 6,25% wheareas at a concentrations of 3,125%, 1,56%, and 0,78% are not toxic to cultur of fibroblast cells BHK-21.

Keywords: Kaempferia galanga extract, cytotoxic test, fibroblast cells BHK-21

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