

UJI SITOTOKSISITAS REBUSAN BUAH LERAK (*Sapindus rarak DC*) TERHADAP SEL BHK-21 MENGGUNAKAN ESEI MTT

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CYTOTOXICITY

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Background. Nowadays traditional herbs are become very popular in the medicine world, and also in dentistry. Lerak fruit (*Sapindus rarak DC*) is one of herbs which is used as a traditional detergent from long time ago. The latest research shows that right now *Sapindus rarak DC* infusum could be used for an alternative foaming agent as a detergent in tooth paste because of its active substance content that is Saponin. As one of dental health product, this *Sapindus rarak DC* infusum must be accompanied by non-toxic characteristic before it distributed in the community. **Purpose.** The aim of this research is to find out the cytotoxicity of *Sapindus rarak DC* infusum to BHK-21 cells using MTT assay. **Method.** This research using post test only control group design. Each group consist of 7 replications in the 96 well microplate. Cultur cells of BHK-21 prepared in media, were divided into 4 group of well. Add 50 μ l of *Sapindus rarak DC* infusum 0,625%; 1,25%; 2,5%; 5% along with BHK-21 cells. Stored the microplate into an incubator for 24 hours. Measurement of cytotoxicity was an optical density or absorbent and read with ELISA reader 620 nm. Value of absorbent in microplate showed the number of living cells in media culture. **Results.** The increasing concentration of *Sapindus rarak DC* infusum i.e. 0,625%; 1,25%; 2,5%; 5% would increase the death cells which that means increasing toxicity. **Conclusion.** The lowest concentration of *Sapindus rarak DC* infusum has the lowest cytotoxicity potential toward BHK-21 cells using MTT assay. The minimum concentration of *Sapindus rarak DC* infusum which could be used as an alternative foaming agent in toothpaste and not toxic is 1,25%.

Key words: *Sapindus rarak DC*, cytotoxicity, MTT assay, fibroblast