PENGARUH INFUSA BIJI AVOKAD (*PERSEA AMERICANA* MILL.) TERHADAP VIABILITAS SEL FIBROBLAS PADA KULTUR SEL

THE EFFECTS OF AQUEOUS EXTRACTS OF AVOCADO SEEDS (*PERSEA AMERICANA* MILL.) AGAINST THE VIABILITY OF FIBROBLAST CELLS ON CELL CULTURE

**ABSTRACT**

**Background.** Avocado is a tropical fruit easily found in Indonesia. Indonesian people like to consume avocado because of its taste and its benefits. But they don’t know the benefits and effectivity of avocado’s seeds. Before avocado’s seeds are used for traditional medicines, it must be studied from every aspects to make sure that avocado’s seed have a good effects and non-toxic.

**Purpose.** This study aimed to explore the effects of aqueous extracts of *Persea americana* seeds against viability of fibroblast cells of BHK-21 in cell culture.

**Method.** This study was designed as post only control group method. *Persea americana* seeds was extracted by water. It was boiled in 90°C waters for 15 minutes. Then it was diluted into 50%, 25%, 12.5%, and 6.25% concentration. Cytotoxicity was observed after 24 hours using MTT assay technique. Viable cells was measured by optical density of their MTT absorbency, and then observed by ELISA reader.

**Results.** Percentage of viable BHK-21 fibroblast cells exposed to concentration 100%, 50%, 25%, 12.5%, and 6.25% of *Persea americana* seed aqueous extract were 69.3553%; 54.9501%; 36.9032%; 36.4108%; and 0.1619%, respectively. There are significant differences between each concentration group.

**Conclusions.** *Persea americana* seeds extracted by water in 100% concentration is non-toxic against BHK-21 fibroblast cells. While in 50% until 6.25% concentration, they’re toxic against BHK-21 fibroblast cells.

**Keywords:** Aqueous extract of *Persea americana* Mill. seeds, Viability of fibroblast cells