

Determination of the antigenotoxic potential of the ethanol extract of Dayak onion (*Eleutherine bulbosa* Urb.) bulb and leaf using *Allium cepa* assay



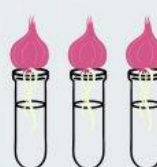
IC₅₀ of ethanol extract Dayak onion bulb is **20.12 ppm**
IC₅₀ of ethanol extract Dayak onion leaf is **47.41 ppm**

Data were analyzed descriptively qualitatively, quantitatively, and through the **ANOVA** test followed by the **5% DMRT** test



The antigenotoxic agent of ethanol extract Dayak onion capable of counteracting the effects of damage to DNA due to **ROS (Reactive Oxygen Species)**

The ethanolic extract of 10 ppm Dayak onion bulb showed the highest antigenotoxic activity with a mitotic index reaching **6.78%** and an inhibition percentage of **92.25%**



The antigenotoxic effect of the extracts was tested against 3% H₂O₂ using ***Allium cepa* assay**

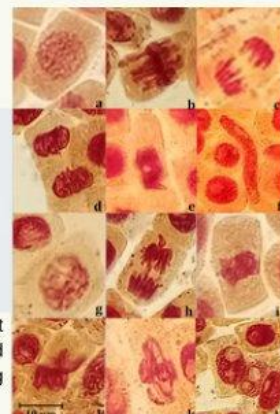


Figure 1. Normal mitotic phase in shallot roots and chromosomal aberrations resulting from 3% H₂O₂ induction. Description: a. Prophase, b. Metaphase, c. Anaphase, d. Telophase, e. Chromosomal coagulation in anaphase, f. Long cells with elongated nuclei, g. Nuclear lesions in prophase, p. Bridge chromatin and vagrant chromatin in anaphase, i. Chromosomes stick to metaphase, j. Chromosomes are damaged in metaphase, k. Chromatin bound and fragmentation at metaphase, l. Binucleate. Dyes: Aceto-orcein 2%. Microscope magnification: 400x.

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