

Phytochemicals and toxicity of ketapang fruit flesh (*Terminalia catappa*. Linn) using the BSLT method

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Abstract	<p>Ketapang is widely used in traditional medicine. Parts of ketapang plant, such as roots, leaves, and bark, are known to have biological activities such as antioxidant, antimicrobial, anti-inflammatory, and anticancer. However, no biological activity has been reported on the flesh of the ketapang fruit. This research was conducted to obtain phytochemicals and toxicity information of ketapang fruit flesh as an anticancer medicine. Toxicity indicates the potential for a chemical compound to cause damage to living organisms, while phytochemicals indicate a group of compounds that have biological activity. Extraction of ketapang fruit flesh was carried out using various solvents, both polar and non-polar solvents, methanol, n-hexane, and ethyl acetate. The toxicity test used the Brine Shrimp Lethality Test (BSLT) method, while phytochemicals tests used the thin layer chromatography (TLC), in which identification of bioactive compounds of ketapang pulp extract used UV-Visible and FTIR spectroscopy. The results showed that the ketapang fruit flesh extract was toxic to <i>Artemia salina</i> Leach shrimp larvae. The most toxic was ethyl acetate extract, with an LC50 value was 17,171 ppm. The phytochemicals screening showed that ethyl acetate extract of the ketapang fruit flesh contained flavonoid, alkaloid, phenolic, terpenoid, and saponin compounds. Tracing using UV-Vis shows the presence of conjugated double bonds which refer to flavonoid compounds, as well as the IR spectrum which indicates the presence of a typical functional group of flavonoid compounds.</p>
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