

## Effect Of Extract Breadfruit Leaf (*Artocarpus altilis* (Park.) Fosberg) Toward Tumor Necrosis Factor (TNF- $\alpha$ ) In Obese Rat (*Rattus norvegicus*) With Insulin Resistance

<b>Title</b>	Effect Of Extract Breadfruit Leaf ( <i>Artocarpus altilis</i> (Park.) Fosberg) Toward Tumor Necrosis Factor (TNF- $\alpha$ ) In Obese Rat ( <i>Rattus norvegicus</i> ) With Insulin Resistance
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<b>Abstract</b>	<p>Tumor necrosis factor-<math>\alpha</math> (TNF-<math>\alpha</math>) contributed to the insulin resistance which leads to type 2 diabetes. The <i>A. altilis</i> plant has traditionally been used by the Indonesian people to treat diabetes mellitus. The purpose of this study was to determine the parameter of TNF-<math>\alpha</math> level in obese mice (<i>Rattus norvegicus</i>). This study was used experimental laboratory with Randomized Controlled Trial (RCT) design. It was divided into 5 groups, and each group consisted of 5 rats that have been given a 45% fat (open source) high fat diet for fattening itself. Measurement of body weight to assess obesity and examination of fasting blood sugar (GDP) were used of DR glucose test kits. Group I was negative control, group II as positive control using metformin HCl, group III using <i>A. altilis</i> 5%, group IV <i>A. altilis</i> with 10% and group V <i>A. altilis</i> with 15%. Treatment was carried out for 14 days in each group and TNF-<math>\alpha</math> levels was assessed with ELISA test. Nonparametric test was used to see the differences between each groups with a 95% confidence level. There was a significant effect of <i>A. altilis</i> with 10% extract toward TNF-<math>\alpha</math> levels, where the value of <math>p = 0.018</math>. While the administration of extracts of 5% and 15% did not show a significant effect. The administration of 10% <i>A. altilis</i> extract showed a significant decrease of TNF-<math>\alpha</math> levels in obese mice who had hyperglycemia. Keywords: <i>A. altilis</i>, obesitas, TNF-<math>\alpha</math>, insulin resistance</p>
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