

**HISTOPATHOLOGY OVERVIEW OF MAMMARY GLAND  
ADMINISTERED WITH LEAF EXTRACT GRAVIOLA  
(*Annona muricata* Linn.) IN MICE INDUCED BY DMBA  
(7,12 Dimethylbenz (a) anthracene)**

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**ABSTRACT**

This study aim to determine the changes in mammary gland histopathology overview after administration of leaf extract of *Graviola* (*Annona muricata* Linn.) in mice induced by carcinogen substance, DMBA (7,12 Dimethylbenz (a) anthracene). This study used 20 mice weight 20-30 grams with three months of age divided into five treatment groups. Each mouse was induced with DMBA 20 mg/kgbw as 0.2 cc solution subcutan with the injection of 3 days interval for 5 weeks. The negative group control P0(-) were injected with 0.5 cc oleum olivarum. Group of P1, P2, P3 were treated with leaf extract of *Annona muricata* Linn. orally every day for 21 days with different dose at 10 mg/kgbw, 30 mg/kgbw, and 100 mg/kgbw. Group P0 (+) were treated with 0.5% CMC Na, Group P0 (-) were not treated any treatment. After treatment was completed, the mice was being necropsied and the mammary organ was taken and proceed histopathological slides using Hematoxylin eosin (HE) staining. The results of Mann-Whitney U test showed that there were significantly differences ( $p < 0.05$ ) between treatments P0 (-) with all group. Group P0 (+) with P1 showed that there were significant differences ( $p < 0.05$ ), whereas group P0 (+) with P2 and P3 showed non-significant difference ( $p > 0.05$ ). Group between P1 with P2 and P3 showed significant differences ( $p < 0.05$ ), while between treatment group P2 with P3 showed non-significant difference ( $p > 0.05$ ). It was suggested that the leaf extract of *Annona muricata* Linn. at dose of 10 mg / kgbw (P1) could reduce the score of mammary gland histopathology in mice induced with DMBA.

**Key words:** *Graviola* (*Annona muricata* Linn.), mammary cancer, histopathology.