

ACUTE TOXICITY OF *Urena lobata* LEAF EXTRACT ON EMBRYO, JUVENILE AND ADULT OF ZEBRA FISH (*Danio rerio*)

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Pulutan (*Urena lobata*) is medicinal plant used to treat some diseases empirically, with pre-clinical study has already proven its efficacy, however, its safety has not been evaluated. Acute toxicity has to be performed on different phases of life to screen for its safety. The study aims to determine the acute toxicity level of *Urena lobata* (*U. lobata*) leaf extract on embryo phase, juvenile and adult of *Danio rerio* (*D. rerio*).

This is an experimental laboratory study using embryo, juvenile and adult of *D. rerio*. The leaf of *U. lobata* was extracted by decoction methods moreover it was diluted from 12g/L to 0,5 g/L and exposed for 4 days to animal test. Toxicity level of herbs is defined as Lethal Concentration-50 (LC-50) by linear regression.

LC-50 value of *U. lobata* leaf extract which was exposed on embryo, juvenile and adult of *D. rerio* respectively were 2,548 g/L, 8,748 g/L and 8,088 g/L. Level toxicity of *U. lobata* on embryo was categorized as moderate (0,5-5 g/L) but on juvenile and adults were considered mild (5-15 g/L). Embryo is more sensitive to xenobiotic agents due to the lack of enzyme metabolism and organ maturation. Therefore, *U. lobata* leaf extract should be noted as having teratogenic effect. *U. lobata* leaf extract are more toxic to embryo compared to juvenile and adult phase of *D. rerio*.