

**THE EFFECT OF BAWANG DAYAK (*Eleutherine Palmifolia L., Merr*)
BULBS EXTRACT ON GLUCOSE TRANSPORTER 2 (GLUT 2)
EXPRESSION IN RAT INDUCED BY ALLOXAN**

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ABSTRACT

This study was undertaken to investigate antidiabetic the effect of bawang dayak bulbs (*Eleutherine palmifolia L., Merr*) extract on fasting blood glucose levels, GLUT 2 expression and the relationship between fasting blood glucose with GLUT 2 expression in rat induced by alloxan. Alloxan single doses were intraperitoneally administered 120 mg/kgBW. Twenty four male Wistar rat of three months old were used in this study. Rat were divided into six groups: (1) norm control group (K0), that were not diabetic and treated, (2) negative control group (K1), that were diabetic and treated CMC-Na, (3) positive control group (K2), that were diabetic and treated metformin as a standard drug, (4) bawang dayak bulbs extract dosed 200 mg/kgBW (P1), (5) 400 mg/kgBW (P2), (6) 800 mg/kgBW (P3). The treatment was conducted for 14 days. Hypoglycemic effect of all mice was determined at 7 and 14 days post treatment. At the end of research, all of rat were eutanized and pancreas organ were collected by for histopatology analysis by immunohistochemical staining. The result of this study showed that bawang dayak bulbs extract can decreased fasting blood glucose post treatment and increased GLUT 2 expression in Langerhans cells with the most effective dose 400 mg/kgBW.

Keyword : bawang dayak bulbs (*Eleutherine palmifolia L., Merr*), diabetes mellitus, fasting blood glucose, immunohistochemical staining, glucose transporter 2 (GLUT 2) expression.