

## ABSTRACT

Study on constituents and their activity on Brine Shrimp Lethality Test (BST) and antioxidant of *Fagraea racemosa* Jack ex Wall have been performed. Antioxidant activity was carried out by 2,2-diphenyl-1-picrylhydrazil (DPPH) reagent quenching method.

Chloroform extract of root bark (KAC) showed positive activity on BST, but no antioxidant activity was observed. On the contrary, methanolic extract of the leave (DM) showed no activity on BST, but strong antioxidant activity was observed. Methanolic extract of the bark (KBM) showed positive result on both tests with quite lower activity compared to KAC and DM.

Fractination followed by isolation of KAC gave six fractions (C1-C6), and only fraction C1 possesses the strongest activity on BST and containing six dominant compound. Five compounds those have been isolated were relatively pure compounds. Fractination of the extract methanolic of the root (AM) gave five fractions namely M1-M5. Fractions M1 and M2 showed no activity on BST but very strong antioxidant.

Fraction M1 containing four dominant compounds, two of them having relative molecule compounds ( $M^+(m/z) = 587$  and  $M^+(m/z) = 891$ ). Fraction M2 containing three dominant compounds, one of them has  $M^+(m/z) = 587$ . Fractination of KBM gave eight fractions namely K1-K8, but only K6 showed the strongest activity on BST and antioxidant test. K6 containing six dominant compounds and one of them has  $M^+(m/z) = 456$ .

**Key words :** *Fagraea racemosa* Jack ex Wall, Brine Shrimp Lethality Test , antioxidant, relative molecule compounds.