

Research Article

**POTENTIAL OF DADAP AYAM (*Erythrina variegata*) PLANT  
AS HERBAL MEDICINE**

Tati Herlina, Euis Julaeha, Nurlelasari, Dikdik Kurnia, and Unang Supratman  
Department of Chemistry, Faculty of Mathematics and Natural Sciences,  
Universitas Padjadjaran, Jatinangor 45363, Sumedang, Indonesia  
\*E-mail: tatat\_04her@yahoo.com

**ABSTRACT**

**Introduction:** Traditional medicines originating from plants have been widely used as an alternative therapy and extensive research have identified several bioactive compounds of the plants. In Indonesia, *Erythrina variegata* (Leguminosae) plants have been used for medication to many diseases including anthelmintic, anticancer, antimalaria, and antifertility. **Objective:** In the course of our continuing search for novel bioactive compounds from Indonesian *Erythrina* plants, we isolated and described several bioactive compounds such as anticancer, antimalaria, and antifertility from *E. variegata*. **Method:** Activity assay in vitro against breast cancer cell T47D using the Sulforhodamine B (SRB) method, activity assay in vitro against antiplasmodium using lactatedehydrogenase (LDH) method, and antifertility activity on spermatozoa *Rattus norvegicus*. Their chemical structures were determined based on spectroscopic evidences and comparison with related compound previously reported. **Result:** Extract and compounds of *E. variegata* showed anticancer in vitro against breast cancer cell T47D, antiplasmodial in vitro K1 and 3D7 strain parasites, and antifertility on spermatozoa *R. norvegicus* with middle and high activity. Besides that, the toxicity assay of it was also conducted using white mice to show the safety grade of the plant. **Conclusion:** This results strongly suggested that *E. variegata* is a promising sources as herbal medicine of anticancer, antimalaria, and antifertility agents.

**Keywords:** Anticancer, antifertility, antimalaria, *Erythrina variegata*, Leguminosae