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**PENENTUAN KADAR FENOLIK TOTAL DAN AKTIVITAS ANTIDIABETES EKSTRAK TANAMAN TELANG (*Clitoria ternatea* L.) SECARA *IN VIVO***

(xvi + 56 halaman + 7 tabel + 42 lampiran)

**INTISARI**

**Latar Belakang:** Diabetes melitus merupakan suatu gangguan metabolik ditandai dengan peningkatan kadar glukosa darah. Antioksidan mampu menghambat terjadinya penyakit degeneratif seperti diabetes. Tanaman obat yang diduga memiliki khasiat penurun kadar glukosa darah adalah tanaman telang (*Clitoria ternatea* L.). Oleh karena itu, dilakukan peninjauan beberapa literatur total fenolik dan aktivitas antidiabetes secara *in vivo*.

**Tujuan:** Mengetahui senyawa aktif dalam ekstrak bunga dan daun telang dan mengetahui aktivitas antidiabetes dari ekstrak bunga dan daun telang secara *in vivo*.

**Metode:** Penelitian berupa *literature review* dengan metode kajian artikel yang berasal dari artikel ilmiah. Data yang digunakan berupa hasil deskriptif dari *resume* sebanyak lima artikel, yang didapatkan secara *online* pada situs *google scholar* dengan rentang tahun 2009-2020 terkait dengan tema penelitian. Kelima literatur kemudian dikaji hasil total senyawa fenolik dan hasil penurunan kadar glukosa darah. Kesimpulan diambil sesuai tujuan penelitian yang ditetapkan.

**Hasil:** Hasil penelitian ini menunjukkan bahwa bunga dan daun memiliki senyawa flavonoid. Senyawa flavonoid yang terkandung memiliki aktivitas antidiabetes dengan penurunan kadar glukosa darah. Senyawa fenolik ekstrak bunga dan daun telang berkorelasi dengan hasil kadar glukosa darah. Senyawa flavonoid ekstrak etanol daun telang dapat menurunkan kadar glukosa darah tikus menjadi 81,53 mg/dl. Senyawa flavonoid ekstrak air daun telang dapat menurunkan kadar glukosa darah menjadi 102,4 mg/dl, sedangkan pada ekstrak air bunga telang dapat menurunkan kadar glukosa darah menjadi 107,6 mg/dl.

**Simpulan:** Bunga dan daun telang memiliki senyawa flavonoid yang berpengaruh terhadap aktivitas antidiabetes secara *in vivo*.

**Kata Kunci:** *Clitoria ternatea* L., antidiabetes *in vivo*, flavonoid, total fenolik

**Kepustakaan :** 50 (2000-2020)

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**DETERMINATION of TOTAL PHENOLIC LEVELS AND ACTIVITY of ANTI-DIABETES PLANT EXTRACTS of TELANG (*Clitoria ternatea* L.) IN VIVO**

(zvi + 56 pages + 7 tables + 42 attachments)

**ABSTRACT**

**Background:** Diabetes mellitus was a metabolic disorder characterized by elevated blood glucose levels. Antioxidants were able to inhibited the occurrence of degenerative diseases such as diabetes. Medicinal plants that assumption had the efficacy of lowered blood glucose levels was a telang plant. Therefore, the review of some of the total phenolic literature and antidiabetic activity *in vivo*.

**Objective:** To knew the active compounds of flower and telang leaves extracts and knew that antidiabetic activity of flower and telang leaves extracts had in vivo.

**Methods:** Researched in the form of literature review with a study article come from a scientific article. The data used in the form of descriptive results from resumes of five articles, obtained online on google scholar sites with a range of 2009-2020 related to the theme of research. The five literature were then reviewed the results of total phenolic compounds and the results of decreased blood glucose levels. Conclusions were drawn accorded to the objectives of the established research.

**Result:** The results of this study show that flowers and leaves had flavonoid compounds. The flavonoid compounds contained had antidiabetes activity with decreased blood glucose levels. Phenolic compounds of flower extract and leaf telang correlate with the results of blood glucose levels. The flavonoid compound of telang leaf ethanol extract can lowered the blood glucose levels of mice to 81.53 mg/dl. The flavonoid compound of telang leaf water extract can lowered blood glucose levels to 102.4 mg/dl, while in water extract telang flowers can lowered blood glucose levels to 107.6 mg/dl.

**Conclusion:** Flowers and telang leaves had flavonoid compounds that affect antidiabetes activity in vivo.

**Keywords:** *Clitoria ternatea* L., antidiabetic *in vivo*, flavonoids, total phenolic

**Bibliography:** 50 (2000-2020)