

**Antidiabetic activity and phytochemical screening of *Caesalpinia sappan*, L (Secang), *Tinospora crispa* L (Brotowali), *Andrographis paniculate* (Sambiloto) infusions and their combination in Alloxan-induced rat**

**by Nurfina Aznam, Kun Sri Budiasih, Nabila Satyayana Parluhutan, Salma Rista Ismurdiastuti, Wahyu Eka Deska Putra, Melani MahardikaYeni Adi Tiani**

ABSTRACT

Research has been carried out on the antidiabetic activity and phytochemical screening of *Caesalpinia sappan*, L (Secang), *Tinospora crispa* L (Brotowali), *Andrographis paniculate* Ness (Sambiloto) infusions and their combination in rat induced by Alloxan. The aim of this study was to determine the results of the phytochemical screening of the three infusions and test the antidiabetic activity by looking at the reduction in blood sugar levels in rat induced by Alloxan. Phytochemical screening using several reagents to determine the presence of alkaloids, flavonoids, tannins, steroids, terpenoids and saponins. Measurement of blood sugar levels from the three infusions with a concentration of 10% and a combination of 50%:50% was measured using a test pack. Blood sugar levels were measured before induction (T<sub>0</sub>), then induced with Alloxan, then 30 minutes later the KGD was measured (T<sub>1</sub>), then consecutively for the next 30 minutes the KGD was measured T<sub>2</sub>, T<sub>3</sub>, T<sub>4</sub>, and T<sub>5</sub>.

From the Phytochemical screening results, *Caesalpinia sappan*, L (Secang), contains flavonoids and tannins, *Tinospora crispa* L (Brotowali), contains alkaloids and saponins, *Andrographis paniculate* Ness (Sambiloto), contains alkaloids, flavonoids and tannins. The three infusions and their combination can reduce the blood sugar levels of rat induced with Alloxan.

Key words: *Caesalpinia sappan*, L (Secang), *Tinospora crispa* L (Brotowali), *Andrographis paniculate* Ness (Sambiloto), infusion, blood sugar levels, phytochemical screening.

Kata Kunci: *Caesalpinia sappan*, L (Secang), *Tinospora crispa* L (Brotowali), *Andrographis paniculate* Ness (Sambiloto), infusion, blood sugar levels, phytochemical screening.