

Thesis Title	Bioassay-Guided Isolation and Identification of Bioactive Compounds from <i>Leonurus japonicus</i> Houtt. Extract
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ABSTRACT

Leonurus japonicus (*L. japonicus*) is widely used in folk medicine to treat diabetes, menstrual irregularities, and bronchitis. This study evaluated the α -glucosidase inhibitory and anti-inflammatory activity of the crude extract, semipurified fractions, and isolated compounds from the areal of *L. japonicus*, through bioassay-guided testing. The crude extract was obtained with an ethanolic extract and then partitioned with ethyl acetate. Bioassay-guided fractionation of an EtOAc-soluble extract of areal of *L. japonicas* led to the isolation of six known compounds (**T-1 to T-6**). Their structures were elucidated based on data analysis, including ^1H NMR data, LC-QTOF-MS, ECD, UV, and FT-IR. Compounds **T-1 to T-6** exhibited α -glucosidase inhibitory and anti-inflammatory activity in range IC_{50} values at 143.9 - 598.4 μM and 66.9 - 285.8 μM , respectively, when compared with the positive control.

Keywords: *Leonurus japonicus*, α -Glucosidase Inhibitory, NO Production Inhibitory