

**METABOLIT SEKUNDER DAN AKTIVITAS ANTIKANKER TANAMAN
ANDALIMAN (*Zanthoxylum acanthopodium* DC.)**

SKRIPSI

Diajukan untuk memenuhi salah satu syarat memperoleh gelar Sarjana Sains
pada Program Studi Kimia



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ABSTRAK

Zanthoxylum Acanthopodium DC., umumnya dikenal sebagai andaliman yang merupakan keluarga dari *Rutaceae*. Genus *Zanthoxylum* ini telah banyak dipelajari untuk berbagai jenis aktivitas biologis. Tujuan dari penelitian ini adalah untuk mengetahui kandungan metabolit sekunder dan aktivitas antikanker dari tanaman andaliman. Metode penelitian yang digunakan adalah studi literatur dengan model *narrative review*. Review menggunakan 8 artikel berupa jurnal internasional yang dijadikan sebagai referensi utama. Hasil penelitian menunjukkan bahwa andaliman mengandung golongan metabolit sekunder seperti alkaloid, flavonoid, glikosida, saponin, tanin, triterpen/steroid, dan antrakuinon glikosida. Metabolit sekunder pada tanaman *Zanthoxylum acanthopodium* DC juga memiliki aktivitas antikanker yang aktif karena memiliki $IC_{50} < 500 \mu\text{g/mL}$ pada uji sitotoksik menggunakan MTT assay [3-(4,5-dimetiltiazol-2-il)-2,5-difenil tetrazolium bromida]

Kata kunci: Andaliman (*Zanthoxylum acanthopodium* DC.), aktivitas antikanker, metabolit sekunder.

ABSTRACT

Zanthoxylum Acanthopodium DC., Commonly known as andaliman which is a family of Rutaceae. This genus *Zanthoxylum* has been extensively studied for various types of biological activities. The purpose of this study was to determine the content of secondary metabolites and anticancer activity of andaliman plants. The research method used is a literature study with a narrative review model. The review uses 8 articles in the form of international journals which are used as the main reference. The results showed that andaliman contained secondary metabolites such as alkaloids, flavonoids, glycosides, saponins, tannins, triterpenes / steroids, and anthraquinone glycosides. Secondary metabolites in *Zanthoxylum acanthopodium DC* plants also have active anticancer activity because they have $IC_{50} < 500 \mu\text{g} / \text{mL}$ in the cytotoxic test using the MTT assay [3- (4,5-dimethylthiazol-2-il)-2,5-diphenyl tetrazolium bromide]

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