

Isolasi senyawa kimia kulit batang kayu manis (*Cinnamomum burmannii* nees ex blume) dan uji aktivitasnya sebagai antioksidan dan antibakteri

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Abstrak

It has been investigated the plant of *Cinnamomum burmannii* Nees ex Blume from the West Sumatera as sources of antioxidant and antibacteria compounds. Extraction with n-hexane and ethanol showed the activities of antioxidant as radical scavenger and as the antibacteria against *Escherichia coli*. Fractional from the crude extract on silica gel column with the n-hexaneethyl acetate solven gradient system for the n-hexane crude extract and the ethyl acetate-methanol solven gradient system for the ethanol crude extract yield three fractions. They are examined with radical scavenger method. The n-hexane crude extract and its fraction showed weak of antioxidant capacity but the ethanol crude extract and the two its fractions showed very powerful of antioxidant capacity with IC₅₀ 9.0 ppm, 7,8 ppm and 11.2 ppm respectively. A Fraction from the n-hexane crude extract (fraction A) and two fractions from the ethanol crude extract (fraction B and fraction C) were analyzed UV, IR and GC-MS. Fraction A consist of trans-cinnamaldehyde (54,41 %), cinnamate acid (20,49 %), benzaldehyde (7,95 %) dan α-phenylacetaldehyde (4,30 %). Fraction B consist of trans-cinnamaldehyde (68,65 %), methyl cinnamate (9,20 %), methyl hexadecanoic (8,49 %) and methyl-9-Octadecenoic (6,99 %). Fraction C consist of ethyl tetradecanoic (43,56 %), ethyl laurate (39,48 %), ethyl hexadecanoic (12,16 %), dioctyl hexenedioic (2,98 %) and diisooctyl 1,2-benzenedicarboxylic (1,83 %).

Keywords: Antioxidant , Antibacteria activities, *Cinnamomum burmannii* Nees ex Blume, *Escherichia coli*, Radical Scavenger .