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 antibacterial compounds. Extraction with n-hexane and ethanol showed the activities of antioxidant as radical scavenger and as the antibacteria againt 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 -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 .