

Antioxidant and Anti-Inflammatory Activities of Bioactive Compounds Derived from *Thunbergia laurifolia* Aqueous Leave Extract

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Abstract : *Thunbergia laurifolia* has been used for folklore medicine purposes and consumed in the form of herbal tea in Thailand since ancient times. To evaluate the bioactive compounds of aqueous leave extract possessed antioxidant and anti-inflammatory activities. The antioxidant activities were examined by total extractable phenolic content (TPC), total extractable flavonoid content (TFC), ABTS radical scavenging, DPPH radical scavenging, FRAP reducing antioxidant power expressed as mg of gallic acid trolox and caffeic acid for the equivalents. Results indicated that the extract had high TPC and antioxidant activities. In addition, the HPLC-DAD analysis of phenolics and flavonoids indicated the presence of caffeic acid and rutin as bioactive compounds. Exposure of cells with the extract using nitric oxide (NO) production in RAW 264.7 murine macrophage cell line induced by lipopolysaccharide (LPS) was significantly reduced NO production and increased cell proliferation. The obtained results demonstrated that the extract contains a high potential to be used as anti-inflammatory and antioxidant substances.

Keywords : *Thunbergia laurifolia*, anti-inflammatory, antioxidant activities, RAW264.7

Conference Title : ICFSN 2016 : International Conference on Food Security and Nutrition

Conference Location : Bali, Indonesia

Conference Dates : October 13-14, 2016