

Isolation and Identification of Antioxidants Components from Cumin Seed (*Cuminum cyminum*)

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Natural materials are complicated compositions so a rapidly screen the active antioxidants is challenged. Different polarity solvents were applied to isolating four fractions (F1, F2, F3 and F4) of methanolic extract of *Cuminum cyminum*. Their antioxidative properties were tested using radical scavenging and FRAP assays. F3 (with DPPH= and FRAP=) was significantly the most active fraction. Guided isolation through bioautography on TLC using 1, 1- diphenyl- 2 – picryl- hydrazyl radical (DPPH) as a detection reagent led to the isolation of two antioxidant compounds from F3. F3 was injected to a preparative HPLC with the proper mobile phase (acetonitril: methanol/ water) and isolated two main compounds. These compounds were identified as Luteolin 7 glucoside and Apigenin 7 glucoside by means of ¹HNMR and ¹³CNMR and compare them with references.