

**ANTIOXIDANT ACTIVITY AND
PHYTOCHEMICAL SCREENING OF
MOMORDICA CHARANTIA FRUIT USING
PETROLEUM ETHER**

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ABSTRACT

Plant bioactive compounds had been reported to treat certain disease such as diabetes and cancer due to its antioxidants properties. Vegetables and fruits are well known to contain those natural plant bioactive compounds such as phenolic compounds. In this experiment carried out, *Momordica charantia* was selected as sources of bioactive compounds. The dried sample was macerated with 100% petroleum ether at the ratio of 1:10 (w/v) for 24 hours to extracts the bioactive compounds presence. Concentrated sample obtained was then diluted back with 5% DMSO with the ratio of 1:5, 1:3, 1:1 (w/v) and were then subjected to antioxidant compounds assay (TPC and TFC) and antioxidant activity assays (DPPH, BCB, FIC, FRAP). The result obtained from ratio 1:1 (w/v) crude extracts showed that the crude extract contain 87 ± 4.58 mg GAE/ g DW for TPC, 42.8 ± 0.72 mg catechin / g DW for TFC, 50.9 ± 2.8 %RSA for DPPH radical scavenging activity, 65.4 ± 2.19 %AOA for BCB, 64.6 ± 0.84 % of chelating effect for FIC, and 141.45 ± 1.46 mg trolox/ g Dw for FRAP. Column chromatography and thin layer chromatography were done to partial purified and identify the compounds presence. Out of 334 fractions collected, 2 pooled fractions were collected and subjected to antioxidant assays. Phytochemical tests were done on the crude extracts and pooled fractions. Alkaloids, flavonoids, terpenoids and saponins were present in the crude extract, while alkaloids, terpenoids, flavonoids and alkaloids, flavonoids were present in pooled fraction 1 and pooled fraction 2 respectively. Thus, the result obtained from this experiment demonstrated that *Momordica charantia* fruit contain antioxidants compounds and exhibits antioxidant activity which could bring health benefit towards human.