



## Separation of polyphenol rich fraction from dried ginger rhizomes

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### ABSTRACT

*Ginger is the rhizome of Zingiber officinale Roscoe. Phenolic compounds are the major constituents of ginger, and possess health-promoting effects. The effects of different solvents of varying polarities on the extraction efficiency and total polyphenols (TPP) content were evaluated. Also, the antioxidant activity of the extracts was evaluated using radical scavenging assay, reducing power, and antioxidant capacity. The yield of the extract increased with increase in the polarity and dielectric constant of the respective solvent used. However, highest yield (16.5%) and greater release of total polyphenol content (TPP, 1.10% GAE) was obtained with 50% aqueous ethanol, due to its higher dielectric constant. Since, aqueous ethanol being considered as green and cheaper solvent compared to all other solvents used for the extraction, it may find application as a supplement in various food as well as pharmaceutical formulations / products.*

**Keywords:** *Zingiber officinale*, polyphenols, antioxidant, extraction.

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