

## Phytochemical Screening and Identification of Anti-Biological Activity Properties of *Pelargonium graveolens*

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**Abstract :** Rose-scented geranium (*Pelargonium graveolens* L'Hér.) is an erect, much-branched shrub. It is indigenous to various parts of southern Africa, and it is often called Geranium. *Pelargonium* species are widely used by traditional healers in the areas of Southern Africa by Sotho, Xhosa, Khoi-San and Zulus for its curative and palliative effects in the treatment of diarrhea, dysentery, fever, respiratory tract infections, liver complaints, wounds, gastroenteritis, haemorrhage, kidney and bladder disorders. We have used Plant materials for extracting active compounds from analytical grades of solvents methanol, ethyl acetate, chloroform and water by a soxhlet apparatus. The phytochemical screening reveals that extracts of *Pelargonium graveolens* contains alkaloids, glycosides, steroids, tannins, saponins and phenols in ethyl acetate solvent. The antioxidant activity was determined using 1, 1-diphenyl-2-picrylhydrazyl (DPPH) bleaching method and the total phenolic content in the extracts was determined by the Folin-Ciocalteu method. Due to the presence of different phytochemical compounds in *Pelargonium* the anti-microbial activity against different micro-organisms like *E.coli*, *Streptococcus*, *Klebsiella* and *Bacillus*. Fractionation of plant extract was performed by column chromatography and was confirmed with HPLC analysis, NMR and FTIR spectroscopy for the compound identification in different organic solvent extracts.

**Keywords :** *Pelargonium graveolens* L'Hér, DPPH, micro-organisms, HPLC analysis, NMR, FTIR spectroscopy

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