



CHARACTERIZATION & IMMUNO- MODULATORY ACTIVITY OF *CAPSICUM ANNUUM* L. VAR. *GROSSUM* SENDT. BY USING LABORATORY ANIMALS

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ABSTRACT:-

The present study was aimed to investigate Immuno-modulatory activity of *Capsicum annum* L. var. *grossum* Sendt. The assessment of immuno-modulatory activity was carried out by using Neutrophil Adhesion Test (In-Vivo Method) & T-Cell Population (In-Vitro Method). Oral administration of extract of *Capsicum annum* L. var. *grossum* Sendt. Significantly showed Immuno-modulatory activity increases percentage neutrophil adhesion, increases lymphocytes & No. of rosette count when result compared with control group. Separation was done by Thin Layer Chromatography (TLC) & then isolation was done by column chromatography technique & confirmed by spectroscopic techniques. In conclusion, ethanolic & aqueous extract of *Capsicum annum* L. var. *grossum* Sendt. showed presence of flavonoids, phenolic compound & vitamin C. as well as alkaloids, glycosides. But aqueous extract showed maximum immunomodulatory activity by both In-vivo & In-vitro methods. So, further first performed Thin Layer chromatography & then flavonoid quercetin was isolated from aqueous extract of *Capsicum annum* L. var. *grossum* Sendt. by column chromatography technique. Its presence was confirmed by spectroscopic analysis (UV, IR, NMR & MS) techniques.

Keywords: - Immuno-Modulatory, *Capsicum annum* L. var. *grossum* Sendt, Neutrophil Adhesion Test, T-Cell Population, Immunostimulant's.