

## Tyrosine Rich Fraction as an Immunomodulatory Agent from Ficus Religiosa Bark

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**Abstract :** Objective: Ficus religiosa Linn (Moraceae) is being used in traditional medicine to improve immunity hence present work was undertaken to validate this use scientifically. Material and Methods: Dried, powdered bark of F. religiosa was extracted successively using petroleum ether and 70% ethanol in soxhlet extractor. The extracts obtained were screened for immunomodulatory activity by delayed type hypersensitivity (DTH), neutrophil adhesion test and cyclophosphamide-induced neutropenia in Swiss albino mice at the dose of 50 and 100 mg/kg, i.p. 70% ethanol extract showed significant immunostimulant activity hence subjected to column chromatography to produce tyrosine rich fraction (TRF). TRF obtained was screened for immunomodulatory activity by above methods at the dose of 10 mg/kg, i.p. Results: TRF showed potentiation of DTH response in terms of significant increase in the mean difference in foot-pad thickness and it significantly increased neutrophil adhesion to nylon fibers by 48.20%. Percentage reduction in total leukocyte count and neutrophil by TRF was found to be 43.85% and 18.72%, respectively. Conclusion: Immunostimulant activity of TRF was more pronounced and thus it has great potential as a source for natural health products.

**Keywords :** Ficus religiosa, immunomodulatory, cyclophosphamide, neutropenia

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