

## **Brine Shrimp Lethality Test of Soluble Proteins from Biomphalaria pfeifferi Snail as Preliminary for Vaccine Development for Schistosoma mansoni.**

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### **Abstract:**

The study tested for in vivo Brine Shrimp Lethality Test (BSLT) of soluble protein extracts from Biomphalaria pfeifferi snail. The proteins from foot and digestive gland were processed and their concentration determined by microtitre technique. Concentrations were 1.4 mg/ml for foot and 1.4 mg/ml for digestive gland extracts. Cytotoxicity of the proteins was evaluated in terms of Lethality concentration (LC50) using 10µg/ml, 100µg/ml and 1000µg/ml concentrations of the proteins. Ten Brine Shrimps larvae (nauplii) were placed in duplicate tubes of each concentration. After 24 hours the surviving Brine Shrimps larvae were counted and LC50 was determined by Finney computer program at 95% confidence interval. The results showed foot and digestive gland proteins had a LC50 of 71.43µg/ml and 52.18µg/ml respectively. The results imply bioactive components are present in the proteins with probable larvicidal activity. As per the results, the proteins can be used as schistosomiasis vaccine candidates.

Key words: Brine Shrimp Lethality Test, Schistosoma mansoni, Biomphalaria pfeifferi.

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