

IDENTIFICATION OF IMMUNOGENIC PROTEIN OF *ASCARIS SUUM*

RUDRAPPA, S. M¹, AMEETA KUSHWAH² & A. BANERJEE³

¹Veterinary Officer, Veterinary Hospital, Harihar, Karnataka, India

²Professor, Department of Veterinary Biochemistry, Veterinary College, Mhow, Madhya Pradesh, India

³Manger, Bull Mother Farm, Vhava, Bhopal, India

ABSTRACT

Drug resistance by many naturally occurring nematodes amongst animals has intensified the efforts of scientists for exploring the antigenic protein necessary for survival of parasite. Therefore the present study was undertaken to explore the excretory-secretory (ES) product of adult *Ascaris suum* for identifying the protein with immunogenic activity associated this fraction of worms. For the purpose, antigenic protein was isolated and purified from the culture medium of adult worms by gel permeation chromatography on Sephadex G-200 and individual elutes were assessed for their antigenicity against hyper immune sera, raised in rabbits. The elutes depicting the positive results were pooled and concentrated with PEG-6000 and characterized by SDS-PAGE. The most immunodominant protein was further assessed by immunoblotting. The protein 36 kD depicted immunogenicity and therefore, may be an ideal candidate for the development of vaccine against the helminth infection. In addition, this antigenic protein may also be explored for serodiagnosis of ascariasis in animals under field conditions.

KEYWORDS: *Ascaris Suum*, Double Immuno-Diffusion Test, SDS-PAGE, Western Blot