IDENTIFICATION AND CHARACTERIZATION OF SPECIFIC PROTEIN FROM Paramphistomum cervi BY SDS-PAGE AND WESTERN BLOT TECHNIQUE

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ABSTRACT

The purpose of this research to find out the protein profile and specific protein from Paramphistomum cervi. Diagnostic of helminthiasis basically depend on clinical sign and fecal examination. Clinical sign rarely appear and fecal examination which have low accuracy so that serological diagnostic should be done. Serological diagnostic can be used to determine protein profile and characterization of protein which have high antigenicity for antibody depending on the molecular weight. The first step, the adult worm P. cervi collected from cattle then crushed to obtain the whole worm extract (WWE). The results of WWE has been analyzed to get protein level using the Bradford’s method, protein level of P. cervi are 1,682 mg/ml. The results of the analysis of protein levels P. cervi can be used as a dose immunization in mice and dose dilution in sample preparation. The result of identification of protein profile from WWE P.cervi by SDS-PAGE technique have 23 bands with molecular weight of 189, 165, 137, 111, 85, 78, 69, 63, 56, 52, 47, 42, 38, 33, 31, 29, 27, 24, 21, 19, 15, 13 and 11 kDa. The result of characterization of specific protein from WWE P. cervi by Western blot technique have 11 band with molecular weight of 111, 85, 78, 63, 52, 42, 38, 29, 24, 21 and 13 kDa.

Keywords: Paramphistomum cervi, WWE, SDS-PAGE, Western blot