

Evaluation Rabbit Serum of the Immunodominant Proteins of Mycobacterium avium Paratuberculosis Extracts

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Abstract : M. paratuberculosis is a slow growing mycobactin dependent mycobacterial species known to be the causative agent of Johne's disease in all species of domestic ruminants worldwide. JD is characterized by gradual weight loss; decreased milk production. Excretion of the organism may occur for prolonged periods (1 to 2.5 years) before the onset of clinical disease. In recent years, researchers focus on identification a specific antigen of MAP to use in diagnosis test and preparation of effective vaccine. In this paper, for production of polyclonal antibody against proteins of Mycobacterium avium paratuberculosis cell wall a rabbit immunization at a certain time period with antigen. After immunization of the animal, blood samples were collected from the rabbit for producing enriched serum. Antibodies were purified with ion exchange chromatography. For exact measurement of interaction, western blotting test was used and as it is demonstrated in the study, sharp bands appear in nitrocellulose paper and specific bands were 50 and 150 KD molecular weight. These were indicating immunodominant proteins.

Keywords : immunodominant, paratuberculosis, Western blotting, cell wall proteins, protein purification

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