ANTIGEN AND POLYCLONAL ANTIBODY ANTI *Blastocystis* sp PROFILE IN CATTLE

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ABSTRACT

Blastocystis is an intestinal parasite of human and wide range of animals, widely prevalent in many countries. *Soluble* protein can induce the cellular immunity response in host, meanwhile ESA protein is responsible for the process of inflammation acted as immunomodulator. This study aims to understanding the antigenic profile of soluble and ESA protein, the antibody titer and the immunogenicity. The antigen profile was identified using SDS-Page, while the antibody titer was measured using ELISA and western blotting is performed to understand the immunogenicity of protein. The result of SDS-Page shows that ESA contains 2 proteins (50 kDa and 40 kDa), while Soluble protein consists of 10 proteins (100 kDa, 90 kDa, 70 kDa, 60 kDa, 50 kDa, 40 kDa, 35 kDa, 30 kDa, and 27 kDa). There is also a significance increase of the antibody titer after immunization using Soluble and ESA protein. Western blotting analysis demonstrates that there are 2 proteins (50 kDa and 40 kDa) recognized from ESA protein and 3 proteins (50 kDa, 40 kDa, and 30 kDa) recognized from Soluble protein.

Keywords: *Blastocystis* sp, ESA protein, Soluble Protein, Polyclonal Antibody .