

CROSS-REACTION BETWEEN *Raillietina tetragona* ANTIGENS and ANTIBODIES on *Raillietina ecinobothrida* USING ELISA TECHNIQUE

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ABSTRACT

This research is conducted to examine the cross-reaction between antigens of *Raillietina tetragona* worm and antibodies of *Raillietina ecinobothrida* using *indirect-ELISA* technique. This research is divided into two phases. The first phase consist of isolating and identifying adult *Raillietina spp.* worms, creating homogenate, measuring protein content of the homogenate, and creating polyclonal antibody of mouse (*Mus musculus*). The second phase consist of *indirect-ELISA*. The result of *indirect-ELISA* is measured using ELISA reader with 405 nm wave-length. *Optical Density* (OD) values obtained through this measurement is 0.105 for (P₀₁) and 0.101 for (P₀₂) control serums, 0.237 for anti-*R tetragona* serum (P1), and 0.293 for anti-*R. ecinobothrida* serum (P2). The result of statistical analysis using F (*one way ANOVA*) 1% test indicates significant difference ($P < 0.01$). Based on Duncan 1% test advanced analysis, there is a very significant difference ($P < 0.01$). Based on the analysis above, there is cross-reaction, because OD value of (P2) is higher than (P1). It means *Raillietina tetragona* antigens can be identified by anti-*Raillietina ecinobothrida* serum.

Keywords : *Raillietina tetragona*, *Raillietina ecinobothrida*, *indirect-ELISA*, *cross reaction*.