EARLY DETECTION ON BRAIN OF MICE (*Mus musculus*) BY *POLYMERASE CHAIN REACTION* (PCR) TECHNIQUE

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ABSTRACT

Toxoplasmosis is a zoonotic disease caused by intracellular parasite *Toxoplasma gondii*. Toxoplasmosis related to the presence of toxoplasmosis encephalitis that is often caused of death in people with AIDS. This research was aimed to determine the presence of beginning period *T. gondii* in the brain of mice by *Polymerase Chain Reaction* (PCR). *Polymerase chain reaction* has been extensively used for diagnosis recently because of its very high sensitivity and specificity. Eighteen of mice Balb/C were used in the research, each mouse was infected intraperitoneally with $1x10^3$ RH *strain* of *T. gondii* tachyzoites. Brain of mice samples were collected once every 12 hour. Brain samples were kept in -20^oC, extraced DNA and then examined by PCR. In the process used PCR primers of specific *T. gondii* SAG-1. The PCR products were analyzed by electrophoresis. The data of the PCR product was analyzed descriptively. The result of the research showed that PCR 806 bp for band length indicated of *T. gondii* in the brain of mice. The result show that the presence of takizoit detected in the brain of mice on day 9 after infection.

Key words : Toxoplasmosis, brain, *Polymerase Chain Reaction*, SAG-1, early detection