ABSTRAK

DETEKSI *Toxoplasma gondii* PADA AYAM KAMPUNG YANG DIJUAL DI PASAR TRADISIONAL KAPANEWON SLEMAN DAN NGAGLIK, KABUPATEN SLEMAN DENGAN METODE *POLYMERASE CHAIN REACTION*

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Infeksi *Toxoplasma gondii* menyebabkan toksoplasmosis. Hospes definitifnya adalah *Felidae* termasuk kucing, sedangkan hospes intermediernya manusia dan hewan berdarah panas lainnya. Ayam merupakan sumber protein yang digemari masyarakat Indonesia. Penelitian ini bertujuan untuk mendeteksi infeksinya pada ayam kampung yang dijual di pasar tradisional menggunakan metode *polymerase chain reaction* (PCR).

Lima sampel *musculus longus colli* yang dibeli di pasar tradisional Kapanewon Sleman dan Ngaglik, Kabupaten Sleman dipreparasi kemudian *deoxyribonucleic acid* (DNA) diisolasi lalu diamplifikasi menggunakan metode PCR. Target amplifikasi adalah gen B1 *Toxoplasma gondii* dengan panjang 409 bp. Produk PCR selanjutnya dielektroforesis dan pita DNA divisualisasikan dengan UV *transilluminator.* Migrasi pita DNA diamati dan dianalisis secara deskriptif.

Hasil penelitian ini menunjukkan bahwa kelima sampel dari pasar tradisional di Kapanewon Sleman dan Ngaglik, Kabupaten Sleman tidak ada pendaran pita DNA dengan ukuran 409 bp, sehingga diindikasikan semua sampel tidak terinfeksi parasit tersebut. Pada penelitian ini disimpulkan bahwa metode PCR dapat digunakan untuk mendeteksi infeksi *Toxoplasma gondii* pada ayam kampung.

Kata kunci: ayam kampung, Kabupaten Sleman, pasar tradisional, *polymerase chain reaction, Toxoplasma gondii.*

ABSTRACT

DETECTION OF *Toxoplasma gondii* INFECTION ON FREE-RANGE CHICKEN SOLD AT TRADITIONAL MARKETS IN SLEMAN AND NGAGLIK DISTRICTS, SLEMAN REGENCY USING POLYMERASE CHAIN REACTION METHOD

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Toxoplasma gondii infection causes toxoplasmosis. *Felidae* include cat is the definitive host, while warm-blooded animals include humans and chicken are the intermediary hosts. Chicken is primary source of animal protein for Indonesian consumers. This study aims to detect the infection on free-range chickens sold in the traditional markets using the polymerase chain reaction (PCR) method.

Five samples *musculus longus colli* from traditional markets in Sleman and Ngaglik Districts, Sleman Regency were prepared are then isolated and amplified the deoxyribonucleic acid (DNA) using PCR method. The amplification target was *Toxoplasma gondii* B1 gene with 409 bp length. The PCR products were electrophoresed afterward and the DNA bands were visualized with UV transilluminator. The migration of DNA bands were then observed and analyzed descriptively.

The results show that all samples from traditional markets of Sleman and Ngaglik Districts, Sleman Regency were absence of fluorescent DNA bands measuring 409 bp which indicated the samples were not infected *Toxoplasma gondii*. It can be concluded that PCR method can detect the infection on free-range chicken.

Keywords: free-range chicken, Sleman Regency, polymerase chain reaction, *Toxoplasma gondii*, traditional market.