

EVALUATION OF RECOMBINANT Lig ANTIGEN-BASED ELISA FOR DETECTION OF LEPTOSPIRAL ANTIBODIES IN CANINE SERA

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Abstract. The objectives of this study were to clone the conserved region of leptospiral immunoglobulin-like protein (*lig*) gene and evaluate the utility of the recombinant Lig as an ELISA antigen for detection of leptospiral antibodies in canine sera. *Leptospira kirschneri* serovar Grippotyposa strain Moskva V was chosen to be a target for cloning the conserved region of Lig gene. This assay was evaluated with canine sera ($n = 91$) that were MAT-negative ($<1:100$ dilution) and sera ($n = 103$) that were MAT-positive ($\geq 1:100$ dilution) using 24 serovars. The ELISA showed a relative sensitivity as compared to MAT of 84.5% whereas the specificity was 76.9%. This assay is simple and can be routinely prepared in large amounts. It was concluded that the GST.Lig recombinant protein-based ELISA could be used as a screening test for serodiagnosis of canine leptospirosis with also for confirmation of MAT-positive test results.

Keywords: leptospirosis, recombinant Lig, ELISA, canine

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