



#04P-18

Lepto-LAMP for field diagnosis of Leptospirosis in animal fluid specimens

Leptospirosis is a zoonotic disease with epidemic potential. It is present worldwide and emerges as a public health issue in tropical and subtropical countries. This disease is caused by *Leptospira* spp. and affects wild and domestic animals, which act as an infection source for humans. **Reproductive issues**, stillbirths, abortions and/or birth of weak animals, infertility and mastitis **cause severe economic losses to production**.

The Pathobiology Institute has developed an **isothermal PCR test for fast Leptospirosis diagnosis** from blood, urine, and bovine serum specimens. This method enables to identify infected animals in real time, which reduces disease dissemination and transmission to humans.

ADVANTAGES:

- Fast diagnosis in the acute infection phase. Sensitive and easy to interpret.
- Does not require a thermocycler for amplification.
- Discriminates from other abortive diseases.

TECHNOLOGY READINESS LEVEL

The **Lepto-LAMP Kit** has been developed, and sensitivity and specificity has been assessed in animal fluid specimens (blood, urine, and serum). Optimization in underway for scaling and marketing.

INTELLECTUAL PROPERTY RIGHTS STATUS: Qualifies for invention patent protection.

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