

Fast + Simple
Focused on Veterinary Diagnostics

FASTest® LEPTOSPIRA IgM_{ad us. vet.}

Despite vaccination – return of an infectious disease

Fast test for the qualitative detection of **IgM antibodies** against *Leptospira* spp. in plasma, whole blood supernatant and serum of the dog

Fast indirect detection in the early phase of leptospirosis

In case of clinical suspicion

- no protection for non-vaccination serovars
- apathy, anorexy, liver, kidney and lung dysfunction

Identification of asymptomatic shedders

- organic persistence in spite of IgM presence
- negative PCR due to high antibiotic dose

Immediate initiation of therapy, prophylaxis and hygiene measures (ZOOONOSIS)



- Simple test procedure with plasma, whole blood supernatant or serum
- Fast test interpretation after 15 minutes
- Reliable clinical diagnostics
- Sensitivity 100% & Specificity 95.3%
- Storage at room temperature (15–25°C)
- Long shelf life
- Compact test box with 2 or 10 tests



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Leptospirosis (Weil's disease) is a world-wide spread bacterial infectious disease in various animals and humans (zoonosis!). Of the pathogen species *Leptospira interrogans* sensu lato, more than 300 serovars are known which are summarised in 24 serogroups of varying pathogenicity. Due to non-existence of a cross immunity of the vaccination serovars and an increasing "serovar shift", leptospirosis becomes more important (world-wide increasing prevalences especially for *L. icterohaemorrhagiae*, *L. canicola*, *L. grippityphosa*, *L. australis* and *L. pomona*).

Transmission is direct: horizontal (esp. infectious abortion material, urine, food animals [pathogen reservoir: rodents, small mammals], bites, venereal), vertical (lactogenic, placental) and indirect: contaminated soil, water.

Incubation time as well as symptoms are strongly depending on age, immune status and serovar type. Typical are general symptoms like fever, apathy, anorexia, power drop, loss of weight, partially diarrhoea 3–7 days after infection as well as pale icteric mucous membranes. Other symptoms are late abortuses, dead births, birth of weak young animals. Within 48–72 h, a serious, partly deadly process can develop, depending on organ manifestation (especially kidneys [tubular persistence], liver and lung [hemorrhagic syndrome] dysfunctions, DIC). Sub-clinical infections are rather the rule (higher seroprevalence than the prevalence of the clinical disease), proven by numerous studies. With present immunity due to past infection, normally quick antibody (ab) formation and pathogen elimination takes place.

A clinical suspicion for leptospirosis requires a quick, laboratory-ensured diagnosis, because the animals become a shedder and infection risk for humans and animals. Because the direct proof of the pathogen (dark field microscopy, culture, PCR [false negative through high antibiotic dose]) often is difficult, time consuming, expensive and only proving if positive, the ab detection, especially the IgM detection, has an important diagnostic relevance.

The actual reference method is microagglutination test (MAT). However, its sensitivity varies strongly (30–80%) depending on the stadium of infection, and it does not distinguish between IgM and/or IgG antibodies. Therefore, a straight IgM detection (increase in the 1st week p. inf./maximum from week 2–3 on), can be of significant diagnostic benefit compared to MAT or straight IgG detection (detectable not until 3–4 weeks, persistence for months, vaccination-caused IgG antibody persistence).

The **FASTest® LEPTOSPIRA** IgM is an important diagnostic tool for the veterinarian for the fast and simple on-site detection of a leptospirosis in the early stage of infection. Therefore, further laboratory diagnostics as well as therapeutic and prophylactic measures can be started immediately.

Test procedure



Test interpretation



POSITIVE



NEGATIVE



In leptospirosis antibody detection, the two-step diagnostics is the method of choice. Step 1: IgM antibody test via **FASTest® LEPTOSPIRA** IgM. Step 2: IgG antibody titre test of a serum pair (interval of 2–4 weeks, 2–4-fold titre increase) via **MegaFLUO® LEPTOSPIRA** or micro agglutination test (MAT*). The advantage of this combined IgM/IgG two-step diagnostics is a better distinction between infection and vaccination induced antibody titres.

*MAT: differentiation of the single serovars

Distribution:

EN 09-2019

