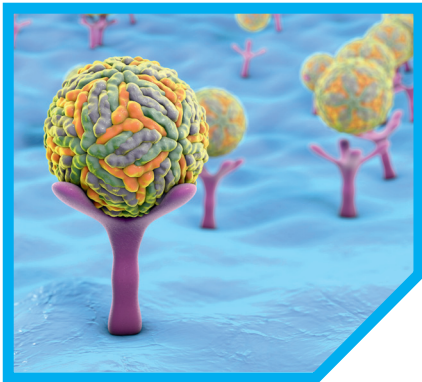


# TICK-BORNE ENCEPHALITIS VIRUS

## ELISA DETECTION OF IgG AND IgM ANTIBODIES

- Tick-borne encephalitis diagnostics
- Monitoring of antibodies level after vaccination



# TICK-BORNE ENCEPHALITIS VIRUS

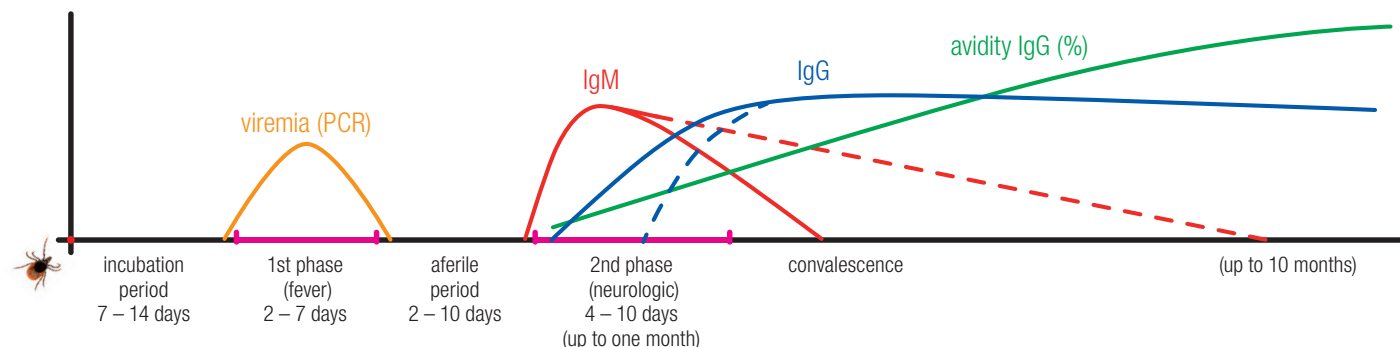
Tick-borne encephalitis diagnostics

Differential diagnostics of neuroinfections

Monitoring of antibodies level after vaccination

Tick borne encephalitis virus (TBEV, here European subtype) belongs to the *Flaviviridae* family, genus *Flavivirus*. Virions with size around 40-60 nm have almost smooth surface with tiny spikes. The virus is spread by all life cycle stages of ticks *Ixodes ricinus*. The reservoir hosts of the infection are small vertebrates. The ticks can infect cattle, mainly sheeps and goats, which graze in the area of natural outbreak of infection. The virus is then excreted into the milk produced by these animals.

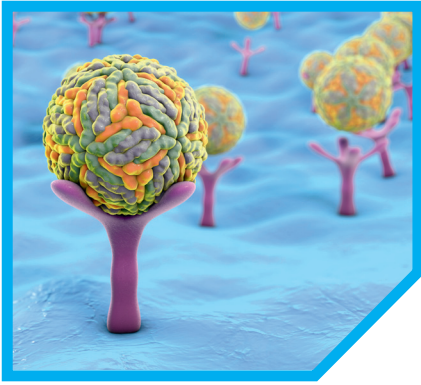
The TBEV infection in human has 2 stages. The first stage has symptoms of flu-like disease and after several days remission, the symptoms of meningeal and cerebral impairment occurs. The laboratory diagnostics uses the following techniques: complement-fixation reaction, hemagglutination-inhibition test and mainly ELISA tests. IgM antibodies are produced within several days, but even after one month after the infection. They are followed by IgG antibodies production with the increasing avidity in time. The phase of the infection can be determined using these markers (see the figure below).



## Intended use and testing

ELISA-VIDITEST anti-TBEV IgG, avidity IgG and ELISA-VIDITEST anti-TBEV IgM kits are intended for the diagnostics of the infection caused by Tick borne encephalitis virus e.g. encephalitis or meningoencephalitis. The kits can be also used for the differential diagnostics of neuroinfections and follow-up of the protective antibody titres in vaccinated people.

ELISA-VIDITEST anti-TBEV kits contain ready to use conjugate, controls and interchangeable VIDIA buffers, which make the kits user-friendly and easy to use. They offer the determination of IgG as well as IgM antibodies in serum and also in cerebrospinal fluid samples.



# TICK-BORNE ENCEPHALITIS VIRUS

## ELISA DETECTION OF IgG AND IgM ANTIBODIES

- Samples: serum, cerebrospinal fluid
- Semiquantitative data evaluation
- Interchangeable VIDIA buffers
- Ready to use conjugate and controls
- Incubation times 30'/30'/15' at 37 °C
- CE mark



## Diagnostic sensitivity and specificity

### ELISA-VIDITEST anti-TBEV IgG

The diagnostic sensitivity was determined using the samples with expected positivity for IgG anti-TBEV (vaccinated people, patients with acute or past TBEV infection). The diagnostic sensitivity of the test is 98.5%. Agreement with another commercial test was 98.5%.

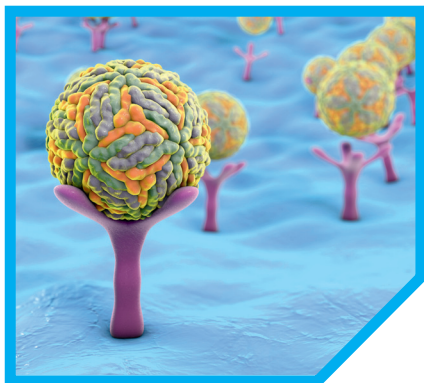
The diagnostic specificity was determined using anti-TBEV IgG negative serum samples from unvaccinated blood donors. The specificity of the test was >99% and agreement with an alternative commercial test was 94.8%.

### ELISA-VIDITEST anti-TBEV IgM

Diagnostic sensitivity was evaluated using 28 IgM anti-TBEV-positive serum samples from patients with serologically and clinically confirmed tick-borne encephalitis. Diagnostic sensitivity was >99% and the results agreement with comparative commercial IVD test was 100%.

Diagnostic specificity was evaluated using 97 serum samples from healthy blood donors and was found 97.9%. The results agreement with comparative commercial IVD test was 96.7%.





# TICK-BORNE ENCEPHALITIS VIRUS

ELISA DETECTION OF IgG AND IgM ANTIBODIES

## Advantages



- › Determination IgG and IgM in serum and cerebrospinal fluid samples
- › Avidity IgG determination
- › Interchangeable VIDIA buffers
- › Ready to use controls and conjugate
- › Compatible with **VIDIMAT**

## Ordering information

REF	Product	Wells	Sensitivity/specificity
ODZ-192	ELISA-VIDITEST anti-TBEV IgG	96	98.5 % / >99 %
ODZ-170	ELISA-VIDITEST anti-TBEV IgG and IgG avidity	96	98.5 % / >99 %
ODZ-194	ELISA-VIDITEST anti-TBEV IgM	96	100 % / 97.9 %



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ISO 13485:2012



Czech IVD producer

