

## Native TBEV Lysate (Strain Moscow B-4)

**Cat. No.** TIC-587    **Lot. No.** (See product label)

### SPECIFICATION

#### Product Overview

Tick-Borne Encephalitis Virus Lysate (Strain Moscow B-4) has been manufactured for the detection of IgG and IgM antibodies against TBE.

#### Background

The tick-borne encephalitis (TBE) complex is a group of enveloped, non-segmented, positive-sensed single-stranded RNA viruses within the genus *Flavivirus* (family *Flaviviridae*) (Lasala & Holbrook, 2010). Many of the viruses of the TBE complex are significant human pathogens, such as tick-borne encephalitis virus (TBEV), Omsk haemorrhagic fever virus (OHFV), Kyasanur forest disease virus (KFDV), and Powassan virus (POWV), and have a wide global distribution spanning North America, Europe, the Middle East, and Asia (Dobler, 2010). Despite the high degree of sequence similarity, members of the TBE complex cause a wide range of diseases including encephalitis (e.g., TBEV, louping ill virus (LIV), POWV) to haemorrhagic fever (e.g., OHFV, KFDV, AHFV). Outbreaks of many of the tick-borne flaviviruses are quite common, with TBEV causing an average of 2,600 cases annually in Europe alone (Lasala & Holbrook, 2010).

Since its discovery, TBEV has been a major target for vaccine development, and remains the only tick-borne flavivirus for which a vaccine is widely available (Ishikawa et al., 2014). There are three subtypes of TBEV, namely the Far-Eastern, Siberian and European subtypes (Ecker et al., 1999). Vaccines are derived from primary chicken embryo cells infected with either TBEV Neudörfl (European subtype; FSME-Immun), TBEV K23 (European subtype; Encepur), TBEV Sofjin (Far-Eastern subtype; TBE Moscow), or TBEV Strain 205 (Far-Eastern subtype; Encevir) (Kollaritsch et al., 2012). It has been shown that Tick-borne encephalitis virus vaccination may protect against most of the members of the tick-borne encephalitis complex including

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Kyasanur forest disease virus and Alkhumra virus, but that neutralisation of Powassan virus following tick-borne encephalitis vaccination is minimal (McAuley et al., 2017).

**Formulation** glycine buffer at pH 9.5.

**Applications** For immunoassay development or other applications

**Notes** This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.

**Type** Native

**ClassID 1** Infectious Disease

## GENE INFORMATION

**Synonyms** Tick-Borne Encephalitis Virus Lysate (Strain Moscow B-4)

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