

Transmissible Gastroenteritis Virus (TGEV) Monoclonal Antibodies

ORDERING INFORMATION

Catalog No.	Clone No.	MAb Subtype	Size	Library Pack No.	100ug/clone
18001	TGEV10-116.3.3	IgG1	100ug, 500ug	180101	All 4 clones
18002	TGEV11-314.6	IgG1	100ug, 500ug		
18003	TGEV15-886.6	IgG2a	100ug, 500ug		
18004	TGEV15-948.2.1	IgG2a	100ug, 500ug		

Format: Purified antibody in PBS, pH 7.4

BACKGROUND

Transmissible Gastroenteritis (TGEV) is an enveloped Coronavirus with a positive-sense single-stranded RNA genome and a helical symmetry. The genomic size of coronaviruses is approximately 28.6 kilobases. Proteins that contribute to the overall structure of TGEV include the spike (S), envelope (E), membrane (M) and nucleocapsid (N). Other coronaviruses belonging to this family include Feline coronavirus (FeCV), Canine coronavirus (CCV), and Feline infectious peritonitis virus (FIPV). TGEV infects pigs. However, in young pigs, the mortality rate is close to 100%. The pathology of TGEV is similar to that of other coronaviruses. Coronaviruses enter the host by first attaching to the host cell using the spike glycoprotein. The S protein interacts with the porcine aminopeptidase N (pAPN), a cellular receptor, to aid in its entry. A domain in the S spike protein is recognized by pAPN, and transfection of pAPN occurs to nonpermissive cells and infects them with TGEV. Once the virus infects the host, it multiplies in the cell lining of the small intestine resulting in the loss of absorptive cells that in turn leads to shortening of villi. The infected swine then has reduced capability for digesting food and die from dehydration.

SPECIFICATION SUMMARY

Antigen: TGEV-infected ST cells

Host Species: Mouse

Specificity: These antibodies recognize TGEV and do not cross-react with FIPV, FeCV, or CCV. #18003 and #18004 can neutralize TGEV *in vitro*.

APPLICATIONS

These antibodies have been qualified for use in ELISA to detect TGEV. #18003 and #18004 may be used in TGEV neutralization assays. Endusers should determine optimal concentrations for their applications.

DILUTION INSTRUCTIONS

Dilute in PBS or medium that is identical to that used in the assay system.

STORAGE AND STABILITY

These antibodies are stable for at least one (1) year at -20° to -70°C. Store product in appropriate aliquots to avoid multiple freeze-thaw cycles.

For in vitro investigational use only. Not intended for use in therapeutic or diagnostic procedures.