

DESCRIPTION

Species Reactivity	MERS-CoV
Specificity	Detects Mouse MERS-CoV Nucleocapsid in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 1038729
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>Spodoptera frugiperda</i> insect ovarian cell line SF21-derived mouse MERS-CoV Nucleocapsid Met1-Thr411 Accession # YP_007188586.1
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MERS-CoV, which causes the Middle East Respiratory Syndrome (MERS), belongs to a family of viruses known as coronaviruses that are commonly comprised of four structural proteins: Spike protein (S), Envelope protein (E), Membrane protein (M), and Nucleocapsid protein (N) (1). While the S, E and M proteins build up the viral envelope, the N protein is involved transcription, replication and packaging of the viral RNA genome into a helical ribonucleocapsid (RNP) (1, 2). The MERS-CoV N protein is a ~45 kDa protein composed of two independent structural domains connected by a linker region. The N-terminal region contains an Intrinsically Disordered Region (3) and an RNA binding domain (4), the linker region interacts with the M protein and the C-terminal region contains a self-association domain (1, 2). The MERS-CoV N protein shares 46.3% and 4.5% amino acid sequence identity with SARS-CoV-1 and SARS-CoV-2 N protein, respectively. MERS-CoV N proteins have been shown to inhibit Type I Interferon (IFN) production (1). In addition, the N protein is an abundant protein during coronavirus infection and displays high immunogenic activity, making it a promising therapeutic target (5-7).

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