

DATA SHEET

Product Name: Anti-MERS-CoV S1 Mouse IgG1 Antibody

Catalog #: CV-2008

Antibody Type: Monoclonal

Host/Isotype Mouse / IgG1

Reactivity Species: No cross reactivity with SARS Coronavirus

Specificity: MERS Coronavirus Spike Protein S1 domain

Supplied As: Liquid in 10 mM PBS, pH 7.2, 0.1% sodium azide

Storage: Short Term: 2-8°C. Long Term: -20°C. Avoid repeated freezing and thawing

Description: MERS-CoV belongs to the family of Coronaviridae and is characterized by large positive-sense RNA genome, that is 28 kb in length. One unique feature of MERS-CoV is that two-thirds of the viral genome is translated into two large polyproteins whereas the remaining viral genome is transcribed into sub-genomic RNAs. The two large polyproteins encode multiple non-structural proteins that play an important role in viral replication and transcription. MERSCoV transcribes multiple sub-genomic RNAs that encode four structural proteins, namely, envelope (E), membrane (M), spike (S), and nucleocapsid (N). The Spike (S) protein is a 180 kDa type I glycosylated transmembrane protein, that assembles as a trimer on the surface of the virus, hence the coronavirus appears crownshaped (In Latin, corona means crown). The ectodomain of the Spike protein consists of two domains: S1 domain whose main function is receptor binding, and S2 domain whose main function is membrane fusion. S1 binds to the cell surface receptor of host for attachment during the viral entry, this induces conformational change in the S2, thus enabling the fusion of host and viral membranes and ultimately entry of the viral genome in the host cell.

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