SARS-CoV-2 Envelope Alexa Fluor® 594-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 1044554

Catalog Number: FAB10925T

100 µg

DESCRIPTION

Species Reactivity	SARS-CoV-2
Specificity	Detects human SARS2-CoV-2 Envelope in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 1044554
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human SARS2-CoV-2 Envelope Thr35-Val75 Accession # YP_009724392
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.*

Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	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

The SARS-CoV-2 Envelope protein is one of the four major structural proteins of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), the causative agent of COVID-19 (1). The envelope protein is the smallest of the four structural proteins, which also includes the membrane protein, spike protein, and nucleocapsid protein (1, 2). The envelope protein is synthesized as a 75 amino acid protein with a theoretical molecular weight of approximately 8.4 kDa (2, 3). Furthermore, the envelope protein of SARS-CoV-2 has 94.7% sequence identity and 97.4% sequence similarity to the envelope protein of SARS-CoV (2). Structurally, the envelope protein is a membrane protein with a N-terminal domain, an alpha-helical transmembrane domain, and a hydrophilic C-terminal domain (1, 4). The envelope protein has multiple functions in viral replication including viral assembly, release, and pathogenesis (2, 4). Additionally, the SARS-CoV-2 envelope protein has ion channel activity and functions as a viroporin with a role in virion trafficking (2,4). Coronaviruses lacking the envelope protein are shown to have reduced viral titer and slowed or defective maturation, indicative of a role in virus production and growth (4).

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