

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TMPRSS9 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 1042528
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human TMPRSS9 Glu190-Gln490 Accession # Q7Z410
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

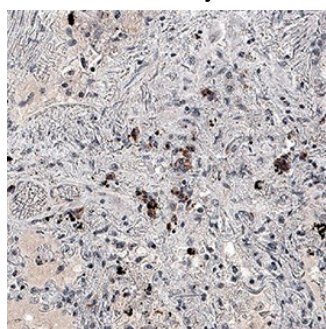
APPLICATIONS

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.

	Recommended Concentration	Sample
Immunohistochemistry	5-25 µg/mL	Immersion fixed paraffin-embedded sections of SARS-CoV-2 infected human lung

DATA

Immunohistochemistry



TMPRSS9 in SARS-CoV-2 infected Human lung. TMPRSS9 was detected in immersion fixed paraffin-embedded sections of SARS-CoV-2 infected human lung using Mouse Anti-Human TMPRSS9 Monoclonal Antibody (Catalog # MAB5688) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to immunoreactive profiles scattered throughout the tissue. Staining was performed using our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TMPRSS9 (Transmembrane protease, Serine 9; also Polyserine protease 1) is a 116-120 kDa (predicted) member of the TTSP family of membrane-bound serine proteases. It is expressed in fetal tissue, and converts pro-uPA into its active form. Human TMPRSS9 is a 1059 type II transmembrane (TM) protein. It has a 29 aa N-terminal cytoplasmic region and a 1008 aa extracellular domain (ECD) (aa 51-1059). The ECD contains one LDLR region (aa 153-190), followed by three Peptidase S1 domains (aa 203-436, 504-736, and 827-1058), the first two of which are catalytically active. Proteolytic cleavage can generate a soluble 34 kDa Serase 1 (aa 203-503), a 35 kDa Serase 2 (aa 504-826) and an inactive 25 kDa Serase 3 (aa 827-1059). Alternatively, truncated, TM forms of TMPRSS9 such as a 56 kDa TM isotype containing only the Serase 1 domain, or a 91 kDa (predicted) form containing the Serase 1, 2 and 3 domains may exist. Two potential splice forms are reported. One shows an insertion of 34 aa after Lys90 accompanied by a seven aa substitution for aa 491-1059. A second isoform shows a 34 aa substitution for aa 822-1059. Over aa 190-490, human TMPRSS9 shares 79% aa identity with mouse TMPRSS9.