

TMPRSS11D (C-9): sc-515673

BACKGROUND

TMPRSS11D (transmembrane protease, serine 11D), also known as HAT, is a 418 amino acid single-pass type II membrane protein that contains one SEA domain and one peptidase S1 domain. Expressed in bronchi and trachea, TMPRSS11D functions as a monomer that cleaves the C-terminal side of arginine residues at the P1 position of certain peptides and, via this catalytic activity, plays a role in the host defense system. TMPRSS11D is inhibited by diisopropyl fluorophosphate, leupeptin, antipain and aprotinin and is subject to post-translational cleavage which results in the formation of an active, secreted peptide. The gene encoding TMPRSS11D maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

REFERENCES

1. Yasuoka, S., et al. 1997. Purification, characterization, and localization of a novel trypsin-like protease found in the human airway. *Am. J. Respir. Cell Mol. Biol.* 16: 300-308.
2. Yamaoka, K., et al. 1998. Cloning and characterization of the cDNA for human airway trypsin-like protease. *J. Biol. Chem.* 273: 11895-11901.
3. Takahashi, M., et al. 2001. Localization of human airway trypsin-like protease in the airway: an immunohistochemical study. *Histochem. Cell Biol.* 115: 181-187.
4. Miki, M., et al. 2003. Effect of human airway trypsin-like protease on intracellular free Ca²⁺ concentration in human bronchial epithelial cells. *J. Med. Invest.* 50: 95-107.
5. Iwakiri, K., et al. 2004. Human airway trypsin-like protease induces PAR-2-mediated IL-8 release in psoriasis vulgaris. *J. Invest. Dermatol.* 122: 937-944.

CHROMOSOMAL LOCATION

Genetic locus: TMPRSS11D (human) mapping to 4q13.2; Tmprss11d (mouse) mapping to 5 E1.

SOURCE

TMPRSS11D (C-9) is a mouse monoclonal antibody raised against amino acids 39-194 mapping near the N-terminus of TMPRSS11D of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMPRSS11D (C-9) is available conjugated to agarose (sc-515673 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515673 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515673 PE), fluorescein (sc-515673 FITC), Alexa Fluor® 488 (sc-515673 AF488), Alexa Fluor® 546 (sc-515673 AF546), Alexa Fluor® 594 (sc-515673 AF594) or Alexa Fluor® 647 (sc-515673 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515673 AF680) or Alexa Fluor® 790 (sc-515673 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TMPRSS11D (C-9) is recommended for detection of TMPRSS11D of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TMPRSS11D siRNA (h): sc-89121, TMPRSS11D siRNA (m): sc-106622, TMPRSS11D shRNA Plasmid (h): sc-89121-SH, TMPRSS11D shRNA Plasmid (m): sc-106622-SH, TMPRSS11D shRNA (h) Lentiviral Particles: sc-89121-V and TMPRSS11D shRNA (m) Lentiviral Particles: sc-106622-V.

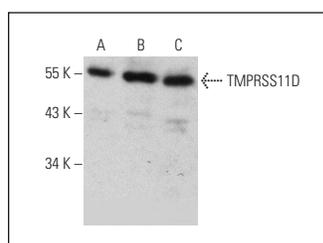
Molecular Weight of TMPRSS11D: 46 kDa.

Positive Controls: NFS-25 C-3 whole cell lysate: sc-364787, WR19L cell lysate: sc-3805 or WEHI-231 whole cell lysate: sc-2213.

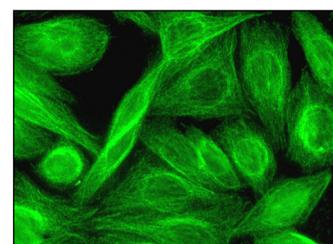
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TMPRSS11D (C-9): sc-515673. Western blot analysis of TMPRSS11D expression in WR19L (A), WEHI-231 (B) and NFS-25 C-3 (C) whole cell lysates.



TMPRSS11D (C-9): sc-515673. Immunofluorescence staining of formalin-fixed SW480 cells showing membrane and cytoskeletal localization.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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