

# TMPRSS11D (E-12): sc-104701

## 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 Ca<sup>2+</sup> concentration in human bronchial epithelial cells. *J. Med. Invest.* 50: 95-107.

## CHROMOSOMAL LOCATION

Genetic locus: TMPRSS11D (human) mapping to 4q13.2.

## SOURCE

TMPRSS11D (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TMPRSS11D of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-104701 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

TMPRSS11D (E-12) is recommended for detection of TMPRSS11D of human origin by Western Blotting (starting dilution 1:200, 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 shRNA Plasmid (h): sc-89121-SH and TMPRSS11D shRNA (h) Lentiviral Particles: sc-89121-V.

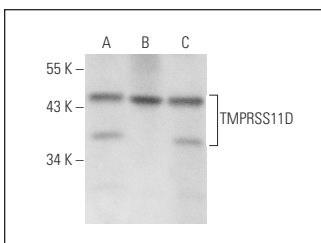
Molecular Weight of TMPRSS11D: 46 kDa.

Positive Controls: NCI-H460 whole cell lysate: sc-364235, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TMPRSS11D (E-12): sc-104701. Western blot analysis of TMPRSS11D expression in HeLa (A), Hep G2 (B) and NCI-H460 (C) whole cell lysates.

## RESEARCH USE

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