

TMPRSS11E (I-13): sc-169638

BACKGROUND

TMPRSS11E (transmembrane protease serine 11E) is a 423 amino acid single-pass type II membrane protein that belongs to the peptidase S1 family and contains one peptidase S1 domain and one SEA domain. As a serine protease which possesses both gelatinolytic and caseinolytic activities, TMPRSS11E shows a preference for Arg in the P1 position. TMPRSS11E expression can be detected in tissues derived from head, neck, skin, prostate and testis. The gene that encodes TMPRSS11E consists of around 50,156 bases and maps to human chromosome 4q13.2. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is encoded by a gene that maps to chromosome 4. FGFR-3 is also encoded by a gene located on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Bonaventure, J., et al. 1996. Common mutations in the fibroblast growth factor receptor 3 (FGFR 3) gene account for achondroplasia, hypochondroplasia, and thanatophoric dwarfism. *Am. J. Med. Genet.* 63: 148-154.
2. Kalchman, M.A., et al. 1996. Huntingtin is ubiquitinated and interacts with a specific ubiquitin-conjugating enzyme. *J. Biol. Chem.* 271: 19385-19394.
3. Singhrao, S.K., et al. 1998. Huntingtin protein colocalizes with lesions of neurodegenerative diseases: An investigation in Huntington's, Alzheimer's, and Pick's diseases. *Exp. Neurol.* 150: 213-222.
4. Krakow, D., et al. 2000. Exclusion of the Ellis-van Creveld region on chromosome 4p16 in some families with asphyxiating thoracic dystrophy and short-rib polydactyly syndromes. *Eur. J. Hum. Genet.* 8: 645-648.
5. Lang, J.C. and Schuller, D.E. 2001. Differential expression of a novel serine protease homologue in squamous cell carcinoma of the head and neck. *Br. J. Cancer* 84: 237-243.
6. Sommardahl, C., et al. 2001. Phenotypic variations of orpk mutation and chromosomal localization of modifiers influencing kidney phenotype. *Physiol. Genomics* 7: 127-134.

CHROMOSOMAL LOCATION

Genetic locus: *Tmprss11e* (mouse) mapping to 5 E1.

SOURCE

TMPRSS11E (I-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TMPRSS11E of mouse 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-169638 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMPRSS11E (I-13) is recommended for detection of TMPRSS11E of mouse and rat 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); non cross-reactive with other TMPRSS11 Family members.

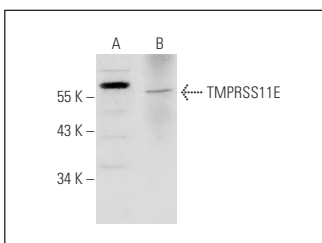
Suitable for use as control antibody for TMPRSS11E siRNA (m): sc-154523, TMPRSS11E shRNA Plasmid (m): sc-154523-SH and TMPRSS11E shRNA (m) Lentiviral Particles: sc-154523-V.

Positive Controls: Mouse lymph node extract: sc-364243 or Neuro-2A whole cell lysate: sc-364185.

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



TMPRSS11E (I-13): sc-169638. Western blot analysis of TMPRSS11E expression in Neuro-2A whole cell lysate (A) and mouse lymph node tissue extract (B).

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.