SANTA CRUZ BIOTECHNOLOGY, INC.

TMPRSS13 (S-18): sc-324439

BACKGROUND

TMPRSS13 (transmembrane protease serine 13), also known as MSP (membrane-type mosaic serine protease), is a 581 amino acid single-pass type II membrane protein that belongs to the peptidase S1 family and exists as 5 alternatively spliced isoforms. Isoform 1 and isoform 3 are predominantly expressed in lung, placenta, pancreas and prostate, while isoform 3 is additionally expressed at weak levels in testis and peripheral blood lymphocytes. TMPRSS13 contains one LDL-receptor class A domain, one peptidase S1 domain and one SRCR domain. The gene that encodes TMPRSS13 consists of around 28,817 bases and maps to human chromosome 11q23.3. Chromosome 11 houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

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6. Hsiao, C.H., Yao, C., Storlie, P., Donelson, J.E. and Wilson, M.E. 2008. The major surface protease (MSP or GP63) in the intracellular amastigote stage of *Leishmania chagasi*. Mol. Biochem. Parasitol. 157: 148-159.

CHROMOSOMAL LOCATION

Genetic locus: TMPRSS13 (human) mapping to 11q23.3; Tmprss13 (mouse) mapping to 9 A5.2.

SOURCE

TMPRSS13 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of TMPRSS13 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-324439 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMPRSS13 (S-18) is recommended for detection of TMPRSS13 of mouse, rat and 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); non cross-reactive with other TMPRSS family members.

TMPRSS13 (S-18) is also recommended for detection of TMPRSS13 in additional species, including canine.

Suitable for use as control antibody for TMPRSS13 siRNA (h): sc-96281, TMPRSS13 siRNA (m): sc-154526, TMPRSS13 shRNA Plasmid (h): sc-96281-SH, TMPRSS13 shRNA Plasmid (m): sc-154526-SH, TMPRSS13 shRNA (h) Lentiviral Particles: sc-96281-V and TMPRSS13 shRNA (m) Lentiviral Particles: sc-154526-V.

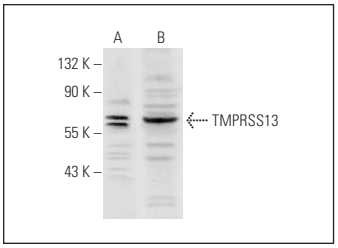
Molecular Weight of TMPRSS13 isoforms: 63/60/57/52/59 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse testis extract: sc-2405 or Neuro-2A whole cell lysate: sc-364185.

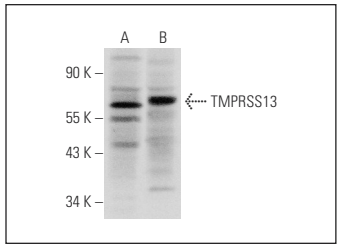
RECOMMENDED SECONDARY REAGENTS

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



TMPRSS13 (S-18): sc-324439. Western blot analysis of TMPRSS13 expression in HeLa whole cell lysate (**A**) and mouse testis tissue extract (**B**).



TMPRSS13 (S-18): sc-324439. Western blot analysis of TMPRSS13 expression in Hep G2 (**A**) and Neuro-2A (**B**) whole cell lysates.

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.