10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

TMPRSS2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7377a

Specification

TMPRSS2 Antibody (N-term) - Product Information

Application	**IHC-P, FC, WB,E**
Primary Accession	O15393
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1-30**

TMPRSS2 Antibody (N-term) - Additional Information

Gene ID 7113

Other Names
Transmembrane protease serine 2, 3421-, Serine protease 10, Transmembrane protease serine 2 non-catalytic chain, Transmembrane protease serine 2 catalytic chain, TMPRSS2, PRSS10

Target/Specificity
This TMPRSS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human TMPRSS2.

Dilution
IHC-P~~1:50~100
FC~~1:10~50
WB~~1:1000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
TMPRSS2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TMPRSS2 Antibody (N-term) - Protein Information

Name TMPRSS2 (HGNC:11876)

Synonyms PRSS10

Function Plasma membrane-anchored serine protease that cleaves at arginine residues (PubMed:32703818, PubMed:35676539, PubMed:37990007, PubMed:38964328). Participates in proteolytic cascades of relevance for the normal physiologic function of the prostate (PubMed:25122198). Androgen-induced TMPRSS2 activates several substrates that include pro-hepatocyte growth factor/HGF, the protease activated receptor-2/F2RL1 or matriptase/ST14 leading to extracellular matrix disruption and metastasis of prostate cancer cells (PubMed:15537383, PubMed:25122198, PubMed:26018085). In addition, activates trigeminal neurons and contribute to both spontaneous pain and mechanical allodynia (By similarity).

Cellular Location
Cell membrane; Single-pass type II membrane protein

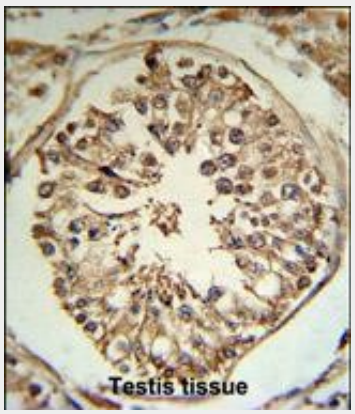
Tissue Location
Expressed in several tissues that comprise large populations of epithelial cells with the highest level of transcripts measured in the prostate gland. Expressed in type II pneumocytes in the lung (at protein level). Expressed strongly in small intestine. Also expressed in colon, stomach and salivary gland. Coexpressed with ACE2 within lung type II pneumocytes, ileal absorptive enterocytes, intestinal epithelial cells, cornea, gallbladder and nasal goblet secretory cells (Ref.21). {ECO:0000269|PubMed:11169526, ECO:0000269|PubMed:20382709, ECO:0000269|PubMed:21325420, ECO:0000269|PubMed:32404436, ECO:0000269|Ref.21}

TMPRSS2 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TMPRSS2 Antibody (N-term) - Images



TMPRSS2 Antibody (N-term) (RB18784) IHC analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the TMPRSS2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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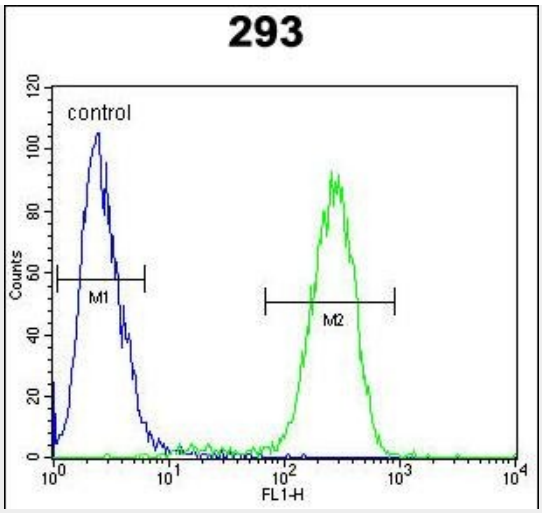
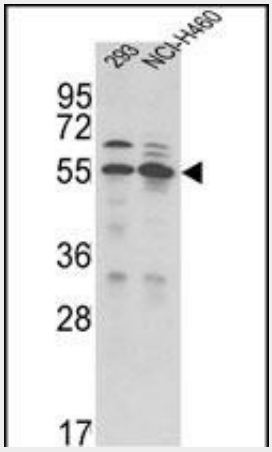


TMPRSS2 Antibody (N-term) (Cat. #AP7377a) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Western blot analysis of TMPRSS2 Antibody (N-term) (Cat. #AP7377a) in 293, NCI-H460 cell line lysates (35ug/lane). TMPRSS2 (arrow) was detected using the purified Pab.

TMPRSS2 Antibody (N-term) - Background

TMPRSS2 is a protein that belongs to the serine protease family. The protein contains a type II transmembrane domain, a receptor class A domain, a scavenger receptor cysteine-rich domain and a protease domain. Serine proteases are known to be involved in many physiological and pathological processes. Its gene was demonstrated to be up-regulated by androgenic hormones in prostate cancer cells and down-regulated in androgen-independent prostate cancer tissue. The protease domain of this protein is thought to be cleaved and secreted into cell media after autocleavage.

TMPRSS2 Antibody (N-term) - References

Gopalan,A., Cancer Res. 69 (4), 1400-1406 (2009)
Hofer,M.D., Cancer Res. 69 (2), 640-646 (2009)