

TMPRSS2 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7377a**Specification**

TMPRSS2 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O15393](#)**TMPRSS2 Antibody (N-term) Blocking Peptide - 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

The synthetic peptide sequence used to generate the antibody [AP7377a](/products/AP7377a) was selected from the N-term region of human TMPRSS2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TMPRSS2 Antibody (N-term) Blocking Peptide - Protein Information**Name** TMPRSS2 ([HGNC:11876](#))**Synonyms** PRSS10**Function**

Plasma membrane-anchored serine protease that cleaves at arginine residues (PubMed: [32703818](http://www.uniprot.org/citations/32703818), PubMed: [35676539](http://www.uniprot.org/citations/35676539), PubMed: [37990007](http://www.uniprot.org/citations/37990007), PubMed: [38964328](http://www.uniprot.org/citations/38964328)). Participates in proteolytic cascades of relevance for the normal physiologic function of the prostate (PubMed: [25122198](http://www.uniprot.org/citations/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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

TMPRSS2 Antibody (N-term) Blocking Peptide - Images

TMPRSS2 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - References

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