

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

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**TMPRSS2 Antibody (N-term) Blocking Peptide - Product Information**Primary 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)). 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](http://www.uniprot.org/citations/15537383), PubMed: [25122198](http://www.uniprot.org/citations/25122198), PubMed: [25122198](http://www.uniprot.org/citations/25122198)).

href="http://www.uniprot.org/citations/26018085" target="\_blank">26018085</a>). 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)