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Goat Anti-TMPRSS2 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2095a

Specification

Goat Anti-TMPRSS2 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	O15393
Other Accession	NP_005647, 7113
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**53859**

Goat Anti-TMPRSS2 Antibody - Additional Information

Gene ID 7113

Other Names
Transmembrane protease serine 2, 3.4.21.-, Serine protease 10, Transmembrane protease serine 2 non-catalytic chain, Transmembrane protease serine 2 catalytic chain, TMPRSS2, PRSS10

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-TMPRSS2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-TMPRSS2 Antibody - 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:<a

href="http://www.uniprot.org/citations/38964328" target="_blank">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}

Goat Anti-TMPRSS2 Antibody - 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

Goat Anti-TMPRSS2 Antibody - Images

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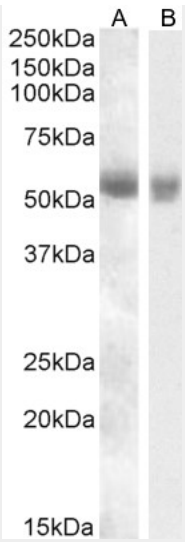
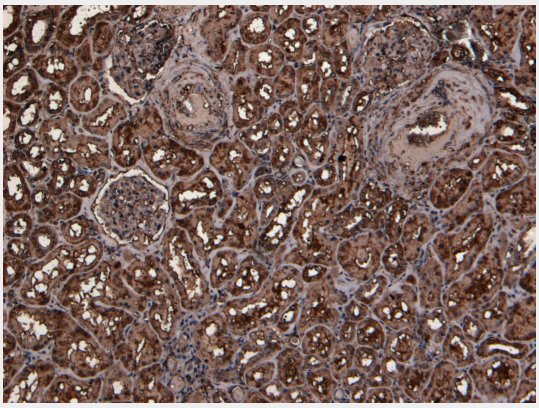
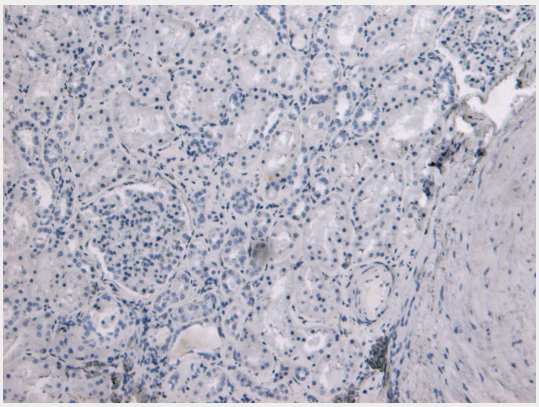


EB08219 (0.5µg/ml) staining of Human Pancreas and Kidney Lysates (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB08219 (8µg/ml) staining of paraffin embedded Human Kidney. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.



EB08219 Negative Control showing staining of paraffin embedded Human Kidney, with no primary antibody.

Goat Anti-TMPRSS2 Antibody - Background

This gene encodes a protein that belongs to the serine protease family. The encoded 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. This 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. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

Goat Anti-TMPRSS2 Antibody - References

Association of SPINK1 expression and TMPRSS2:ERG fusion with prognosis in endocrine-treated prostate cancer. Leinonen KA, et al. Clin Cancer Res, 2010 May 15. PMID 20442300.
Prevalence of TMPRSS2-ERG and SLC45A3-ERG gene fusions in a large prostatectomy cohort. Esgueva R, et al. Mod Pathol, 2010 Apr. PMID 20118910.
Prostate cancer genes associated with TMPRSS2-ERG gene fusion and prognostic of biochemical recurrence in multiple cohorts. Barwick BG, et al. Br J Cancer, 2010 Feb 2. PMID 20068566.
Induced chromosomal proximity and gene fusions in prostate cancer. Mani RS, et al. Science, 2009 Nov 27. PMID 19933109.
Functional screening of FxxLF-like peptide motifs identifies SMARCD1/BAF60a as an androgen receptor cofactor that modulates TMPRSS2 expression. van de Wijngaart DJ, et al. Mol Endocrinol, 2009 Nov. PMID 19762545.