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Anti-TMPRSS2 Rabbit Monoclonal Antibody
Catalog # ABO15758

Specification

Anti-TMPRSS2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, FC**
Primary Accession	O15393
Host	**Rabbit**
Isotype	**IgG**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-TMPRSS2 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Anti-TMPRSS2 Rabbit Monoclonal Antibody - Additional Information

Gene ID 7113

Other Names
Transmembrane protease serine 2, 3.4.21.122, Serine protease 10, Transmembrane protease serine 2 non-catalytic chain, Transmembrane protease serine 2 catalytic chain, TMPRSS2 (HGNC:11876), PRSS10

Calculated MW
54 kDa KDa

Application Details
WB 1:500-1:2000
IHC 1:100-1:500
ICC/IF 1:100-1:500
FC 1:60

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human TMPRSS2

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

Anti-TMPRSS2 Rabbit Monoclonal 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: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}

Anti-TMPRSS2 Rabbit Monoclonal 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

Anti-TMPRSS2 Rabbit Monoclonal Antibody - Images

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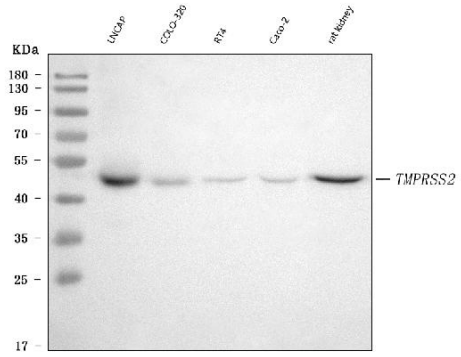

Figure 1. Western blot analysis of TMPRSS2 using anti-TMPRSS2 antibody (M00666).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human LNCAP whole cell lysates,
Lane 2: human COLO-320 whole cell lysates,
Lane 3: human RT4 whole cell lysates,
Lane 4: human Caco-2 whole cell lysates,
Lane 5: rat kidney tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TMPRSS2 antigen affinity purified monoclonal antibody (Catalog # M00666) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TMPRSS2 at approximately 54 kDa. The expected band size for TMPRSS2 is at 54 kDa.

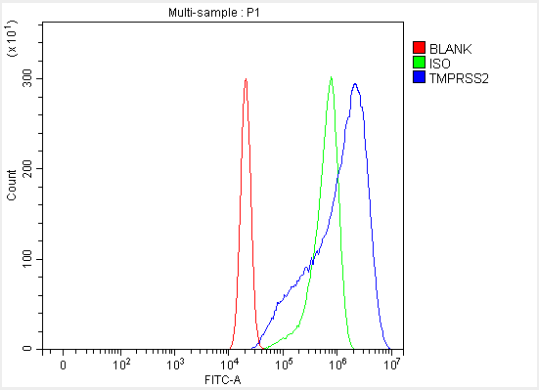

Figure 2. Flow Cytometry analysis of U2OS cells using anti-TMPRSS2 antibody (M00666).
Overlay histogram showing U2OS cells stained with M00666 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-TMPRSS2 Antibody (M00666) at 1:60 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) at 1:60 was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:60 used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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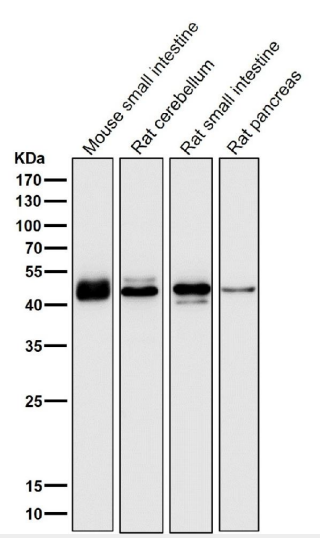
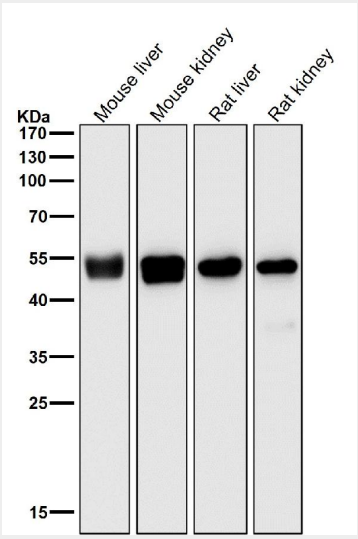


All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.