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Anti-TMPRSS2 Rabbit Monoclonal Antibody

Catalog # ABO15758

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.

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	53859
Application Details	WB 1:500-1:2000 IHC 1:100-1:500 ICC/IF 1:100-1:500 FC 1:60
Source	Eukaryota
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.
Clone Names	Clone: 23T34
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.

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}

Images

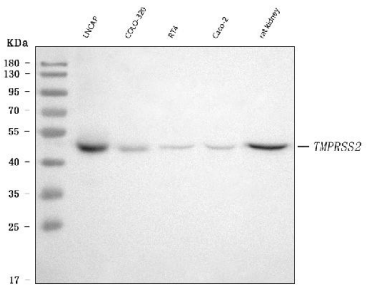
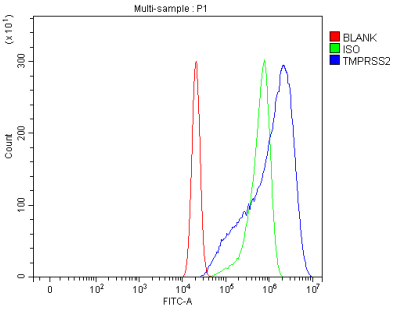
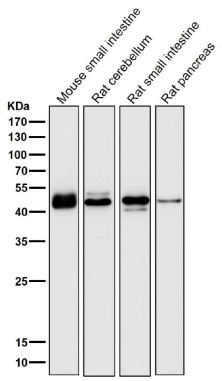


Figure 1. Western blot analysis of TMPRSS2 using anti-TMPRSS2 antibody (M00666).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human LNCAP 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.

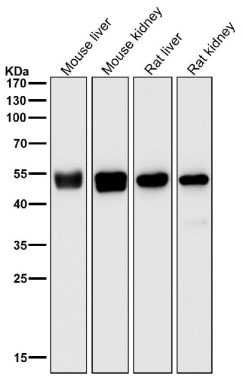
Figure 2. Flow Cytometry analysis of U2OS cells using anti-TMPRSS2 antibody (M00666).
Overlay histogram showing U2OS cells stained with M00666 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-TMPRSS2 Antibody (M00666) at 1:60 dilution for 30



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.



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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.