

TMPRSS2 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7377c

Product Information

Application	WB, FC, E
Primary Accession	O15393
Other Accession	Q9JIQ8
Reactivity	Human, Rat, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18785
Calculated MW	53859
Antigen Region	314-343

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	This TMPRSS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 314-343 amino acids from the Central region of human TMPRSS2.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	TMPRSS2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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}

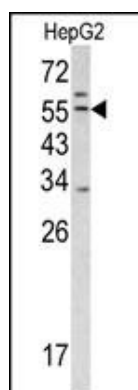
Background

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.

References

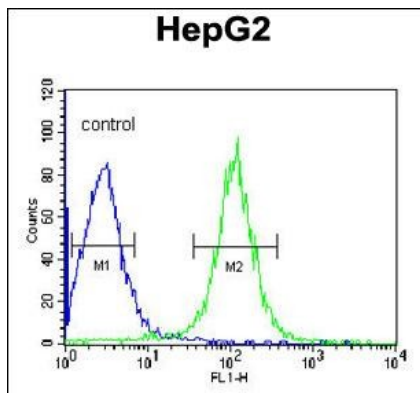
Gopalan,A., Cancer Res. 69 (4), 1400-1406 (2009)
Hofer,M.D., Cancer Res. 69 (2), 640-646 (2009)

Images



Western blot analysis of TMPRSS2 antibody (Center) (Cat. #AP7377c) in HepG2 cell line lysates (35ug/lane). TMPRSS2 (arrow) was detected using the purified Pab.

TMPRSS2 Antibody (Center) (Cat. #AP7377c) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary



antibodies were used for the analysis.

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