

For Research Use Only

TMPRSS2 Polyclonal antibody

Catalog Number: 14437-1-AP

35 Publications



Basic Information

Catalog Number: 14437-1-AP	GenBank Accession Number: BC051839	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 450 ug/ml by Nanodrop and 313 ug/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 7113	Recommended Dilutions: WB: 1:500-1:2000
Source: Rabbit	UNIPROT ID: O15393	IHC: 1:100-1:400
Isotype: IgG	Full Name: transmembrane protease, serine 2	IF-P: 1:50-1:500
Immunogen Catalog Number: AG5824	Calculated MW: 54 kDa	
	Observed MW: 70, 54, 31 kDa	

Applications

Tested Applications: WB, IHC, IF-P, ELISA	Positive Controls:
Cited Applications: WB, IHC, IF	WB : COLO 320 cells, Caco-2 cells, T-47D cells
Species Specificity: human, mouse, rat	IHC : human colon cancer tissue, human prostate cancer tissue, mouse kidney tissue
Cited Species: human, mouse, monkey	IF-P : human tonsillitis tissue,
Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0	

Background Information

TMPRSS2, also named as PRSS10, is a type II transmembrane serine protease which is highly expressed by the epithelium of the human prostate gland. TMPRSS2 may contribute to prostate tumour metastasis via the activation of PAR-2. TMPRSS2 is a Serine protease that proteolytically cleaves and activates the viral spike glycoproteins which facilitate virus-cell membrane fusions. TMPRSS2 is a host cell factor that is critical for the spread of several clinically relevant viruses, including influenza A viruses and coronaviruses (PMID: 23468491, 30626688). SARS-CoV-2 uses the SARS-CoV receptor ACE2 for entry and the serine protease TMPRSS2 for S protein priming. The initial spike protein priming by TMPRSS2 is essential for the entry and viral spread of SARS-CoV-2 through interaction with the ACE2 receptor (PMID: 32142651, 30626688). Camostat mesylate, an inhibitor of TMPRSS2, can block SARS-CoV-2 infection of lung cells (PMID: 32142651). The MW of TMPRSS2 is about 65-70 kDa. It can be cleaved into some chains with MW 54 kDa, 31 kDa and 26 kDa (PMID: 25734995, 20382709, 26018085).

Notable Publications

Author	Pubmed ID	Journal	Application
Jialu Qiao	33008593	Biochem Biophys Res Commun	WB
Min Zhang	33173719	Adv Sci (Weinh)	WB
Mehdi Baratchian	33083800	bioRxiv	WB

Storage

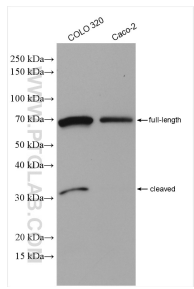
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

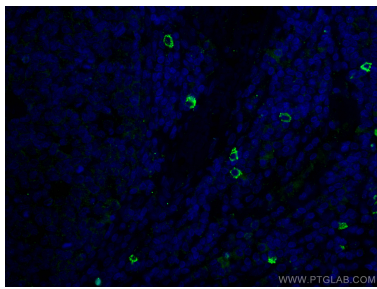
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

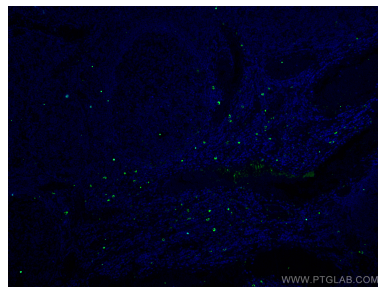
Selected Validation Data



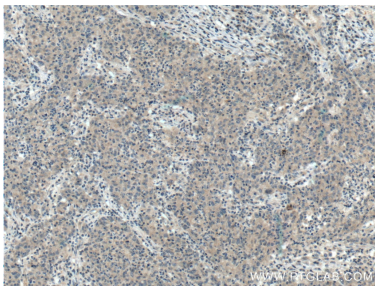
Various lysates were subjected to SDS PAGE followed by western blot with 14437-1-AP (TMPRSS2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



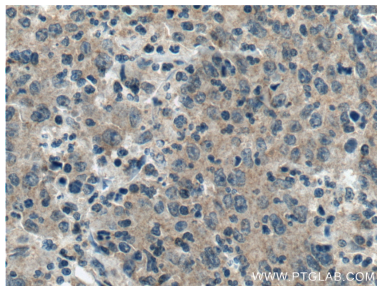
Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using TMPRSS2 antibody (14437-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L).



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Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 14437-1-AP (TMPRSS2 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 14437-1-AP (TMPRSS2 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).