

For Research Use Only

TMPRSS2 Polyclonal antibody

Catalog Number: 14437-1-AP **33 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 IHC 1:100-1:400 IF-P 1:50-1:500
Source: Rabbit	UNIPROT ID: O15393	
Isotype: IgG	Full Name: transmembrane protease, serine 2	
Immunogen Catalog Number: AG5824	Calculated MW: 54 kDa	
	Observed MW: 70, 54, 31 kDa	

Applications

Tested Applications: WB, IHC, IF-P, ELISA	Positive Controls: WB : COLO 320 cells, Caco-2 cells, T-47D cells IHC : human colon cancer tissue, human prostate cancer tissue, mouse kidney tissue IF-P : human tonsillitis tissue,
Cited Applications: WB, IHC, IF	
Species Specificity: human, mouse, rat	
Cited Species: human, mouse, monkey	

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 pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

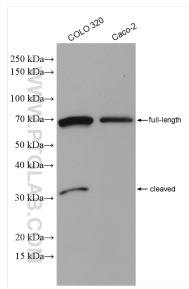
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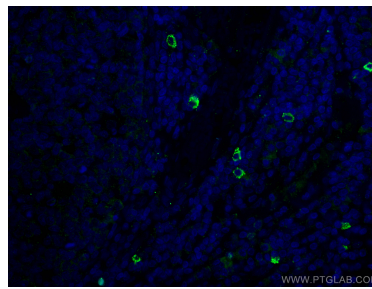
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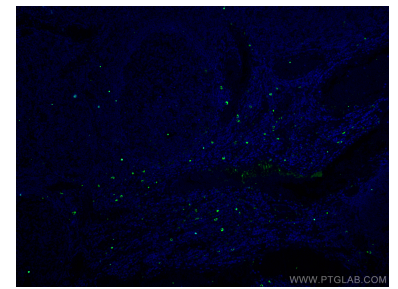
Selected Validation Data



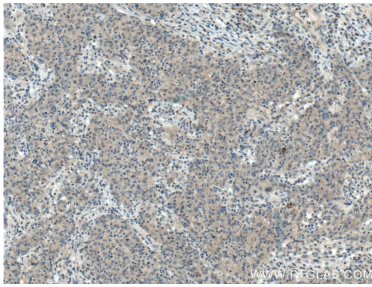
Various lysates were subjected to SDS PAGE followed by western blot with 14437-1-AP (TMPRSS2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



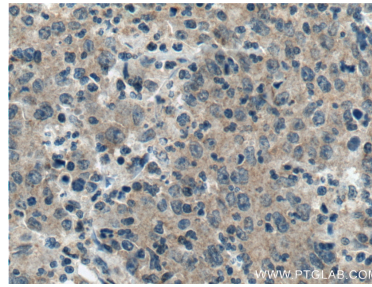
Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using TMPRSS2 antibody (14437-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L).



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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).