

For Research Use Only

TMPRSS2 Polyclonal antibody

Catalog Number: 14437-1-AP **28 Publications**



Basic Information

| | | |
|--|---|--|
| Catalog Number: 14437-1-AP | GenBank Accession Number: BC051839 | Purification Method: Antigen affinity purification |
| Size: 150ul , Concentration: 450 µg/ml by Nanodrop and 313 µg/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 1:50-1:500 |
| Source: Rabbit | Full Name: transmembrane protease, serine 2 | |
| Isotype: IgG | Calculated MW: 54 kDa | |
| Immunogen Catalog Number: AG5824 | Observed MW: 70, 54, 31 kDa | |

Applications

Tested Applications:

IF, IHC, WB, ELISA

Cited Applications:

IF, IHC, WB

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

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 : human tonsillitis tissue,

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

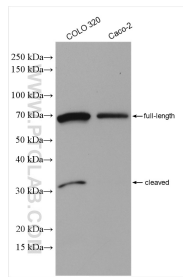
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

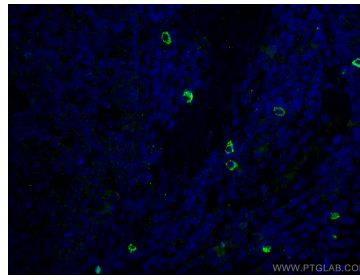
E: proteintech@ptglab.com
W: ptglab.com

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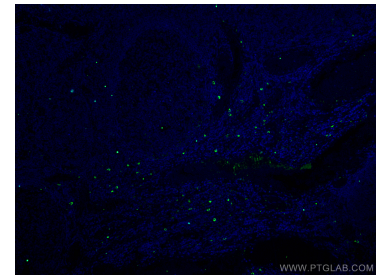
Selected Validation Data



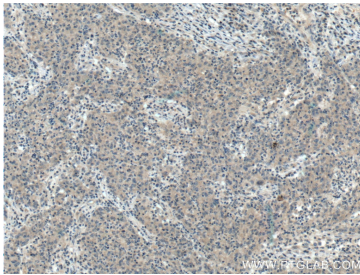
Various lysates were subjected to SDS PAGE followed by western blot with 14437-1-AP (TMPRSS2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



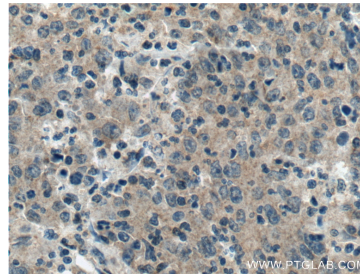
Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using TMPRSS2 antibody (14437-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



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



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).