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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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SANTA CRUZ BIOTECHNOLOGY, INC.

TMPRSS2 (H-4): sc-515727

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Extracellular proteases mediate the digestion of neighboring extracellular matrix components in initial tumor growth, allow desquamation of tumor cells into the surrounding environment, provide the basis for invasion of basement membranes in targeted metastatic organs and are required for release and activation of many growth and angiogenic factors. The TMPRSS2 gene encodes a 492 amino acid multimeric serine protease, which is mainly expressed in the mouse prostate and kidney, and is also expressed in the human small intestine, prostate, colon, stomach and salivary gland. TMPRSS2 contains several domains, including a serine protease domain of the S1 family, a scavenger receptor cysteine-rich domain of group A, an LDL receptor class A domain and a transmembrane domain. TMPRSS2 is expressed as a full length form and a cleaved protease domain and its expression is increased by androgenic hormones. TMPRSS2 is also expressed in prostate carcinoma, suggesting that it may play a role in prostate carcinogenesis.

CHROMOSOMAL LOCATION

Genetic locus: TMPRSS2 (human) mapping to 21q22.3; Tmprss2 (mouse) mapping to 16 C4.

SOURCE

TMPRSS2 (H-4) is a mouse monoclonal antibody raised against amino acids 296-345 mapping within an internal region of TMPRSS2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMPRSS2 (H-4) is available conjugated to agarose (sc-515727 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515727 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515727 PE), fluorescein (sc-515727 FITC), Alexa Fluor® 488 (sc-515727 AF488), Alexa Fluor® 546 (sc-515727 AF546), Alexa Fluor® 594 (sc-515727 AF594) or Alexa Fluor® 647 (sc-515727 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515727 AF680) or Alexa Fluor® 790 (sc-515727 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TMPRSS2 (H-4) is recommended for detection of TMPRSS2 catalytic chain of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

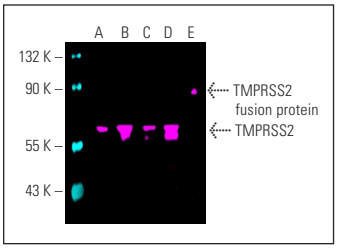
Suitable for use as control antibody for TMPRSS2 siRNA (h): sc-41658, TMPRSS2 siRNA (m): sc-154527, TMPRSS2 shRNA Plasmid (h): sc-41658-SH, TMPRSS2 shRNA Plasmid (m): sc-154527-SH, TMPRSS2 shRNA (h) Lentiviral Particles: sc-41658-V and TMPRSS2 shRNA (m) Lentiviral Particles: sc-154527-V.

Molecular Weight of TMPRSS2: 70 kDa.

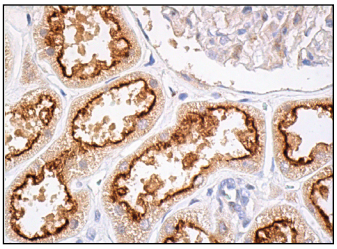
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



TMPRSS2 (H-4) Alexa Fluor® 546: sc-515727 AF546. Direct fluorescent western blot analysis of TMPRSS2 expression in Caco-2 (**A**), PC-3 (**B**), RT-4 (**C**) and LNCaP (**D**) whole cell lysates and human recombinant TMPRSS2 fusion protein (**E**). Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 647: sc-516791.



TMPRSS2 (H-4): sc-515727. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing apical membrane staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Bainbridge, A., et al. 2020. IKBKE activity enhances AR levels in advanced prostate cancer via modulation of the Hippo pathway. Nucleic Acids Res. 48: 5366-5382.
2. Zang, R., et al. 2020. TMPRSS2 and TMPRSS4 promote SARS-CoV-2 infection of human small intestinal enterocytes. Sci. Immunol. 5: eabc3582.
3. Katsura, H., et al. 2020. Human lung stem cell-based alveolospheres provide insights into SARS-CoV-2-mediated interferon responses and pneumocyte dysfunction. Cell Stem Cell 27: 890-904.e8.
4. Youk, J., et al. 2020. Three-dimensional human alveolar stem cell culture models reveal infection response to SARS-CoV-2. Cell Stem Cell 27: 905-919.e10.
5. Zhou, L., et al. 2020. MEK inhibitors reduce cellular expression of ACE2, pERK, pRb while stimulating NK-mediated cytotoxicity and attenuating inflammatory cytokines relevant to SARS-CoV-2 infection. Oncotarget 11: 4201-4223.
6. Schäfer, R., et al. 2020. Human mesenchymal stromal cells are resistant to SARS-CoV-2 infection under steady-state, inflammatory conditions and in the presence of SARS-CoV-2-infected cells. Stem Cell Reports. E-published.
7. Palanisamy, A. and Giri, T. 2021. Reduced SARS-CoV-2 entry factors and enhanced innate immune gene expression in the nasal epithelium of pregnant rats. Am. J. Obstet. Gynecol. 224: 118-120.
8. Mykytyn, A.Z., et al. 2021. SARS-CoV-2 entry into human airway organoids is serine protease-mediated and facilitated by the multibasic cleavage site. Elife 10: e64508.

RESEARCH USE

For research use only, not for use in diagnostic procedures.