

Datasheet for ABIN3109870

TMPRSS2 Protein (AA 256-492) (rho-1D4 tag)



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1 Image

Overview

Quantity:	1 mg
Target:	TMPRSS2
Protein Characteristics:	AA 256-492
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This TMPRSS2 protein is labelled with rho-1D4 tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence: IVGGESALPG AWPWQVSLHV QNVHVCGGSI ITPEWIVTAA HCVEKPLNNP WHWTAFAGIL
RQSFMFYAG YQVEKVISHP NYDSKTKNND IALMKLQKPL TFNDLVKPVCLPNPGMMLQP
EQLCWISGWG ATEEKGKTSE VLNAAKVLLI ETQRCNSRYV YDNLITPAMI CAGFLQGNVD
SCQGDSGGPL VTSKNNIWWL IGDTSWGSGC AKAYRPGVYG NVMVFTDWIY RQMRADG

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Human TMPRSS2 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
 - State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

Product Details

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none">1. Membrane proteins are fractioned by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatograph. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin-free.
Grade:	Crystallography grade

Target Details

Target:	TMPRSS2
Alternative Name:	TMPRSS2 (TMPRSS2 Products)
Background:	Serine protease that proteolytically cleaves and activates the viral spike glycoproteins which

Target Details

facilitate virus-cell membrane fusions, spike proteins are synthesized and maintained in precursor intermediate folding states and proteolysis permits the refolding and energy release required to create stable virus-cell linkages and membrane coalescence. Facilitates human SARS coronavirus (SARS-CoV) infection via two independent mechanisms, proteolytic cleavage of ACE2, which might promote viral uptake, and cleavage of coronavirus spike glycoprotein which activates the glycoprotein for cathepsin L-independent host cell entry. Proteolytically cleaves and activates the spike glycoproteins of human coronavirus 229E (HCoV-229E) and human coronavirus EMC (HCoV-EMC) and the fusion glycoproteins F0 of Sendai virus (SeV), human metapneumovirus (HMPV), human parainfluenza 1, 2, 3, 4a and 4b viruses (HPIV). Essential for spread and pathogenesis of influenza A virus (strains H1N1, H3N2 and H7N9), involved in proteolytic cleavage and activation of hemagglutinin (HA) protein which is essential for viral infectivity. {ECO:0000269|PubMed:21068237, ECO:0000269|PubMed:21325420, ECO:0000269|PubMed:23536651, ECO:0000269|PubMed:23966399, ECO:0000269|PubMed:24027332, ECO:0000269|PubMed:24227843}.

Molecular Weight: 27.4 kDa Including tag.

UniProt: [O15393](#)

Pathways: [SARS-CoV-2 Protein Interactome](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Comment: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Handling

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images

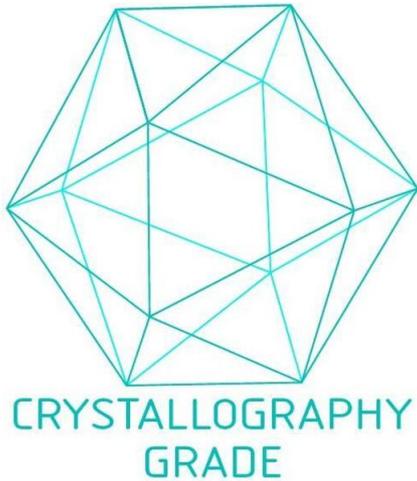


Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process