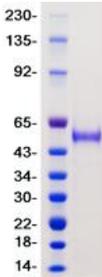


PRODUCT DATASHEET

Catalog No:	LTP-V017
Product Name:	Recombinant Human Transmembrane protease serine 2 (TMPRSS2) Protein
Description:	Recombinant protein of the extracellular domain (Met 109-Gly 492) of <i>Homo sapiens transmembrane protease, serine 2 (TMPRSS2)</i> , with a polyhistidine tag at its c-terminus
Alias or Clone:	TMPS2; PP9284; PRSS10
Source:	Expressed and purified from <i>in vitro</i> cell culture of Human 293 cells
Accession No.:	NM_005656.4; NP_005647.3; UniProt#: O15393; Gene ID: 7113;
Amino acid Sequence:	The amino acid sequences of recombinant protein was derived from accession# O15393-1 (M109-G492), fused to a polyhistidine tag.
Purity:	>90% by SDS-PAGE gel and Coomassie Blue staining
SDS-PAGE & Biological Activity:	<p>Predicted MW of this product is 49 kDa on the reduced SDS-PAGE</p> 
Formulation:	Protein formulated @ 0.19 mg/mL in a solution of PBS, pH7.2;
Endotoxin:	Endotoxin level is < 0.1 ng/μg of protein (<1 EU/μg)
Shipping, Storage and Stability:	The product is shipped with dry ice. Upon receipt, unopened vial can be stored at -80°C for over 12 months. Avoid repeated freeze/thaw cycles. Also the product can be aliquoted in the smaller size of working aliquots with the desired buffer and concentration, and stored at or below -20°C stable for 3 to 4 weeks.
Background:	<i>Homo sapiens transmembrane protease, serine 2 (TMPRSS2)</i> encodes a protein that belongs to the serine protease family. Serine proteases are known to be involved in many physiological and pathological processes. Some coronavirus viruses, including HCoV-229E, MERS-CoV, SARS-CoV and SARS-CoV-2 virus, are found to use this protein for the entry into host cells via two independent mechanisms, proteolytic cleavage of ACE2 receptor which promotes viral uptake, and cleavage of coronavirus spike glycoproteins which activates the glycoprotein for host cell entry. SARS-CoV-2 uses the SARS-CoV receptor ACE2 for entry and the serine protease TMPRSS2 for S protein priming. A TMPRSS2 inhibitor approved for clinical use blocked entry and might constitute a treatment option. The viral S glycoprotein is cleaved by TMPRSS2, thus facilitating viral activation and representing one of the essential host factors for SARS-CoV-2 pathogenicity.