
Recombinant Transmembrane Protease Serine 2 Protein, Partial

(Catalog # E80016)

Background

The protease TMPRSS2 plays an important role in the infection mechanism of human coronaviruses, such as SARS-CoV and SARS-CoV-2. Cell entry of human coronaviruses depends on the binding of the viral spike (S) glycoprotein to cellular ACE2 receptor and S protein priming by host cell protease TMPRSS2. This protein is commonly used to study cancer. Previous studies have shown that the encoding gene for TMPRSS2 protein was up-regulated by androgenic hormones in prostate cancer cells and down-regulated in androgen-independent prostate cancer tissue.

Description

The recombinant Transmembrane protease serine 2 (TMPRSS2) is produced by the expression of a target DNA sequence with 6xHis, N-terminal tag(s), in the yeast expression system. The target DNA sequence encodes the 106-492aa region of the TMPRSS2. This protein predicts a molecular weight of 44.8 kDa. Its purity is greater than 90% as determined by SDS-PAGE. And the bio-activity test of this protein is ongoing.

Purity

Greater than 90% as determined by SDS-PAGE.

Formulation

Lyophilized powder: The buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Species

Human

Calculated MW

44.8kDa

Expressed Host

Yeast (Expression Region 106-492aa)

Tag

N-terminal 6xHis-tagged

Uniprot ID

O15393

Storage

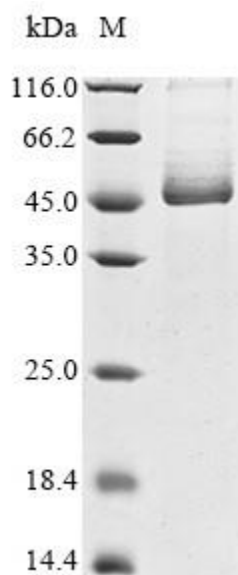
Store at -20°C upon receipt, aliquoting is necessary for multiple use. Avoid repeated freeze-thaw cycles.

Reconstitution

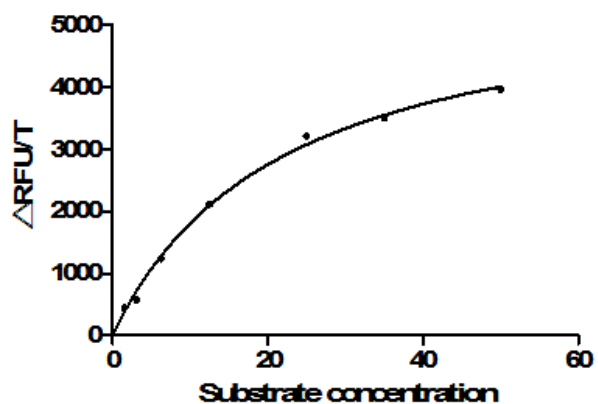
We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20deg;C to -80deg;C. Our default final concentration of glycerol is 50%.

Alternative Names

D16Erttd61e; Epitheliasin; FLJ41954; MGC6821; PP9284; PRSS10; Serine protease 10; TMPRSS2; TMPRSS2 ERG FUSION GENE, INCLUDED; TMPRSS2 ETV1 FUSION GENE, INCLUDED; TMPS2_HUMAN; Transmembrane protease serine 2 catalytic chain; Transmembrane protease, serine 2; Transmembrane protease, serine 2, EC 3.4.219



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Recombinant Human TMPRSS2 His tag protein enzyme activity is measured by its ability to cleave fluorogenic peptide substrate(Boc-Gln-Ala-Arg-AMC), The K_m is 21.93 μ M.