

Product datasheet for **RC208677**

TMPRSS2 (NM_005656) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TMPRSS2 (NM_005656) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TMPRSS2
Synonyms:	PRSS10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC208677 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCTTTGAACTCAGGGTCACCACCAGCTATTGGACCTTACTATGAAAACCATGGATACCAACCGGAAA
 ACCCCTATCCCGACAGCCCACTGTGGTCCCCTGTCTACGAGGTGCATCCGGCTCAGTACTACCGTCC
 CCCCCTGCCCCAGTACGCCCCGAGGGTCTGACGCAGGCTTCCAACCCCGTCGTCTGCACGCAGCCAAA
 TCCCCATCCGGGACAGTGTGCACCTCAAAGACTAAGAAAGCACTGTGCATCACCTTGACCCTGGGGACCT
 TCCTCGTGGGAGCTGCGCTGGCCCTACTCTGGAAGTTCATGGGCAGCAAGTGTCCAACCTGCG
 GATAGAGTGGACTCCTCAGGTACCTGCATCAACCCCTCTAACTGGTGTGATGGCGTGTACACTGCCCC
 GGGGGGAGGACGAGAATCGGTGTGTCGCTCTACGGACCAAATTCATCCTTCAGGTGTACTCATCTC
 AGAGGAAGTCTGGCACCTGTGTGCCAAGACGACTGGAACGAGAATACGGGCGGGCGGCTGCAGGGA
 CATGGGCTATAAGAATAATTTTTACTCTAGCCAAGGAATAGTGGATGACAGCGGATCCACCAGCTTTATG
 AACTGAACACAAGTGCCGGCAATGTCGATATCTATAAAAACTGTACCACAGTGATGCCTGTTCTTCAA
 AAGCAGTGGTTTCTTACGCTGTATAGCCTGCGGGTCAACTGAACTCAAGCCGCCAGAGCAGGATCGT
 GGGCGGCGAGAGCGCGCTCCCGGGGCTGGCCCTGGCAGGTGACGCTGCACGTCCAGAAGTCCACGTG
 TGGGAGGCTCCATCATCACCCCGAGTGGATCGTGACAGCCGCCACTGCGTGGAAAAACCTCTTAACA
 ATCCATGGCATTGGACGGCATTTCGCGGGATTTGAGACAATCTTTCATGTTCTATGGAGCCGGATACCA
 AGTAGAAAAAGTATTTCTATCCAAATATGACTCCAAGACCAAGAACAATGACATTGCGCTGATGAAG
 CTGCAGAAGCCTCTGACTTCAACGACCTAGTAAACCAGTGTGTCTGCCAACCCAGGCATGATGCTGC
 AGCCAGAACAGCTCTGCTGGATTTCCGGGTGGGGGCCACCGAGGAGAAAGGGAAGACCTCAGAAGTGT
 GAACGCTGCCAAGGTGCTTCTCATTGAGACACAGAGATGCAACAGCAGATATGTCTATGACAACCTGATC
 ACACCAGCCATGATCTGTGCCGCTTCTGCAGGGAACGTCGATTCTTCCAGGGTGTGAGTGGAGGGC
 CTCTGGTCACTTCAAGAACAATATCTGGTGGCTGATAGGGGATACAAGCTGGGTTCTGGCTGTGCCAA
 AGCTTACAGACCAGGAGTGTACGGGAATGTGATGGTATTACGGACTGGATTTATCGACAATGAGGGCA
 GACGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208677 protein sequence
 Red=Cloning site Green=Tags(s)

MALNSGSPPAIGPYENHGYQPENPYPAQPTVVPTVYEVHPAQYYPSPVPQYAPRVLQASNPVCTQPK
 SPSGTVCTSKTKKALCITLTLGTFLVGAALAAGLLWKFMSGKCSNSGIECDSSGTCINPSNWC DGVSHCP
 GGEDENRCVRLYGPNFILQVYSSQRKSWHPVCQDDWENYGRAACRDMGYKNNFYSSQGI VDDSGSTSFM
 KLNTSAGNVDIYKLYHSDACSSKAVVSLRCIACGVNLSRQSRIVGGESALPGAWPWQVSLHVQNVHV
 CGGSIIITPEWIVTAAHCVEKPLNPNPWHWTAFAGILRQSFMYGAGYQVEKVISHPNYDSKTNNDI ALMK
 LQKPLTFNDLVKPVCLPNPMMMLQPEQLCWI SWGATEEKGKTSEVLNAAKVLLIETQR CNSRYVVDNLI
 TPAMICAGFLQGNVDSQCQDSSGGLVTSKNNIWWLIGDTSWGS GCAKAYRPGVYGNMVF TDWIYRQMRA
 DG

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6092_d01.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_005656

ORF Size: 1476 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_005656.4](#)

RefSeq Size: 3212 bp

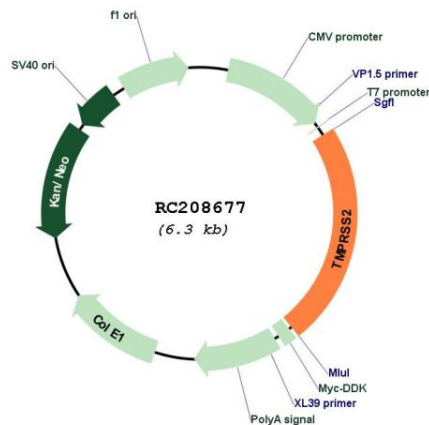
RefSeq ORF: 1479 bp

Locus ID: 7113

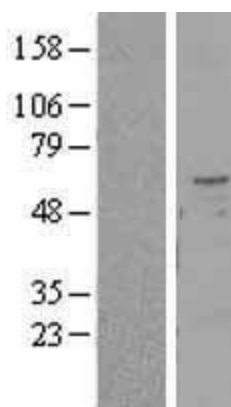
UniProt ID: [O15393](#)
Cytogenetics: 21q22.3
Domains: SR, Tryp_SPC, ldl_recept_a
Protein Families: Druggable Genome, Protease, Secreted Protein, Transmembrane
MW: 53.9 kDa

Gene Summary: This gene encodes a protein that belongs to the serine protease family. The encoded protein contains a type II transmembrane domain, a receptor class A domain, a scavenger receptor cysteine-rich domain and a protease domain. Serine proteases are known to be involved in many physiological and pathological processes. This gene was demonstrated to be up-regulated by androgenic hormones in prostate cancer cells and down-regulated in androgen-independent prostate cancer tissue. The protease domain of this protein is thought to be cleaved and secreted into cell media after autocleavage. This protein also facilitates entry of viruses into host cells by proteolytically cleaving and activating viral envelope glycoproteins. Viruses found to use this protein for cell entry include Influenza virus and the human coronaviruses HCoV-229E, MERS-CoV, SARS-CoV and SARS-CoV-2 (COVID-19 virus). Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2020]

Product images:



Circular map for RC208677



Western blot validation of overexpression lysate (Cat# [LY401727]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208677 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).