

Product datasheet for **RC222359**

TPSG1 (NM_012467) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TPSG1 (NM_012467) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TPSG1
Synonyms:	PRSS31; TMT; trpA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222359 representing NM_012467 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGC**C

ATGGCCCTTGGGGCCTGTGGCCTCCTGCTGCTCCTGGCTGTGCCCGGTGTGCCCTCAGGACTTTGCAGC
 CAGGGTGTGGCCGGCCGAGGTTTCGGATGCAGGCGGCCGGATCGTGGGGGTACGCTGCCCCGGCCGG
 CGCATGGCCATGGCAGGCCAGCCTCCGCCTGCGGAGGATGCACGTGTGCGGCGGGTCACTGCTCAGCCCC
 CAGTGGGTGCTCACAGCTGCCACTGCTTCTCCGGTCCCTGAACATCCGACTACCAGGTGCACCTGG
 GGAAGTGGAGATCACTTTGTCTCCCCACTTCTCCACCGTGAGGCAGATCATCCTGCACTCCAGCCCTC
 AGGACAGCCGGGGACAGCGGGGACATCGCCCTGGTGGAGCTCAGTGTCCCCGTGACCCTCTCCAGCCGG
 ATCCTGCCCGTCTGCCTCCCGGAGGCCTCAGATGACTTCTGCCCTGGGATCCGGTCTCGGTGACCGGCT
 GGGGCTATACGCGGGAGGGAGAGCCTCTGCCACCCCGTACAGCCTGCGGGAGGTGAAAGTCTCCGTGGT
 GGACACAGAGACCTGCCGCCGGGACTATCCCGCCCCGGGGGAGCAGCATCCTTCAGCCCGACATGCTGTGT
 GCCCGGGGCCCGGGGATGCCTGCCAGGACGACTCCGGGGGGCCTCTGGTCTGCCAGGTGAACGGTGCCT
 GGGTGCAGGTGGCATTGTGAGCTGGGGTGAGGGCTGCGCCGCCCAACAGGCCGGGAGTCTACACTCG
 TGTCCTGCCTACGTGAAGTGGATCCGCCGCCACATCACAGCATCAGGGGGCTCAGAGTCTGGGTACCCC
 AGGCTCCCCCTCCTGGCTGGCTTCTTCTCCCCGGCCTTCTCTTCTGCTAGTCTCCTGTGCTCCTGCTGG
 CCAAGTGCTGCTGCACCATCTCGGATGGTACTCCCTTCCCCGCCCTGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC222359 representing NM_012467
 Red=Cloning site Green=Tags(s)

MALGACGLLLLLAVPGVSLRTLQPGCGRPQVSDAGGRIVGGHAAPAGAWPWQASLRLRRMHVCGGSLLSP
 QWVLTAAHCFSGSLNSSDYQVHLGELEITLSPHFSTVRQIILHSSPSGQPGTSGDIALVELSVPVTLSSR
 ILPVCLPEASDDFCPGIRCSVTGWYTREGEPLPPYSLREVKVSVDVETETCRRDYPGPGGSILQPDMLC
 ARGPGDACQDDSGGPLVCQVNGAWVQAGIVSWGEGCGRPNRPGVYTRVPAYVNWIRRHITASGGSESGYP
 RLPLLAGFFLPLGLFLLLVSCVLLAKCLLHPSADGTPFPAPD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6173_g10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012467

ORF Size: 963 bp

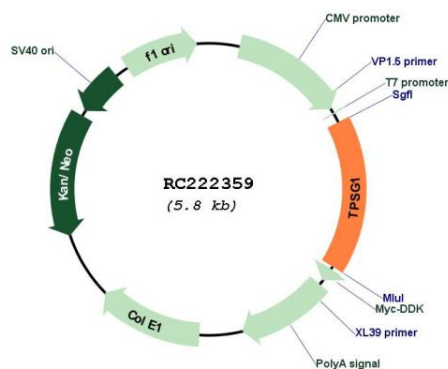
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

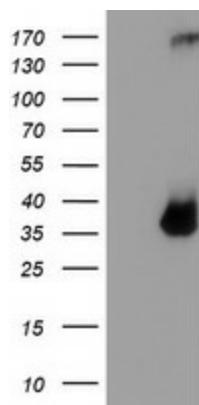
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 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_012467.4
RefSeq Size:	1124 bp
RefSeq ORF:	966 bp
Locus ID:	25823
UniProt ID:	Q9NRR2
Cytogenetics:	16p13.3
Protein Families:	Druggable Genome, Transmembrane
MW:	33.76 kDa
Gene Summary:	<p>Tryptases comprise a family of trypsin-like serine proteases, the peptidase family S1. Tryptases are enzymatically active only as heparin-stabilized tetramers, and they are resistant to all known endogenous proteinase inhibitors. Several tryptase genes are clustered on chromosome 16p13.3. There is uncertainty regarding the number of genes in this cluster. Currently four functional genes - alpha I, beta I, beta II and gamma I - have been identified. And beta I has an allelic variant named alpha II, beta II has an allelic variant beta III, also gamma I has an allelic variant gamma II. Beta tryptases appear to be the main isoenzymes expressed in mast cells; whereas in basophils, alpha-tryptases predominant. This gene differs from other members of the tryptase gene family in that it has C-terminal hydrophobic domain, which may serve as a membrane anchor. Tryptases have been implicated as mediators in the pathogenesis of asthma and other allergic and inflammatory disorders. [provided by RefSeq, Jul 2008]</p>

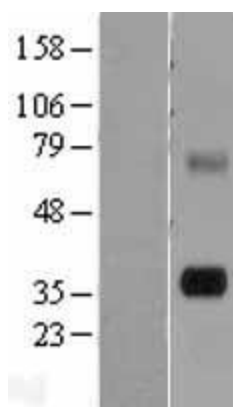
Product images:



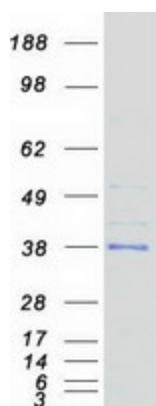
Circular map for RC222359



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TPSG1 (Cat# RC222359, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TPSG1 (Cat# [TA504161]). Positive lysates [LY402219] (100ug) and [LC402219] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402219]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222359 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TPSG1 protein (Cat# [TP322359]). The protein was produced from HEK293T cells transfected with TPSG1 cDNA clone (Cat# RC222359) using MegaTran 2.0 (Cat# [TT210002]).