

## Product datasheet for RC212265

### S1P (MBTPS1) (NM\_003791) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	S1P (MBTPS1) (NM_003791) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	S1P
Synonyms:	PCSK8; S1P; SEDKF; SKI-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212265 representing NM_003791 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGCTTGCAACATCTGGCTGCTTCTGCTCGTGGTTTTGCTCTGTGGGAAGAAACATCTGGCGACA  
GACTGGAAAAGAAATCTTTGAAAAGGCCCATGCCCTGGCTGTCCACCTGACTTTGAAGGTGGAATT  
CTCATCAACAGTTGTGGAATATGAATATATTGTGGCTTCAATGGATACTTTACAGCCAAAGCTAGAAAT  
TCATTTATTTCAAGTGCCTGAAGAGCAGTGAAGTAGACAATTGGAGAATTATACCTCGAAACAATCCAT  
CCAGTGACTACCCTAGTGATTTTGGAGTGATTCAGATAAAAAGAAAACAGAAAGCGGGGTGCTAACACT  
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GAGCCAGCCTCTCCCTGGGCTCTGGCTTCTGGCATGCTACGGGAAGGCATTGAGCAGACGGCTGCTGAG  
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GATCAAATGGATGTGATTGGAGTAGCGGCATTGACTTTGAAGATAACATCGCCCCTTTTCTTCAAGGG  
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AGGCCCTGATCGCGTCAGCCCGGAGGCTCCCGGGGTCAACATGTTTGGCAAGGCCACGGCAAGCTCGA  
TCTGCTCAGAGCCTATCAGATCCTCAACAGCTACAAGCCACAGGCAAGTTTGGCCCCAGCTACATAGAT



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CTGACTGAGTGTCCCTACATGTGGCCCTACTGCTCCCAGCCCATCTACTATGGAGGAATGCCGACAGTTG  
 TTAATGTCACCATCCTCAACGGCATGGGAGTCACAGGAAGAATTGTAGATAAGCCTGACTGGCAGCCCTA  
 TTTGCCACAGAACGGAGACAACATTGAAGTTGCCCTTCTCTACTCCTCGGTCTTATGGCCTTGGTCGGGC  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC212265 representing NM\_003791

Red=Cloning site Green=Tags(s)

MKLVNIWLLLLVLLCGKKHLGDRLEKKSFEKAPCPGCSHLTLKVEFSSTVVEYEYIVAFNGYFTAKARN  
 SFISSALKSSEVDNWRIIPRNNPSSDYPSDFEVIQIKEKQKAGLLTLEDHPNIKRVTPQRKVFRSLKYAE  
 SDPTVPCNETRWSQKWQSSRPLRRASLSLGSFWHATGRHSSRLLRAIPRQVAQTLQADVLWQMGYTGA  
 NVRVAVFDTGLSEKHPHFKNVKERTNWTNERTLDDGLGHGTFVAGVIASMRQCQFAPDAELHIFRVFTN  
 NQVSYTSWFLDAFNIAILKKIDVLNLSIGGPDFMDHPFVDKVVWELTANNVIMVSAIGNDGPLYGTLNPA  
 DQMDVIGVGGIDFEDNIARFSSRGMTTWELPGGYGRMKPDIVTYGAGVRGSGVKGGCRALSGTSVASPVV  
 AGAVTLLVSTVQKRELVNPASMKQALIASARRLPGVNMFEQGHGKLDLLRAYQILNSYKQASLSPSYID  
 LTECPYMWPYCSQPIYYGMPTVVNVTILNGMGVTGRIVDKPDWQPYPQPQNGDNIEVAFSYSSVLPWWSG  
 YLAISISVTKKAASWEGIAQGHVMITVASPAETESKNGAETSTVKLPIKVKIIPTPRSKRVLWDQYHN  
 LRYPPGYFPRDNLRMKNDPLDWDGDIHTNFRDMYQHLRSMGYFVEVLGAPFTCFDASQYGTLLMVDSEE  
 EYFPEEIAKLRRDNDGLSLVIFSDWYNTSVMRKVKFYDENTRQWWMPDTGGANIPALNELLSVWNMGFS  
 DGLYEGETLANHDMYYASGCSIAKFPEDGVVITQTFKDQGLEVLKQETAVVENVPILGLYQIPAEGGGR  
 IVLYGDSNCLDDSHRQKDCFLLDALLQYTSYGVTPPSLSHSGNRQRPPSGAGSVTPERMENHNLHRYSK  
 VLEAHLGDPKPRPLPACPRLSWAKPQLNETAPSNLWKHQKLLSIDLKVLPNFRSNRPQVRPLSPGES  
 GAWDIPGGIMPGRYNQEVGQTI PVFAFLGAMVVLAFV VVQINKAKSRPKRRKPRVKRPQLMQQVHPKPTP  
 SV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg2439\\_e08.zip](https://cdn.origene.com/chromatograms/mg2439_e08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003791

**ORF Size:** 3156 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\\_003791.4](#)

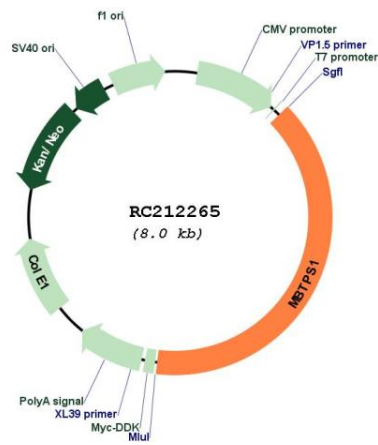
**RefSeq Size:** 4354 bp

**RefSeq ORF:** 3159 bp

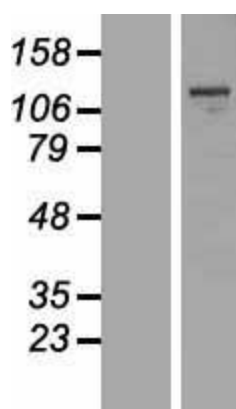
**Locus ID:** 8720  
**UniProt ID:** [Q14703](#)  
**Cytogenetics:** 16q23.3-q24.1  
**Domains:** Peptidase\_S8  
**Protein Families:** Druggable Genome, Protease, Transcription Factors, Transmembrane  
**MW:** 117.75 kDa

**Gene Summary:** This gene encodes a member of the subtilisin-like proprotein convertase family, which includes proteases that process protein and peptide precursors trafficking through regulated or constitutive branches of the secretory pathway. The encoded protein undergoes an initial autocatalytic processing event in the ER to generate a heterodimer which exits the ER and sorts to the cis/medial-Golgi where a second autocatalytic event takes place and the catalytic activity is acquired. It encodes a type 1 membrane bound protease which is ubiquitously expressed and regulates cholesterol or lipid homeostasis via cleavage of substrates at non-basic residues. Mutations in this gene may be associated with lysosomal dysfunction. [provided by RefSeq, Feb 2014]

### Product images:



Circular map for RC212265



Western blot validation of overexpression lysate (Cat# [LY401246]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212265 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).