

Product datasheet for RC210096

SPPL3 (NM_139015) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPPL3 (NM_139015) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPPL3
Synonyms:	IMP2; MDHV1887; PRO4332; PSH1; PSL4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210096 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGAGCAGACCTACTCGTGGGCTATCCCTGGTGGATTCCAGTCAAGTGTCTACATTTCTGATTT
CCATTCTTCTATAGTCTATGGTAGTTTCAGGTCCTTAATATGGACTTTGAAAATCAAGATAAGGAGAA
AGACAGTAATAGTTCTTCTGGGCTTTCAATGGCAACAGCACCAATAATAGCATCCAAACAATTGACTCT
ACCCAGGCTCTGTTCTCCAATTGGAGCATCTGTCTCTTTTAGTAATGTTCTTCTTCTTGGACTCAG
TTCAAGTAGTTTTACAATATGTACAGCAGTTCTGCAACGATAGCTTTTGCTTTTCTTCTCCTCCCGAT
GTGCCAGTATTTAACAAGACCCTGCTCACCTCAGAACAAGATTTCTTTGGTTGCTGTGGACGTTTCACT
GCTGCTGAGTTGCTGTCATTCTCTGTCTGTCATGCTCGTCTCATCTGGGTTCTCACTGGCCATTGGC
TTCTCATGGATGCACTGGCCATGGGCTCTGTGTGCGCATGATCGCCTTTGTCCGCTGCCGAGCCTCAA
GGTCTCCTGCCTGCTTCTCAGGGCTTCTCATCTATGATGTCTTTGGGATTTTTCTCAGCCTACATC
TTCAATAGCAACGTCATGGTGAAGGTGGCCACTCAGCCGGCTGACAATCCCCTTGACGTTCTATCCCGGA
AGCTCCACTGGGCCCCAATGTTGGCGTGATGTTCTCGCTGTCTCTGCTGGAAAATGGTCTTCCC
TTTGTCTTCGCTATGACAACATAAAAAGCAAGCCAGTGGGACTCCTGTGGGCCCCGGACCTGCCA
ACATCTCCGGCGCATGCAGAAGGTCTCTACTTTCACTGCACCCTCATCGGATACTTTGTAGGCCTGCT
CACTGCTACTGTGGCGTCTCGCATTACCGGGCGCCAGCCCGCCTTCTCTATTTGGTGCCATTTACT
TTATTGCCACTCCTCAGATGGCCTATTTAAAGGGCGACCTCCGGCGGATGTGGTCTGAGCCTTTCCACT
CCAAGTCCAGCAGCTCCCGATTCTGGAAGTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210096 protein sequence
Red=Cloning site Green=Tags(s)

MAEQTYSWAYSLVDSSQVSTFLISILLIVYGSFRSLNMDFENQDKEKDSNSSSSGFSFNGNSTNNSIQITIDS
 TQALFLPIGASVSLVMFFFFDSVQVFTICTAVLATIAFAFLLLPQCQYLTRPCSPQNKISFGCCGRFT
 AAELLSFSLVMLVLIWVLTGHWLLMDALAMGLCVAMIAFVRLPSLKVSCLLLSGLLIYDVFVWFFSAYI
 FNSNVMVKVATQPADNPLDVL SRKLHLGPNVGRDVPRLSLPGKLVFSSSTGSHFSMLGIGDIVMPGLLLC
 FVLRDYDNYKKQASGDSCGAPGANISGRMQKVSYPFHCTLIGYFVGLLTATVASRIHRAAQPALLYLVPFT
 LLPLLTMAYLKGDLLRMWSEPFHKSSSSRFLEV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6148_h02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_139015

ORF Size: 1152 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.

RefSeq: [NM_139015.5](#)

RefSeq Size: 4139 bp

RefSeq ORF: 1155 bp

Locus ID: 121665

UniProt ID: [Q8TCT6](#)

Cytogenetics: 12q24.31

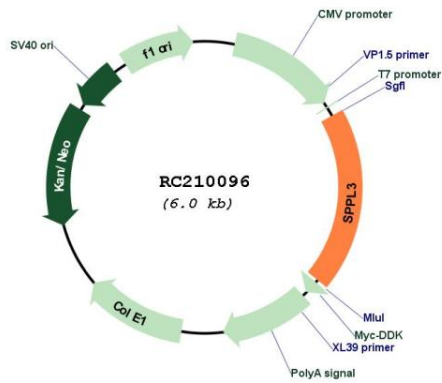
Domains: PSN, DUF435

Protein Families: Protease, Transmembrane

MW: 42.3 kDa

Gene Summary: Intramembrane-cleaving aspartic protease (I-CLiP) that cleaves type II membrane protein substrates in or close to their luminal transmembrane domain boundaries (PubMed:16873890, PubMed:25354954, PubMed:25827571). Acts like a sheddase by mediating the proteolytic release and secretion of active site-containing ectodomains of glycan-modifying glycosidase and glycosyltransferase enzymes such as MGAT5, B4GAT1 and B4GALT1 (PubMed:25354954, PubMed:25827571). Catalyzes the intramembrane cleavage of the envelope glycoprotein gp130 and/or the leader peptide gp18LP of the simian foamy virus independent of prior ectodomain shedding by furin or furin-like proprotein convertase (PC)-mediated cleavage proteolysis (PubMed:23132852). May also have the ability to serve as a shedding protease for subsequent intramembrane proteolysis by SPPL2A and SPPL2B of the envelope glycoprotein gp130 (PubMed:23132852). Plays a role in the regulation of cellular glycosylation processes (PubMed:25354954). Required to link T-cell antigen receptor (TCR) and calcineurin-NFAT signaling cascades in lymphocytes by promoting the association of STIM1 and ORAI1 during store-operated calcium entry (SOCE) in a protease-independent manner (PubMed:25384971).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC210096