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SPPL3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6313b

Specification

SPPL3 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q8TCT6

SPPL3 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 121665

Other Names
Signal peptide peptidase-like 3, SPP-like 3, 3423-, Intramembrane protease 2, IMP-2, Presenilin homologous protein 1, PSH1, Presenilin-like protein 4, SPPL3, IMP2, PSL4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6313b was selected from the C-term region of human SPPL3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SPPL3 Antibody (C-term) Blocking Peptide - Protein Information

Name SPPL3 {ECO:0000303|PubMed:12077416, ECO:0000312|HGNC:HGNC:30424}

Function
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-modifiying 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).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus. Membrane; Multi-pass membrane protein; Lumenal side

Tissue Location
Widely expressed (PubMed:15385547). Expressed in the brain (PubMed:11978763).

SPPL3 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SPPL3 Antibody (C-term) Blocking Peptide - Images

SPPL3 Antibody (C-term) Blocking Peptide - Background

Signal peptide peptidase (SPP) is an aspartyl protease that mediates clearance of signal peptides by proteolysis within the endoplasmic reticulum (ER). Like presenilins, SPP contains a critical GXGD motif in its C-terminal catalytic center. SPPL3 is one of several presenilin homologues/SPP-like proteins (PSHs/SPPL) that have been identified.

SPPL3 Antibody (C-term) Blocking Peptide - References

Grigorenko, A.P., et al., Biochemistry Mosc. 67(7):826-835 (2002).Weihofen, A., et al., Science 296(5576):2215-2218 (2002).