10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SPP Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6314b

Specification

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

Primary Accession Q8TCT9

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

Gene ID 81502

Other Names
Minor histocompatibility antigen H13, 3423-, Intramembrane protease 1, IMP-1, IMPAS-1, hIMP1, Presenilin-like protein 3, Signal peptide peptidase, HM13, H13, IMP1, PSL3, SPP

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6314b was selected from the C-term region of human SPP. 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.

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

Name HM13

Synonyms H13, IMP1, PSL3, SPP

Function
Catalyzes intramembrane proteolysis of some signal peptides after they have been cleaved from a preprotein, resulting in the release of the fragment from the ER membrane into the cytoplasm. Required to generate lymphocyte cell surface (HLA-E) epitopes derived from MHC class I signal peptides (PubMed:11714810). May be necessary for the removal of the signal peptide that remains attached to the hepatitis C virus core protein after the initial proteolytic processing of the polyprotein (PubMed:12145199). Involved in the intramembrane cleavage of the integral membrane protein PSEN1 (PubMed:<a href="http://www.uniprot.org/citations/12077416"

target="_blank">12077416, PubMed:11714810, PubMed:14741365). Cleaves the integral membrane protein XBP1 isoform 1 in a DERL1/RNF139-dependent manner (PubMed:25239945). May play a role in graft rejection (By similarity).

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

Tissue Location
Widely expressed with highest levels in kidney, liver, placenta, lung, leukocytes and small intestine and reduced expression in heart and skeletal muscle. Expressed abundantly in the CNS with highest levels in thalamus and medulla

SPP Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

SPP Antibody (C-term) Blocking Peptide - Images

SPP Antibody (C-term) Blocking Peptide - Background

SPP, which localizes to the endoplasmic reticulum, catalyzes intramembrane proteolysis of some signal peptides after they have been cleaved from a preprotein. This activity is required to generate signal sequence-derived human lymphocyte antigen-E epitopes that are recognized by the immune system, and to process hepatitis C virus core protein. This protein is an integral membrane protein with sequence motifs characteristic of the presenilin-type aspartic proteases.

SPP Antibody (C-term) Blocking Peptide - References

Friedmann, E., et al., J. Biol. Chem. 279(49):50790-50798 (2004).Nyborg, A.C., et al., J. Biol. Chem. 279(15):15153-15160 (2004).Urny, J., et al., Gene Expr. Patterns 3(5):685-691 (2003).Grigorenko, A.P., et al., Biochemistry Mosc. 67(7):826-835 (2002).Weihofen, A., et al., Science 296(5576):2215-2218 (2002).