

SPTLC3 Blocking Peptide (C-Term)

Synthetic peptide

Catalog # BP22094b

Specification

SPTLC3 Blocking Peptide (C-Term) - Product Information

Primary Accession

[Q9NUV7](#)**SPTLC3 Blocking Peptide (C-Term) - Additional Information**

Gene ID 55304

Other Names

Serine palmitoyltransferase 3, 2.3.1.50, Long chain base biosynthesis protein 2b, LCB2b, Long chain base biosynthesis protein 3, LCB 3, Serine-palmitoyl-CoA transferase 3, SPT 3, SPTLC3, C20orf38, SPTLC2L

Target/Specificity

The synthetic peptide sequence is selected from aa 533-545 of HUMAN SPTLC3

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.

SPTLC3 Blocking Peptide (C-Term) - Protein InformationName SPTLC3 ([HGNC:16253](#))

Synonyms C20orf38, SPTLC2L

Function

Component of the serine palmitoyltransferase multisubunit enzyme (SPT) that catalyzes the initial and rate-limiting step in sphingolipid biosynthesis by condensing L-serine and activated acyl-CoA (most commonly palmitoyl-CoA) to form long-chain bases (PubMed:19416851, PubMed:19648650). The SPT complex is composed of SPTLC1, SPTLC2 or SPTLC3 and SPTSSA or SPTSSB. Within this complex, the heterodimer consisting of SPTLC1 and SPTLC2/SPTLC3 forms the catalytic core. The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference (PubMed:19416851). The SPTLC1- SPTLC2-SPTSSA complex shows a strong preference for C16-CoA substrate, while the SPTLC1-SPTLC3-SPTSSA isozyme uses both C14-CoA and C16-CoA as substrates, with a slight

preference for C14-CoA. The SPTLC1-SPTLC2- SPTSSB complex shows a strong preference for C18-CoA substrate, while the SPTLC1-SPTLC3-SPTSSB isozyme displays an ability to use a broader range of acyl-CoAs, without apparent preference (PubMed:19416851, PubMed:19648650).

Cellular Location

Endoplasmic reticulum membrane; Single-pass membrane protein

Tissue Location

Expressed in most tissues, except peripheral blood cells and bone marrow, with highest levels in heart, kidney, liver, uterus and skin.

SPTLC3 Blocking Peptide (C-Term) - Protocols

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

- [Blocking Peptides](#)

SPTLC3 Blocking Peptide (C-Term) - Images**SPTLC3 Blocking Peptide (C-Term) - Background**

Serine palmitoyltransferase (SPT). The heterodimer formed with LCB1/SPTLC1 constitutes the catalytic core. The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference. The SPTLC1-SPTLC3-SPTSSA isozyme uses both C14-CoA and C16-CoA as substrates, while the SPTLC1-SPTLC3-SPTSSB has the ability to use a broader range of acyl-CoAs without apparent preference.

SPTLC3 Blocking Peptide (C-Term) - References

Hornemann T.,et al.J. Biol. Chem. 281:37275-37281(2006).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 414:865-871(2001).
Han G.,et al.Proc. Natl. Acad. Sci. U.S.A. 106:8186-8191(2009).