Recombinant SPTC2 protein (His tag)

Catalog Number	546451
Synonyms	Long chain base biosynthesis protein 2; LCB 2; Long chain base biosynthesis protein 2a; LCB2a; Serine-palmitoyl-CoA transferase 2; SPT 2
Species	Human
Expression System	E. coli
Accession	O15270
Molecular Weight	Predictes a molecular mass of 55.38 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 57 kDa band.

Product Information

Sequence Region	88-562
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 88-562 aa (O15270) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Serine Palmitoyltransferase 2 (SPTLC2) Fragment (aa 88-562) is a high-purity, soluble protein derived from Homo sapiens, designed for structural and biochemical studies. This fragment encompasses a stable, functional region of the enzyme, which catalyzes the initial and rate-limiting step in sphingolipid biosynthesis, making it ideal for investigating lipid metabolism and enzyme mechanisms. Serine Palmitoyltransferase 2 (SPTLC2) is a key component of the serine palmitoyltransferase (SPT) multisubunit enzyme complex, responsible for the condensation of L-serine and acyl-CoA (e.g., palmitoyl-CoA) to form long-chain bases—the foundational step in sphingolipid production. The full-length protein, located in the endoplasmic reticulum membrane as a single-pass membrane protein, forms a catalytic core with SPTLC1 and other subunits (e.g., SPTLC3, SPTSSA, or SPTSSB), with substrate specificity varying by complex composition (e.g., SPTLC1-SPTLC2-SPTSSA prefers C16-CoA). SPTLC2 is critical for sphingolipid homeostasis and adipogenesis, and its dysfunction is linked to metabolic disorders, underscoring its importance in cellular biology and disease research.