Recombinant CERS6 protein (His tag)

Catalog Number	545249
Synonyms	CerS6; LAG1 longevity assurance homolog 6; Sphingoid base N-palmitoyltransferase CERS6
Species	Human
Expression System	E. coli
Accession	Q6ZMG9
Molecular Weight	Predictes a molecular mass of 16.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	56-177
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 56-177 aa (Q6ZMG9) 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 Human Ceramide Synthase 6 (CerS6) Fragment (aa 56-177) is a high-quality protein product designed for structural and biochemical studies. This 122-amino acid fragment represents a stable, soluble region of CerS6, optimized for research applications investigating ceramide biosynthesis and lipid metabolism. Ceramide Synthase 6 (CerS6) is a key enzyme in sphingolipid metabolism that catalyzes the N-acylation of sphingoid bases using acyl-CoA donors, with marked specificity for palmitoyl-CoA (C16:0-CoA). This reaction generates dihydroceramides and ceramides through both de novo synthesis and salvage pathways. CerS6-generated C16:0-ceramides play crucial roles in inflammatory responses, metabolic regulation, and hepatic lipid accumulation. Notably, under high-fat diet conditions, these ceramides bind to mitochondrial fission factor MFF, promoting mitochondrial fragmentation and contributing to obesity development. The enzyme localizes to the endoplasmic reticulum membrane as a multi-pass membrane protein, highlighting its integral role in cellular lipid processing and signaling pathways.