Recombinant CERS2 protein (His tag)

Catalog Number	545678
Synonyms	CerS2; LAG1 longevity assurance homolog 2; SP260; Sphingosine N-acyltransferase CERS2; Tumor metastasis-suppressor gene 1 protein; Very-long-chain ceramide synthase CERS2
Species	Human
Expression System	E. coli
Accession	Q96G23
Molecular Weight	Predictes a molecular mass of 10.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	62-139
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 62-139 aa (Q96G23) 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 2 (CERS2) Fragment (aa 62-139) - A highly purified protein fragment ideal for studying the enzymatic mechanisms and structural properties of this key sphingolipid biosynthesis enzyme. This 78-amino acid fragment represents a stable, soluble unit of CerS2, optimized for structural biology and biochemical characterization applications. Ceramide Synthase 2 (CerS2) is a crucial enzyme in sphingolipid metabolism that catalyzes the N-acylation of sphingoid bases using very-long-chain fatty acyl-CoAs (C22-C27) as substrates. This endoplasmic reticulum membrane protein plays a non-redundant role in synthesizing ceramides with very-long-chain fatty acids in multiple tissues including kidney, liver, and brain. CerS2 regulates the production of myelin-specific sphingolipids such as galactosylceramide and sulfatide, which are essential for proper myelin sheath architecture and motor neuron function. The enzyme functions in both de novo synthesis pathways (forming dihydroceramides from sphinganine) and salvage pathways (forming ceramides from sphingosine), positioning it as a central regulator of cellular sphingolipid homeostasis and potential therapeutic target.