Recombinant DGLB protein (His tag)

Catalog Number	540781
Synonyms	DAGL-beta; DGL-beta; KCCR13L; PUFA-specific triacylglycerol lipase; Sn1-specific diacylglycerol lipase beta
Species	Human
Expression System	E. coli
Accession	Q8NCG7
Molecular Weight	Predictes a molecular mass of 36.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	221-529
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 221-529 aa (Q8NCG7) 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	This product offers a recombinant fragment (amino acids 221-529) of human Diacylglycerol lipase-beta (DAGL-beta), a key enzyme responsible for generating the endocannabinoid 2-arachidonoylglycerol (2-AG). The fragment is computationally designed for enhanced stability and solubility, making it ideal for structural studies, enzymatic assays, and biochemical research. Diacylglycerol lipase-beta (DAGL-beta) is a membrane-associated lipase that catalyzes the hydrolysis of diacylglycerols (DAGs) at the sn-1 position in a calcium-dependent manner, specifically producing 2-arachidonoylglycerol (2-AG), the principal endocannabinoid. Beyond its role in endocannabinoid signaling, DAGL-beta regulates arachidonic acid (AA) pools used by cyclooxygenases (COX1/2) to generate inflammatory lipid mediators in macrophages and microglia. It also functions as a polyunsaturated fatty acid-specific triacylglycerol lipase, supporting macrophage metabolic and signaling demands. The full-length protein is localized to the cell membrane as a multi-pass transmembrane protein, underscoring its involvement in lipid metabolism and inflammatory pathways.