Recombinant LDAH protein (His tag)

Catalog Number	545952
Synonyms	Lipid droplet-associated serine hydrolase; hLDAH
Species	Human
Expression System	E. coli
Accession	Q9H6V9
Molecular Weight	Predictes a molecular mass of 38.97 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	1-325
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 1-325 aa (Q9H6V9) 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 recombinant protein product features a stable and soluble fragment (amino acids 1-325) of human Lipid droplet-associated hydrolase (LDAH), a serine hydrolase crucial for lipid droplet dynamics and lipid homeostasis. This fragment is ideal for structural studies, biochemical assays, and functional investigations of lipid metabolism pathways. Lipid droplet-associated hydrolase (LDAH) is a serine hydrolase primarily associated with lipid droplets and the endoplasmic reticulum, playing a key role in cholesterol and triglyceride homeostasis. It promotes cellular triglyceride accumulation while stimulating cholesterol release, acting antagonistically with PNPLA2/ATGL to regulate lipid stores. LDAH is implicated in microtubule-dependent lipid droplet fusion and may facilitate cholesterol ester turnover in macrophages, particularly in atherosclerotic lesions. Its localization shifts from the endoplasmic reticulum to lipid droplets upon lipid storage induction, independent of hydrolase activity, highlighting its dynamic role in lipid metabolism.