Recombinant FABD protein (His tag)

Catalog Number	547684
Synonyms	MCT; Mitochondrial malonyl CoA:ACP acyltransferase; Mitochondrial malonyltransferase; [Acyl-carrier-protein] malonyltransferase
Species	Human
Expression System	E. coli
Accession	Q8IVS2
Molecular Weight	Predictes a molecular mass of 40.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	37-390
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 37-390 aa (Q8IVS2) 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 MCAT Protein Fragment (residues 37-390) - a highly purified, stable fragment of Malonyl-CoA-acyl carrier protein transacylase, mitochondrial (MCT), essential for studying mitochondrial fatty acid biosynthesis and ribosomal assembly mechanisms. This 354-amino acid fragment has been computationally optimized for structural and biochemical applications. Malonyl-CoA-acyl carrier protein transacylase (MCAT) is a crucial mitochondrial enzyme that catalyzes the transfer of malonyl groups from malonyl-CoA to the phosphopantetheine arm of the mitochondrial acyl carrier protein (NDUFAB1), indicating the existence of fatty acid biosynthesis within mitochondria. Recent research has revealed an additional role for MCAT as a mitochondrial small ribosomal subunit (mt-SSU) assembly factor, highlighting its importance in both metabolic and protein synthesis pathways. The protein is exclusively localized to mitochondria, where it performs these dual functions in cellular energy metabolism and organellar biogenesis.