Recombinant SUCHY protein (His tag)

Catalog Number	538989
Synonyms	Dermal papilla-derived protein 13; Dicarboxyl-CoA:dicarboxylic acid coenzyme A transferase SUGCT; Succinate--hydroxymethylglutarate CoA-transferase
Species	Human
Expression System	E. coli
Accession	Q9HAC7
Molecular Weight	Predictes a molecular mass of 45.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	37-438
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 37-438 aa (Q9HAC7) 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 Succinyl-CoA:glutarate CoA-transferase (SUGCT) Fragment (37-438) is a high-purity, stable protein fragment designed for structural and biochemical studies. This 402-amino acid fragment retains key functional regions of the enzyme, enabling research into its role in dicarboxylate metabolism and CoA transferase activity. Succinyl-CoA:glutarate CoA-transferase (SUGCT) is a mitochondrial enzyme that reversibly transfers CoA moieties between dicarboxyl-CoA donors and dicarboxylate acceptors, playing a critical role in metabolite recycling. It preferentially utilizes succinyl-CoA and glutarate-CoA as donors, with glutarate, succinate, adipate, itaconate, and 3-hydroxy-3-methylglutarate as acceptors. The enzyme functions in lysine and tryptophan degradation pathways, particularly in the succinyl-CoA-dependent reesterification of glutarate to glutaryl-CoA to prevent renal excretion. During inflammation, SUGCT may convert macrophage-derived itaconate to itaconyl-CoA in erythroid precursors, where it negatively regulates the TCA cycle and heme synthesis to modulate stress erythropoiesis. The protein localizes to the mitochondrion, where it carries out its essential metabolic functions.