Recombinant ECHM protein (His tag)

Catalog Number	539891
Synonyms	mECH; mECH1; Enoyl-CoA hydratase 1; ECHS1; Short-chain enoyl-CoA hydratase; SCEH
Species	Human
Expression System	E. coli
Accession	P30084
Molecular Weight	Predictes a molecular mass of 29.71 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	32-290
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 32-290 aa (P30084) 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 Enoyl-CoA Hydratase, Mitochondrial (ECHS1) Fragment (residues 32-290) is a high-purity, soluble protein fragment designed for structural and biochemical studies. This 259-amino acid fragment retains key functional properties of the full-length enzyme, offering researchers a stable tool to investigate mitochondrial fatty acid oxidation pathways. Enoyl-CoA hydratase, mitochondrial (ECHS1) is a crucial enzyme in mitochondrial fatty acid β-oxidation, catalyzing the hydration of unsaturated trans-2-enoyl-CoA species to (3S)-3-hydroxyacyl-CoA derivatives. It exhibits substrate specificity for medium- and short-chain fatty enoyl-CoA thioesters (C4 to C16), with highest activity toward crotonyl-CoA. Additionally, ECHS1 demonstrates isomerase activity, converting trans-3-enoyl-CoA to trans-2-enoyl-CoA species. This enzyme is localized exclusively in the mitochondrial matrix, where it plays an essential role in energy metabolism through the breakdown of fatty acids. The provided fragment represents a stable, soluble unit optimized for experimental applications while maintaining the functional characteristics of the native protein.