Recombinant ECH1 protein (His tag)

Catalog Number	544895
Synonyms	3,5; 2,4
Species	Human
Expression System	E. coli
Accession	Q13011
Molecular Weight	Predictes a molecular mass of 32.52 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	49-328
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 49-328 aa (Q13011) 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 Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase fragment (residues 49-328) is a high-purity, stable protein designed for structural and biochemical studies. This 280-amino acid fragment retains key functional properties, offering researchers a soluble and reliable tool for investigating mitochondrial and peroxisomal lipid metabolism pathways. The full-length Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, encoded by the ECH1 gene, catalyzes the isomerization of 3-trans,5-cis-dienoyl-CoA to 2-trans,4-trans-dienoyl-CoA, a critical step in fatty acid beta-oxidation. This enzyme is localized to both mitochondria and peroxisomes, underscoring its essential role in cellular energy production and lipid homeostasis. The selected fragment (49-328) represents a computationally optimized, stable domain that maintains structural integrity for experimental applications while excluding regions prone to instability.