Recombinant DECR protein (His tag)

Catalog Number	547376
Synonyms	3E; 2,4-dienoyl-CoA reductase [NADPH]; 4-enoyl-CoA reductase [NADPH]; Short chain dehydrogenase/reductase family 18C member 1
Species	Human
Expression System	E. coli
Accession	Q16698
Molecular Weight	Predictes a molecular mass of 33.69 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	36-335
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 36-335 aa (Q16698) 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 DECR1 Protein Fragment (aa 36-335) - A highly stable and soluble mitochondrial enzyme fragment essential for unsaturated fatty acid beta-oxidation. This 300-amino acid recombinant protein is ideal for structural studies and biochemical characterization of 2,4-dienoyl-CoA reductase activity. The full-length DECR1 protein (EC 1.3.1.124) functions as an auxiliary enzyme in mitochondrial beta-oxidation pathways, specifically participating in the metabolism of unsaturated fatty enoyl-CoA esters. This mitochondrial enzyme catalyzes the NADP-dependent reduction of 2,4-dienoyl-CoA to yield trans-3-enoyl-CoA, playing a critical role in processing fatty acids with double bonds in both even- and odd-numbered positions. The protein's mitochondrial localization underscores its importance in cellular energy metabolism and lipid processing within the organelle responsible for aerobic respiration.