Recombinant DECR2 protein (His tag)

Catalog Number	543741
Synonyms	3E; pDCR; 2,4-dienoyl-CoA reductase 2; Short chain dehydrogenase/reductase family 17C member 1
Species	Human
Expression System	E. coli
Accession	Q9NUI1
Molecular Weight	Predictes a molecular mass of 32.30 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	2-292
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 2-292 aa (Q9NUI1) 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 Peroxisomal 2,4-dienoyl-CoA Reductase (pDCR) Fragment (DECR2, residues 2-292) is a high-purity protein designed for structural and functional studies. This fragment encompasses the stable, soluble core domain, optimized for biochemical assays and research into fatty acid metabolism. Peroxisomal 2,4-dienoyl-CoA reductase (pDCR), encoded by the DECR2 gene, is an auxiliary enzyme in the beta-oxidation pathway. It functions in peroxisomes to degrade unsaturated fatty acids by catalyzing the NADP-dependent reduction of 2,4-dienoyl-CoA esters to trans-3-enoyl-CoA. This activity is essential for processing unsaturated fatty acids with double bonds in both even- and odd-numbered positions, including polyunsaturated species like docosahexaenoic acid derivatives. The enzyme's localization to peroxisomes underscores its role in specialized lipid metabolic processes, supporting cellular energy homeostasis and lipid balance.