Recombinant DHB4 protein (His tag)

Catalog Number	544680
Synonyms	MFE-2; 17-beta-hydroxysteroid dehydrogenase 4; 17-beta-HSD 4; D-bifunctional protein; DBP; Multifunctional protein 2; MFP-2; Short chain dehydrogenase/reductase family 8C member 1; 3R; 3-alpha,7-alpha,12-alpha-trihydroxy-5-beta-cholest-24-enoyl-CoA hydratase
Species	Human
Expression System	E. coli
Accession	P51659
Molecular Weight	Predictes a molecular mass of 47.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 48 kDa band.

Product Information

Sequence Region	312-736
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 312-736 aa (P51659) 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 Peroxisomal Multifunctional Enzyme Type 2 (MFE-2) Fragment (312-736), a high-purity protein designed for investigating the MaoC-like and SCP2 domains. This fragment retains key enzymatic activities essential for fatty acid beta-oxidation studies, offering researchers a targeted tool to explore domain-specific functions in lipid metabolism. Peroxisomal multifunctional enzyme type 2 (MFE-2), encoded by the HSD17B4 gene in humans, is a bifunctional enzyme central to the peroxisomal fatty acid beta-oxidation pathway. It catalyzes two critical reactions: hydration of 2-enoyl-CoA to (3R)-3-hydroxyacyl-CoA and dehydrogenation of (3R)-3-hydroxyacyl-CoA to 3-ketoacyl-CoA. The enzyme processes diverse substrates, including straight-chain and branched-chain fatty acids and bile acid intermediates, underscoring its role in lipid homeostasis. Localized exclusively in peroxisomes, MFE-2 contributes to cellular energy production and metabolic regulation. The provided fragment (residues 312-736) encompasses functional domains critical for these activities, enabling focused research on peroxisomal metabolic pathways.