Recombinant BDH protein (His tag)

Catalog Number	549746
Synonyms	3-hydroxybutyrate dehydrogenase; BDH; Short chain dehydrogenase/reductase family 9C member 1
Species	Human
Expression System	E. coli
Accession	Q02338
Molecular Weight	Predictes a molecular mass of 34.73 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	47-343
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 47-343 aa (Q02338) 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 D-beta-hydroxybutyrate dehydrogenase (BDH1) fragment (residues 47-343) is a high-purity, stable protein designed for structural and biochemical studies. This soluble fragment retains key functional domains, making it ideal for investigating mitochondrial metabolism and enzyme mechanisms. D-beta-hydroxybutyrate dehydrogenase (BDH1) is a mitochondrial enzyme (EC 1.1.1.30) belonging to the short-chain dehydrogenase/reductase family. According to UniProt data, the full-length protein localizes to both the mitochondrial inner membrane and matrix (ECO:0000250|UniProtKB:Q02337), indicating its integral role in mitochondrial metabolic processes. As 3-hydroxybutyrate dehydrogenase, it catalyzes the interconversion of ketone bodies, playing a crucial role in energy metabolism during fasting states and metabolic adaptation.