Recombinant ODBB protein (His tag)

Catalog Number	544483
Synonyms	Branched-chain alpha-keto acid dehydrogenase E1 component beta chain; BCKDE1B; BCKDH E1-beta
Species	Human
Expression System	E. coli
Accession	P21953
Molecular Weight	Predictes a molecular mass of 39.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	52-392
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 52-392 aa (P21953) 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 2-oxoisovalerate dehydrogenase subunit beta, mitochondrial (BCKDHB) fragment (residues 52-392) is a high-quality protein product designed for structural and biochemical studies. This 341-amino acid fragment represents a stable and soluble unit of the branched-chain alpha-keto acid dehydrogenase E1 component beta chain, enabling researchers to investigate key enzymatic functions in branched-chain amino acid metabolism. The full-length 2-oxoisovalerate dehydrogenase subunit beta (BCKDHB) forms the heterotetrameric E1 subunit of the mitochondrial branched-chain alpha-ketoacid dehydrogenase (BCKD) complex together with BCKDHA. This complex catalyzes the oxidative decarboxylation of alpha-ketoacids derived from the branched-chain amino acids valine, leucine, and isoleucine, producing CO2 and acyl-CoA for energy production. The E1 subunit specifically mediates the initial decarboxylation step, forming an enzyme-product intermediate that undergoes reductive acylation via the lipoylamide cofactor of E2. Located in the mitochondrial matrix, this enzyme plays a critical role in cellular energy metabolism by processing branched-chain amino acid derivatives.