# Recombinant Human D-beta-hydroxybutyrate dehydrogenase, mitochondrial (BDH1)

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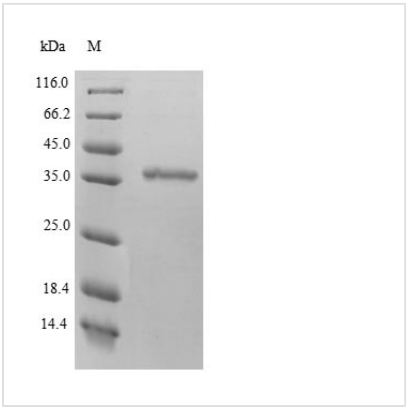
| **Product Code** | CSB-EP002648HU |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | Q02338 |
| **Alias** | 3-hydroxybutyrate dehydrogenase;Short chain dehydrogenase/reductase family 9C member 1 |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Sequence** | ASAAEPVGSKAVLVTGCDSGFGFSLAKHLHSKGFLVFAGCLMKDKGHDGVKELDSLNSDRLRTVQLNVCSSEEVEKVVEIVRSSLKDPEKGMWGLVNNAGISTFGEVEFTSLETYKQVAEVNLWGTVRMTKSFLPLIRRAKGRVVNISSMLGRMANPARSPYCITKFGVEAFSDCLRYEMYPLGVKVSVVEPGNFIAATSLYSPESIQAIAKKMWEELPEVVRKDYGKKYFDEKIAKMETYCSSGSTDTSPVIDAVTHALTATTPYTRYHPMDYYWWLRMQIMTHLPGAISDMIYIR |
| **Lead Time** | 3-7 business days |
| **Research Area** | Cancer |
| **Source** | E.coli |
| **Gene Names** | BDH1 |
| **Expression Region** | 47-343aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal 6xHis-tagged |
| **Mol. Weight** | 37.1kDa |
| **Protein Description** | Full Length of Mature Protein |
| **Image** | |




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The region for expressing recombinant Human BDH1 contains amino acids 47-343. This BDH1 protein is theoretically predicted to have a molecular weight of 37.1 kDa. This BDH1 protein is produced using e.coli expression system. The N-terminal 6xHis tag was fused into the coding gene segment of BDH1, making it easier to detect and purify the BDH1 recombinant protein in the later stages of expression and purification.

The research on BAG family molecular chaperone regulator 2 (BAG2) covers multiple fields, including energy metabolism, obesity, diabetes, and neuroscience. It primarily engages in intracellular energy metabolism, particularly associated with ketone body synthesis and metabolism. In studies of metabolic disorders such as obesity and diabetes, scientists have identified the crucial role of BAG2 in regulating the levels of D-β-hydroxybutyrate in the body. This is closely linked to the significance of ketone bodies as an alternative energy source during periods of starvation and physical activity. Additionally, BAG2 is implicated in the functioning of the nervous system, with some research suggesting its potential involvement in the pathogenesis of neurodegenerative diseases.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.