

## Recombinant Human BDH1 Protein, His-tagged

**Cat. No.** BDH1-137H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Product Overview</b> | Recombinant Human BDH1, transcript variant 3, fused with His tag at N-terminal was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | This gene encodes a member of the short-chain dehydrogenase/reductase gene family. The encoded protein forms a homotetrameric lipid-requiring enzyme of the mitochondrial membrane and has a specific requirement for phosphatidylcholine for optimal enzymatic activity. The encoded protein catalyzes the interconversion of acetoacetate and (R)-3-hydroxybutyrate, the two major ketone bodies produced during fatty acid catabolism. Alternatively spliced transcript variants encoding the same protein have been described. |
| <b>Form</b>             | Supplied as a 0.2 μM filtered solution of 50mM Tris, 1mM DTT, pH 7.5                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Mass</b>   | 40.3kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>AA Sequence</b>      | MGSSHHHHHHSSGLVPRGSHMLATRLSRPLSRLPGKTLACDRENGARRPLLGS<br>TSFIPIGRRTYASAAEPVGSKAVLVTGCDSGFGFALAKHLHSGKFLVFAGCLMKDKG<br>HDGVKELDSLNSDRLRTVQLNVCSSEEEVEKVVEIVRSSLKDPEKGMWGLVNNAGIS<br>TFGEVEFTSLETYKQVAEVLNLTGTVRMTKSFLPLIRRAKGRVVNISSMLGRMANPA<br>RSPYCITKFGVEAFSDCLRYEMYPLGVKVS                                                                                                                                                                                                                                                     |

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| <b>Endotoxin</b>        | Endotoxin level is <0.1 ng/g of protein (<1EU/g).                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Purity</b>           | >95% as determined by SDS-PAGE and Coomassie blue staining                                                                                                                                                                                                                                                                                                                                                               |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Gene Name</b>        | BDH1 3-hydroxybutyrate dehydrogenase, type 1 [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                            |
| <b>Official Symbol</b>  | BDH1                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Synonyms</b>         | BDH1; 3-hydroxybutyrate dehydrogenase, type 1; 3 hydroxybutyrate dehydrogenase (heart, mitochondrial) , BDH; D-beta-hydroxybutyrate dehydrogenase, mitochondrial; SDR9C1; short chain dehydrogenase/reductase family 9C; member 1; (R)-3-hydroxybutyrate dehydrogenase; 3-hydroxybutyrate dehydrogenase (heart, mitochondrial); short chain dehydrogenase/reductase family 9C, member 1; BDH; MGC2723; MGC4347; MGC9788; |
| <b>Gene ID</b>          | 622                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>mRNA Refseq</b>      | NM_203314                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Protein Refseq</b>   | NP_976059                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>MIM</b>              | 603063                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID</b>       | Q02338                                                                                                                                                                                                                                                                                                                                                                                                                   |