

## Recombinant Human D2HGDH protein, His & T7-tagged

**Cat. No.** D2HGDH-1657H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human D2HGDH aa. (Arg56~Asp232 (Accession # Q8N465)) fused with N-terminal His & T7 tag was produced in E. coli cells.                                                                                                                                                                                                                                                                                                                                                     |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>    | Arg56~Asp232                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Description</b>      | This gene encodes D-2hydroxyglutarate dehydrogenase, a mitochondrial enzyme belonging to the FAD-binding oxidoreductase/transferase type 4 family. This enzyme, which is most active in liver and kidney but also active in heart and brain, converts D-2-hydroxyglutarate to 2-ketoglutarate. Mutations in this gene are present in D-2-hydroxyglutaric aciduria, a rare recessive neurometabolic disorder causing developmental delay, epilepsy, hypotonia, and dysmorphic features. |
| <b>Form</b>             | Freeze-dried powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Mass</b>   | Predicted Molecular Mass: 22.8kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Endotoxin</b>        | <1.0EU per 1ug (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>           | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Applications</b>     | SDS-PAGE; WB; ELISA; IP.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stability</b>         | The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition. |
| <b>Storage</b>           | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.                                                                                                                                                                                                                          |
| <b>Storage buffer</b>    | Supplied as lyophilized form in PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl.                                                                                                                                                                                                                                                |
| <b>Reconstitution</b>    | Reconstitute in sterile PBS, pH7.2-pH7.4.                                                                                                                                                                                                                                                                                           |
| <b>Isoelectric Point</b> | 6.7                                                                                                                                                                                                                                                                                                                                 |

## GENE INFORMATION

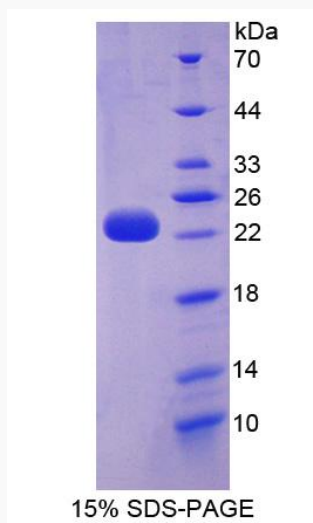
|                        |                                                                                                      |
|------------------------|------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | D2HGDH D-2-hydroxyglutarate dehydrogenase [ Homo sapiens (human) ]                                   |
| <b>Official Symbol</b> | D2HGDH                                                                                               |
| <b>Synonyms</b>        | D2HGDH; D-2-hydroxyglutarate dehydrogenase; D2HGD; D-2-hydroxyglutarate dehydrogenase, mitochondrial |
| <b>Gene ID</b>         | 728294                                                                                               |
| <b>mRNA Refseq</b>     | NM_001287249.1                                                                                       |
| <b>Protein Refseq</b>  | NP_001274178.1                                                                                       |
| <b>UniProt ID</b>      | Q8N465                                                                                               |

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