

## Recombinant Human PDHA1 protein, His-tagged

**Cat. No.** PDHA1-28668TH    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | Recombinant Human PDHA1 fused with His tag was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | <p>The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO<sub>2</sub>, and provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle. The PDH complex is composed of multiple copies of three enzymatic components: pyruvate dehydrogenase (E1), dihydrolipoamide acetyltransferase (E2) and lipoamide dehydrogenase (E3). The E1 enzyme is a heterotetramer of two alpha and two beta subunits. This gene encodes the E1 alpha 1 subunit containing the E1 active site, and plays a key role in the function of the PDH complex. Mutations in this gene are associated with pyruvate dehydrogenase E1-alpha deficiency and X-linked Leigh syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.</p> |
| <b>Form</b>             | Lyophilised. 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>AA Sequence</b>      | MRKMLAAVSRVLSGASQKPASRVLVASRNFANDATFEIKKCDLHRLEEGP PVT TVL<br>TREDGLKYYRMMQTVRRMELKADQLYKQKIIRGFCHLCDGQE ACCVGLEA GINPT<br>DHLITAYRAHGFTFTRGLSVREILAELTGRKGGCA KGKGGSMHMYAKN FYGGNGI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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VGAQVPLGAGIALACKYNGKDEVCLTLY GDGAANQGQIFEAYNMAA LWKLPCIFIC  
ENNRYGMGTSVERAAASTDY YKRGDFIPGLRVDGMDILCVREA TRFAAAYCRSGK  
GPILMELQTYRYH GHMSDPGVSyrTREEIQEVRSKSDPIM LLKDRMVNSNLASVE  
ELKEI DVEVRKEIEDAAQFATADPEPPLEELGYHIYSS DPPFEVRGANQWIKF KSVS

**Applications** Western blot; Mass Spectrometry; SDS-PAGE

**Stability** Upon delivery aliquot and store at -80 centigrade. Avoid freeze / thaw cycles.

**Reconstitution** Reconstitute with 160 µl aqua dest.

## GENE INFORMATION

**Gene Name** PDHA1 pyruvate dehydrogenase (lipoamide) alpha 1 [ Homo sapiens ]

**Official Symbol** PDHA1

**Synonyms** PDHA; PDHAD; PHE1A; PDHCE1A; pyruvate dehydrogenase E1 component subunit alpha, somatic form, mitochondrial; PDHE1-A type I; pyruvate dehydrogenase E1 subunit; pyruvate dehydrogenase complex, E1-alpha polypeptide 1

**Gene ID** 5160

**mRNA Refseq** NM\_000284

**Protein Refseq** NP\_000275

**MIM** 300502

**UniProt ID** P08559

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|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chromosome Location</b> | Xp22.1                                                                                                                                                                           |
| <b>Pathway</b>             | Acetylcholine Synthesis, organism-specific biosystem; Biosynthesis of antibiotics, organism-specific biosystem; Central carbon metabolism in cancer, organism-specific biosystem |
| <b>Function</b>            | pyruvate dehydrogenase (acetyl-transferring) activity; pyruvate dehydrogenase activity                                                                                           |

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