

Recombinant Human PDHA1 protein, His-tagged

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

SPECIFICATION

Product Overview	Recombinant Human PDHA1 fused with His tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO₂, 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.
Form	Lyophilised. 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5.
AA Sequence	MRKMLAAVSRVLSGASQKPASRVLVASRNFANDATFEIKKCDLHRLEEGP PVT TVL TREDGLKYYRMMQTVRRMELKADQLYKQKIIRGFCHLCDGQE ACCVGLEA GINPT 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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Chromosome Location	Xp22.1
Pathway	Acetylcholine Synthesis, organism-specific biosystem; Biosynthesis of antibiotics, organism-specific biosystem; Central carbon metabolism in cancer, organism-specific biosystem
Function	pyruvate dehydrogenase (acetyl-transferring) activity; pyruvate dehydrogenase activity

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