

Recombinant Full Length Human PDHA1 Protein, C-Flag-tagged

Cat. No. PDHA1-1646HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human PDHA1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	The pyruvate dehydrogenase (PDH) complex is a nuclear-encoded mitochondrial multienzyme complex that catalyzes the overall conversion of pyruvate to acetyl-CoA and CO ₂ , 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	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	40.2 kDa
AA Sequence	MRKMLAAVSRVLGASQKPASRVLVASRNFANDATFEIKKCDLHRLEEGPPVTTVLT

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REDGLKYYRMMQT VRRMELKADQLYKQKIIRGFCHLCDGQEACCVGLEAGINPTD
 HLITAYRAHGFTFTRGLSVREILAELTG RKGCGAKGKGSMHMYAKNFYGGNGIVG
 AQVPLGAGIALACKYNGKDEVCLTLYGDGAANQGQIFEAYNM AALWKLPCIFICENN
 RYGMGTSVERAAASTDYYKRGDFIPGLRVDGMDILCVREATRFAAAYCRSGKGPI L
 MELQTYRYHGHSMSPGVSYRTREEIQEVRSKSDPIMLLKDRMVNSNLASVEELKEI
 DVEVRKEIEDAA
 QFATADPEPPLEELGYHIYSSDPPFEVRGANQWIKFSVSTRTRPLEQKLISEEDLAA
 NDILDYKDDDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome
Protein Pathways	Butanoate metabolism, Citrate cycle (TCA cycle), Glycolysis / Gluconeogenesis, Metabolic pathways, Pyruvate metabolism, Valine, leucine and isoleucine biosynthesis
Full Length	Full L.

GENE INFORMATION

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Gene Name	PDHA1 pyruvate dehydrogenase E1 subunit alpha 1 [Homo sapiens (human)]
Official Symbol	PDHA1
Synonyms	PDHA; PDHAD; PHE1A; E1alpha; PDHCE1A
Gene ID	5160
mRNA Refseq	NM_000284.4
Protein Refseq	NP_000275.1
MIM	300502
UniProt ID	P08559



Coomassie blue staining of purified PDHA1 protein.

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