

## Product datasheet for PH301831

### PDHA1 (NM\_000284) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	PDHA1 MS Standard C13 and N15-labeled recombinant protein (NP_000275)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC201831
Predicted MW:	43.3 kDa
Protein Sequence:	>RC201831 protein sequence Red=Cloning site Green=Tags(s)

MRKMLAAVSRVLSGASQKASRVLVASRNFANDATFEIKKCDLHRLEEGPPVTTVLTREDGLKYYRMMQT  
VRRMELKADQLYKQKIIRGFCHLCDGQEACCVGLEAGINPTDHLITAYRAHGFTFTRGLSVREILAEELTG  
RKGGCAKGGKSMHMYAKNFYGGNGIVGAQVPLGAGIALACKYNGKDEVCLTLYGDGAANQQQIFEAYNM  
AALWKLPCIFICENNRGMGTSVERAAASTDYKRGDFIPGLRVDGMDILCVREATRFAAAYCRSGKGP  
LMELQTYRYHGHSMSPGVSYRTREEIQEVRSKSDPIMLLKDRMVNSNLASVEELKEIDVEVRKEIEDAA  
QFATADPEPPLEELGYHIYSSDPPFEVRGANQWIKFKSVS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_000275</u>
RefSeq Size:	3390
RefSeq ORF:	1170
Synonyms:	PDHA; PDHAD; PDHCE1A; PHE1A
Locus ID:	5160



[View online »](#)

UniProt ID: [P08559](#), [A0A024RBX9](#)

Cytogenetics: Xp22.12

**Summary:** 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.[provided by RefSeq, Mar 2010]

**Protein Families:** Druggable Genome

**Protein Pathways:** Butanoate metabolism, Citrate cycle (TCA cycle), Glycolysis / Gluconeogenesis, Metabolic pathways, Pyruvate metabolism, Valine, leucine and isoleucine biosynthesis

### Product images:



Coomassie blue staining of purified PDHA1 protein (Cat# [TP301831]). The protein was produced from HEK293T cells transfected with PDHA1 cDNA clone (Cat# [RC201831]) using MegaTran 2.0 (Cat# [TT210002]).