

## Product datasheet for **TA502704BM**

### PDHA1 Mouse Monoclonal Antibody (HRP conjugated) [Clone ID: OTI2B10]

#### Product data:

|                         |   |
|-------------------------|---|
| Product Type:           | Primary Antibodies  |
| Clone Name:             | OTI2B10   |
| Applications:           | FC, IF, WB  |
| Recommended Dilution:   | WB 1:2000, IF 1:100, FLOW 1:100   |
| Reactivity:             | Human, Mouse, Rat   |
| Host:                   | Mouse   |
| Isotype:                | IgG2b   |
| Clonality:              | Monoclonal  |
| Immunogen:              | Full length human recombinant protein of human PDHA1 (NP_000275) produced in HEK293T cell.  |
| Formulation:            | PBS (pH 7.3) containing 1% BSA, 50% glycerol.   |
| Concentration:          | 0.5 mg/ml   |
| Purification:           | Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)   |
| Conjugation:            | HRP   |
| Storage:                | Store at -20°C as received.   |
| Stability:              | Stable for 12 months from date of receipt.  |
| Predicted Protein Size: | 40.2 kDa  |
| Gene Name:              | pyruvate dehydrogenase E1 subunit alpha 1   |
| Database Link:          | <a href="#">NP_000275</a><br><a href="#">Entrez Gene 18597 Mouse</a> <a href="#">Entrez Gene 29554 Rat</a> <a href="#">Entrez Gene 5160 Human</a><br><a href="#">P08559</a> |



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**Background:**

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.

**Synonyms:**

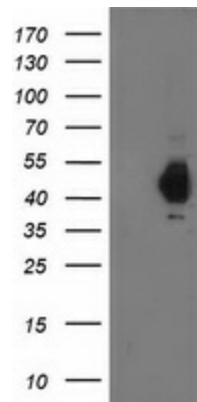
PDHA; PDHAD; PDHCE1A; PHE1A

**Protein Families:**

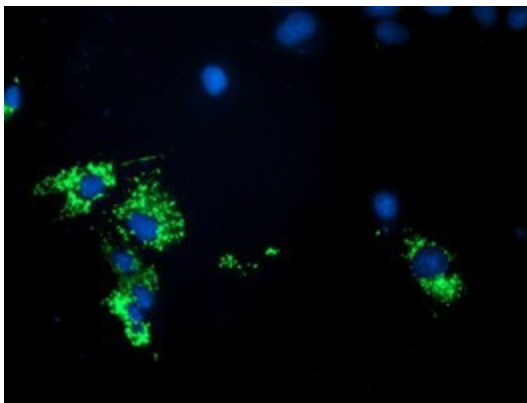
Druggable Genome

**Protein Pathways:**

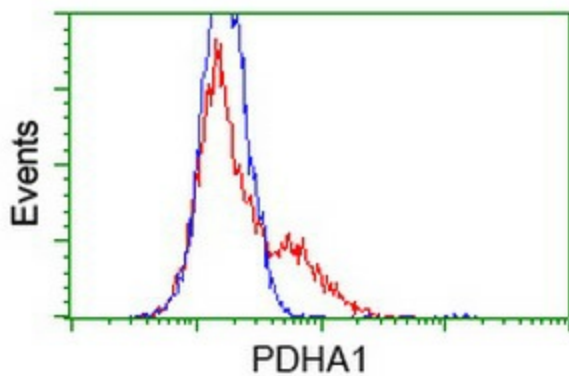
Butanoate metabolism, Citrate cycle (TCA cycle), Glycolysis / Gluconeogenesis, Metabolic pathways, Pyruvate metabolism, Valine, leucine and isoleucine biosynthesis

**Product images:**

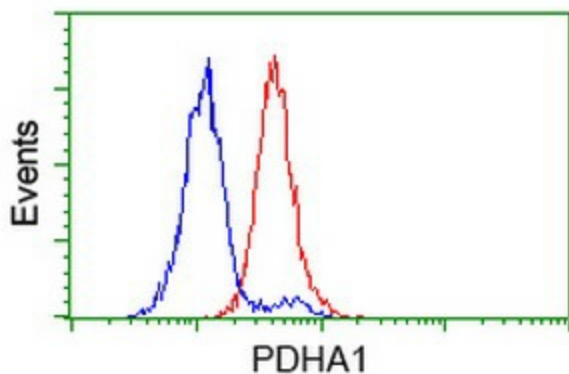
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY PDHA1 ([RC201831], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PDHA1. Positive lysates [LY400110] (100ug) and [LC400110] (20ug) can be purchased separately from OriGene.



Anti-PDHA1 mouse monoclonal antibody ([TA502704]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PDHA1 ([RC201831]).



HEK293T cells transfected with either [RC201831] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-PDHA1 antibody ([TA502704]), and then analyzed by flow cytometry.



Flow cytometric Analysis of HeLa cells, using anti-PDHA1 antibody ([TA502704]), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).