

## Anti-PDHA1 Polyclonal Antibody

### Product Details

Ig Type:	IgG
Reactivity:	Human, Mouse, Rat (predicted: Chicken, Dog, Pig, Cow, Horse, Rabbit)
Molecular Weight:	Theoretical: 43 kDa. Actual: 43 kDa.
Purification:	Protein A purified

### Applications

1. Paraformaldehyde-fixed, paraffin embedded (Rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (PDHA1) Polyclonal Antibody, Unconjugated (TMAB-01356) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody for 20 min and DAB staining.

2. Sample: Heart (Mouse) Lysate at 40 µg

Primary: Anti-PDHA1 (TMAB-01356) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 43 kDa

Observed band size: 43 kDa

3. Sample: Kidney (Mouse) Lysate at 40 µg

Primary: Anti-PDHA1 (TMAB-01356) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 43 kDa

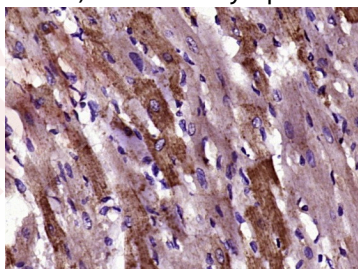
Observed band size: 43 kDa

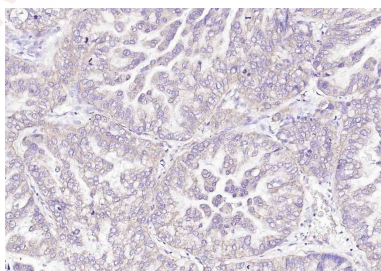
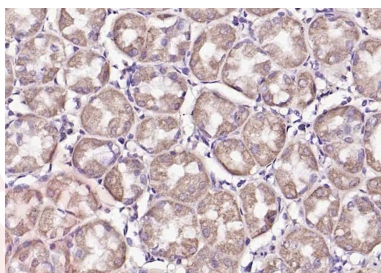
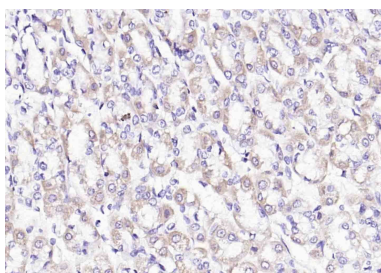
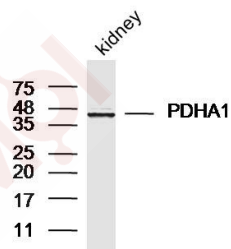
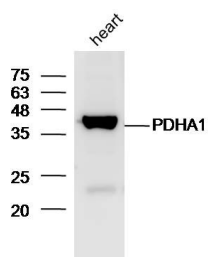
### Verified Activity:

4. Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (PDHA1) Polyclonal Antibody, Unconjugated (TMAB-01356) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

5. Paraformaldehyde-fixed, paraffin embedded (human stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (PDHA1) Polyclonal Antibody, Unconjugated (TMAB-01356) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.

6. Paraformaldehyde-fixed, paraffin embedded (human lung carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (PDHA1) Polyclonal Antibody, Unconjugated (TMAB-01356) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructions and DAB staining.





Application: IF,IHC-Fr,IHC-P,WB

Recommended WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human PDHA1
Antigen Species:	Human
Gene ID:	5160
Uniprot ID:	P08559
Biology Area:	Metabolism of carbohydrates,Carbohydrate metabolism,Energy Metabolism,Mitochondrial markers,Energy Metabolism,Mitochondrial

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### Research 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.

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