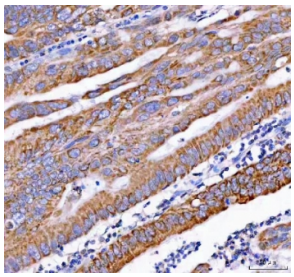
# PDK3 Antibody / Pyruvate dehydrogenase kinase 3 (RQ8542)

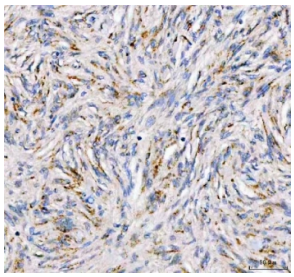
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ8542 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

## Bulk quote request

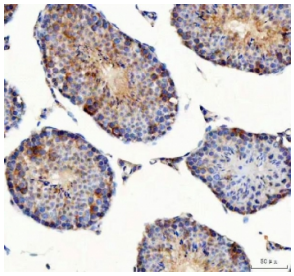
| | |
|---|---|
| **Availability** | 1-3 days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | Q15120 |
| **Localization** | Cytoplasm |
| **Applications** | Western Blot : 0.5-1ug/ml<br>Immunohistochemistry (FFPE) : 2-5ug/ml<br>Immunofluorescence : 5ug/ml<br>Flow Cytometry : 1-3ug/million cells<br>ELISA : 0.1-0.5ug/ml |
| **Limitations** | This PDK3 antibody is available for research use only. |



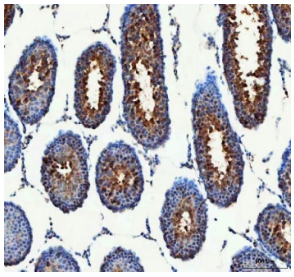
IHC staining of FFPE human rectum adenocarcinoma tissue with PDK3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



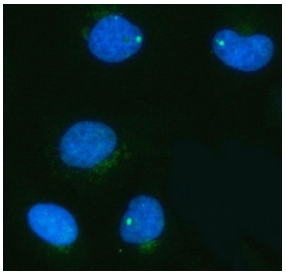
IHC staining of FFPE human meningioma tissue with PDK3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



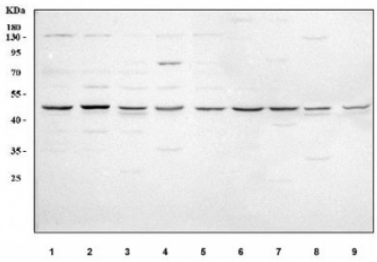
IHC staining of FFPE mouse testis tissue with PDK3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



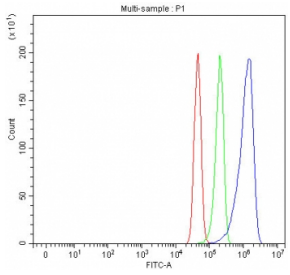
IHC staining of FFPE rat testis tissue with PDK3 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Immunofluorescent staining of FFPE human HeLa cells with PDK3 antibody (green) and DAPI nuclear stain (blue). HIER: steam section in pH6 citrate buffer for 20 min.




Western blot testing of 1) human MCF7, 2) human 293T, 3) human RT4, 4) human SiHa, 5) human Jurkat, 6) human U-251, 7) human A549, 8) rat testis and 9) mouse testis tissue lysate with PDK3 antibody. Predicted molecular weight ~47 kDa.




Flow cytometry testing of fixed and permeabilized human U-251 cells with PDK3 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= PDK3 antibody.

## Description

Pyruvate dehydrogenase lipoamide kinase isozyme 3, mitochondrial is an enzyme that in humans is encoded by the PDK3 gene. 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). It provides the primary link between glycolysis and the tricarboxylic acid (TCA) cycle, and thus is one of the major enzymes responsible for the regulation of glucose metabolism. The enzymatic activity of PDH is regulated by a phosphorylation/dephosphorylation cycle, and phosphorylation results in inactivation of PDH. The protein encoded by this gene is one of the three pyruvate dehydrogenase kinases that inhibits the PDH complex by phosphorylation of the E1 alpha subunit. This gene is predominantly expressed in the heart and skeletal muscles. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.

## Application Notes

Optimal dilution of the PDK3 antibody should be determined by the researcher.

## Immunogen

An E.coli-derived human recombinant protein (amino acids Y84-Q406) was used as the immunogen for the PDK3 antibody.

## Storage

After reconstitution, the PDK3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.