

**PDXK Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7167a**

**Specification**

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**PDXK Antibody (C-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">O00764</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Calculated MW	<b>35102</b>
Antigen Region	<b>242-272</b>

**PDXK Antibody (C-term) - Additional Information**

**Gene ID** 8566

**Other Names**

Pyridoxal kinase, Pyridoxine kinase, PDXK, C21orf124, C21orf97, PKH, PNK

**Target/Specificity**

This PDXK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 242-272 amino acids from the C-terminal region of human PDXK.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

PDXK Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PDXK Antibody (C-term) - Protein Information**

**Name** PDXK ([HGNC:8819](#))

**Function** Catalyzes the phosphorylation of the dietary vitamin B6 vitamers pyridoxal (PL), pyridoxine (PN) and pyridoxamine (PM) to form pyridoxal 5'-phosphate (PLP), pyridoxine

5'-phosphate (PNP) and pyridoxamine 5'-phosphate (PMP), respectively (Probable) (PubMed:[10987144](#), PubMed:[17766369](#), PubMed:[19351586](#), PubMed:[31187503](#), PubMed:[9099727](#)). PLP is the active form of vitamin B6, and acts as a cofactor for over 140 different enzymatic reactions.

#### Cellular Location

Cytoplasm, cytosol.

#### Tissue Location

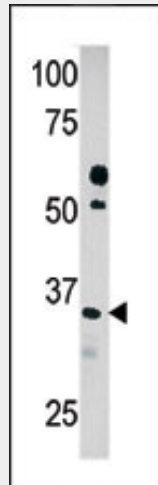
Ubiquitous (PubMed:[31187503](#), PubMed:[9099727](#)). Highly expressed in testis (PubMed:[9099727](#))

### PDXK Antibody (C-term) - Protocols

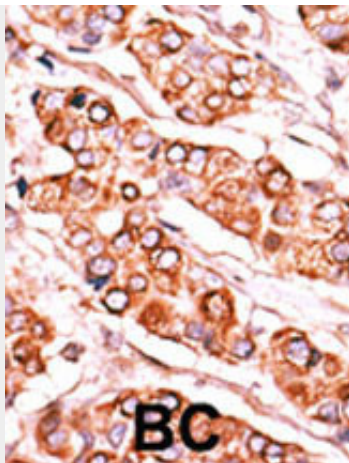
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### PDXK Antibody (C-term) - Images



Western blot analysis of anti-PDXK (Cat. #AP7167a) in HepG2 cell line lysate (35ug/lane). PDXK (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **PDXK Antibody (C-term) - Background**

Pyridoxal kinase (PDXK) converts vitamin B6 to pyridoxal-5-phosphate (PLP), an essential cofactor in the intermediate metabolism of amino acids and neurotransmitters. The PDXK gene encodes a 312-amino acid polypeptide, and expression of the cDNA reveals pyridoxal kinase activity. Northern blot analysis revealed that a major 1.5-kb PDXK transcript is expressed in all tissues tested. The expression of PDXK shows circadian oscillations. The expression of Pdxk in mouse liver and brain is regulated by the 3 PAR bZIP transcription factors, Dbp, Hlf, and Tef, which also show circadian oscillations in expression. Mice devoid of all 3 transcription factors show decreased levels of brain PLP, serotonin, and dopamine, and are highly susceptible to frequently lethal generalized spontaneous and audiogenic epilepsies.

#### **PDXK Antibody (C-term) - References**

Shin, J.H., et al., *Neurochem. Int.* 45(1):73-79 (2004).  
Lee, H.S., et al., *Mol. Cells* 10(4):452-459 (2000).  
Laine-Cessac, P., et al., *Biochem. Pharmacol.* 54(8):863-870 (1997).  
Hanna, M.C., et al., *J. Biol. Chem.* 272(16):10756-10760 (1997).  
Zhang, Z., et al., *J. Nutr.* 10(1):53-59 (1993).

#### **PDXK Antibody (C-term) - Citations**

- [Metabolic features of cancer cells impact immunosurveillance](#)