

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

Specification

PDXK Antibody (C-term) - Product Information

Application	WB, IHC-P,E
Primary Accession	O00764
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35102
Antigen Region	242-272

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

Cellular Location

Cytoplasm, cytosol.

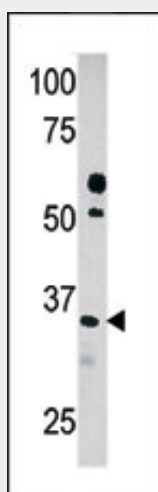
Tissue Location

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

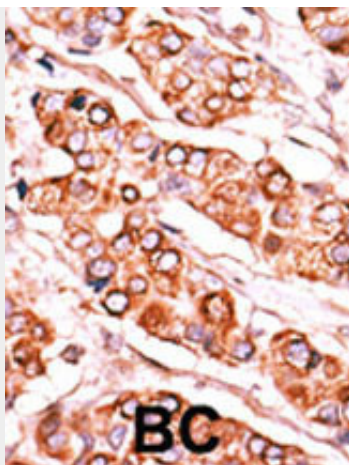
PDXK Antibody (C-term) - Protocols

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).