

**PANK2 Antibody (N-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7160a**

**Specification**

---

**PANK2 Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">Q9BZ23</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	62681
Antigen Region	65-95

**PANK2 Antibody (N-term) - Additional Information**

**Gene ID** 80025

**Other Names**

Pantothenate kinase 2, mitochondrial, hPanK2, Pantothenic acid kinase 2, PANK2, C20orf48

**Target/Specificity**

This PANK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 65-95 amino acids from the N-terminal region of human PANK2.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**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**

PANK2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**PANK2 Antibody (N-term) - Protein Information**

**Name** PANK2

**Synonyms** C20orf48

**Function** [Isoform 1]: Mitochondrial isoform that catalyzes the phosphorylation of pantothenate to generate 4'-phosphopantothenate in the first and rate-determining step of coenzyme A (CoA) synthesis (PubMed:[15659606](#), PubMed:[16272150](#), PubMed:[17242360](#), PubMed:[17825826](#)). Required for angiogenic activity of umbilical vein of endothelial cells (HUVEC) (PubMed:[30221726](#)).

#### **Cellular Location**

[Isoform 1]: Mitochondrion. Mitochondrion intermembrane space. Nucleus Note=Localizes predominantly to the mitochondria and to a lesser extent to the nucleus. Found in both the mitochondria and the nucleus throughout the cell cycle, with the exception of the G2/M phase when it is restricted to mitochondria. [Isoform 3]: Cytoplasm {ECO:0000269|PubMed:12554685, ECO:0000305}

#### **Tissue Location**

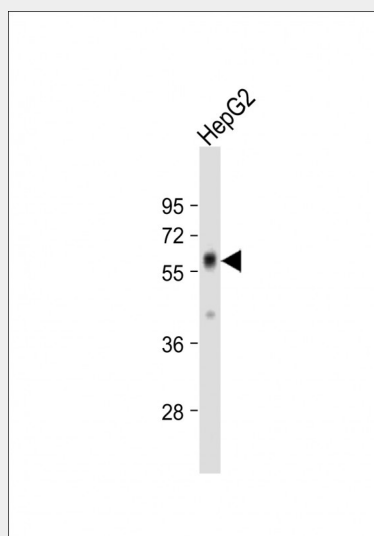
Expressed in the brain (at protein level) (PubMed:15659606, PubMed:17825826). Ubiquitous (PubMed:11479594) Highly expressed in the testis (PubMed:17825826). Expressed in the umbilical vein endothelial cells (HUVEC) (PubMed:30221726)

### **PANK2 Antibody (N-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](#)

### **PANK2 Antibody (N-term) - Images**



Anti-PANK2 Antibody (P80) at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 63 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

### **PANK2 Antibody (N-term) - Background**

Pantothenate kinase is an essential regulatory enzyme in CoA biosynthesis, catalyzing the cytosolic phosphorylation of pantothenate (vitamin B5), N-pantothenoylcysteine, and pantetheine. CoA is the major acyl carrier, playing a central role in intermediary and fatty acid metabolism. In both yeast and fly, each with only 1 pantothenate kinase gene, the null mutant is inviable. Mutations in PANK2 are the cause of pantothenate kinase-associated neurodegeneration (PKAN), formerly known as Hallervorden-Spatz syndrome (HSS). PKAN is an autosomal recessive neurodegenerative disorder associated with iron accumulation in the brain. Mutations in PANK2 are the cause of hypoprebetalipoproteinemia, acanthocytosis, retinitis pigmentosa, and pallidal degeneration (HARP).

#### **PANK2 Antibody (N-term) - References**

Neurology 58: 1673-1674, 2002. Hum. Molec. Genet. 12: 321-327, 2003. Neurology 61: 1423-1426, 2003. Neurology 64: 1810-1812, 2005. Nature Genet. 28: 345-349, 2001.