

Product datasheet for **CF501321**

PANK2 Mouse Monoclonal Antibody [Clone ID: OTI3H9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3H9
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:1000~2000, IHC 1:50, IF 1:100, FLOW 1:100
Reactivity:	Human, Dog, Rat, Monkey, Mouse
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human PANK2(NP_705902) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	59.1 kDa
Gene Name:	pantothenate kinase 2
Database Link:	NP_705902 Entrez Gene 74450 Mouse Entrez Gene 296167 Rat Entrez Gene 477168 Dog Entrez Gene 717639 Monkey Entrez Gene 80025 Human Q9BZ23



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Background:

This gene encodes a protein belonging to the pantothenate kinase family and is the only member of that family to be expressed in mitochondria. Pantothenate kinase is a key regulatory enzyme in the biosynthesis of coenzyme A (CoA) in bacteria and mammalian cells. It catalyzes the first committed step in the universal biosynthetic pathway leading to CoA and is itself subject to regulation through feedback inhibition by acyl CoA species. Mutations in this gene are associated with HARP syndrome and pantothenate kinase-associated neurodegeneration (PKAN), formerly Hallervorden-Spatz syndrome. Alternative splicing, involving the use of alternate first exons, results in multiple transcripts encoding different isoforms. [provided by RefSeq]

Synonyms:

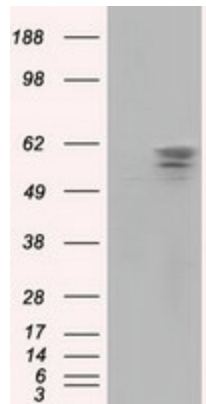
C20orf48; HARP; HSS; NBIA1; PKAN

Protein Families:

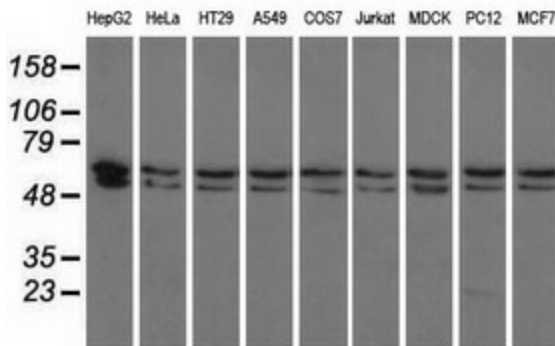
Druggable Genome

Protein Pathways:

Metabolic pathways, Pantothenate and CoA biosynthesis

Product images:


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PANK2 (Cat# [RC215676], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PANK2 (Cat# [TA501321]). Positive lysates [LY406998] (100ug) and [LC406998] (20ug) can be purchased separately from OriGene.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-PANK2 monoclonal antibody.

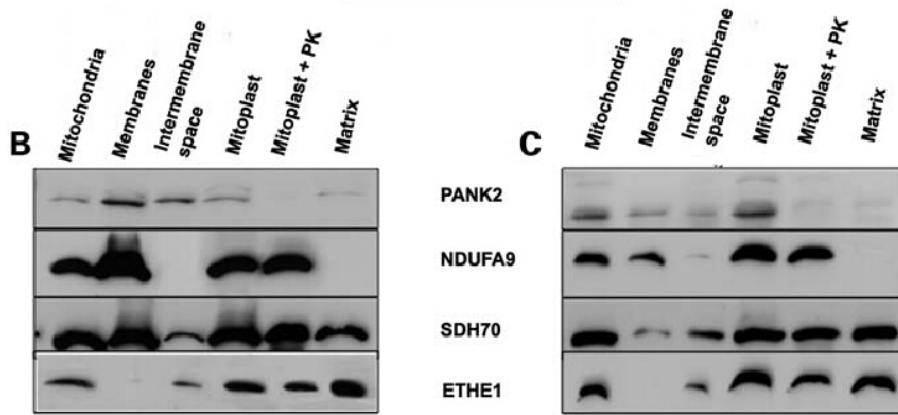
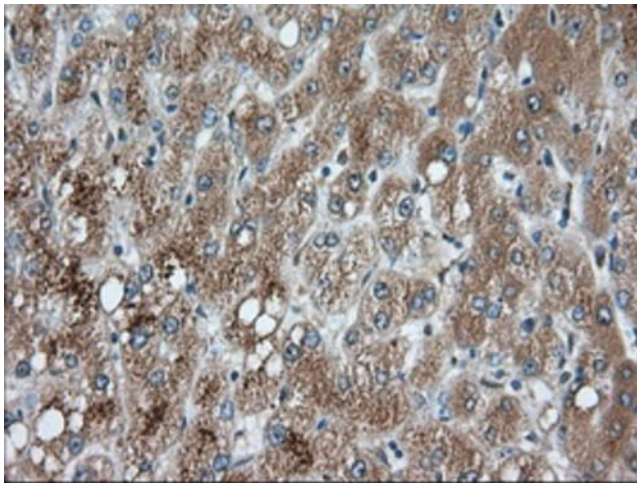
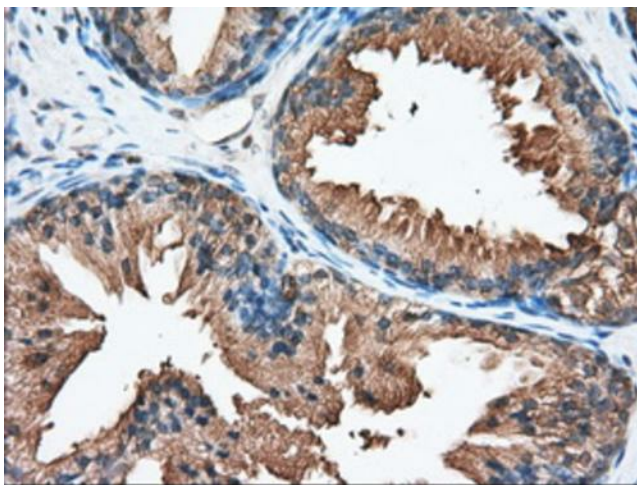


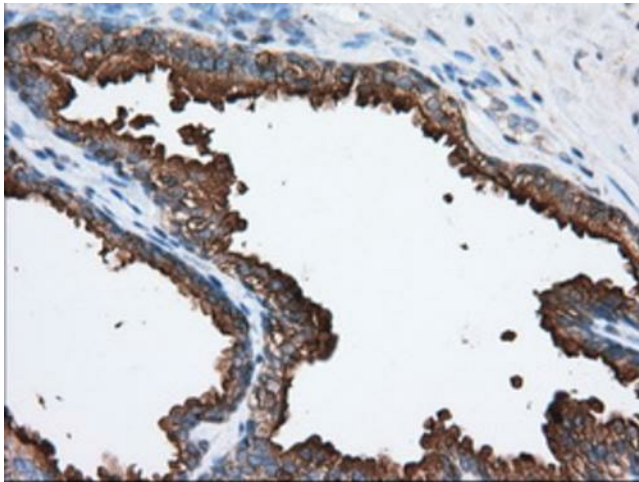
Figure from citation: Western Blot of PANK2 protein level by using anti-PANK2 antibody in different mitochondrial compartments isolated from WT mouse brain and WT mouse fibroblasts. Dilution: 1:2000 [View Citation](#)



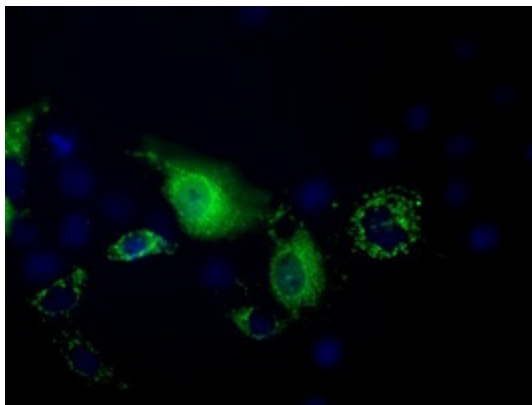
Immunohistochemical staining of paraffin-embedded Human liver tissue within the normal limits using anti-PANK2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



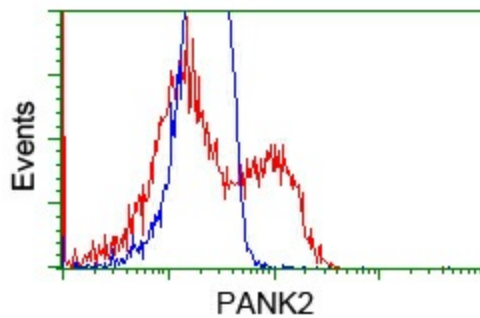
Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-PANK2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



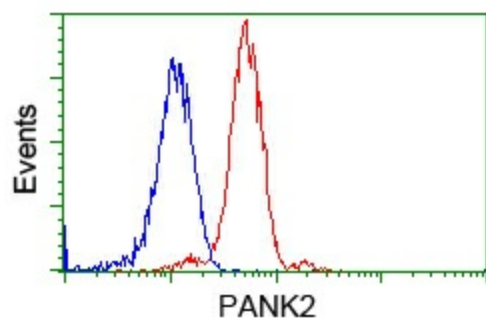
Immunohistochemical staining of paraffin-embedded Carcinoma of Human prostate tissue using anti-PANK2 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-PANK2 mouse monoclonal antibody ([TA501321]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY PANK2 ([RC215676]).



HEK293T cells transfected with either [RC215676] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-PANK2 antibody ([TA501321]), and then analyzed by flow cytometry.



Flow cytometric Analysis of Jurkat cells, using anti-PANK2 antibody ([TA501321]), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).