Pantothenate Kinase 2 (PANK2) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Pantothenate Kinase 2 (PANK2), Polyclonal Antibody
Full Product Name	Pantothenate Kinase 2, Mitochondrial (Pantothenic Acid Kinase 2, PANK2, hPanK2, C20orf48, FLJ17232, HSS, HARP, MGC15053, NBIA1, PKAN) (MaxLight 650)
Product Gene Name	anti-PANK2 antibody
Product Synonym Names	EC=2.7.1.33
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein G Affinity Chromatography.
Specificity	Recognizes human PANK2.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	62.695
OMIM	234200
3D Structure	ModBase 3D Structure for Q9BZ23
Immunogen	Synthetic peptide selected from the central region of human PANK2 (KLH).
Conjugate	MaxLight650
Note	Preservative Free
Product Categories/Family for anti-PANK2 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-PANK2 antibody	Western Blot (WB), FLISA
Application Notes for anti-PANK2 antibody	WB: 1:100-1:500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-PANK2 antibody	MBS6491908 is an antibody targeting PANK2. Also known as Pantothenate Kinase 2, Mitochondrial (Pantothenic Acid Kinase 2, PANK2, hPanK2, C20orf48, FLJ17232, HSS, HARP, MGC15053, NBIA1, PKAN) (MaxLight 650). Reactive in Human. Host: Rabbit.
Product References and Citations for anti-PANK2 antibody	1. Neurology 58: 1673-1674, 2002. 2. Hum. Molec. Genet. 12: 321-327, 2003. 3. Neurology 61: 1423-1426, 2003. 4. Neurology 64: 1810-1812, 2005. 5. Nature Genet. 28: 345-349, 2001.
Other Notes	Small volumes of anti-PANK2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PANK2. It may not necessarily be applicable to this product.

NCBI GI #	23452046
NCBI GeneID	80025
NCBI Accession #	AAN32907
UniProt Primary Accession #	Q9BZ23
UniProt Related Accession #	Q9BZ23
NCBI Official Full Name	pantothenate kinase 2
NCBI Official Synonym Full Names	pantothenate kinase 2
NCBI Official Symbol	PANK2
NCBI Official Synonym Symbols	HSS; HARP; PKAN; NBIA1; C20orf48
UniProt Protein Name	Pantothenate kinase 2, mitochondrial
UniProt Synonym Protein Names	Pantothenic acid kinase 2
Protein Family	Pantothenate kinase
UniProt Gene Name	PANK2
UniProt Synonym Gene Names	C20orf48
UniProt Entry Name	PANK2_HUMAN
NCBI Protein Information	pantothenate kinase 2, mitochondrial
NCBI Summary for PANK2	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, Jul 2008]
UniProt Comments for PANK2	PANK2: a pantothenate kinase that catalyzes the first committed step in the biosynthesis of coenzyme A, an essential cofactor in cellular metabolism. PANK2 is predominantly localized in mitochondria in primates. Defects in PANK2 are the cause of pantothenate kinase-associated neurodegeneration (PKAN), an autosomal recessive neurodegenerative disorder associated with iron accumulation in the brain. Three isoforms of the human PANK2, produced by alternative splicing, have been reported. Protein type: Kinase, other; Mitochondrial; EC 2.7.1.33; Cofactor and Vitamin Metabolism - pantothenate and CoA biosynthesis Chromosomal Location of Human Ortholog: 20p13 Cellular Component: mitochondrial intermembrane space; cytosol Molecular Function: pantothenate kinase activity; ATP binding Biological Process: coenzyme A biosynthetic process; coenzyme biosynthetic process; vitamin metabolic process; regulation of mitochondrial membrane potential; pantothenate metabolic process; aerobic respiration; phosphorylation; spermatid development; water-soluble vitamin metabolic process Disease: Hypoprebetalipoproteinemia, Acanthocytosis, Retinitis Pigmentosa, And Pallidal Degeneration; Neurodegeneration With Brain Iron Accumulation 1
Research Articles on PANK2	**1.** A novel PANK2 mutation was identified in South East Asian population in Thailand with pantothenate kinase associated neurodegeneration.

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