PANK2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	PANK2, Monoclonal Antibody
Full Product Name	PANK2 (Pantothenate Kinase 2, Mitochondrial, hPanK2, Pantothenic Acid Kinase 2, C20orf48, FLJ11729, FLJ17232, MGC15053) (MaxLight 650)
Product Gene Name	anti-PANK2 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	2B12
Host	Mouse
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 A 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	50,582 Da
OMIM	234200
3D Structure	ModBase 3D Structure for Q9BZ23
Immunogen	Partial recombinant corresponding to aa205-260 from human PANK2 (NP_705902) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	IGDLQLCKLDELDCLIKGILYIDSVGFNGRSQCYYFENPADSEKCQKLPFDLKNP
Conjugate	MaxLight650
Product Categories/Family for anti-PANK2 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-PANK2 antibody	FLISA, Immunohistochemistry (IHC) Paraffin, Western Blot (WB)
Application Notes for anti-PANK2 antibody	IHC-P: 1-10ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-PANK2 antibody	MBS6223642 is an antibody targeting PANK2. Also known as PANK2 (Pantothenate Kinase 2, Mitochondrial, hPanK2, Pantothenic Acid Kinase 2, C20orf48, FLJ11729, FLJ17232, MGC15053) (MaxLight 650). Reactive in Human. Host: Mouse.
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 #	85838513
NCBI GeneID	80025
NCBI Accession #	NP_705902
UniProt Primary Accession #	Q9BZ23
UniProt Secondary Accession #	Q5T7I2; Q5T7I4; Q7RTX5; Q8N7Q4; Q8TCR5; Q9BYW5; Q9HAF2; B1AK33; B2Z3X0; D3DVZ0
UniProt Related Accession #	Q9BZ23
GenBank Nucleotide #	NM_153638
NCBI Official Full Name	pantothenate kinase 2, mitochondrial isoform 1 preproprotein
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.** study presents 2 siblings who were homozygous for a novel c.695A>G (p.Asp232Gly) missense mutation in exon 2 of PANK2 gene; index patient presented with a 5-year history of slowly progressive gait disturbance, dysarthria, mild axial rigidity and bradykinesia
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/monoclonal-human-antibody/pank2/6223642