BCKDK Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	BCKDK, Polyclonal Antibody
Full Product Name	BCKDK, CT (T340) (3-methyl-2-oxobutanoate Dehydrogenase Lipoamide Kinase, Mitochondrial, Branched-chain alpha-ketoacid Dehydrogenase Kinase, BCKDHKIN, BCKD-kinase) (MaxLight 490)
Product Gene Name	anti-BCKDK antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein G Affinity Chromatography.
Specificity	Recognizes human BCKDK. Species Crossreactivity: mouse.
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: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	46,360 Da
Chromosome Location	Chromosome: 16; NC_000016.9 (31119662..31124112). Location: 16p11.2
OMIM	614901
3D Structure	ModBase 3D Structure for O14874
Immunogen	Synthetic peptide selected from the C-terminal region of human BCKDK (KLH).
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-BCKDK antibody	Antibodies; Protein Kinase Substrates
Applications Tested/Suitable for anti-BCKDK antibody	Western Blot (WB), FLISA
Application Notes for anti-BCKDK antibody	WB: 1:100-1:500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-BCKDK antibody	MBS6465004 is an antibody targeting BCKDK. Also known as BCKDK, CT (T340) (3-methyl-2-oxobutanoate Dehydrogenase Lipoamide Kinase, Mitochondrial, Branched-chain alpha-ketoacid Dehydrogenase Kinase, BCKDHKIN, BCKD-kinase) (MaxLight 490). Reactive in Human, Mouse. Host: Rabbit.
Other Notes	Small volumes of anti-BCKDK 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 BCKDK. It may not necessarily be applicable to this product.

NCBI GI #	171906593
NCBI GeneID	10295
NCBI Accession #	NP_001116429.1
UniProt Primary Accession #	O14874
UniProt Secondary Accession #	Q6FGL4; Q96IN5
UniProt Related Accession #	O14874
GenBank Nucleotide #	NM_001122957.2
NCBI Official Full Name	[3-methyl-2-oxobutanoate dehydrogenase
NCBI Official Synonym Full Names	branched chain ketoacid dehydrogenase kinase
NCBI Official Symbol	BCKDK
NCBI Official Synonym Symbols	BDK; BCKDKD
UniProt Protein Name	[3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase, mitochondrial
UniProt Synonym Protein Names	Branched-chain alpha-ketoacid dehydrogenase kinase
Protein Family	[3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase
UniProt Gene Name	BCKDK
UniProt Synonym Gene Names	BCKD-kinase; BCKDHKIN
UniProt Entry Name	BCKD_HUMAN
NCBI Protein Information	[3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase, mitochondrial; [3-methyl-2-oxobutanoate dehydrogenase [lipoamide]] kinase, mitochondrial; BCKDHKIN; BCKD-kinase; branched chain alpha-ketoacid dehydrogenase kinase
NCBI Summary for BCKDK	The branched-chain alpha-ketoacid dehydrogenase complex (BCKD) is an important regulator of the valine, leucine, and isoleucine catabolic pathways. The protein encoded by this gene is found in the mitochondrion, where it phosphorylates and inactivates BCKD. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2012]
UniProt Comments for BCKDK	BCKDK: an atypical protein kinase associated with the mitochondrial matrix. Contains a HATPase_c domain, found in several ATP-binding proteins including protein histidine kinases (PHKs), PHDKs, DNA gyrase B, topoisomerases, heat shock proteins, and DNA mismatch repair proteins. Unlike PHKs, BCK dimerizes through direct interaction of two opposing nucleotide-binding domains. Phosphorylates and inactivates the E1-alpha subunit of the branched-chain ketoacid dehydrogenase (BCKDK), the key regulatory enzyme of the valine, leucine and isoleucine catabolic pathways. Inactivating mutations have been discovered in BCKDK in families with autism, epilepsy, and intellectual disability, a syndrome that may respond to dietary supplementation. Protein type: Protein kinase, atypical; Kinase, protein; Mitochondrial; EC 2.7.11.4; ATYPICAL group; PDHK family Chromosomal Location of Human Ortholog: 16p11.2 Cellular Component: mitochondrial alpha-ketoglutarate dehydrogenase complex; mitochondrion Molecular Function: protein serine/threonine kinase activity; protein binding; [3-methyl-2-oxobutanoate dehydrogenase (acetyl-transferring)] kinase activity; kinase activity; ATP binding Biological Process: branched chain family amino acid catabolic process; amino acid catabolic process; phosphorylation; protein amino acid phosphorylation Disease: Branched-chain Ketoacid Dehydrogenase Kinase Deficiency
Research Articles on BCKDK	**1.** Observational study of gene-disease association, gene-environment interaction, and pharmacogenomic / toxicogenomic. (HuGE Navigator)

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