PRK2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	PRK2, Monoclonal Antibody
Full Product Name	PRK2 (Serine/Threonine-protein Kinase N2, PKN gamma, Protein Kinase C-like 2, Protein-kinase C-related Kinase 2, PKN2, PRKCL2, MGC150606, MGC71074) (MaxLight 490)
Product Gene Name	anti-PRK2 antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	3A7
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human PKN2.
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	75,171 Da
OMIM	602549
3D Structure	ModBase 3D Structure for Q16513
Immunogen	Partial recombinant corresponding to aa580-679, from human PKN2 (NP_006247) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	RASSLGEIDESSELRVLDIPGQDSETVFDIQNDRNSILPKSQSEYKPDTPQSGLEYSGIQELEDRRSQQRFQFNLQDFRCCAVLGRGHFGKVLLAEYKNT
Conjugate	MaxLight490
Product Categories/Family for anti-PRK2 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-PRK2 antibody	FLISA, Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-PRK2 antibody	IF: 10ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-PRK2 antibody	MBS6202661 is an antibody targeting PRK2. Also known as PRK2 (Serine/Threonine-protein Kinase N2, PKN gamma, Protein Kinase C-like 2, Protein-kinase C-related Kinase 2, PKN2, PRKCL2, MGC150606, MGC71074) (MaxLight 490). Reactive in Human. Host: Mouse.

Other Notes	Small volumes of anti-PRK2 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 PRK2. It may not necessarily be applicable to this product.

NCBI GI #	5453974
NCBI GeneID	5586
NCBI Accession #	NP_006247
UniProt Primary Accession #	Q16513
UniProt Secondary Accession #	Q08AF4; Q9H1W4; B4DQ21; B4DTP5; B4DVG1; D3DT24
UniProt Related Accession #	Q16513
GenBank Nucleotide #	NM_006256
NCBI Official Full Name	serine/threonine-protein kinase N2
NCBI Official Synonym Full Names	protein kinase N2
NCBI Official Symbol	PKN2
NCBI Official Synonym Symbols	PAK2; PRK2; STK7; Pak-2; PRKCL2; PRO2042
UniProt Protein Name	Serine/threonine-protein kinase N2
UniProt Synonym Protein Names	PKN gamma; Protein kinase C-like 2; Protein-kinase C-related kinase 2
Protein Family	Pollen receptor-like kinase
UniProt Gene Name	PKN2
UniProt Synonym Gene Names	PRK2; PRKCL2
UniProt Entry Name	PKN2_HUMAN
NCBI Protein Information	serine/threonine-protein kinase N2; PKN gamma; cardiolipin-activated protein kinase Pak2; protein kinase C-like 2; protein-kinase C-related kinase 2

UniProt Comments for PRK2	PKN2: an AGC kinase of the PKN family. A PKC-related serine/threonine-protein kinase and Rho/Rac effector protein. Plays a role in the regulation of cell cycle progression, actin cytoskeleton assembly, cell migration, cell adhesion, tumor cell invasion and transcriptional activation. Phosphorylates CTTN in hyaluronan-induced astrocytes and hence decreases CTTN ability to associate with filamentous actin. Phosphorylates HDAC5, therefore lead to impair HDAC5 import. Direct RhoA target required for the regulation of the maturation of primordial junctions into apical junction formation in bronchial epithelial cells. Required for G2/M phases of the cell cycle progression and abscission during cytokinesis in an ECT2-dependent manner. Stimulates FYN kinase activity that is required for establishment of skin cell-cell adhesion during keratinocytes differentiation. Regulates epithelial bladder cells speed and direction of movement during cell migration and tumor cell invasion. Inhibits Akt pro-survival-induced kinase activity. Mediates Rho protein-induced transcriptional activation via the c-fos serum response factor (SRF). Phosphorylates HCV NS5B leading to stimulation of HCV RNA replication. Kinase activity is activated upon binding to GTP-bound Rhoa/Rac1 GTPases. Activated by limited proteolysis with trypsin, and withn caspase-3 (CASP3) during apoptosis. Activated by lipids, particularly cardiolipin and to a lesser extent by other acidic phospholipids and unsaturated fatty acids. Colocalizes with PTPN13 in lamellipodia-like structures, regions of large actin turnover. Accumulates during telophase at the cleavage furrow and concentrates finally around the midbody in cytokinesis. Recruited to nascent cell-cell contacts at the apical surface of cells. In the course of viral infection, colocalizes with HCV NS5B at perinuclear region in the cytoplasm. Five isoforms of the human protein are produced by alternative splicing. Protein type: EC 2.7.11.13; Protein kinase, AGC; Kinase, protein; Protein kinase, Ser/Thr (non-receptor); AGC group; PKN family Chromosomal Location of Human Ortholog: 1p22.2 Cellular Component: nucleoplasm; apical junction complex; centrosome; intermediate filament cytoskeleton; lamellipodium; perinuclear region of cytoplasm; cytoplasm; plasma membrane; midbody; cell junction; nucleus; cleavage furrow Molecular Function: protein serine/threonine kinase activity; protein binding; protein kinase C activity; histone deacetylase binding; kinase activity; ATP binding; protein kinase activity Biological Process: positive regulation of cytokinesis; positive regulation of viral genome replication; apical junction assembly; transcription, DNA-dependent; regulation of transcription, DNA-dependent; cell division; apoptosis; positive regulation of mitotic cell cycle; signal transduction; cell adhesion; cell cycle; protein amino acid phosphorylation
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