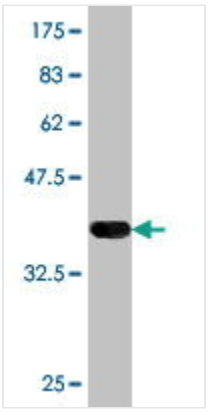
ROCK2 Antibody – Mouse Monoclonal

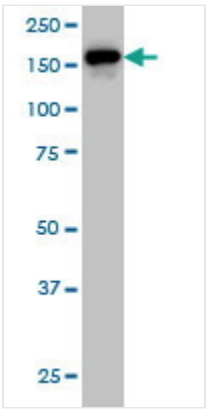
PRODUCT OVERVIEW

Product Name	ROCK2, Monoclonal Antibody
Full Product Name	ROCK2 (Rho-associated Protein Kinase 2, Rho Kinase 2, Rho-associated, Coiled-coil-containing Protein Kinase 2, p164 ROCK-2, KIAA0619) APC
Product Gene Name	anti-ROCK2 antibody
Clonality	Monoclonal
Isotype	IgG2b,k
Clone Number	2A4
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human ROCK2.
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 amo to immediate use. Further dilutions can be made in assay buffer. Caution: APC conjugates are sensitive to light. For maximum recovery of product, cen original vial prior to removing the cap.
OMIM	604002
3D Structure	ModBase 3D Structure for O75116
Immunogen	Partial recombinant corresponding to aa1279-1388 from ROCK2 (NP_004841) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	KPLWHMFKPPPALECRRCHIKCHKDHMDKKEEIIAPCKVYYDISTAKNLLLLANSTEEQQKWVSRLVKKIPKKPPAPDPFARSSPRTSMKIQQNQSIRRPSI
Conjugate	APC
Product Categories/Family for anti-ROCK2 antibody	Antibodies; Protein Kinases
Applications Tested/Suitable for anti-ROCK2 antibody	ELISA (EIA), Immunofluorescence (IF), Western Blot (WB)
Application Notes for anti-ROCK2 antibody	IF: 10ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-ROCK2 antibody	MBS6138795 is an antibody targeting ROCK2. Also known as ROCK2 (Rho-associated Protein Kinase 2, Rho Kinase 2, Rho-associated, Coiled-coil-c Protein Kinase 2, p164 ROCK-2, KIAA0619) APC. Reactive in Human. Host: Mouse.

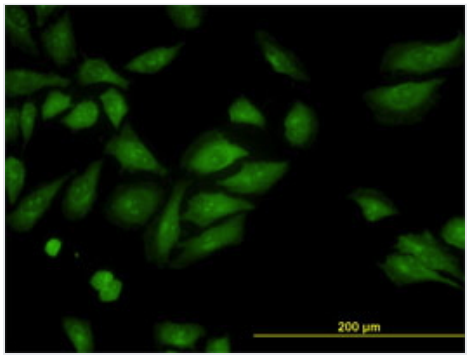
Other Notes	Small volumes of anti-ROCK2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If neces centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional may apply.



Western Blot (WB) of anti-ROCK2 antibody
Western Blot detection against Immunogen (37.84kD).



Western Blot (WB) of anti-ROCK2 antibody
ROCK2 monoclonal antibody Western Blot analysis of ROCK2 expression in HeLa



Immunofluorescence (IF) of anti-ROCK2 antibody
Immunofluorescence of monoclonal antibody to ROCK2 on HeLa cell. [antibody concentration 10ug/ml

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ROCK2. It may not necessarily be applicable to this product.

NCBI GI #	1519315777
NCBI GeneID	9475
NCBI Accession #	NM_004850.5
UniProt Primary Accession #	O75116
UniProt Related Accession #	O75116
GenBank Nucleotide #	NM_004850
NCBI Official Full Name	Homo sapiens Rho associated coiled-coil containing protein kinase 2 (ROCK2), transcript variant 1, mRNA
NCBI Official Synonym Full Names	Rho associated coiled-coil containing protein kinase 2
NCBI Official Symbol	ROCK2
NCBI Official Synonym Symbols	ROCK-II
UniProt Protein Name	Rho-associated protein kinase 2
UniProt Synonym Protein Names	Rho kinase 2; Rho-associated, coiled-coil-containing protein kinase 2; Rho-associated, coiled-coil-containing protein kinase II; ROCK-II; p164 ROCK-2
Protein Family	Rho-associated protein kinase

UniProt Gene Name	ROCK2
UniProt Synonym Gene Names	KIAA0619; ROCK-II
UniProt Entry Name	ROCK2_HUMAN
NCBI Protein Information	rho-associated protein kinase 2
NCBI Summary for ROCK2	The protein encoded by this gene is a serine/threonine kinase that regulates cytokinesis, smooth muscle contraction, the formation of actin stress fibers and focal adhesions, and the activation of the c-fos serum response element. This protein, which is an isozyme of ROCK1 is a target for the small GTPase Rho. [provided by RefSeq, Jul 2008]
UniProt Comments for ROCK2	ROCK2: Protein kinase which is a key regulator of actin cytoskeleton and cell polarity. Involved in regulation of smooth muscle contraction, actin cytoskeleton organization, stress fiber and focal adhesion formation, neurite retraction, cell adhesion and motility via phosphorylation of ADD1, BRCA2, CNN1, EZR, DPYSL2, EP300, MSN, MYL9/MLC2, NPM1, RDX, PPP1R12A and VIM. Phosphorylates SORL1 and IRF4. Acts as a negative regulator of VEGF-induced angiogenic endothelial cell activation. Positively regulates the activation of p42/MAPK1-p44/MAPK3 and of p90RSK/RPS6KA1 during myogenic differentiation. Plays an important role in the timely initiation of centrosome duplication. Inhibits keratinocyte terminal differentiation. May regulate closure of the eyelids and ventral body wall through organization of actomyosin bundles. Plays a critical role in the regulation of spine and synaptic properties in the hippocampus. Homodimer. Interacts with IRS1, RHOB and RHOC. Interacts with RHOA (activated by GTP), PPP1R12A, CHORDC1, SORL1, EP300 and BRCA2. Interacts with NPM1 and this interaction enhances its activity. Interacts with RAF1. Activated by RHOA binding. Inhibited by Y-27632. Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. Protein type: Kinase, protein; EC 2.7.11.1; Protein kinase, Ser/Thr (non-receptor); Protein kinase, AGC; AGC group; DMPK family; ROCK subfamily Chromosomal Location of Human Ortholog: 2p24 Cellular Component: centrosome; plasma membrane; spindle pole centrosome; cytosol; nucleus Molecular Function: protein serine/threonine kinase activity; protein binding; Rho GTPase binding; metal ion binding; structural molecule activity; ATP binding Biological Process: regulation of cell adhesion; axon guidance; dendrite morphogenesis; rhythmic process; cytokinesis; regulation of circadian rhythm; protein amino acid phosphorylation; Rho protein signal transduction; negative regulation of angiogenesis; smooth muscle contraction; induction of apoptosis via death domain receptors; regulation of stress fiber formation; regulation of actin cytoskeleton organization and biogenesis; neural tube closure; regulation of focal adhesion formation; ephrin receptor signaling pathway; vascular endothelial growth factor receptor signaling pathway; actin cytoskeleton organization and biogenesis; regulation of keratinocyte differentiation; centrosome duplication
Research Articles on ROCK2	**1.** The results indicated that carvedilol dose-dependently inhibited Ang II-induced hepatic stellate cell (HSC) proliferation by impeding cell cycle progression, thus alleviating hepatic fibrosis. Furthermore, carvedilol could inhibit Ang II-induced HSC contraction by interfering with the AT1R-mediated RhoA/ROCK2 pathway.
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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.

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