

Recombinant Mouse Rock2 Protein, Myc/DDK-tagged

Cat. No. Rock2-5568M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length Rho-associated coiled-coil containing protein kinase 2 (Rock2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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. Plays a role in placental homeostasis during the perinatal period. Plays an important role in generating the circadian rhythm of the aortic myofilament Ca²⁺ sensitivity and vascular contractility by modulating the myosin light chain phosphorylation.
Molecular Mass	161.1 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Rock2 Rho-associated coiled-coil containing protein kinase 2 [Mus musculus (house mouse)]
Official Symbol	Rock2
Synonyms	ROCK2; Rho-associated coiled-coil containing protein kinase 2; rho-associated protein kinase 2; p164 ROCK-2; Rho-associated coiled-coil forming kinase 2; rho-associated, coiled-coil-containing protein kinase 2; rho-associated, coiled-coil-containing protein kinase II; Rock2m; Rock-II; ROKalpha; mKIAA0619; Rho-kinase; B230113H15Rik
Gene ID	19878
mRNA Refseq	NM_009072
Protein Refseq	NP_033098
UniProt ID	P70336

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