

Recombinant Mouse Mical1 Protein, Myc/DDK-tagged

Cat. No. Mical1-4065M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length microtubule associated monooxygenase, calponin and LIM domain containing 1 (Mical1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Monooxygenase that promotes depolymerization of F-actin by mediating oxidation of specific methionine residues on actin to form methionine-sulfoxide, resulting in actin filament disassembly and preventing repolymerization. In the absence of actin, it also functions as a NADPH oxidase producing H ₂ O ₂ . Acts as a cytoskeletal regulator that connects NEDD9 to intermediate filaments. Also acts as a negative regulator of apoptosis via its interaction with STK38 and STK38L; acts by antagonizing STK38 and STK38L activation by MST1/STK4. Involved in regulation of lamina-specific connectivity in the nervous system such as the development of lamina-restricted hippocampal connections. Through redox regulation of the actin cytoskeleton controls the intracellular distribution of secretory vesicles containing L1/neurofascin/NgCAM family proteins in neurons, thereby regulating their cell surface levels. May act as Rab effector protein and play a role in vesicle trafficking.
Molecular Mass	116.8 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining

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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	Mical1 microtubule associated monooxygenase, calponin and LIM domain containing 1 [Mus musculus (house mouse)]
Official Symbol	Mical1
Synonyms	MICAL1; microtubule associated monooxygenase, calponin and LIM domain containing 1; protein-methionine sulfoxide oxidase MICAL1; CasL interacting molecule MICAL; molecule interacting with CasL protein 1; NEDD9 interacting protein with calponin homology and LIM domains; NEDD9-interacting protein with calponin homology and LIM domains; MICAL; Nical; MICAL-1; MGC27831; MGC38321
Gene ID	171580
mRNA Refseq	NM_138315
Protein Refseq	NP_612188
UniProt ID	Q8VDP3

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