

## Recombinant Mouse Mical1 Protein, Myc/DDK-tagged

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

### SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Mouse
<b>Source</b>	HEK293
<b>Description</b>	<p>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<sub>2</sub>O<sub>2</sub>. 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.</p>
<b>Molecular Mass</b>	116.8 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Stability</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>Storage</b>	Store at -80 centigrade after receiving vials.
<b>Concentration</b>	>50 µg/mL as determined by microplate BCA method
<b>Storage Buffer</b>	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	Mical1 microtubule associated monooxygenase, calponin and LIM domain containing 1 [ <i>Mus musculus</i> (house mouse) ]
<b>Official Symbol</b>	Mical1
<b>Synonyms</b>	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
<b>Gene ID</b>	171580
<b>mRNA Refseq</b>	NM_138315
<b>Protein Refseq</b>	NP_612188
<b>UniProt ID</b>	Q8VDP3

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