

MICAL2 Protein, Human, Recombinant (His)

General Information

Synonyms:	[F-actin]-monooxygenase MICAL2;KIAA0750;MICAL2;Molecule interacting with CasL protein 2 (MICAL-2);MICAL C-terminal-like protein (Mical-cL);MICAL2PV1;MICALCL;MICAL2PV2
Protein Construction:	1-495 aa
Species:	Human
Expression Host:	<i>P. pastoris</i> (Yeast)
Accession:	Q94851
Molecular Weight:	58.5 kDa (predicted)
AA Sequence:	MGENEDEKQAAQAGQVFENFVQASTCKTLQAFNILTRHLDPLDHRNFYSKLKSKVTTWAKALWYKLDK RGSHKEYKRGKSCTNTKCLIVGGGPGCGLRTAIELAYLGAKVVVVEKRDSFSRNNVLHLWPFTIHLRLGLGAKF YGKFCAGSIDHISIRQLQLFLKVALMLGVEIHVNVEFVKVLEPPEDQENQKIGWRAEFLPTDHSLSFEFDVII ADGRRNTLEGFRRKEFRGKLAIAITANFINRNSTAEAKVEEISGVAFIFNQKFFQDLKEETGIDLENIVYYKDCTH YFVMTAKKQSLLDKGVIINDYIDTEMLLCAENVNQDNLLSYAREAADFATNYQLPSLDFAMNHYGQPDVAM FDFTCMYASENAALVRERQAHQLLVALVGDSLLEPFWPMGTGCARGFLAFAFDTAWMVKSWNQGTPPLELL AERESLYRLLPQTTPENINKNFEQYTLDPGTRYPNLNSHCVRPHQVKHLYITKELEH

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice. Solutions are shipping with dry ice.

Protein Background

Nuclear 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 H₂O₂. Acts as a key regulator of the SRF signaling pathway elicited by nerve growth factor and serum: mediates oxidation and subsequent depolymerization of nuclear actin, leading to increase MKL1/MRTF-A presence in the nucleus and promote SRF:MKL1/MRTF-A-dependent gene transcription. Does not activate SRF:MKL1/MRTF-A through RhoA.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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