

Product datasheet for **MG218242**

Mical1 (NM_001164433) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Mical1 (NM_001164433) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Mical1
Synonyms:	MICAL; MICAL-1; Nical
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG218242 representing NM_001164433
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCATCACCCGCTCCACCAACCCAGCACATGACCACTTTGAGACCTTTGTGCAGGCACAGCTGTGCC
 AGGATGTACTGAGTAGCTTTAGGGGCTCTGTAGAGCCCTGGGAGTGGAGTCTGGTGGGGATTGTCCCA
 GTACCACAAGATCAAGGCCAGCTCAACTACTGGAGTGCCAAAGTCACTGTGGGCCAAGTTGGACAAGAGA
 GCGAGCCAGCCTGTGTACCAGCAAGGCCAGGCCTGTACCAACACCAAGCTTCAGCTGCTTCTACTGAAGG
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 GATGCACGCGGGCGGCCTGATGTGGCGGCTTCGACTTACAAGCATGATGCGGGCAGAGAGTTCGGCTC
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 CAAGAACAGGACACAGCTCAGGCCTTGTGAGCCAGCCCTGGAACCCCAAGTGTATACTTTTCTT
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 GGAGCTGTGTGAACTCTGTGGGAAACATCTGTACATCCTAGAACGCTTCTGTGTGGATGGCCATTTCTT
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 GAGATGGACATTTCTACTGTCTCCAGCACCTACCCAGGAGGACCAAAAGGAGGCTGACAACAATGGAA
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 GAGCTGGATCTGGAAGAGAAGCAGCGGCAGCTAGACCACGAGTTGCGGGGCTACATGAATCGGGAAGAAA
 CTATGAAGACAGAGGCCGACCTGCAGTCTGAGAACCAGGTCTAAGGAAGCTGTTGGAGGTGGTGAACCA
 GCGGGATGCTCTGATCCAATTCCAGGAGGAACGGAGGCTCAGAGAGATGCCTGCA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG218242 representing NM_001164433
 Red=Cloning site Green=Tags(s)

MASPASTNPAHDHFETFVQAQLCQDVLSSFQGLCRALGVESGGGLSQYHKIKAQLNYWSAKSLWAKLDKR
 ASQPVYQQGQACTNNTKLQLLLLKVALLLGVEIHWGVKFTGLQPPPRKGGWRAQLQPNPPAQLASYEFDV
 LISAAGGKVFVEGFTIREMRGKLAIGITANFVNGRTVEETQVPEISGVARIYNQKFFQSLKATGIDLEN
 IVYYKDETHYFVMTAKKQCLLRGLVLRQDLSETDQLLGKANVPEALQRFARAAADFATHGKLGKLEFAQ
 DARGRPDVAAAFDFTSMMRAESSARVQEKHGARLLGLVGDCLVEPFWPLGTGVARGFLAAFDAAMVKRW
 AEGAGPLEVLAERESLYQLLSQTSPEMHRNVAQYGLDPATRYPNLNLRAVTPNQVDLYDMDKEHAQR
 KSDEPDSRKTSTGSAGTEELLHWCQEQTAGFPGVHVTDSSSWADGLALCALVHHLQPGLLEPSELQGMG
 ALEATTWALRVAEHELGITPVLSAQAVMAGSDPLGLIAYLSHFHSAFKNTSHSSGLVSQPSGTPSAILFL
 GKLRSLQRTRAKVDEETPSTEPPVSEPSMSPNTPELSEHQEAGAEELCELCGKHLIYILERFCVDGHFF
 HRSCFCCHTCEATLWPGGYGQHPGDGHFYCLQHLPOEDQKEADNNGSLESQELPTPGDSNMQPDSPSPV
 TRVSPVSPSPARRLIRLSSLERLRLSSLNIIPDSGAEPKPPRSCSDLARESLKSSVFGWGVVQAP
 QVPEAIEKGDDEEEEEEEEEEEPLPPELEQTLTLLAKNPGAMTKYPTWRRMLMRAKEEEMKRF
 KAQAIQRRLNEIEATMRELEAEGTKLELALRKESSPEQKQLWLDQLRLIQKNSLVTEEAELMITVQ
 ELDLEEQRQLDHELRYMNRREETMKTEADLQSENQVLRKLELVVNQRDALIQFQEERRLEMPA

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

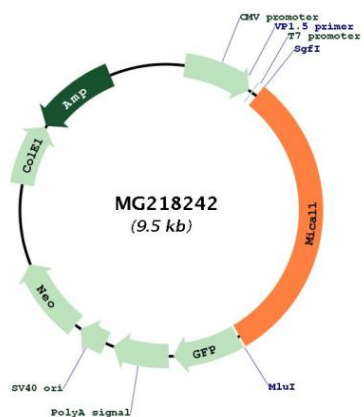


ACCN: NM_001164433

ORF Size: 2925 bp

OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_001164433.1 , NP_001157905.1
RefSeq Size:	3344 bp
RefSeq ORF:	2928 bp
Locus ID:	171580
UniProt ID:	Q8VDP3
Cytogenetics:	10 B1
Gene Summary:	<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 H₂O₂ (By similarity). 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.[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MG218242