

Product datasheet for **SC316581**

MICAL3 (NM_015241) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MICAL3 (NM_015241) Human Untagged Clone
Tag:	Tag Free
Symbol:	MICAL3
Synonyms:	MICAL-3
Vector:	<u>pCMV6 series</u>



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_015241, the custom clone sequence may differ by one or more nucleotides

```

ATGCACGCGGCGGATCCTCTGGAGATCCAGGCTGACGTGCACTGGACTCATATCCGTGAG
AGAGAGGAGGAAGAGAGGATGGCGCCGGCCTCTGAGTCTCTGCTTCCGGAGCCCCATTG
GATGAGAATGACCTAGAGGAAGATGTGGACTCAGAACCAGCCGAGATAGAAGGGGAGGCA
GCAGAGGATGGGACCCAGGGGACACTGGTGTGAGCTGGATGATGATCAGCACTGGTCT
GACAGCCCGTCCGATGCTGACAGAGAGCTGCGTTTGCCGTGCCAGCTGAGGGGGAAGCA
GAGCTGGAGCTGAGGGTGTGGAAGATGAGGAGAAGCTGCCCGCTCACCAGAACCAAA
GAGAGAGGTCCCTCCCAAGCCACCAGCCCCATCCGGTCTCCCCAGGAATCAGCTCTTCTG
TTCATTCCAGTCCACAGCCCCTCAACAGAGGGGCCCCAACTCCCACCTGTCCCTGCCGCC
ACCCAGGAGAAATCACCTGAGGAGCGCCTTTTCCCTGAGCCTTTGCTCCCCAAAGAGAAG
CCCCAAGCTGATGCCCCCTGGATCTGAAAGCTGTGCACTCTCCCATCCGATCACAGCCA
GTGACCCTGCCAGAAGCTAGGACTCCTGTCTACCAGGGAGCCCGCAGCCCCAGCCACCC
GTGGCGGCCTCCACGCCCCCACCAGCCCACTCCCATCTGCTCCCAGCCCCAGCCTTCC
ACCGAGGCCACTGTCCCATCCCCTACCCAGTCCCCCATACGTTCCAGCCTGCCCGGCC
AAACATCCACCCCACTGGCCCCCTCTCCTGTCCAAAGCCAAAGTGACACCAAGGACAGA
CTGGGCAGCCCCCTTGTGTGGATGAGGCCCTCAGACGGAGCGACCTGGTGGAGGAGTTC
TGGATGAAGAGTGCGGAGATCCGCCGACGCTCGGGCTCACACCTGTGGACCGCAGCAAG
GGGCCCCGAGCCAGCTTCCCCACGCCTGCCTTCAGGCCAGTGTCCCTCAAATCCTATTCC
GTTGAAAAGTCCCCCAGGATGAGGGACTCCACCTTCTCAAGCCTCTGTCCATCCCCAAA
AGGCTGGGCCTGCCAAAGCCGGAAGGCGAGCGTTGTCCCTGCCAACCCCCGGTCCCCG
TCCGACAGAGAGCTACGACGCGCCAGGAGGAGCGCAGGAGCTGTCCAGCAGCTCTGGC
CTGGGCTGACGCGGAGCTCCTCAACATGAAGACACTGGGACGCCAGAGCTTCAACACC
TCGGACTCCGCCATGCTCAGCCCCCTCCAGCCCGCCCCCACCGCCACCCCCGGGCGAG
GAGCCCCGCCACCTTGCAGGAGGAAGCTCAGGAGGCCGAGCCCAATGCCTCGGTGGTCCCG
CCGCCCTTGCCCGCCACCTGGATGCGGCCCCCCCGGGAGCCTGCTCAGCCCCCAGAGAG
GAGGTGCGGAAGTCGTTTGTGGAGAGCGTGGAGGAGATTCCCTTTGCTGATGATGTGGAG
GACACCTATGACGACAAGACTGAGGACTCAAGCCTGCAGGAGAAATTTCTCACGCCCCCG
TCCTGTGTGGCGCGCCCCGAGAAGCCTCGCCACCCGCCCTGGCCAAGGAGAACGGGAGG
CTGCCTGCTCTGGAGGGGACGCTGCAGCCACAGAAGAGGGGGCTGCCCTTGGTGTCCGCG
GAAGCCAAGGAGTTGGCCGAGGAGCGCATGCGAGCCAGGAGAGAAGTCGTAAGAGCCAG
GCGCTGCGGGACCCATGGCCAGGCAGCTGAGCAGGATGCAGCAGATGGAGCTGGCTCA
GGCGCCCCCAGGCCCCGAAGGCGTCTCAGCACCTCCCAGGGCAAGGAGCGCCGGCCT
GACTCCCCCACACGCCCCACTCTCAGGGGCTCCGAGGAGCCACCTGAAGCATGAAGCC
ACCAGCGAGGAGGTCTCTCCCCGCGTCGGACTCAGGGGGCCAGATGGCTCTTTCACT
TCATCCGAGGGTCCAGTGGGAAGAGCAAGAAGAGGTCTGCTACTTCTCCCCCGCAGA
AACAAGAAGGAGAAGAAGTCCAAAGGCGAGGGCCGGCCCCCGGAGAAGCCAGCTCCAAC
CTCCTAGAAGAAGCCGCCCAAACCAAGTCCCTGTGGAAGTCCGTCTTCTCCGGGTAC
AAGAAGGACAAGAAGAAGAAGGCCGACGACAAGTCTGCCCCAGCACCCCTCCAGCGGG
GCCACGGTGGACTCTGGAAAGCACAGGGTGTTCCTCCGTCTAAGGGCAGAGCTGCAGCTC
CGGCGCCAGCTGAGCTTCTCCGAGGACTCAGACCTCTCCAGCGACGATGTCTTGAGAAG
TCCTCACAGAAGTCCCGCGAGAGCCAAGAACCTACACGAGGAGGAAGTGAATGCCAAG
CTGACCCGGCGTGTGAAAAGGCAGCTCGGAGACAGGCCAAGCAGGAGGAGCTTAAGCGG
CTGCATCGAGCCAGATCATCCAGCGGAGCTGCAGCAGGTGGAGGAGAGGCAGCGCGG
CTGGAGGAAAGGGGCGTGGCTGTGGAGAAGGCGCTCCGGGGCGAAGCAGGCATGGCAAG
AAGGACGACCCCAAGCTGATGCAGGAGTGGTTCAAGCTAGTGCAGGAGAAGAAGCCATG
GTGCGCTACGAGTCGGAGCTGATGATCTTTGCCCGGAGCTGGAGCTGGAAGACCGGCAG
AGTCGACTGCAGCAGGAGCTCCGGGAACGCATGGCAGTGAAGATCACCTTAAGACTGAG
GAGGAGCTGTGAGAAGAGAAGCAGATTCTCAATGAGATGCTGGAGGTGGTGGAGCAGAGA
GACTCACTGGTGGCGCTGCTGGAGGAGCAGCGGCTCCGGGAGAGAGAGGAGGACAAGGAC
CTGGAGGCTGCCATGCTGTCCAAGGGCTTCAGCCTTAAGTGGTCC

```

Restriction Sites:	Please inquire
ACCN:	NM_015241
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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:	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_015241.1 , NP_056056.1
RefSeq Size:	6210 bp
RefSeq ORF:	2928 bp
Locus ID:	57553
UniProt ID:	Q7RTP6
Cytogenetics:	22q11.21

Gene Summary:

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. Seems to act as Rab effector protein and plays a role in vesicle trafficking. Involved in exocytic vesicles tethering and fusion: the monooxygenase activity is required for this process and implicates RAB8A associated with exocytotic vesicles. Required for cytokinesis. Contributes to stabilization and/or maturation of the intercellular bridge independently of its monooxygenase activity. Promotes recruitment of Rab8 and ERC1 to the intercellular bridge, and together these proteins are proposed to function in timely abscission.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.