

Product datasheet for RC229461

MICAL3 (NM_015241) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MICAL3 (NM_015241) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MICAL3
Synonyms:	MICAL-3
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC229461 representing NM_015241 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGAGAGGAAGCATGAGACCATGAACCCAGCTCATGTCCTTTGACCGGTTTGCCAGGCCACCA
CCTGCAAGGGAACCTCAAGGCTTCCAGGAGCTCTGTGACCACCTGGAAGCTAAAGCCAAAGGACTACCG
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TAATACTTTTGAAGTAGCCTTGATCCTAGGCATTGAAATCCACGTCAATGTGGAATCCAAGGACTTAT
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GCAATGAGTCTGTAGCTCGTTCAAGCAAAGTCTGGGTTGGTGCCAGAGGCAGACAGATGGCTATGCAGG
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC229461 representing NM_015241

Red=Cloning site Green=Tags(s)

MEERKHE TMNPAHVL FDRFVQATTCKGTLKAFQELCDHLELKP KDYRSFYHKLKSKLNYWKAKALWAKLD
 KRGS HKDYKKGKACTNTKCLII GAGPCGLRTAIDL SLLGAKVVVIEKRDAF SRNNVHLHPFTI HDLRGL
 GAKK F YGKFCAGAI DHISIRQLQLILLKVALILGIEI HVNVEFQGLIQPPEDQENERIGWRALVHPKTHP
 VSEYEF EVIIGDGRRNTLEGFRRKEFRGKLAIITANFINRNTTAEAKVEEISGVAFIFNQKFFQELRE
 ATGIDLENI VYKDDTHYFVMTAKKQSLLDKGVILHDYADTELLSRENV DQEALLSYAREAA DFSTQQQ
 LPSLDFAINHYGQPDVAMFDFTCMYASENAALVREQNGHQLLVALVGD SLLPEPFWPMGTGIARGFLAAMD
 SAWMVRWSLGTSPLEVLAERESIYRLLPQTTPENVSKNFSQYSIDPVTRYPNINVNFLRPSQVRHLYDT
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 CSQPQPSTEATVPSTQSPIRFQPAPAKTSTPLA PLPVQSQSDTKDRLGSPLAVDEALRRSDLVEEFWMK
 SAEIRRLGLTPVDRSKGPEPSFPTAFRPVSLKSYSVEKSPQDEGLHLLKPLSIPKRLGLPKPEGEPLS
 LPTPRSPDRELRS AQEERRELS SSSSGLLHGSSNMKTLGSQSFNTSDSAMLTPSSPPPPPPGEEPA
 TLRRKLREAEPNASVVPPLPATWMRPPREPAQPPREEV RKS FVESVEEIPFADDVEDTYDDKTEDSSLQ
 EKFFTPPSCWPRPEKPRHPPLAKENGR LPALEGLQPQKRGLPLVSAEAKELAEERMAREKSVKSQALR
 DAMARQLSRMQMELASGAPRPRKASSAPSQGKERRPDSPT RPTLRGSEEPTLKHEATSEEVLSPPSDSG
 GPDGSFTSSEGS SSKKRSSLFSPRRNKKEKSKGEGRPPEKPSNLL EEAAPKSLWKS VFSGYKGD
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 EEELNAKLTRRVQKAARRQAKQEELKRLHRAQIIQRQLQV EERQRRLEERGVAVEKALRGEAGMGKKDD
 PKLMQEFKLVQEKNAMVRYESELMIFARELELEDRQ SRLQELRERMAVEDHLKTEELSEEKQILNEM
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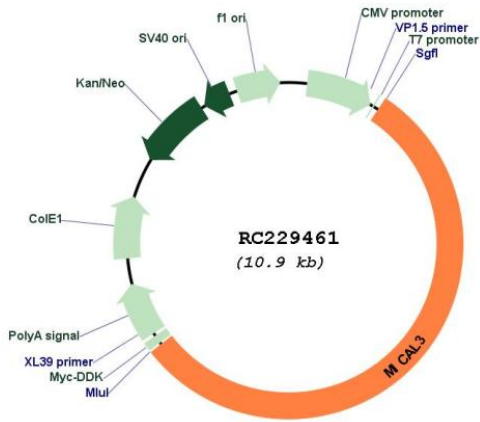
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_015241

ORF Size: 6006 bp

OTI Disclaimer:	<p>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.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
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_015241.3
RefSeq ORF:	6009 bp
Locus ID:	57553
UniProt ID:	Q7RTP6
Cytogenetics:	22q11.21
MW:	224.1 kDa
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. 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]</p>