

Product datasheet for **RG207726**

MICALL2 (NM_182924) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	MICALL2
Synonyms:	JRAB; MICAL-L2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG207726 representing NM_182924
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGCCATCAGGGCGCTGCAACAGTGGTGCCGGCAGCAGTGCAGGGCTACCGCAGCTGAATATCT
GCAACATGACCACGTCGTTCCGCGACGGCTGGCTTTCTGCGCCATCCTGCACCGCCACCGGCCGACCT
CATAAACTTCAGTGCTCTCAAGAAGGAAAAATTTATGAAAACAATAAACTGGCCTTCCGCGTGGCCGAG
GAGCACTTGGGCATCCCAGCCTTGCTGGATGCCGAGGACATGGTGGCCTTGAAGGTGCCTGACCGGCTGA
GCATCTTGACCTACGTGTCCCAGTATTACAACACTTCCACGGCCGCTCCCCATTGGGGGCATGGCAGG
CGTGAAGAGGGGCTCGGAGGACTCTGAGGAGGAGCCGTCAGGGAAGAAAGGCTCCAGTCCAGGCGGCAAG
CTGCCCTCGCCGCCCCAGCCCGGAAGCCTCCACTATCTCCAGCCAGACAAACCTGTGGTCCAGAGGA
GGAATGAGGGTGACGGGGGCCGCCCCCAAGACTGACCAGGCATTGGCGGGCAGCTTGGTCAGCAGCAC
CTGCGGGGTCTGCGGAAGCAGTGCACCTGGTACAGCGGCACCTGGCCGACGGGAGGCTTTACCACCGG
AGCTGCTTCAGGTGAAGCAGTGCTCTGCACGCTGCACTCGGGGGCTACAAGGCCACAGGAGAGCCGG
GCACCTTCGTCTGCACAGCCACCTCCCCGACGCGCCTCTGCAAGCCCCAAGTTGACGGGTCTGGTCCC
CCGACAGCCAGGGGCCATTGGGTGTGGATTCCAGGACCTCCTGTTCCCCACAGAAGGCCCAGGAGGCAAAC
AAGGCCAGACCGTCGGCCTGGGAGCCTGCTGCGGGCACTCGCCTGCCAGGGCTTCCGTTCCAGCTGCAC
CCAACCTGCAGCCACCAGCGCCACGTCCGTCCACGTGAGGAGCCAGCCAGGCCCTCTGAGAGCCGCT
GGCCCCCACTCCCACGGAGGGGAAAGTCCGCCCTCGTGTGACCAATAGCTCCCCGATGGGCTGGTCTCA
GCTGCCCCGTGCACAGCAGCGGCTGCCTCCATCCCGCGTGCCCCGAGTGCCCCAGACCTCGCCCGG
CCACACCCAGGGCGGGGAGCCCCGAGTGGCAGCTCCTCAAACCACACTCAGTTCAAGCTCCACATC
TGCAGCCACGGTGGACCCCCAGCCTGGACCCCGTCCGCTCCAGGACCCAGCAGGCCCGGAATAAGTTT
TTCAAACATCAGCAGTGCCCCCGGCACAGCCTTTCTGGCAGAGGTCCACCCCGTCACTTGTCTAT
CCAAGGACAGCAGCAAGGAGCAGGCGCGGAACCTCCTCAAGCAGGCCCTCTCAGCGCTGGAAGAGGCTGG
CGCTCCGGCGCCTGGCAGGCCCTCCCAGCCACTGCCGCTGTTCCAGTTCTCAGCCAAAACCTGAAGCA
CCAAGCAAGTCCCTTAGCCAAGCCGTTACAGTCCTCGTCTCCCCGGGTGCTTGGCCTCCCTTCGAGGA
TGGAACCGCCAGCCCCGCTGAGCACGAGCAGTACCTCTCAGGCATCCGCGTTGCCCGGCAGGCAGGAG
GAACCTGGCTGAATCCTCAGGGGTGCGCAGGGTGGGTGCTGGCTCCAGGCCGAAGCCAGAGGCCCGATG
GCAAAGGTAAAAGCACCACTTAACGCAGGACATGAGCACCAGCCTCCAGGAAGGCCAGGAGGACGGGC
CGGCAGGATGGAGAGCGAATCTGAAGCCCGTGGACAGGAGAAGCCAGCTGAGAGGACTCTGAAGCCAA
GGAACCAAGGGCCCTGGCAGAGCCGAGGGCGGGGAGGCCCCAGGAAGGTCTCAGGCAGCTTGTCTGGG
AGTGTCCACATCACCTGACCCCGTGAGGCTGACAGGACCCACGCCAGCCAGCCAGGACCCAGCCAGCC
TCCAGCCAGGTCCCCCTCCCACCCCGCCGAGGAGACTGGCCGTCCCTGCCAGCTCGACGTTTGTGA
CAACTGGCTTCGGCCGGAGCCCCCTGGCCAGGAAGCCGAGTGACAGAGCTGGAAGGAGGAGGAGAAGAAA
CCTCACCTTCAGGGCAAACAGGGAGACCTTGTCCCCGGCCAATGTCCCTGCTCTGCCTGGCGAGACGG
TGACCTCCCAGTCAGGCTGCACCCGACTACCTCTCCCGGAGGAGATACAGAGGCAGCTGCAGGACAT
CGAGAGGCGGCTGGACGCCCTGGAGCTCCGCGGCTGGAGCTGGAGAAGCGACTGCGGGCGGCCGAGGGA
GATGACGCTGAGGATAGCCTCATGGTGGACTGGTTCTGGCTCATTACGAGAAGCAGCTTCTGCTGAGAC
AGGAGTCAGAGCTGATGTACAAGTCCAAGGCCAGCGTCTGGAGGAGCAGCAGCTGGACATCGAGGGCGA
GCTGCGCCGGCTCATGGCAAGCCCGAGGCTCTGAAGTCACTGCAGGAGCGGCGGGGAGCAGGAGCTG
CTGGAGCAGTACGTGAGCACCGTGAACGACCGCAGTGACATCGTGGACTCGTGGACGAGGACCGGCTCC
GGGAACAAGAGGAGGATCAGATGCTGCGGGACATGATTGAGAAGCTGGGCTCCAGAGGAAGAAGTCAA
GTTCCGCTTGTCCAAGATCTGCTCACCAAAAAGCAAAAGCAGCCCTCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG207726 representing NM_182924

Red=Cloning site Green=Tags(s)

```
MAAIRALQQWCRQQCEGYRDVNICNMTTSFRDGLAFCAILHRHRPDLINFSALKKENIYENNKLAFRVAE
EHLGIPALLDAEDMVALKVPDRLSILTYVSQYYNYFHGRSPIGGMAGVKRASEDSEEEPSGKKAPVQAAK
LPSPAPARKPPLSPAQTNPVVQRRNEGAGGPPPKTDQALAGSLVSSTCGVCGKHVHLVQRHLADGRLYHR
SCFRCKQCSTLHSGAYKATGEPGTFVCTSHLPAAASAPKLTGLVPRQPGAMGVDSRTSCSPQKAQEAN
KARPSAWEPAAGNSPARASVPAAPNPAATSATSVHVRSPARPSESRLAPTPTGKVRPRVTNSSPMGWSS
AAPCTAAAASHPAVPPSAPDPRPATPQGGGAPRVAAPQTTLSSSSTSAATVDPPAWTPSASRTQQARNKF
FQTSAYPPGTSLSGRGTPSLVLKSDSSKEQARNFLKQALSAL EEAGAPAGRPSPATAAVPSSQPKTEA
PQASPLAKPLQSSSPRVLGLPSRMEPPAPLSTSSTSQASALPPAGRRNLAESSGVGRVGAGSRPKPEAPM
AKGKSTTLTQDMSTSLQEGQEDGPAGWRANLKPVDRRSPAERTLKPKEPRALAEPRAGEAPRKVSGSFAG
SVHITLTPVRPDRTPRPASPGPSLPARSPSPRRRRRLAVPASLDVCDNWLREPPPGQEARVQSWKEEEKK
PHLQGKGRPLSPANVPALPGETVTSPVRLHPDYLSP EEQRLQDIERRLDAELRGVELEKRLRAAEG
DDAEDSLMVDWFWLIHEKQLLRQESEL MYKSKAQRLEEQLDIEGELRRLMAKPEALKSLQERRREQEL
LEQYVSTVNDRSDIVDSLDEDRLREQEEDQMLRDMIEKLG LQRKKS KFRLSKIWSPKSKSSPSQ
```

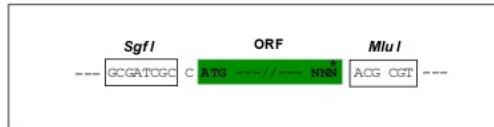
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGCGCGGAATTCGTGACTGGATCCGGTACCGAGAGATCTGCCGCCGATCGCCGGCGCGCCAGATCT
 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---
 T R T R P L E M E S D - - -
 --- --- GAA GAA AGA GTT TAA ACGGCCGCCCGGAGCT
 - - E E R V Stop

ACCN: NM_182924

ORF Size: 2712 bp

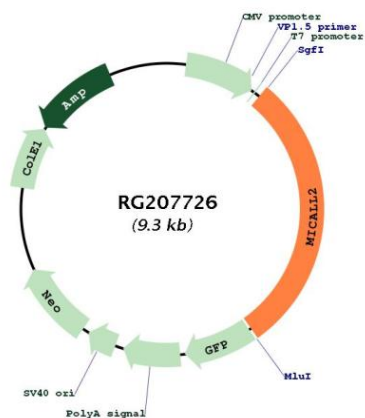
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_182924.2</u>
RefSeq Size:	3144 bp
RefSeq ORF:	2715 bp
Locus ID:	79778
UniProt ID:	<u>Q8IY33</u>
Cytogenetics:	7p22.3
Gene Summary:	Effector of small Rab GTPases which is involved in junctional complexes assembly through the regulation of cell adhesion molecules transport to the plasma membrane and actin cytoskeleton reorganization. Regulates the endocytic recycling of occludins, claudins and E-cadherin to the plasma membrane and may thereby regulate the establishment of tight junctions and adherens junctions. In parallel, may regulate actin cytoskeleton reorganization directly through interaction with F-actin or indirectly through actinins and filamins. Most probably involved in the processes of epithelial cell differentiation, cell spreading and neurite outgrowth (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG207726