

## Product datasheet for **RG229050**

### **MICAL1 (NM\_001159291) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MICAL1 (NM_001159291) Human 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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**Protein Sequence:** >RG229050 representing NM\_001159291  
 Red=Cloning site Green=Tags(s)

MASPTSTNPAHAHFESFLQAQLCQDVLSSFQELCGALGLEPGGGLPQYHKIKDQLNYWSAKSLWTKLDKR  
 AGQPVYQQGRACSTKCLVVGAGPCGLRVAVELALLGARVVLVEKRTKFSRHNVLHLWPFTHDLRALGA  
 KKFYGRFCTGTLDHISIRQLQLLLLKVALLLGVEIHWGVTFGLQPPPRKGSWRAQLQPNPPAQLANYE  
 FDLVISAAGGKFVPEGFVREMGRKLAIGITANFVNGRTVEETQVPEISGVARIYNQSFQSLLKATGID  
 LENIVYYKDDTHYFVMTAKKQCLLRGLVLRQPFWPLGTGVARGFLAAFDAAMVVKRWAEGAESLEVLAE  
 ESLYQLLSQTSPEMHRNVAQYGLDPATRYPNLNLRAVTPNQVRDLYDVLAKEPVQRNNDKTDGMPATG  
 SAGTQEELLRWCEQTAGYPGVHVDLSSSWADGLALCALVYRLQPLLEPSELQGLGALEATAWALKVA  
 ENELGITPVVSAQAVVAGSDPLGLIAYLSHFSAFKSMAHSPGPVSQTSPTGSSAVLFLSKLQRTLQSR  
 AKENAEDAGGKKLRLEMAETPSTEVPDPEPGVPLTPPSQHQEAGAGDLCALCGEHLVLERLCVNGHF  
 FHRSCFRCHTCEATLWPGGYEQHPGDGHFYCLQHLPQTDHKKEGSDRGPESPELPTPSENSMPPGLSTPT  
 ASQEGAGVPDPSPQTRRQIRLSSPERQRLSSLNLTPDPEMPPPKPPRSCSALARHALESSFVWGLPV  
 QSQPALVAMEKEEKESPFSSSEEEEDVPLDSDVEQALQTFAKTSGTMNNYPTWRRTLRRAKEEEMKRF  
 KAQTIQRRLNEIEAALRELEAEGVKLELALRRQSSSPEQQKLVVWQQLQLVDKKNLSVAEEAELMITVQ  
 ELNLEEKQWQLDQELRGYMREENLKTAAADRQAEDQVLRKLVLDVNQRDALIRFQEERRLELALGTGAQ  
 G

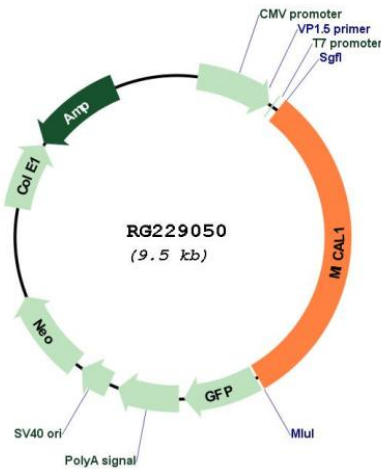
TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001159291

**ORF Size:** 2943 bp

**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](mailto: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 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.

RefSeq: [NM\\_001159291.1](#), [NP\\_001152763.1](#)

RefSeq Size: 3403 bp

RefSeq ORF: 2946 bp

Locus ID: 64780

UniProt ID: [Q8TDZ2](#)

Cytogenetics: 6q21

**Gene Summary:** This gene encodes an enzyme that oxidizes methionine residues on actin, thereby promoting depolymerization of actin filaments. This protein interacts with and regulates signalling by NEDD9/CAS-L (neural precursor cell expressed, developmentally down-regulated 9). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015]