

Product datasheet for MR211527L3

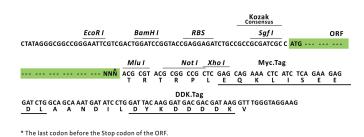
Mical1 (NM_138315) Mouse Tagged Lenti ORF Clone

Product data:

OriGene Technologies, Inc.

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Product Type:	Expression Plasmids
Product Name:	Mical1 (NM_138315) Mouse Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	Mical1
Synonyms:	MICAL; MICAL-1; Nical
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR211527).
Restriction Sites:	Sgfl-Mlul
Cloning Scheme:	Cloning sites used for ORF Shuttling:
	Sgf1 ORF Mlu I GCG ATC GC ATG // NNN ACG CGT



ACCN: NM_138315 ORF Size: 3147 bp



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Gene Mical1 (NM_138315) Mouse Tagged Lenti ORF Clone – MR211527L3	
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 <u>custsupport@origene.com</u> 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. <u>More info</u>
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:	 Centrifuge at 5,000xg for 5min. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. Close the tube and incubate for 10 minutes at room temperature. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 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:	<u>NM 138315.1, NP 612188.1</u>
RefSeq Size:	3563 bp
RefSeq ORF:	3147 bp
Locus ID:	171580
UniProt ID:	Q8VDP3
Cytogenetics:	10 B1

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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 H(2)O(2) (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]

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