

Product datasheet for **MG202179**

Rala (NM_019491) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rala (NM_019491) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Rala
Synonyms: 3010001O15Rik; AW322615; Ral; Rasl1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG202179 representing NM_019491
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTGCAAACAAGCCCAAGGGTCAGAATTCCTTGGCCTTACACAAAGTCATCATGGTGGGCAGTGGTG
 GTGTGGGCAAGTCTGCCCTGACTCTGCAGTTCATGTACGACGAGTTTGTAGAGGACTATGAACCTACCAA
 AGCGGACAGCTACAGGAAGAAGGTAGTCTGGACGGGGAAGAAGTCAGATCGACATCTTAGATACAGCG
 GGGCAGGAGGACTATGCTGCAATTAGAGACAACACTCTCCGAAGTGGGGAGGATTCTCTGTGTCTTCT
 CTATCACAGAGATGGAGTCCTTCGAGCTACCGCGGACTTCAGGGAGCAGATTTTAAGAGTAAAAGAAGA
 TGAGAATGTTCCATTTCTCCTGGTTGGTAACAAGTCAGATCTAGAAGATAAAAGGCAGGTTTCTGTAGAA
 GAGGCAAAAAACAGAGCTGACCAGTGGAACGTTAACTATGTGGAGACGTCTGCTAAAACGCGCGCCAACG
 TTGACAAGGTATTTTTGATTTAATGAGGGAAATACGAGCCAGAAAGATGGAAGACAGCAAAAGAAAAAAA
 TGGAAAAAGAAGAGGAAAAAGTTTAGCCAAGAGAATCAGAGAAAGATGCTGCATTTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG202179 representing NM_019491
 Red=Cloning site Green=Tags(s)

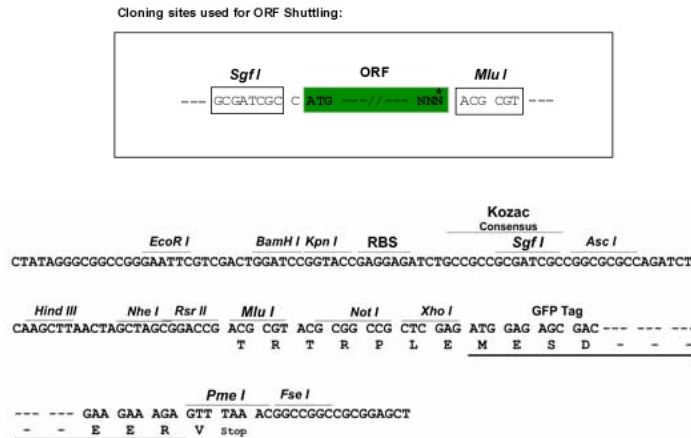
MAANKPKGQNSLALHKVIMVSGGVGKSALTLQFMYDEFVEDYEPTKADSYRKKVLDGEEVQIDILDTA
 GQEDYAAIRDNYFRSGEFLCVFSITEMESFAATADFREQILRVKEDENVPFLLVGNKSDLEDKRQVSVE
 EAKNRADQWNVVYVETSAKTRANVDKVFVFDLMREIRARKMEDSKEKNGKKRKSALAKRIRERCCIL

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_019491

ORF Size: 618 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.

RefSeq: [NM_019491.5](#), [NP_062364.3](#)

RefSeq Size: 2662 bp

RefSeq ORF: 621 bp

Locus ID: 56044

UniProt ID: [P63321](#)

Cytogenetics: 13 6.05 cM

Gene Summary: Multifunctional GTPase involved in a variety of cellular processes including gene expression, cell migration, cell proliferation, oncogenic transformation and membrane trafficking. Accomplishes its multiple functions by interacting with distinct downstream effectors. Acts as a GTP sensor for GTP-dependent exocytosis of dense core vesicles. Key regulator of LPAR1 signaling and competes with GRK2 for binding to LPAR1 thus affecting the signaling properties of the receptor. Required for anchorage-independent proliferation of transformed cells (By similarity). The RALA-exocyst complex regulates integrin-dependent membrane raft exocytosis and growth signaling (PubMed:20005108). During mitosis, supports the stabilization and elongation of the intracellular bridge between dividing cells. Cooperates with EXOC2 to recruit other components of the exocyst to the early midbody (By similarity). [UniProtKB/Swiss-Prot Function]