

Product datasheet for **MG205240**

Rp2 (NM_133669) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rp2 (NM_133669) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Rp2
Synonyms: A1662636; Rp2h
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG205240 representing NM_133669
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGCTGCTGCTTCACTAAGAGGAGGAAGAGTGAAAAGGCTGAGGGAGAGGAGGAGCAGCCCAAGCTGT
 ACAGCTGGGACCAGCGGGAGAAGGTTGATCCAAAAGATTACATGTTTAGTGGACTGAAGGATGAAACAGT
 AGGTCGTTACCTGGAAAAGTGGCAGGACAACAATTTGTCATTCAAGACTGTGAGAACTGTAACATCTAT
 ATTTTTGACCACTCAGCTACTATTACCATTGATGACTGCACTAACTGTGAATTTTTTTGGACCAGTGA
 AAGGCAGTGTCTTTTTCCGAAATTGTAGAGATTGCAAGTGCACATTGGCTTGCCAGCAATTCGTGTGAG
 AGACTGTAGAAAGTTGGAAGTCTTTTTGTGCTGTGCTACTCAACCCATTATTGAATCTTCCACAAACATC
 AAGTTTGGCTGTTTTCAATGGTACTACCCTGAATTAGCAGCCCAATTCAAAGATGCAGGCCCTCAGTATCT
 TCAATAACATTTGGAGTCATGTTTCATGATTTTACACCTGTGTCAGGAGAGCTCAACTGGAGCCTTCTTCC
 AGAAAAAGCCGTGGTTCAAGACTATGTTTCTATCCCAATGACTGAAGAATTCAAAGCTGTGCGAATTTCC
 ACAGAAGCCAATAGAAGCATTGTTTCTGTGTCGGGGTCCAGAGACAGAAGTACAGTGTGAATCATGTC
 TTGTGGTATTATTTGCCGATGATTATACTGCAATGCCAGGAACTAATTGATGAGATGGTTGGTAA
 AGGCTTCTCCCTAGTGCAGACAAAGGAAATGTCAATGAAAAGTGAAGACGCCCAAAGGGTTTTCCAGGAA
 AAGGCATCAGATTTTTACTTCTTAACAAAGGTCCTGTGATTGCCTTGGAAATTAATGGAGATGACG
 CTGTACAAGAATGTCACCTTATTGTAAATGGGATGTTCAACGGGACAAAGATGTTTGTATCAGAAAAGAA
 GGAGACCGCATCTGGAGATGTTGATAGCTTCTATAACTTTGCTGAGATCCAGATGGGGATA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG205240 representing NM_133669
 Red=Cloning site Green=Tags(s)

MGCCFTKRRKSEKAEGEEEPKLYSWDQREKVDPKDYMFSGLKDETVGRLPGKVAGQQFVIQDCENCNIY
 IFDHSATITIDDCNTCVIFLGPVKGSVFFRNCRDCKCTLACQQFRVRDCRKLFLCCATQPIIESSTNI
 KFGCFQWYYPELAAQFKDAGLSIFNNIWSHVHDFTPVSGELNWSLLPENAVVQDYVPIPMTEEFKAVRIS
 TEANRSIVPVSRGQRQKYSDACLVLFFADDYTTANARKLIDEMVGKGFSLVQTKEMSMKTEDAQRVVFQE
 KASDFLLLLLNKGPVIALEFNGDDAVQECHLIVNGMFNGTKMFVSEKKETASGDVDSFYNF AEIQMGI

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_133669

ORF Size: 1041 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_133669.5](#)

RefSeq Size: 3786 bp

RefSeq ORF: 1044 bp

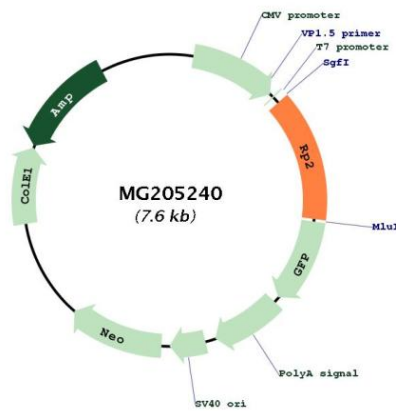
Locus ID: 19889

UniProt ID: [Q9EPK2](#)

Cytogenetics: X A1.3

Gene Summary: Acts as a GTPase-activating protein (GAP) involved in trafficking between the Golgi and the ciliary membrane. Involved in localization of proteins, such as NPHP3, to the cilium membrane by inducing hydrolysis of GTP ARL3, leading to the release of UNC119 (or UNC119B). Acts as a GTPase-activating protein (GAP) for tubulin in concert with tubulin-specific chaperone C, but does not enhance tubulin heterodimerization. Acts as guanine nucleotide dissociation inhibitor towards ADP-ribosylation factor-like proteins. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG205240