

Product datasheet for **MG201691**

Rap1a (NM_145541) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Rap1a (NM_145541) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Rap1a
Synonyms: AI848598; G-22K; Krev-1; Rap1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG201691 representing NM_145541
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGTGAGTACAAGCTAGTAGTCCTTGGTTCAGGAGGCGTGGGGAAGTCTGCTCTGACAGTTCAGTTTG
TTCAGGGGATTTTTGTTGAAAAATATGACCCAACGATAGAAGATTCCTACAGAAAGCAAGTCGAGGTAGA
TTGCCAACAGTGCATGCTGGAGATCCTGGACACTGCAGGAACCGCAATTTACAGCAATGAGGGATTTG
TATATGAAGAATGGCCAAGGTTTGCAGTATTTATTCAATTACAGCTCAGTCTACGTTTAAATGATTTAC
AAGACTTGAGAGAACAGATTTTACGGGTTAAAGACACAGAAGATGTTCCAATGATTTTGGTTGGCAATAA
ATGTGACTTGGAAGATGAACGGGTAGTTGGCAAAGAACAAGGCCAGAATTTAGCAAGACAGTGGTGTAA
TGTGCCTTTTGAATCTTCTGCAAAGTCAAAGATCAACGTTAATGAGATATTTTATGACCTGGTCAGAC
AGATAAATAGAAAAACCCAGTGGAAAAGAAGCCTAAAAAGAAATCATGTTTGCTGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG201691 representing NM_145541
Red=Cloning site Green=Tags(s)

MREYKLVVLGSGGVGKSALTVQFVQGI FVEKYDPTIEDSYRKQVEVDCQCMLEILDTAGTEQFTAMRDL
YMKNGQGFALVYSITAQSTFNLDLREQILRVKDTEDVPMILVGNKCDLEDERVVGKEQGQNLARQWCN
CAFLESSAKSKINVNEIFYDLVRQINRKPVEKKPKKKSCLLL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_145541

ORF Size: 2471 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_145541.5](#), [NP_663516.1](#)

RefSeq Size: 1424 bp

RefSeq ORF: 555 bp

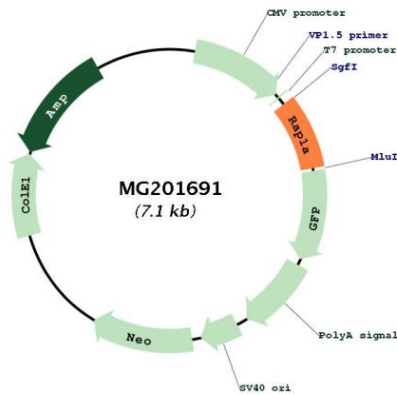
Locus ID: 109905

UniProt ID: [P62835](#)

Cytogenetics: 3 46.45 cM

Gene Summary: Induces morphological reversion of a cell line transformed by a Ras oncogene. Counteracts the mitogenic function of Ras, at least partly because it can interact with Ras GAPs and RAF in a competitive manner. Together with ITGB1BP1, regulates KRIT1 localization to microtubules and membranes (By similarity). Plays a role in nerve growth factor (NGF)-induced neurite outgrowth. Plays a role in the regulation of embryonic blood vessel formation. Involved in the establishment of basal endothelial barrier function. May be involved in the regulation of the vascular endothelial growth factor receptor KDR expression at endothelial cell-cell junctions. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG201691