

## Product datasheet for MR201691

### Rap1a (NM\_145541) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Rap1a (NM\_145541) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Rap1a  
**Synonyms:** A1848598; G-22K; Krev-1; Rap1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201691 representing NM\_145541  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGTGAGTACAAGCTAGTAGTCCTTGGTTCAGGAGGCGTGGGAAGTCTGCTCTGACAGTTCAGTTTG  
TTCAGGGGATTTTTGTTGAAAAATATGACCCAACGATAGAAGATTCCTACAGAAAGCAAGTCGAGGTAGA  
TTGCCAACAGTGCATGCTGGAGATCCTGGACACTGCAGGAACCGACAATTTACAGCAATGAGGGATTTG  
TATATGAAGAATGCCAAGGGTTTGCAGTATTTATTCAATTACAGCTCAGTCTACGTTTAAATGATTAC  
AAGACTTGAGAGAACAGATTTTACGGTTAAAGACACAGAAGATGTTCCAATGATTTTGGTTGGCAATAA  
ATGTGACTTGGAAGATGAACGGGTAGTTGGCAAAGAACAAGGCCAGAATTTAGCAAGACAGTGGTGTAA  
TGTGCCTTTTGAATCTTCTGCAAAGTCAAAGATCAACGTTAATGAGATATTTTATGACCTGGTCAGAC  
AGATAAATAGAAAAACCCAGTGGAAAAGAAGCCTAAAAAGAAATCATGTTTGCTGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201691 representing NM\_145541  
Red=Cloning site Green=Tags(s)

MREYKLVVLGSGGVGKSALTVQFVQGI FVEKYDPTIEDSYRKQVEVDCQQCMLEILD TAGTEQFTAMRDL  
YMKNGQGFALVYSITAQSTFNLDLREQILRVKDTEDVPMILVGNKCDLEDERVVGKEQGQNLARQWCN  
CAFLESSAKSKINVNEIFYDLVRQINRKPVEKKPKKKSCLLL

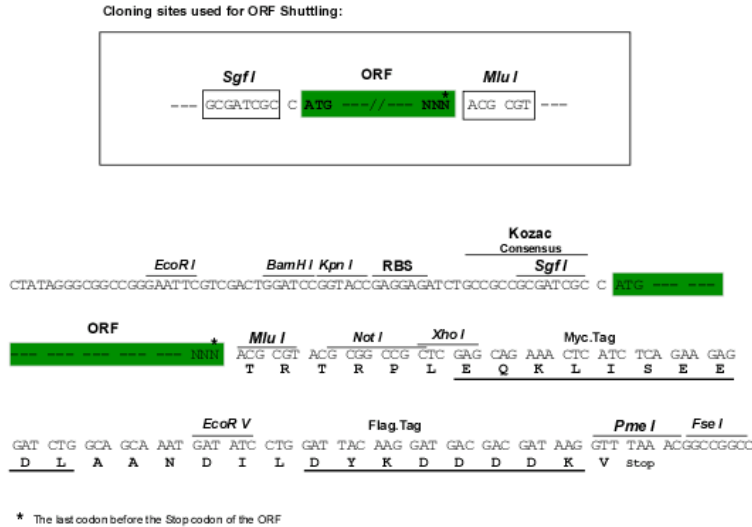
**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9036\\_d04.zip](https://cdn.origene.com/chromatograms/mm9036_d04.zip)



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_145541

ORF Size: 552 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: 2474 bp

RefSeq ORF: 555 bp

Locus ID: 109905

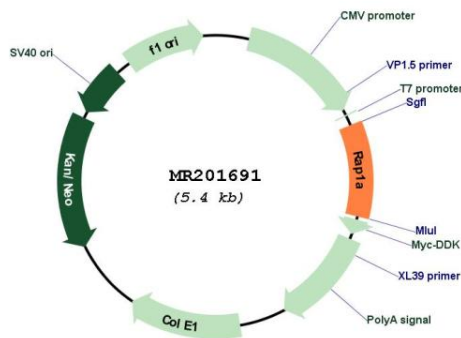
UniProt ID: [P62835](#)

**Cytogenetics:** 3 46.45 cM

**MW:** 21.4 kDa

**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 MR201691