

Product datasheet for **RC207180**

RAP2A (NM_021033) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Tag: Myc-DDK

Symbol: RAP2A

Synonyms: K-REV; KREV; RAP2; RbBP-30

Mammalian Cell Selection: Neomycin

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

ORF Nucleotide Sequence: >RC207180 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGCGAGTACAAAGTGGTGGTCTGGGCTCGGGCGGGTAGGCAAATCCGCCCTGACCGTGCAGTTCC
 TGACCGGCACCTTCATCGAGAAATACGACCCACCATCGAGGACTTCTACCGCAAGGAGATCGAGGTGGA
 TTCGTCGCGTCGGTCTGGAGATCCTGGACACGGCGGCCACCGAGCAGTTCCGCTCCATGCGGGACCTG
 TACATCAAGAACGGCCAGGGCTTCATCTCGTCTACAGCCTCGTCAACCAGCAGAGCTCCAGGACATCA
 AGCCCCATGCGGGACCAGATCATCCGCGTGAAGCGGTATGAGAAAGTGCCAGTCATCTTGGTTGGGAACAA
 AGTGGACCTGGAAAGTGAGAGAGAAGTATCGTCCAGCGAAGGCAGAGCCCTTGCTGAAGAGTGGGGCTGC
 CCCTTTATGAAAACCTCCGCTAAGAGTAAACAATGGTGGACGAACTCTTGCAGAAATTGTGAGGCAGA
 TGAATATGCTGCTCAGCCTGACAAAGATGACCCATGCTGTTCTGCATGTAAACATACAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207180 protein sequence
 Red=Cloning site Green=Tags(s)

MREYKVVVLGSGGVGKSALTQFVTGTFIEKYDPTIEDFYRKEIEVDSSPSVLEILDTAGTEQFASMRDL
 YIKNGQGFIIVSLVNQSFQDIKPMRDQIIRVKRYEKPVPVILVGNKVDLESEREVSSSEGRALAEWGC
 PFMETSAKSKTMVDELFAEIVRQMNYAAQPDKDDPCCSACNIQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6135_f05.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_021033

ORF Size: 549 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_021033.7](#)

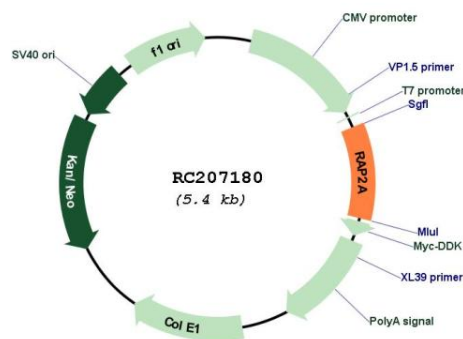
RefSeq Size: 4358 bp

RefSeq ORF: 552 bp

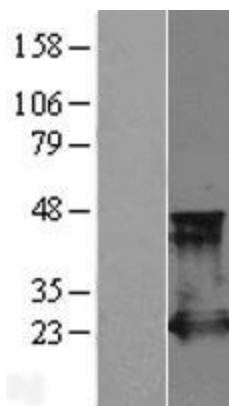
Locus ID: 5911

UniProt ID:	P10114
Cytogenetics:	13q32.1
Domains:	ras, RAS, RHO, RAB
Protein Families:	Druggable Genome
MW:	20.6 kDa
Gene Summary:	Small GTP-binding protein which cycles between a GDP-bound inactive and a GTP-bound active form. In its active form interacts with and regulates several effectors including MAP4K4, MINK1 and TNIK. Part of a signaling complex composed of NEDD4, RAP2A and TNIK which regulates neuronal dendrite extension and arborization during development. More generally, it is part of several signaling cascades and may regulate cytoskeletal rearrangements, cell migration, cell adhesion and cell spreading.[UniProtKB/Swiss-Prot Function]

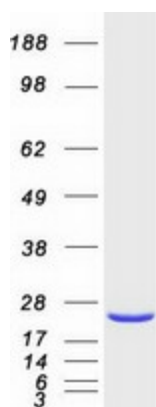
Product images:



Circular map for RC207180



Western blot validation of overexpression lysate (Cat# [LY402824]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207180 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAP2A protein (Cat# [TP307180]). The protein was produced from HEK293T cells transfected with RAP2A cDNA clone (Cat# RC207180) using MegaTran 2.0 (Cat# [TT210002]).