

Product datasheet for **RC215248**

RAP1A (NM_002884) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RAP1A (NM_002884) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RAP1A
Synonyms: C21KG; G-22K; KREV-1; KREV1; RAP1; SMGP21
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC215248 representing NM_002884
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGTGAGTACAAGCTAGTGGTCCTTGGTTCCAGGAGCGTTGGGAAGTCTGCTCTGACAGTTCAGTTTG
TTCAGGGAATTTTGTGAAAAATGACCCAACGATAGAAGATTCCTACAGAAAGCAAGTTGAAGTCGA
TTGCCAACAGTGTATGCTCGAAATCCTGGATACTGCAGGGACAGAGCAATTTACAGCAATGAGGGATTTG
TATATGAAGAACGCCAAGGTTTTGCACTAGTATATTCTATTACAGCTCAGTCCAGTAAACGACTTAC
AGGACCTGAGGGAACAGATTTTACGGGTTAAGGACACGGAAGATGTTCCAATGATTTTGGTTGGCAATAA
ATGTGACCTGGAAGATGAGCGAGTAGTTGGCAAAGAGCAGGGCCAGAATTTAGCAAGACAGTGGTGTAA
TGTGCCTTTTGAATCTTCTGCAAAGTCAAAGATCAATGTTAATGAGATATTTTATGACCTGGTCAGAC
AGATAAATAGGAAAACACCAGTGGAAAAGAAGCCTAAAAAGAAATCATGTCTGCTGCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215248 representing NM_002884
Red=Cloning site Green=Tags(s)

MREYKLVVLGSGGVGKSALTVQFVQGI FVEKYDPTIEDSYRKQVEVDCQQCMLEILD TAGTEQFTAMRDL
YMKNGQGFALVYSITAQSTFNLDLREQILRVKDTEDVPMILVGNKCDLEDERVVGKEQGQNLARQWCN
CAFLESSAKSKINVNEIFYDLVRQINRKPVEKKPKKKSCLLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6268_f05.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002884

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_002884.3](#)

RefSeq Size: 1812 bp

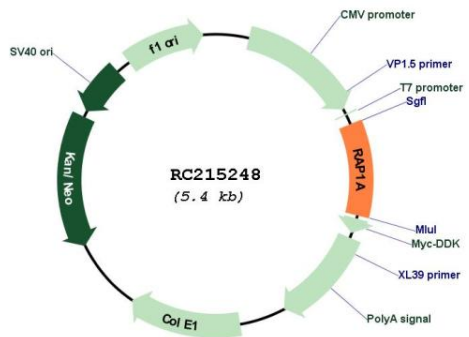
RefSeq ORF: 555 bp

Locus ID: 5906

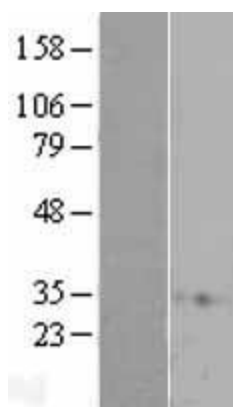
UniProt ID: [P62834](#)

Cytogenetics:	1p13.2
Domains:	ras, RAN, RAS, RHO, RAB
Protein Families:	Druggable Genome
Protein Pathways:	Chemokine signaling pathway, Focal adhesion, Leukocyte transendothelial migration, Long-term potentiation, MAPK signaling pathway, Neurotrophin signaling pathway, Renal cell carcinoma
MW:	20.8 kDa
Gene Summary:	This gene encodes a member of the Ras family of small GTPases. The encoded protein undergoes a change in conformational state and activity, depending on whether it is bound to GTP or GDP. This protein is activated by several types of guanine nucleotide exchange factors (GEFs), and inactivated by two groups of GTPase-activating proteins (GAPs). The activation status of the encoded protein is therefore affected by the balance of intracellular levels of GEFs and GAPs. The encoded protein regulates signaling pathways that affect cell proliferation and adhesion, and may play a role in tumor malignancy. Pseudogenes of this gene have been defined on chromosomes 14 and 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]

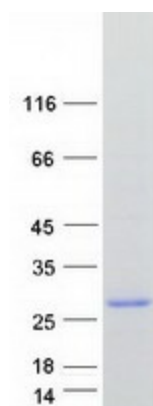
Product images:



Circular map for RC215248



Western blot validation of overexpression lysate (Cat# [LY419031]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215248 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RAP1A protein (Cat# [TP315248]). The protein was produced from HEK293T cells transfected with RAP1A cDNA clone (Cat# RC215248) using MegaTran 2.0 (Cat# [TT210002]).