

Product datasheet for **RC207542**

RACGAP1 (NM_013277) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RACGAP1 (NM_013277) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RACGAP1
Synonyms:	CYK4; HsCYK-4; ID-GAP; MgcRacGAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC207542 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGATACTATGATGCTGAATGTGCGGAATCTGTTTGAGCAGCTTGTGCGCCGGGTGGAGATTCTCAGTG
AAGGAAATGAAGTCCAATTTATCCAGTTGGCGAAGGACTTTGAGGATTTCCGTAAAAAGTGGCAGAGGAC
TGACCATGAGCTGGGAAATACAAGGATCTTTTGATGAAAGCAGAGACTGAGCGAAGTGCTCTGGATGTT
AAGCTGAAGCATGCACGTAATCAGGTGGATGTAGAGATCAAACGGAGACAGAGAGCTGAGGCTGACTGCG
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CACTGGATTGGGACTCTTCTTTGGTGAAGACTTTCAAACGAAGAAGAGAGAAAAGAGGCGCTCTACTAG
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CCTACTTTGAGACTGTGCCATATTGGACCAGGAGCCGAAGGAAAACAGGTAATTTACAACCTTGGAACAG
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AATGGAGGGATGCGCCTGCATGACTTTGTTTCTAAGACGGTTATTAACCTGAATCCTGTGTTCCATGTG
GAAAGCGGATAAAATTTGGCAAATATCTCTGAAGTGTGAGACTGTCTGTGGTCTCTCATCCAGAATG
TCGGGACCGCTGTCCCCTCCCTGCATTCCCTACCTGATAGGAACACCTGTCAAGATTGGAGAGGGAAATG
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AGCAAAGAGGCTGACTGAGACAGGCCTGTATAGGATCTCTGGCTGTGACCGCACAGTAAAAGAGCTGAA
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CTTCTAAAAGACTTTCTTCGAAACCTCAAAGAACCTTCTGACCTTTTCGCTTAACAGAGCCTTTATGG
AAGCAGCAGAAATCACAGATGAAGACAACAGCATAGCTGCCATGTACCAAGCTGTTGGTGAAGTGCCTCA
GGCCAACAGGGACACATTAGCTTTCTCATGATCACTTGCAGAGAGTGGCTCAGAGTCCACATACTAAA
ATGGATGTTGCCAATCTGGCTAAAGTCTTTGGCCCTACAATAGTGGCCATGCTGTGCCCAATCCAGACC
CAGTGACAATGTTACAGGACATCAAGCGTCAACCAAGGTGGTTGAGCGCCTGCTTCTGCTCTGGA
GTATTGGAGTCAGTTCATGATGGTGGAGCAAGAGAACATTGACCCCTACATGTCATTGAAAACCTCAAT
GCCTTTTCAACACCACAGACACCAGATATTAAGTGAAGTTTACTGGGACCTGTGACCACTCTGAACATC
AGCTTCTCAAGACTCCTTCATCTAGTCCCTGTACAGAGAGTCCGTTCCACCCTACCAAGAACACTCC
TAGATTTGGGAGCAAAAGCAAGTCTGCCACTAACCTAGGACGACAAGGCAACTTTTTTGGTCTCTCAATG
CTCAAG

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207542 protein sequence
Red=Cloning site Green=Tags(s)

MDT M L N V R N L F E Q L V R R V E I L S E G N E V Q F I Q L A K D F E D F R K K W Q R T D H E L G K Y K D L L M K A E T E R S A L D V
 K L K H A R N Q V D V E I K R R Q R A E A D C E K L E R Q I Q L I R E M L M C D T S G S I Q L S E E Q K S A L A F L N R G Q P S S S N A G N
 K R L S T I D E S G S I L S D I S F D K T D E S L D W D S S L V K T F K L K K R E K R R T S R Q F V D G P P G P V K K T R S I G S A V D Q
 G N E S I V A K T T V T V P N D G G P I E A V S T I E T V P Y W T R S R R K T G T L Q P W N S D S T L N S R Q L E P R T E T D S V G T P Q S
 N G G M R L H D F V S K T V I K P E S C V P C G K R I K F G K L S L K C R D C R V V S H P E C R D R C P L P C I P T L I G T P V K I G E G M
 L A D F V S Q T S P M I P S I V V H C V N E I E Q R G L T E T G L Y R I S G C D R T V K E L K E K F L R V K T V P L L S K V D D I H A I C S
 L L K D F L R N L K E P L L T F R L N R A F M E A A E I T D E D N S I A A M Y Q A V G E L P Q A N R D T L A F L M I H L Q R V A Q S P H T K
 M D V A N L A K V F G P T I V A H A V P N P D P V T M L Q D I K R Q P K V V E R L L S L P L E Y W S Q F M M V E Q E N I D P L H V I E N S N
 A F S T P Q T P D I K V S L L G P V T T P E H Q L L K T P S S S S L S Q R V R S T L T K N T P R F G S K S K S A T N L G R Q G N F F A S P M
 L K

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6021_c04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_013277

ORF Size: 1896 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_013277.4](#)

RefSeq Size: 3315 bp

RefSeq ORF: 1899 bp

Locus ID: 29127

UniProt ID: [Q9H0H5](#)

Cytogenetics: 12q13.12

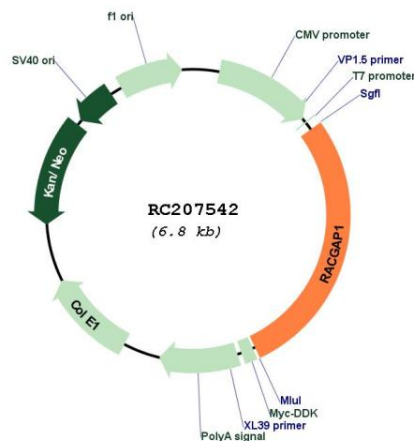
Domains: RhoGAP, DAG_PE-bind

Protein Families: Druggable Genome

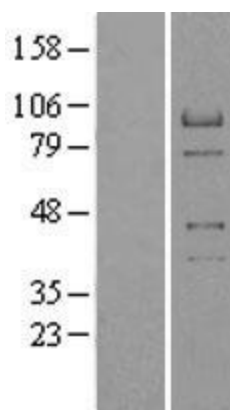
MW: 71 kDa

Gene Summary: This gene encodes a GTPase-activating protein (GAP) that is a component of the centralspindlin complex. This protein binds activated forms of Rho GTPases and stimulates GTP hydrolysis, which results in negative regulation of Rho-mediated signals. This protein plays a regulatory role in cytokinesis, cell growth, and differentiation. Alternatively spliced transcript variants have been found for this gene. There is a pseudogene for this gene on chromosome 12. [provided by RefSeq, Feb 2016]

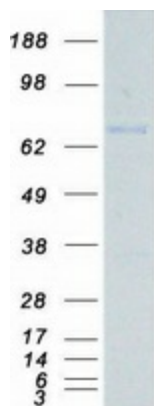
Product images:



Circular map for RC207542



Western blot validation of overexpression lysate (Cat# [LY426646]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226046] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RACGAP1 protein (Cat# [TP307542]). The protein was produced from HEK293T cells transfected with RACGAP1 cDNA clone (Cat# RC207542) using MegaTran 2.0 (Cat# [TT210002]).