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Product datasheet for RC219953

RCC1 (NM_001048195) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RCC1 (NM_001048195) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RCC1
Synonyms:	CHC1; RCC1-I; SNHG3-RCC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC219953 representing NM_001048195
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCACCCAAGCGCATAGCTAAAAGAAGGTCCCCCCCAGCAGATGCCATCCCCAAAAGCAAGAAGGTGA
AGGACACGAGGGCCGCTGCCTCCCGCCGCGTTCCTGGCGCCCGCTCCTGCCAAGTCTCACACAGGTCCCA
CAGCACAGAACCCGGCTTGGTGCTGACACTAGGCCAGGGCGACGTGGGCCAGCTGGGGCTGGGTGAGAAT
GTGATGGAGAGGAAGAAGCCGGCCCTGGTATCCATTCCGGAGGATGTTGTGCAGGCTGAGGCTGGGGGCA
TGCACACCGTGTGTCTAAGCAAAAGTGGCCAGGTCTATTCCTTCGGCTGCAATGATGAGGGTGCCCTGGG
AAGGGACACATCAGTGGAGGGCTCGGAGATGGTCCCTGGGAAAGTGGAGCTGCAAGAGAAGGTGGTACAG
GTGTCAGCAGGAGACAGTCACACAGCAGCCCTCACCGATGATGGCCGTGTCTTCCTCTGGGGCTCCTTCC
GGGACAATAACGGTGTGATTGGACTGTTGGAGCCCATGAAGAAGAGCATGGTGCCTGTGCAGGTGCAGCT
GGATGTGCCTGTGGTAAAGGTGGCCTCAGGAAACGACCACTTGGTGATGCTGACAGCTGATGGTGACCTC
TACACCTTGGGCTGCGGGGAACAGGGCCAGCTAGGCCGTGTGCCTGAGTTATTTGCCAACCGTGGTGGCC
GGCAAGGCCTCGAACGACTCCTGGTCCCCAAGTGTGTGATGCTGAAATCCAGGGGAAGCCGGGGCCACGT
GAGATTCCAGGATGCCTTTTGTGGTGCCTATTTCACCTTTGCCATCTCCCATGAGGGCCACGTGTACGGC
TTCGGCCTCTCCAACTACCATCAGCTTGGAACTCCGGGCACAGAATCTTGCTTCATACCCCAGAACCTAA
CATCCTTCAAGAATTCCACCAAGTCCTGGGTGGGCTTCTCTGGTGGCCAGCACCATACAGTCTGCATGGA
TTCGGAAGGAAAAGCATACAGCCTGGGCCGGGCTGAGTATGGGCGGCTGGGCCTTGGAGAGGGTGCTGAG
GAGAAGAGCATACCCACCCTCATCTCCAGGCTGCCTGCTGTCTCCTCGGTGGCTTGTGGGGCCTCTGTGG
GGTATGCTGTGACCAAGGATGGTCGTGTTTTCGCCTGGGGCATGGGCACCAACTACCAGCTGGGCACAGG
GCAGGATGAGGACGCCTGGAGCCCTGTGGAGATGATGGGCAAACAGCTGGAGAACCGTGTGGTCTTATCT
GTGTCCAGCGGGGGCCAGCATACAGTCTTATTAGTCAAGGACAAAGAACAGAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

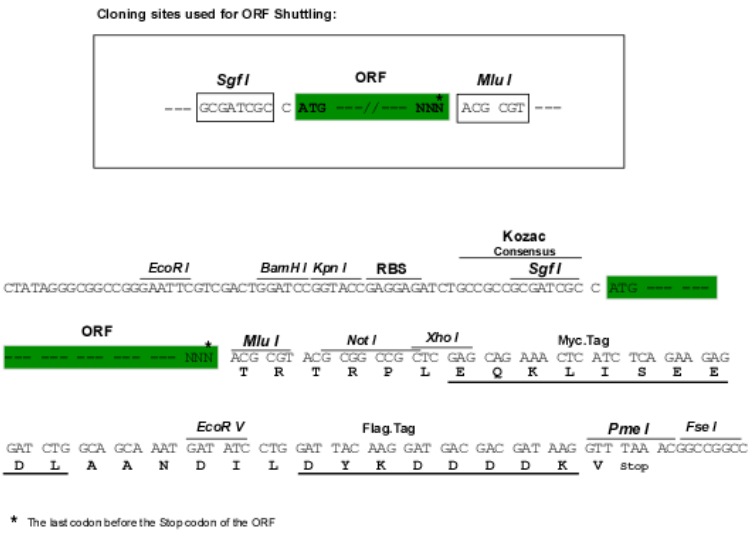
>RC219953 representing NM_001048195
Red=Cloning site Green=Tags(s)

MSPKRIAKRRSPPADAIPKSKKVKDTRAAASRRVPGARSCQVSHRSHSTEPGLVLTLGQGDVGQLGLGEN
VMERKKPALVSIPEDVVQAEAGGMHTVCLSKSGQVYSFGCNDEGALGRDTSVEGSEMVPGKVELQEKVVQ
VSAGDSHTAALTDDGRVFLWGSFRDNNGVIGLLEPMKKSMVPVQVQLDVPVVKVASGNDHLVMLTADGDL
YTLGCGEQGQLGRVPELFANRGGRQGLERLLVPKCVMLKSRGSRGHVRFQDAFCGAYFTFAISHEGHVYG
FGLSNYHQLGTPGTESCFIPQNLTSFKNSTKSWVGFSGGQHHTVCMDSEGKAYSLGRAEYGRLGLGEGAE
EKSIPTLISRLPAVSSVACGASVGYAVTKDGRVFAWGMGTNYQLGTGQDEDAWSPVEMMGKQLENRVVLS
VSSGGQHTVLLVKDKEQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001048195

ORF Size: 1314 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_001048195.4

RefSeq Size: 2490 bp

RefSeq ORF: 1317 bp

Locus ID: 1104

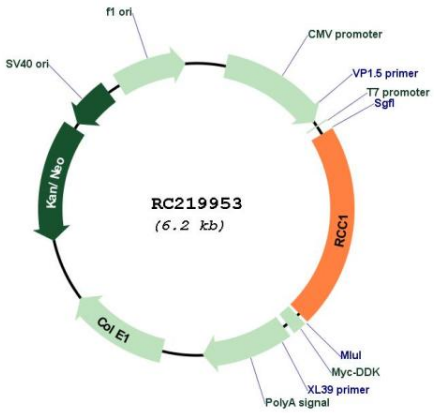
UniProt ID: P18754

Cytogenetics: 1p35.3

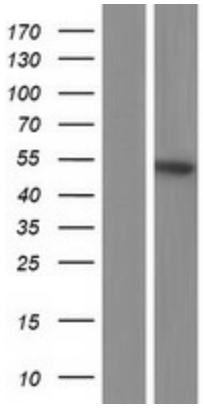
MW: 46.6 kDa

Gene Summary: Guanine-nucleotide releasing factor that promotes the exchange of Ran-bound GDP by GTP, and thereby plays an important role in RAN-mediated functions in nuclear import and mitosis (PubMed:1944575, PubMed:17435751, PubMed:20668449, PubMed:22215983, PubMed:11336674). Contributes to the generation of high levels of chromosome-associated, GTP-bound RAN, which is important for mitotic spindle assembly and normal progress through mitosis (PubMed:12194828, PubMed:17435751, PubMed:22215983). Via its role in maintaining high levels of GTP-bound RAN in the nucleus, contributes to the release of cargo proteins from importins after nuclear import (PubMed:22215983). Involved in the regulation of onset of chromosome condensation in the S phase (PubMed:3678831). Binds both to the nucleosomes and double-stranded DNA (PubMed:17435751, PubMed:18762580). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC219953



Western blot validation of overexpression lysate (Cat# [LY420775]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219953 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).