

Product datasheet for **RC221798**

RCC1 (NM_001269) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RCC1 (NM_001269) 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)



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ORF Nucleotide Sequence:

>RC221798 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCACCCAAGCGCATAGCTAAAAGAAGTCCCCCAGCAGATGCCATCCCCAAAAGCAAGAAGGTGA
 AGGTCTCACACAGGTCCACAGCACAGAACCCGGCTTGGTGTGACACTAGGCCAGGCGCAGCTGGGCCA
 GCTGGGGCTGGGTGAGAATGTGATGGAGAGGAAGAAGCCGGCCCTGGTATCCATTCCGGAGGATGTTGTG
 CAGGCTGAGGCTGGGGCATGCACACCGTGTGTCTAAGCAAAAGTGGCCAGGTCTATTCCTTCGGCTGCA
 ATGATGAGGGTCCCTGGGAAGGACACATCAGTGGAGGGCTCGGAGATGGTCCCTGGGAAAGTGGAGCT
 GCAAGAGAAGGTGACAGGTGTCAGCAGGAGACAGTACACAGCAGCCCTACCGATGATGGCCGTGTC
 TTCCTCTGGGCTCCTTCGGGACAATAACGGTGTGATTGGACTGTTGGAGCCATGAAGAAGAGCATGG
 TGCTGTGCAGGTGCAGCTGGATGTGCCTGTGGTAAAGGTGGCCTCAGGAAACGACCACTGGTGTGCT
 GACAGCTGATGGTGACCTCTACACCTTGGGCTGCGGGGAACAGGGCCAGCTAGGCCGTGTGCTGAGTTA
 TTTGCCAACCGTGGTGGCCGGCAAGGCCTCGAACGACTCCTGGTCCCAAGTGTGTGATGCTGAAATCCA
 GGGGAAGCCGGGGCCACGTGAGATTCCAGGATGCCTTTTGTGGTGCCTATTTACCTTTGCCATCTCCCA
 TGAGGGCCACGTGACGGCTTCGGCCTCTCCAACCTACCATCAGCTTGGAACTCCGGGCACAGAATCTTGC
 TTCATACCCAGAACCTAACATCCTTCAAGAATCCACCAAGTCTGGTGGGCTTCTCTGGTGGCCAGC
 ACCATACAGTCTGCATGGATTCCGAAGGAAAAGCATACAGCCTGGGCCGGGCTGAGTATGGGCGGCTGGG
 CCTTGGAGAGGGTGTGAGGAGAAGAGCATACCCACCTCATCTCCAGGCTGCCTGCTGTCTCCTCGGTG
 GCTTGTGGGCCCTCTGTGGGTATGCTGTGACCAAGGATGGTCTGTTTTTCGCTGGGGCATGGGACCA
 ACTACAGCTGGGCACAGGGCAGGATGAGGACGCCTGGAGCCCTGTGGAGATGATGGGCAACAGCTGGA
 GAACCGTGTGGTCTTATCTGTGTCCAGCGGGGGCCAGCATACAGTCTTATTAGTCAAGGACAAAGAACAG
 AGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221798 protein sequence
 Red=Cloning site Green=Tags(s)

MSPKRIAKRRSPADAIPKSKKVKVSHRSHSTEPGLVLTGQGDVGLGLGENVMERKKPALVSIPEDEVV
 QAEAGGMHTVCLSKSQVYVYSGCNDEGALGRDTSVEGSEMVPKVELQEKVVQVSAGDSHTAALTDGGRV
 FLWGSFRDNNGVIGLLEPMKSMVPVQVQLDVPVVKVASGNDHLVMLTADGDLYTLGCGEQGQLGRVPEL
 FANRGGRRQLERLLVPKCVMLKSRGSRGHVRFQDAFCGAYFTFAISHEGHVYGFGLSNYHQLGTPGTESC
 FIPQNLTSFKNSTKSWVGFSGGQHHTVCMDESEGKAYSLGRAEYGRLLGEGAEKSIPTLISRLPAVSSV
 ACGASVGYAVTKDGRVFAWGMGTNYQLGTGQDEDAWSPVEMMGKQLENRVVLSVSSGGQHTVLLVKDKEQ
 S

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6413_e03.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_001269

ORF Size: 1263 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_001269.6](#)

RefSeq Size: 2540 bp

RefSeq ORF: 1266 bp

Locus ID: 1104

UniProt ID: [P18754](#)

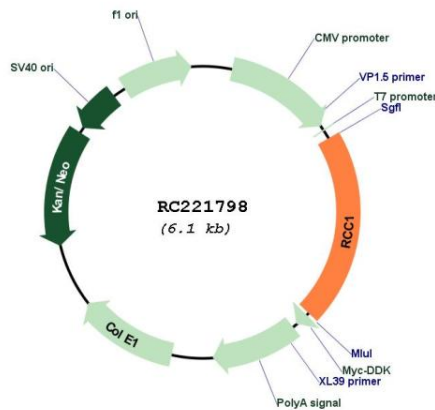
Cytogenetics: 1p35.3

Domains: RCC1

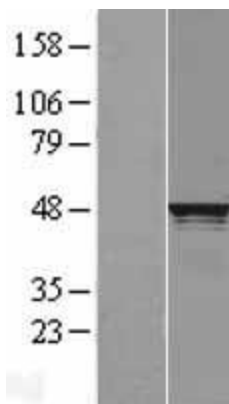
MW: 45 kDa

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]

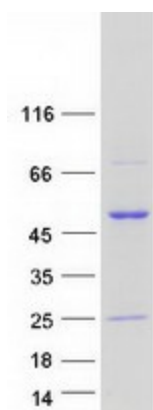
Product images:



Circular map for RC221798



Western blot validation of overexpression lysate (Cat# [LY420036]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221798 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RCC1 protein (Cat# [TP321798]). The protein was produced from HEK293T cells transfected with RCC1 cDNA clone (Cat# RC221798) using MegaTran 2.0 (Cat# [TT210002]).