

Product datasheet for **RC204223**

RANGAP1 (NM_002883) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RANGAP1 (NM_002883) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RANGAP1
Synonyms:	Fug1; RANGAP; SD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC204223 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCCTCGGAAGACATTGCCAAGCTGGCAGAGACACTTGCCAAGACTCAGGTGGCCGGGGACAGCTGA
 GTTTCAAAGGCAAGAGCCTCAAACCTCAACACTGCAGAAGATGCTAAAGATGTGATTAAAGAGATTGAAGA
 CTTTGACAGCTTGAGGGCTCTGCGTCTGGAAGGCAACACAGTGGGCGTGAAGCAGCCAGGGTCATCGCC
 AAGGCCTTAGAGAAGAAGTCGGAGTTGAAGCGCTGCCACTGGAGTGACATGTTACCGGGAAGGCTGCGGA
 CCGAGATCCCACAGCCCTGATCTCACTAGGGGAAGGACTCATCACAGCTGGGGCTCAGCTGGTGGAGCT
 GGACTTAAGCGACAACGCATTGGGGCCGACGGTGTGCAAGGCTTCGAGGCCCTGCTCAAGAGCTCAGCC
 TGCTTCACCTGCAGGAAGCTCAAGCTCAACAAGTGTGGCATGGCATTGGCGGGCAAGATCCTGGCTG
 CAGCTCTGACCGAATGTACCGGAAATCCAGTGCCCAAGGCAAGCCTCTGGCCCTGAAGGCTTTTGTGGC
 TGGCAGAAACCGTCTGGAGAATGATGGCGCCACTGCCTTGGCAGAAGCTTTTAGGGTCATCGGGACCTG
 GAGGAGGTCCACATGCCACAGAATGGGATCAACCACCCTGGCATCACTGCCCTGGCCAGGCTTTTCGCTG
 TCAACCCCTGCTGCGGGTCATCAACCTGAATGACAACACCTTCACTGAGAAGGGCGCCGTGGCCATGGC
 CGAGACCTTGAAGACCTTGCAGCAGGTGGAGGTGATTAATTTGGGGACTGCCTGGTGCCTCAAGGGT
 GCAGTTGCCATTGCAGATGCCATCCGCGCGGCCCTGCCAAGCTAAAGGAGCTGAAGTGTCTATTCTGTG
 AAATCAAGAGGGATGTGCCCTGGCTGTTGCTGAGGCCATGGCAGACAAAGCTGAGCTGGAGAAGCTGGA
 CCTGAATGGCAACACCCTGGGAGAAGAAGGCTGTGAACAGCTTCAGGAGGTGCTGGAGGGCTTCAACATG
 GCCAAGGTGCTGGCGTCCCTCAGTGATGACGAGGACGAGGAGGAGGAGGAGGAAGGAGAAGGAAGAAG
 AGGAAGCAGAAGAAGAGGAGGAGGAAGATGAGGAAGAGGAGGAAGAAGAGGAGGAGGAGGAAGAAGA
 GCCTCAGCAGCGAGGGCAGGGAGAGAAGTCAAGCAGCCCTCACGGAAGATTCTGGACCCTAACACTGGG
 GAGCCAGCTCCCGTGTCTCCTCCACCTCCTGCAGACGCTCCACCTTCTGGCTTTTCCCTCTCCAG
 AGAAGCTGCTGCGCCTAGGGCCCAAGAGCTCCGTGCTGATAGCCAGCAGACTGACACGCTGACCCCGA
 GAAGGTGGTCTCTGCCTTCTAAAGGTGTCTGTTCAAGGACGAAGCTACTGTGAGGATGGCAGTG
 CAGGATGCAGTAGATGCCCTGATGCAGAAGGCTTCAACTCCTCGTCTTCAACTCCAACACCTTCTCA
 CCAGGCTCCTCGTGCACATGGTCTGCTCAAGAGTGAAGACAAGGTCAAGGCCATTGCCAAGCTGTACGG
 CCCCTGATGGCGCTGAACCACATGGTGCAGCAGGACTATTTCCCAAGGCCCTGCACCCTGCTGCTG
 GCGTTCGTGACCAAGCCCAACAGCGCCCTGGAATCCTGCTCCTTCGCCCGCCACAGTCTGCTGCAGACG
 GTACAAGGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204223 protein sequence
 Red=Cloning site Green=Tags(s)

MASEDIAKLAETLAKTQVAGGQLSFKGKSLKLNLAEDAKDVIKEIEDFDSLEALRLENGTVGVEAARVIA
 KALEKKSELKRCHWSMFTGRLRTEIPPALISLGEGLITAGAQLVELDLSDNAFGPDGVQGFALLKSSA
 CFTLQELKLNCGMGIGGGKILAAALTECHRKSSAQGKPLALKVVFVAGRNRLENDGATALAEAFRVI
 EEVHMPQNGINHPGITALAQAFVNPLLRVINLNDNTFTEKGAVAMAETLKTLRQVEVINFGDCLVRSK
 AVAIADAIRGGLPKLKLNL SFCEIKRDAALVAEAMADKAELEKLDLNGNTLGEEGCEQLQEVLEGFNM
 AKVLASLSDDEDEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEPQQRGQGEKSATPSRKILDPNTG
 EPAPVLSPPPADVSTFLAFPSPEKLLRLGPKSSVLI AQQTDTSDPEKVVSAFLKVSSVFKDEATVRMAV
 QDAVDALMQAFNSSFNSNTFLTRLLVHMGLLKSEDKVKAIANLYGPLMALNHHMVQDYFPKALAPLLL
 AFVTKPNSALESCSFARHSLLTLYKV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6199_b04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002883

ORF Size: 1761 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_002883.4](#)

RefSeq Size: 3907 bp

RefSeq ORF: 1764 bp

Locus ID: 5905

UniProt ID: [P46060](#)

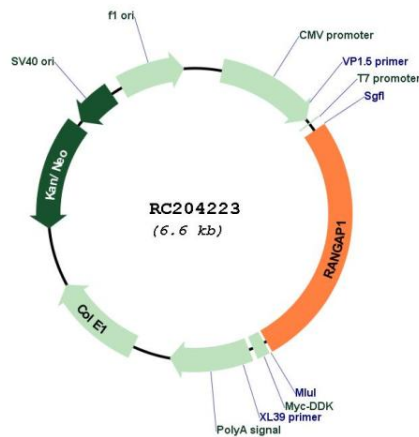
Cytogenetics: 22q13.2

Domains: LRR, LRR_RI

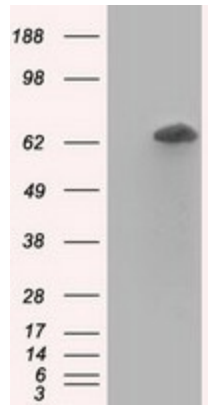
MW: 63.5 kDa

Gene Summary: This gene encodes a protein that associates with the nuclear pore complex and participates in the regulation of nuclear transport. The encoded protein interacts with Ras-related nuclear protein 1 (RAN) and regulates guanosine triphosphate (GTP)-binding and exchange. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]

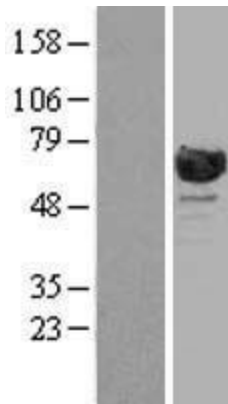
Product images:



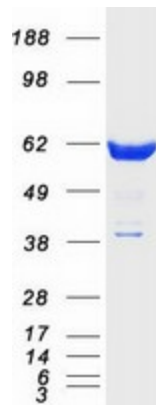
Circular map for RC204223



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RANGAP1 (Cat# RC204223, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RANGAP1 (Cat# [TA501265]). Positive lysates [LY401016] (100ug) and [LC401016] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401016]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204223 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RANGAP1 protein (Cat# [TP304223]). The protein was produced from HEK293T cells transfected with RANGAP1 cDNA clone (Cat# RC204223) using MegaTran 2.0 (Cat# [TT210002]).