

## Product datasheet for **RC204517**

### **RTKN (NM\_033046) Human Tagged ORF Clone**

#### **Product data:**

|                           |                                         |
|---------------------------|-----------------------------------------|
| Product Type:             | Expression Plasmids                     |
| Product Name:             | RTKN (NM_033046) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                 |
| Symbol:                   | RTKN                                    |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | pCMV6-Entry (PS100001)                  |
| E. coli Selection:        | Kanamycin (25 ug/mL)                    |



[View online »](#)

**ORF Nucleotide Sequence:**

>RC204517 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCAGGACAGATTGCACATCCTGGAGGACCTGAATATGCTCTACATTTCGGCAGATGGCACTCAGCCTGG  
 AGGACACGGAGTTGCAGAGGAAGCTAGACCATGAGATCCGGATGAGGGAAGGGCCCTGTAAGCTGCTGGC  
 AGCCTGCTCCAGCGAGAGCAGGCTCTGGAGGCCACCAAGAGCCTGCTAGTGTGCAACAGCCGCATCCTC  
 AGCTACATGGGCGAGCTGCAGCGCGCAAGGAGGCGCAGGTGCTGGGAAGACAAGCCGGCGGCCTTCTG  
 ACAGTGGCCCGCCGCTGAGCGCTCCCCCTGCCGCGCGGGTCTGCATCTCTGACCTCCGGATTCCACT  
 CATGTGGAAGGACACAGAATATTTCAAGAACAAGGTGACTTGACCGCTGGGCTGTGTTCTGCTGCTG  
 CAGCTGGGGGAACACATCCAGGACACAGAGATGATCCTAGTGACAGGACCCCTACAGACATCTCCTTTC  
 AGAGCAATGTGCTCTTCGCTGAGGCGGGGCCAGACTTTGAACTGCGGTTAGAGCTGTATGGGCGCTGTGT  
 GGAAGAAGAGGGGGCCCTGACTGGCGGCCCAAGAGGCTTGCCACCAAACTCAGCAGCTCCCTGGGCGGC  
 TCCTCAGGGAGGCGTGTCCGGGCATCGCTGGACAGTGTGGGGGTTACGGGAGCAGTCCCATCTTGCTCC  
 CCACCCAGTTGTTGGTGGTCTCGTTACACCTCTTGCTCACACCACACTCACCTGGCAGCAGTGCA  
 AGATGGATTCCGCACACATGACCTCACCTTGCCAGTCATGAGGAGAACCCTGCCTGGTGCCCTTTAT  
 GGTAGCGTGTGTGCCGTCTGGCAGCTCAGCCTCTCTGCATGACTCAGCCCACTGCAAGTGGTACCCTCA  
 GGGTGCAGCAAGCTGGGAGATGCAGAACTGGGCACAAGTGCATGGAGTTCTGAAAGGCACAAACCTCTT  
 CTGTTACCGGCAACCTGAGGATGCAGACACTGGGAAGAGCCGCTGCTTACTATTGCTGTCAACAAGGAG  
 ACTCGAGTCCGGCAGGGGAGCTGGACCAAGGCTCTAGGACGGCCCTTACCCTAAGCATCAGTAACCACT  
 ATGGGGATGATGAGGTGACACACACCTTCAGACAGAAAGTCGGGAAGCACTGCAGAGCTGGATGGAGGC  
 TCTGTGGCAGCTTTTCTTTGACATGAGCCAATGGAAGCAGTGTGTGATGAAATCATGAAAATTGAACT  
 CCTGCTCCCCGAAACACCCCAAGCACTGGCAAAGCAGGGGTCCTTGATACCATGAGATGGCTATTGAGC  
 CGCTGGATGACATCGCAGCGGTGACAGACATCCTGACCCAGCGGGAGGGCGCAAGGCTGGAGACACCCCC  
 ACCCTGGCTGGCAATGTTTACAGACCAGCCTGCCCTGCCTAACCCCTGCTCGCTGCCTCAGTGGCCCCA  
 GCCCCAGACTGGACCCACCCCTGCCCTGGGGAGACCCGAACCTTTTCCCTGGATGCTGTCCCCCAG  
 ACCACTCCCTAGGGCTCGCTCGGTTGCCCCCTCCACCTCAGCGATCCCCACGGACCAGAGGCCTCTG  
 CAGCAAAGGCCAACCTCGCACTTGGCTCCAGTCACCACTG

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC204517 protein sequence  
 Red=Cloning site Green=Tags(s)

MQDRLHILEDNLMIYIRQMALSLEDTELQRKLDHEIRMREGACKLLAACSQREQALEATKSLVCNSRIL  
 SYMGELQRRKEAQLGKTSRRPSDSGPPAERSPCRGRVCISDLRIPLMWKDTEYFKNKGDHRWAVFLLL  
 QLGEHIQDTEMILVDRTLDISFQSNVFAEAGPDFELRLELYGACVEEEGALTGGPKRLATKLSSSLGR  
 SSGRRVRASLDSAGSGSSPILLPTPVVGGPRYHLLAHTTLTAAVQDGFRTDHLTLASHEENPAWLPLY  
 GSVCCRLAAQPLCMTQPTASGTLRVQQAGEMQNWAVHGVKGTNLFQYRQPEDADTGEEPLLTIAVNKE  
 TRVRAGELDQALGRPFTLSISNQYGDDEVTHLTQTESREALQSWMEALWQLFFDMSQWKQCCDEIMKIET  
 PAPRKPPQALAKQGSLYHEMAIEPLDDIAAVTDILTQREGARLETPPPWLMFTDQPALPNPCSPASVAP  
 APDWTHTPLPWGRPRTFSLDAVPPDHSRARSVAPLPPQRSPTRLGLCSKGQPTWLQSPV

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6010\\_d06.zip](https://cdn.origene.com/chromatograms/mk6010_d06.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_033046

**ORF Size:** 1650 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_033046.2](#), [NP\\_149035.1](#)

**RefSeq Size:** 2638 bp

**RefSeq ORF:** 1653 bp

**Locus ID:** 6242

UniProt ID: Q9BST9

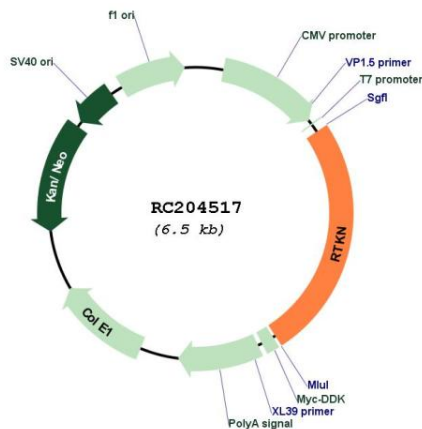
Cytogenetics: 2p13.1

Domains: PH

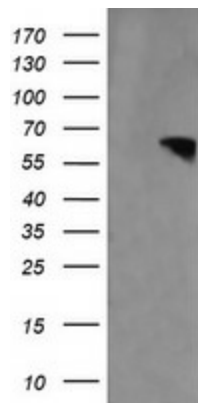
MW: 61.2 kDa

**Gene Summary:** This gene encodes a scaffold protein that interacts with GTP-bound Rho proteins. Binding of this protein inhibits the GTPase activity of Rho proteins. This protein may interfere with the conversion of active, GTP-bound Rho to the inactive GDP-bound form by RhoGAP. Rho proteins regulate many important cellular processes, including cytokinesis, transcription, smooth muscle contraction, cell growth and transformation. Dysregulation of the Rho signal transduction pathway has been implicated in many forms of cancer. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2008]

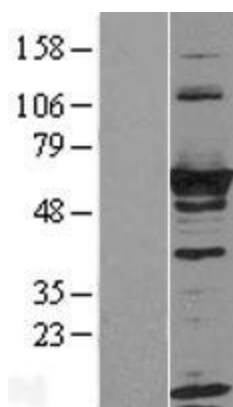
## Product images:



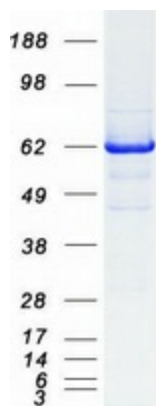
Circular map for RC204517



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RTKN (Cat# RC204517, 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-RTKN (Cat# [TA505104]). Positive lysates [LY403228] (100ug) and [LC403228] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403228]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204517 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RTKN protein (Cat# [TP304517]). The protein was produced from HEK293T cells transfected with RTKN cDNA clone (Cat# RC204517) using MegaTran 2.0 (Cat# [TT210002]).