

## Product datasheet for **RC220552**

### RIT1 (NM\_006912) Human Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
Product Name: RIT1 (NM\_006912) Human Tagged ORF Clone  
Tag: Myc-DDK  
Symbol: RIT1  
Synonyms: NS8; RIBB; RIT; ROC1  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
Cell Selection: Neomycin  
ORF Nucleotide Sequence: >RC220552 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATTCTGGAACCTCGCCAGTTGGTAGCTGCTGTAGCAGCCCCGCTGGGCTCTCACGGGAGTACAAAC  
TAGTGATGCTGGGTGCTGGTGGTAGGGAAGAGTGCCATGACCATGCAGTTCATCAGCCACCGATTCCC  
AGAAGATCATGATCCCACCATTGAAGATGCTTATAAGATCAGGATCCGTATTGATGATGAGCCTGCCAAT  
CTGGACATTTTGGATACAGCTGGACAGGCAGAGTTACAGCCATGCGGGACCAGTATATGAGGGCAGGAG  
AAGGGTTTATCATCTGTTACTCTATCACGGATCGTCAAGTTTCCATGAAGTTCGTGAGTTAAACAGCT  
TATTTATCGAGTCCGACGTAAGTACGATACACCTGTGGTCTTTGTGGGAAACAAGTCAAGCTCAACAG  
CTAAGACAGGTCACCAAGGAAGAAGGATTGGCCTTGGCCCGAGAATTCAGCTGTCCCTTTTTGAGACAT  
CTGCTGCATACCGCTACTATATTGATGATGTTTTCCATGCCCTTGTACGGGAGATACGTAGGAAAGAAAA  
GGAGGCAGTACTGGCCATGGAGAAAAAATCTAAGCCAAAAACAGTGTATGGAAGAGGCTAAAATACCA  
TCCGGAAGAAGAAGATTCACTAACT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC220552 protein sequence  
Red=Cloning site Green=Tags(s)

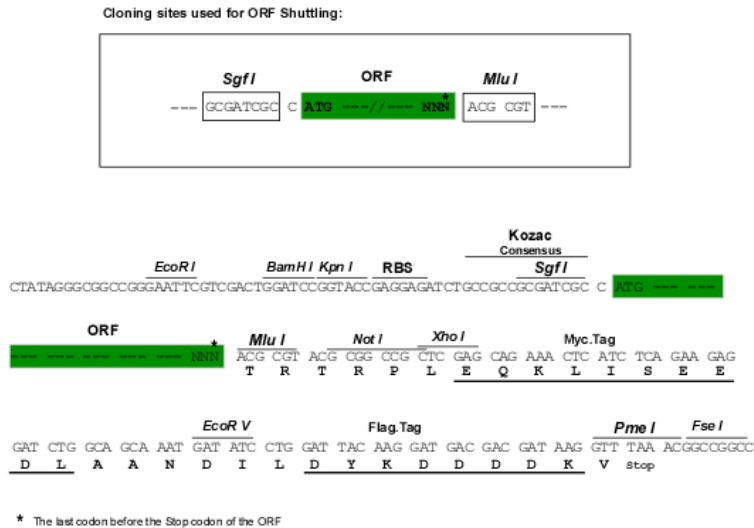
MDSGTRPVGSCCSSPAGLSREYKLVMLGAGGVGKSAMTMQFISHRFPEDHDPTIEDAYKIRIRIDDEPAN  
 LDILDTAGQAEFTAMRDQYMRAGEGFIICYSITDRRSFHEVREFKQLIYRVRTDDTPVVLVGNKSDLKQ  
 LRQVTKEEGLALAREFSCPF FETSAAAYRYIDDFHALVREIRRKEKEAVLAMEKKSKPKNSVWKRLKSP  
 FRKKKDSVT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

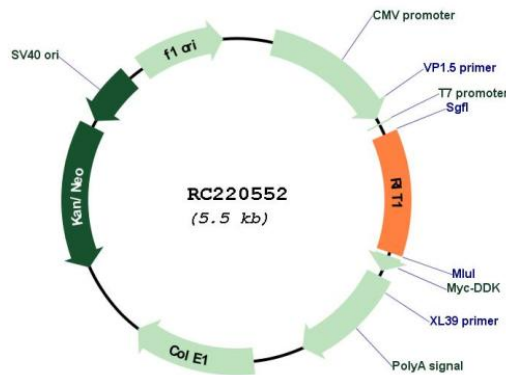
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6457\\_e11.zip](https://cdn.origene.com/chromatograms/mk6457_e11.zip)

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**



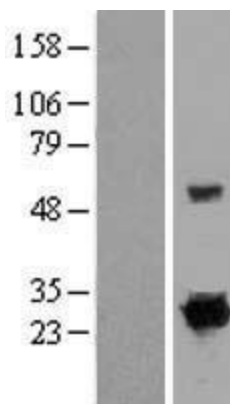
**Plasmid Map:**



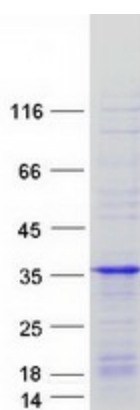
**ACCN:** NM\_006912

**ORF Size:** 657 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_006912.6</a>
<b>RefSeq Size:</b>	3455 bp
<b>RefSeq ORF:</b>	660 bp
<b>Locus ID:</b>	6016
<b>UniProt ID:</b>	<a href="#">Q92963</a>
<b>Cytogenetics:</b>	1q22
<b>Domains:</b>	ras, RAN, RAS, RHO, RAB
<b>MW:</b>	25.1 kDa
<b>Gene Summary:</b>	<p>This gene encodes a member of a subfamily of Ras-related GTPases. The encoded protein is involved in regulating p38 MAPK-dependent signaling cascades related to cellular stress. This protein also cooperates with nerve growth factor to promote neuronal development and regeneration. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Feb 2012]</p>

**Product images:**

Western blot validation of overexpression lysate (Cat# [LY416316]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220552 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RIT1 protein (Cat# [TP320552]). The protein was produced from HEK293T cells transfected with RIT1 cDNA clone (Cat# RC220552) using MegaTran 2.0 (Cat# [TT210002]).