

## Product datasheet for RC204818

### NPR2L (NPRL2) (NM\_006545) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NPR2L (NPRL2) (NM_006545) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NPR2L
Synonyms:	FFEVF2; NPR2; NPR2L; TUSC4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204818 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCAGCGGCTGCCGCATCGAATGCATATTCTTCAGCGAGTCCACCTCACGCTGGGACCCAAGATCA  
CCTATCAGGTCCCTGAAGACTTCATCTCCCGAGAGCTGTTTGACACAGTCCAAGTGTACATCATACCAA  
GCCAGAGCTGCAGAACAAGCTTACTGTGCACAGCTATGGAAAAGAAGCTGATCGGCTGCCTGTGTGC  
ATCGAACACAAGAAGTACAGCCGAATGCTCTCCTCTTCAACCTGGGCTTCGTGTGTGATGCCAGGCCA  
AGACCTGCGCCCTCGAGCCATTGTTAAAAAGCTGGCTGGCTATCTGACCACACTAGAGTAGAGAGCAG  
CTTCGTGTCCATGGAGGAGAGCAAGCAGAAGTTGGTGCCCATCATGACCATCTTGTGGAGGAGCTAAAT  
GCCTCAGGCCGGTGCCTCTGCCATTGATGAGTCCAACACCATCCACTTGAAGGTGATTGAGCAGCGGC  
CAGACCTCCGGTGGCCAGGAGTATGATGTACCTGTCTTTACCAAAGACAAGGAGGATTCTTCAACTC  
ACAGTGGGACCTCACTACACAACAAATCCTGCCCTACATTGATGGGTTCCGCCACATCCAGAAGATTTCA  
GCAGAGGCAGATGTGGAGCTCAACCTGGTGCGCATTGCTATCCAGAACCTGCTGTACTACGGCGTTGTGA  
CAAGTCCCTGCAAGAGGCATGTCTATCTACGTGACCAAGCAAGGGCACAAGAGGGCCAGTCTCCGGGAT  
GTGTTCCAGCTAATCTGCAGCCTGAGCCCTGGCACTACCGTGCGAGACCTCATTGGCCGCCACCCCGCAGC  
AGCTGCAGCATGTTGATGAACGGAAGCTGATCCAGTTCGGGCTTATGAAGAACCTCATCAGGCGACTACA  
GAAGTATCCTGTGCGGGTGAAGTCCGGAAGAGCAGAGCCACCCTGCCCGGCTTTATACAGGCTGCCACAGC  
TATGACGAGATCTGCTGCAAGACAGGCATGAGCTACCATGAGCTGGATGAGCGGCTTAAAAATGACCCCA  
ACATCATCATCTGCTGGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204818 protein sequence  
Red=Cloning site Green=Tags(s)

MGSGCRIECIFFSEFHLTLGPKITYQVPEDFISRELFDTVQVYIITKPELQNKLIIVTAMEKKLIGCPVC  
 IEHKKYSRNALLFNLGFVCDQAKTCALEPIVKKLAGYLTTLELESSFVSMEEKQKLVPIMTILLEELN  
 ASGRCTLPIDESNTIHLKVIQRDPDPPVAQEYDVPVFTKDKEDFFNSQWDLTTQQILPYIDGFRHIQKIS  
 AEADVELNLVRIAIQNLLYYGVVTLVSIQYSNVYCPTPKVQDLVDDKSLQEACLSYVTKQGHKRASLRD  
 VFQLYCSLSPGTTVRDLIGRHPQQLQHVDERKLIQFGLMKNLIRRLQKYPVRVTREEQSHPARLYTGCHS  
 YDEICCKTGMSYHELDERLENDPNIIICWK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6580\\_d07.zip](https://cdn.origene.com/chromatograms/mk6580_d07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_006545

**ORF Size:** 1140 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\\_006545.3](#)

**RefSeq Size:** 1672 bp

**RefSeq ORF:** 1143 bp

**Locus ID:** 10641

**UniProt ID:** [Q8WTW4](#)

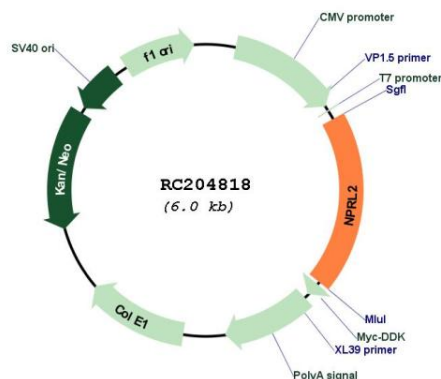
**Cytogenetics:** 3p21.31

**Protein Families:** Druggable Genome

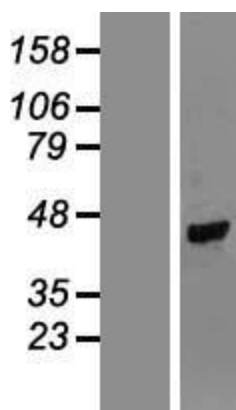
**MW:** 43.7 kDa

**Gene Summary:** As a component of the GATOR1 complex functions as an inhibitor of the amino acid-sensing branch of the TORC1 pathway. The GATOR1 complex strongly increases GTP hydrolysis by RRAGA and RRAGB within RRAGC-containing heterodimers, thereby deactivating RRAGs, releasing mTORC1 from lysosomal surface and inhibiting mTORC1 signaling. The GATOR1 complex is negatively regulated by GATOR2 the other GATOR subcomplex in this amino acid-sensing branch of the TORC1 pathway.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for RC204818



Western blot validation of overexpression lysate (Cat# [LY416577]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204818 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).