

## Product datasheet for **MR208964**

### **Nprl3 (NM\_181569) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Nprl3 (NM_181569) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nprl3
Synonyms:	Aag; CGTHBA; HS-26; HS-40; m(alpha)RE; Mare; Phg; Prox1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MR208964 representing NM\_181569  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGGGACAATACCAGCCCCATCAGCGTGATCCTGGTGAGCTCGGGCAGCAGGGGCAATAAGCTGCTCT  
 TCAGGTACCCCTTCCAGAGGAGCCAGGAGCACCCCGCTCCAGACAAATAAACCACGGAGCAGATATGC  
 TGCAACAACACTGGCGAACATGCTGATGACCAGGACGGTACTCCAGGTTCTCGGATGTTATTCTGGCA  
 ACAATTTTGGCAACCAAACTGAAATGTGCGGCCAAAAATTTGAACTGAAGATTGATAATGTACGGTTTG  
 TTGGGCACCCAACACTGCTGCAGCATGCTCTGGGGCAGGTCTCCAAAACAGATCCATCTCCAAAAGCGGGA  
 AGCTCCGACCATGATTCTTTTTAACGTGGTATTTGCACTGAGGGCCAATGCTGATCCATCAGTGATAAAC  
 TGTCTACACAACCTGTCCCGCCGAATTGCTACTGTCTGCAGCATGAGGAGCGCCGCTGCCAGTACCTCA  
 CTCGAGAGGCCAAGCTGATCCTAGCACTCAGGATGAGGTGTCTGCTATGGCTGATGCAAAATGAAGTCC  
 TCAGTCCCATTCCAGCACATCCTACCCAAGTGAAGCTGGCTCGGGACCTCAAAGAAGCTTATGACAGC  
 CTGTGCACATCTGGTGTGGTACGGCTTCACATTAACAGCTGGCTGGAAGTGAGTTTCTGTCTGCCCCACA  
 AGATCCACTATGCAGCTCAAGTCTGATTCCTCCTGAGGCTATTGAACGGAGCCTGAAAGCCATCCGCC  
 GTACCATGCCTTGTACTTCTCAGTGACGAGAAGTCTCTGCTGAGTGAGCTTCCCATTGACTGCTCCCCG  
 GCTCTGGTGGGGTGATCAAGACCACGTCTGCTGTGAAGAACCTGCAGCAGTAGCCAGGATGCCGATC  
 TGGCCTTGTGCAAGTCTCCAGTTGGCAGCTCACCTGGTATACTGGGGCAAGGCTGTCATCATCTACCC  
 ACTGTGTGAGAACACGTCTATGTCATGCTCCAATGCCAGTGTGTGTCTGTACTCCCCGCTAGCTGAA  
 CAGTTCTCCCGCAGTTCCTGCTCCATGACCTGCCATCTGTCTGGCCAAGTTTTCTGCTGTTTCTT  
 TATCGGAGTTCAGGAGCCCTCTGGCTCCCTGCACAGGAGACCAGCTCATCCAGATGGTGTGGAT  
 GCTGCAGCGCCGCTCCTCATCCAGCTGCATACCTATGTTTGCCTAATGGCCTCACCCAGCGAAGAGGAG  
 CCCCAGCTGCGAGAGGATGATGTCCCTTACAGCCAGAGTTGGTGGCCGAGCCTCAGCACACCCAATG  
 CTCTAAGCTTTGGCTCCCCAACAGCAGTGACGACATGACCTTACCAGCCCAGTATGGACAACCTCAAG  
 TGCTGAGCTGCTCCCGAGTGGGGACTCACCACTGAACAAGAGGATGACAGAGAACCTGCTGGCTAGCCTC  
 TCAGAGCATGAGCGGGTGTATCCTCAATGTGCTGCAGCCAAAACCTGAGGACCTCCGCATGTTTG  
 CCAGGCTCCTTCACTACTCCGTGGCCGCCACCATCTGGAGGAGATCATGTACAATGAGAACACTCGGCG  
 CTCCAGCTACTCATGCTCTTTGACAAATCCGCAGTGTGCTGGTGGTGACCACCATGAGGACCCTGTT  
 ATTGCCGTCTTCCAGGCACTGTCACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR208964 representing NM\_181569  
 Red=Cloning site Green=Tags(s)

MGDNTSPISVILVSSGRGNKLLFRYPFQRSQEH PASQTNKPRSR YAVNNTGEHADDQD GDSRFSVDVILA  
 TILATKSEMCGQK FELKIDNRFVGHPTLLQHALGQVSKTDPSPKREAPTMILFN VV FALRANADPSVIN  
 CLHNLRRRIATVLQHEERRCQYL TREAKLILALQDEVSAMADANEGPQSPFQHILPKCKLARDLKEAYDS  
 LCTSGVRLHINSWLEVSFCLPHKIH YAASSLIPPEAIERSLKAIRPYHALLLL SDEKSLSELPIDCSP  
 ALVRVIKTTSAVKNLQQLAQDADLALLQVFQLAAHLVYWGKAVIIYPLCENNVYVMSPNASVCLYSLAE  
 QFSRQFP SHDLPVSLAKFSLPVSLSEFRSPLAPPAQETQLIQMVVWMLQRRLLIQLHTYVCLMASPSEEE  
 PRLREDDVPFTARVGG RSLSTPNALSFGSPTSSDDMTL TSPSMDNSSAELLPSGDSPLNKRMTENLLASL  
 SEHERAAILNVPAAQNPEDLRMFARLLHYFRGRH HLEEIMYNENTRRS QLLMLFDKFRSVLVVTTHEDPV  
 IAVFQALLT

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9058\\_a06.zip](https://cdn.origene.com/chromatograms/mm9058_a06.zip)

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_181569

ORF Size: 1707 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\\_181569.3](#), [NP\\_853547.1](#)

RefSeq Size: 2865 bp

RefSeq ORF: 1710 bp

Locus ID: 17168

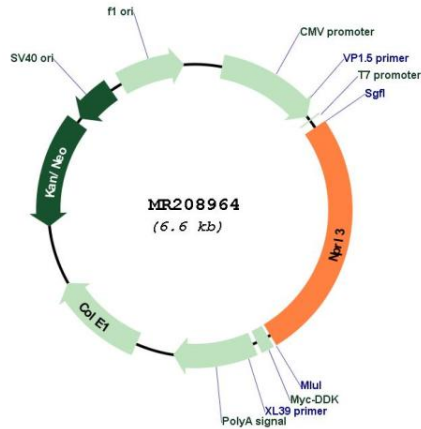
UniProt ID: [Q8VIJ8](#)

Cytogenetics: 11 18.83 cM

**MW:** 63.6 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 MR208964