

## Product datasheet for **MG211648**

### Nlrp5 (BC053384) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nlrp5 (BC053384) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nlrp5
Synonyms:	Mater; Nalp5; Op1; PAN11
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG211648 representing BC053384 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGTCCTCCAGAAAAAGAAAGTAAAGCAATCTTGAAAGCACGTGGATTGGAAGAGGAACAGAAGTCAG  
AAAGAAAAATGACTTCTCCAGAAAACGACAGTAAATCAATCCAGAAAGACCAAGGACCAGAGCAGGAGCA  
GACATCAGAAAGCACAATGGGTCTCCAGAAAAAGACAGTAAAGCAATCTTGAAAGCACGTGGATTGGAA  
GAGGAACAGAAGTCAGAAAGCACAATGTCTCCTCAGAAAATGTCAGTAGAGCAATCCTGAAAGACAGTG  
GATCAGAAAGAAGTGGAACAGGCGTCAGAAAAGAAAATGACTTCTCCAGAAAACGACAGTAAATCAATCCA  
GAAAGACCAAGGACCAGAGCAGGAGCAGACATCAGAAACCTTACAATCTAAGGAAGAAGATGAAGTGACA  
GAGGCAGATAAAGATAATGGAGGTGACTTACAAGACTACAAGGCCATGTGATTGCTAAGTTTCGACACAA  
GTGTGGATCTACACTATGACAGCCAGAGATGAAATTATTGTCTGATGCTTTAAACCATACCAGAAAAAC  
CTTCCAGCCTCACACCATTATCCTACATGGAAGACCAGGAGTTGGGAAGTCAGCTTTGGCCAGAAGTATT  
GTTCTTGGCTGGGCACAGGGTAAACTCTTCAAAAAATGTCTTTGTCTCTTCTCTGTTAGAGAAA  
TAAAGTGGACAGAGAAGAGCAGTTTGGCACAGCTGATTGCTAAGGAGTGTCCAGACTCCTGGGATCTAGT  
GACAAAGATCATGTCCCAACCAGAAAGACTCTTGTGTCATAGATGGCTTGGATGATATGGACTCTGTC  
CTCCAACATGATGATATGACACTATCCAGAGACTGGAAGGATGAACAGCCATATACACTCTGATGTGTC  
GCCTCCTGAGGAAGGCTCCTACCTCAGTCCTTTCTCATCATTACCACCAGAAAACAGGCTTAGAAAA  
ACTCAAGTCAATGGTTGTGTCCCCCTCTATATACTGGTTGAAGGACTGTCTGCATCAAGGAGATCTCAG  
CTGGTCTCGAGAACATCTCCAATGAGTCTGATAGAATACAAGTCTTCCATTCTCTGATAGAAAATCACC  
AGCTGTTTGACCAATGCCAGGCCCTCTGTGTCTCCCTGGTCTGTGAGGCTCTACAGCTACAGAAGAA  
ACTGGGAAAGAGATGCACCCTACCCTGCCAGACTCTCACCAGTTTGTATGCCACGTTGGTGTTCACCAG  
CTCACCTTGAAGGCCCTCCCAGAGCGCTCTCAGTCAGGAAGAACAGATTACTCTAGTGGGTTTGTGCA  
TGATGGCAGCTGAAGGAGTGTGGACCATGAGGTCGGTATTCTATGATGATGACCTGAAGAAGTATAGCCT  
AAAGGAGTCTGAGATCTTGGCCCTTTTACATGAACATCCTTCTCCAGTTGGCCACAACAGTGAGCAG



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TGTTATGTTTTCTCCACCTCAGCCTGCAGGATTTCTTTGCTGCCTTATATTATGTTTTAGAAGGGCTGG  
 AGGGATGGAATCAGCATTTTTGCTTCATTGAAAACCAAAGGAGCATCATGGAGGTGAAGAGAAGTACGCA  
 CACTCGCCTCCTCGGGATGAAGCGTTTCTATTGGCCTCATGAACAAGGATATCTTGAAGACTCTGGAG  
 GTTCTGTTGAATATCCCGTGATTCCAACCTGTTGAGCAGAAGCTCCAACACTGGGTCTCTCTGATAGCTC  
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 GAATCCAGAATGTGCTCTCCAGCGGCTGATACTGAATCACTGCAACATTGTAGATGATGCTTATGGCTTC  
 CTGGCAATGAGACTTGCAAAACAACAAGCTGACCCACCTGAGCCTGACCATGAACCCCGTAGGGGATG  
 GTGCAATGAAGCTACTGTGTGAAGCTTAAAGGAACCTACTTGTACCTCAAGAAGTGAAGTGTGGA  
 CTGCCAATCACAGAACTGCTGCGAGGACCTGGCCTGTATGATCACAACAACAAGCACTTAAAAAGT  
 TTGGATCTTGGTAAACAGCCCTGGGTGACAAAGGAGTCATAACCTGTGTGAGGGACTGAAGCAAAGTA  
 GCAGCTCCCTGAGGAGACTTGGGTTGGGGCATAAAGTTGACTTCCAATTGCTGTGAGGACTTGCATT  
 GGCCATCTTGGCAACCTCACCTGAACAGCCTAAACCTGGTGAAGAATGACTTCAGTACATCGGGGATG  
 TTGAAGCTGTGCTCTGCGTTCCAATGCCCTGTCTAACCTGGGGATAAATTGGCCTGTGGAAGCAGGAGT  
 ACTATGCCCGAGTGAGAAGCAGCTGGAGGAAGTTGAGTTTGTCAAGCCACCGTGGTATTGATGGTGA  
 TTGGTATGCTAGTATGAAGATGACCGAACTGGTGGAAAAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG211648 representing BC053384  
 Red=Cloning site Green=Tags(s)

MGPPEKESKAILKARGLEEEQKSERKMTSPENDSKSIQKQDQPEQEQTSESTMGPPEKDSKAILKARGLE  
 EEQKSESTMSPENVSRAILKDSGSEVEQASERKMTSPENDSKSIQKQDQPEQEQTSETLQSKEEDEV  
 EADKDNNGDLQDYKAHVIAKFDTSVDLHYDSPEMKLLSDAFKPYQKTFQPHTIILHGRPGVGVKSALARSI  
 VLGWAQKGLFQKMSFVIFFSVREIKWTEKSSLAQLIAKECPDSDWLVTKIMSQPERLLFVIDGLDMDSDV  
 LQHDDMTLSRDWKDEQPIYILMYSLLRKALLPQSFLIITRNTGLEKLSMVSPLYIILVEGLSASRRSQ  
 LVLENISNESDRIQVHSLIENHQLFDQCQAPSVCSLVCEALQLQKKGKRCRCLPCQTLTGLYATLVFHQ  
 LTLKRPSQSALSQEEQITLVGLCMMAAEGVWMTMSVYFDDDLKNYSLEKESEILALFHMNILLQVGHNSEQ  
 CYVFSHLSLQDFFAALYYVLEGLEGNQHFCFIENQRSIMEVKRTDDTRLLGMKRFVGLMKNKIDILKTE  
 VLFEYPVPIPTVEQKLQHWVSLIAQQVNGTSPMDTLDAFYCLFESQDEEFVGGALKRFQEVWLLINQKMDL  
 KVSSYCLKHCQNLKAIRVDIRDLLSVDNTELECPVVTVQETQCKPLLMEWNGNFCVSLGSLRNLKELDLG  
 DSILSQRAMKILCLELRNQSCRIQKLTFSAEVVSGLKHLWKLFSNQNLKYLNLGNTPMKDDMKLACE  
 ALKHPKCSVETLRDSCELTIIGYEMISTLLISTTRKCLSLAKNRVGVKSMISLGNALSSMCLLQKLI  
 LDNCGLTPASCHLLVSALFSNQNLTHLCLSNNSLGTGVQQLCQFLRNPECALQRLILNHCNIVDDAYGF  
 LAMRLANNTKLTHLSLTMNPVGDGAMKLLCEALKEPTCYLQELVDCQLTQNCEDLACMITTTKHLKS  
 LDLGNNALGDKGVITLCEGLKQSSSLRRLGLGACKLTSNCEALSLAISCNPHLNSLNLVKNDFTSGM  
 LKLCSAFQCPVSNLGIIGLWKQEYYARVRRQLEEEVEFVKPHVVIDGDWYASDEDDRNWWKN

TRTRPLE – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** BC053384

**ORF Size:** 3333 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:** [BC053384](#), [AAH53384](#)

**RefSeq Size:** 3534 bp

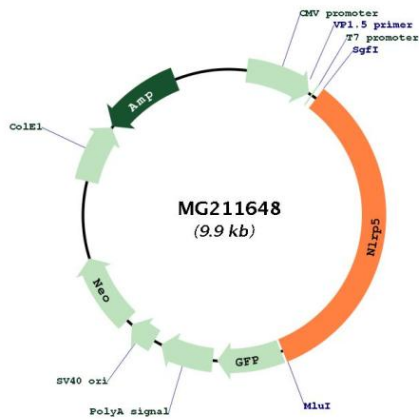
**RefSeq ORF:** 3335 bp

**Locus ID:** 23968

**Cytogenetics:** 7 10.22 cM

**Gene Summary:** This gene encodes a member of the NACHT, leucine-rich repeat, and pyrin domain containing family. Members of this family have a pyrin domain at the N-terminus, a central NACHT domain, and a C-terminal leucine-rich repeat domain. This gene encodes a maternal-effect factor that is essential for early embryonic development in the mouse. Homozygous null mutant females are sterile, and embryos die following the first cleavage. This gene is required for endoplasmic reticulum redistribution and calcium homeostasis in oocytes. In addition, ovulated oocytes mutant for this gene have abnormal mitochondrial localization and increased mitochondrial activity, which results in mitochondrial damage and early embryonic lethality. Pseudogenes of this gene have been found on chromosomes 7 and 12. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Apr 2015]

**Product images:**



Circular map for MG211648