

## Product datasheet for **MR209933**

### Gpsm2 (NM\_029522) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gpsm2 (NM_029522) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpsm2
Synonyms:	6230410J09Rik; LGN; Pins
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MR209933 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCCGCATCGCC

ATGAGGGAAGACCATTCTTTTCATGTCCGCTACAGAATGGAAGCTTCTTGCCCTTGAGCTGGCCTTGAAG  
GAGAACGCTCTATGTAATCAGGGGACTGCCGCGCTGGCGTGTATTTTTGAAGCCGAGTTCAAGTTGG  
AACTGAAGACCTCAAAACACTCAGTGCTATTTACAGCCTGGCAATGCTTACTTCTACTTGCATGAC  
TACGCCAAAGCGTTAGAATACCACCACCATGACTTAACTCTGCACGGACTATTGGAGACCAACTGGGG  
AAGCTAAAGCCAGCGCAATCTCGGAAACACCTTAAAGGTGCTTGGGAATTTTGATGAAGCGATAGTGTG  
TTGCCAGCGACACTGGATATCTCCAGAGAGCTTAAAGCAAGGTGGGAGAAGCAAGAGCGCTCTACAAT  
CTTGAAATGTCTATCACGCCAAAGGAAAAGCTTTGGTTGCCCGGTCGCGAGGATACAGGAGAGTTTC  
CAGAAGACGTGAGAAATGCCCTACAGGCAGCTGTGGATCTCTATGAGGAAAACCTGTCTTAGTAACTGC  
TCTAGGTGACCGAGCAGCACAGGGCGAGCCTTTGGGAACCTTGGCAACACACACTACCTCTCGGCAAC  
TTCAGGGATGCAGTTATAGCTCACGAGCAGCGTCTCTAATTGCAAAGGAGTTCCGGAGATAAGGCGGCTG  
AGAGAAGAGCGTACAGCAACCTAGGAAATGCATACATATTCCTGGGTGAATTCGAAAACCTGCTCCGAATA  
CTACAAGAAGACACTGCTGCTGGCTCGGCAGCTTAAAGACAGAGCCGTTGGAAGCTCAGTCTTGCTACAGT  
CTTGGGAATACATACACTTTGCTTCAGGACTACGAGAAGGCCATCGATTACCACCTAAAGCACTTAGCAA  
TCGCCCAAGAGCTCAAGGATCGGATTGGTGAAGGAAGAGCGTGTGGAGCTTAGGAAACGCATACACAGC  
TCTGGGAAATCATGACCAAGCAATGCATTTTGTGAAAAGCACTTGGAAATTTCAAGAGAGGTTGGGGAC  
AAAAGTGGTGAAGTACTGCGCGGCTGAACCTCTCAGACCTGCAGATGGTTCTTGGTCTGAGCTACAGCA  
CAAATAATTCCATGATGTCTGAGAACATTGAAATTGATGGCAGCTTACATGGTGCAGGCGCAAGCTGGG  
ACGGAGACACAGTATGGAGAATTGGAACCTTATGAAGTTAACACCAGAAAAGGTGCCGAATTGGAACAGT  
GAAATTCTCGCTAAACAGAAACCTCTCATTGCCAAACCTCTGCAAAGCTCCTGTTTGTCAACAGACTGA  
AGGGCAAAAAGTACAAAAGCGGCAGCGCTGCACTAAGTTTCTCAAGACGCCAGCAACTCCGTGGACCA  
CCGCGCGCCACGCTCCAGAGAAAATCAGTTCAGACACGATTGGAGATGAAGGATCTTTGACTTGCTA  
AGGCGATTTAGAGCAACAGGATGGATGACCAGAGGTGCCACTTACAAGGAACTGTGCGACAACATCCA  
CAGCAGCTGCTTCTGCTACCCCAAGTTGATGAAAGCACCGTCTGTCTCTGTGGTGTCCCAACACAGA  
TGAGTTCTTAGATCTTCTTGTAGCTCACAGAGCCCGTCTGGATGACCAGAGGCCAGTTTCAGTAAT  
TTGCCAGGGCTCCGCTGACAAAAGGCAACAGTCCATCTGTACTTGAGCGCCTGATGACAAATGACAAGA  
AAGAGCCTGATGAAGACTTCTTCGACATCCTTGTAAAGTGCCAGGGTCAAGATTAGATGATCAAAGATG  
TGCTCCTCCATCTGCTGCCACTAAGGGGCCGACTGTCCCGGATGAGGACTTCTTTAGCCTCATCTTACGC  
TCTCAAGCTAAAAGAATGGATGAGCAGAGATTCTGCTGCAAAGAGATCCAAACAGAGACAGTGAGTTTG  
GACTAAAGGAACCTTTGCAAAAATAACGCTTTGTTGGAATTAAGCATTCCGGAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR209933 protein sequence  
Red=Cloning site Green=Tags(s)

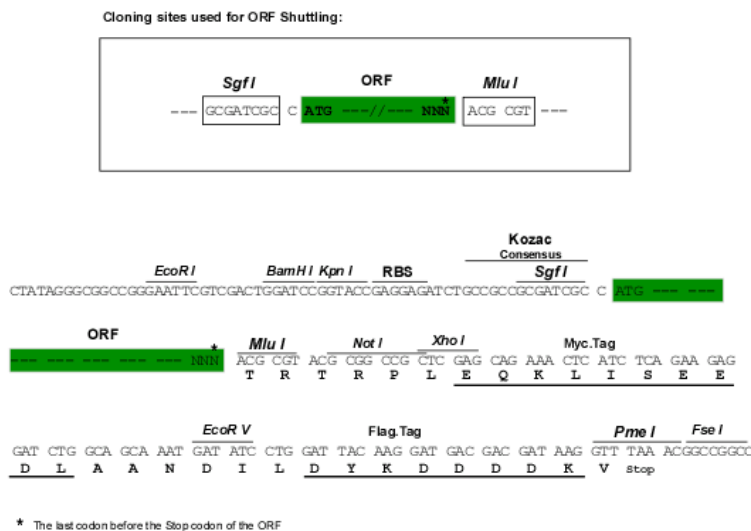
MREDHSFHVRYRMEASCLELALAGERLCKSGDCRAGVSFFFAAVQVGTEDLKTLSAIYSQLGNAYFYLHD  
 YAKALEYHHHDL TLARTIGDQLGEAKASGNLGNLTKVLGNFDEAIVCCQRHLDISRELNKVGEARALYN  
 LGNVYHAKGKSFSGCPGQDTGEFPEDVRNALQAAVDLYEENLSLVTALGDRAAQGRAFGNLGNTHYLLGN  
 FRDAVIAHEQRLLIAKEFGDKAAERRAYSNLGNAYIFLGEFETASEYKKTLLLARQLKDRAVEAQSCYS  
 LGNTYTLQDYEKAIDYHLKHLAIAQELKDRIGEGRACWSLGNAYTALGNHDQAMHFAEKHLEISREVDG  
 KSGELTARLNLSDLQMLGLSYSTNNSMSENIEIDGSLHGAGAKLRRHSMENLELMKLTPEKVPWNWS  
 EILAKQKPLIAKPSAKLLFVNRLKGGKYKSGSACTKVLQDASNSVDHRAPRSQKKISSDTIGDEGFFDLL  
 RRFQSNRMDQQRCHLQGNCRITSTAASATPKLMKAPSVSVVSPNTDFLDLLASSQSRRLDDQRASFSN  
 LPGLRLTKGNPSVLERLMTNDKKEPDEDFDILVKCQGSRLDDQRCAPPSAATKGPTVPDEDFSLILR  
 SQAQRMDQQRVLLQRDPNRDSEFGLKELLQNNALLEFKHSGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_029522

**ORF Size:** 2019 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\\_029522.1](#), [NP\\_083798.1](#)

**RefSeq Size:** 3510 bp

**RefSeq ORF:** 2040 bp

**Locus ID:** 76123

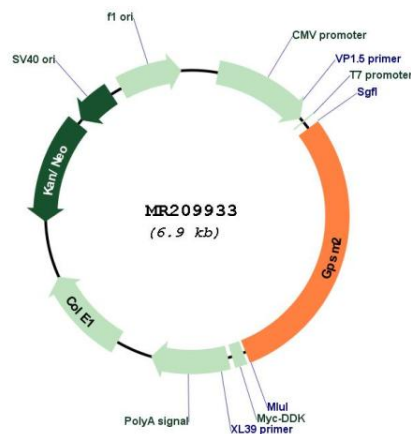
**UniProt ID:** [Q8VDU0](#)

**Cytogenetics:** 3 F3

**MW:** 74.8 kDa

**Gene Summary:** Plays an important role in mitotic spindle pole organization via its interaction with NUMA1 (PubMed:21816348). Required for cortical dynein-dynactin complex recruitment during metaphase (By similarity). Plays a role in metaphase spindle orientation (By similarity). Plays an important role in asymmetric cell divisions (PubMed:12571286, PubMed:21816348). Has guanine nucleotide dissociation inhibitor (GDI) activity towards G(i) alpha proteins, such as GNAI1 and GNAI3, and thereby regulates their activity (PubMed:22952234).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR209933