

## Product datasheet for **MG209933**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gpsm2 (NM_029522) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gpsm2
Synonyms:	6230410J09Rik; LGN; Pins
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>MG209933 representing NM\_029522  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGGGAAGACCATTCTTTTCATGTCCGCTACAGAATGGAAGCTTCTTGCCCTTGAGCTGGCCTTGAAG  
 GAGAACGTCTATGTAAATCAGGGGACTGCCGCGCTGGCGTGTATTTTTGAAGCCGAGTTCAAGTTGG  
 AACTGAAGACCTCAAAACACTCAGTGCTATTTACAGCCAAGTGGCAATGCTTACTTCTACTTGCATGAC  
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**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG209933 representing NM\_029522  
 Red=Cloning site Green=Tags(s)

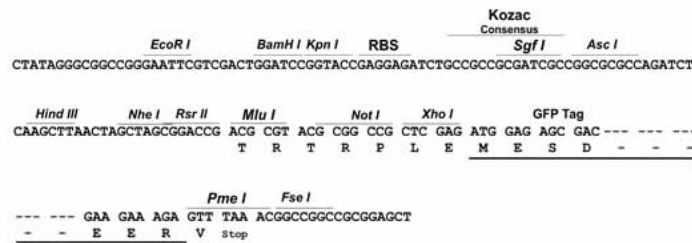
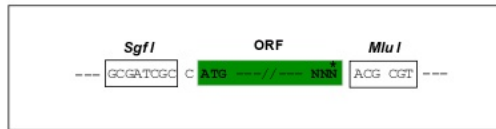
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 LPGLRLTKGNPSVLERLMTNDKKEPDEDFDILVKCQGSRLDDQRCAPPSAATKGPTVPDEDFSLILR  
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TRTRPLE - GFP Tag - V

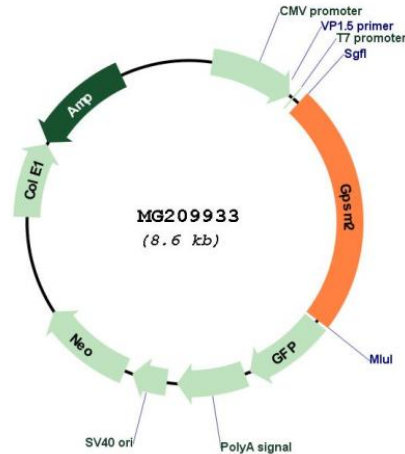
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_029522

ORF Size: 2016 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: 3354 bp

RefSeq ORF: 2040 bp

Locus ID: 76123

UniProt ID: [Q8VDU0](#)

Cytogenetics: 3 F3

**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]