

## Product datasheet for **MG203545**

### Gpm6a (BC023461) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gpm6a (BC023461) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gpm6a
Synonyms:	MGC38999, M6A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG203545 representing BC023461 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGTGCTTCGAGTGTGCATTAATGCCTGGGAGGTATCCCTATGCTTCTCTGATTGCAACCATCC  
TGCTGTATGCAGGCGTTGCCCTGTTCTGTGGCTGTGGCCATGAAGCCCTTCTGGAACAGTCAACATTCT  
GCAGACCTACTTTGAGTTGGCAAGGACTGCTGGAGACACTGGATGTTTTCACTATGATTGACATCTTT  
AAGTATGTGATCTATGGCATTGCGGCTGCTTTCTTTGTCTATGGCATTACTGATGGTAGAAGGTTTCT  
TCACAACCTGGGGCTATCAAAGATCTCTATGGAGACTTCAAATCACCACCTGTGGCAGATGTGTGAGCGC  
TTGGTTTATCATGCTGACATACCTTTCATGTTGGCCTGGCTGGGAGTCACAGCTTTCACCTCACTGCC  
GTGTACATGTATTTCAATGTGTGGACCATCTGCCGGAACACCACTCTAGTGGAGGGAGCAAACTCTGTCT  
TGGATCTGCGTCAGTTTGGGATTGTGACAATTGGAGAGGAAAAGAAAATTTGACTGCCTCTGAGAACTT  
CCTGAGGATGTGTGAATCTACTGAGCTGAATATGACCTTCCACTTGTTTCATTGTGGCACTTGCTGGAGCT  
GGAGCAGCAGTTATTGCTATGGTCCACTACCTGATGGTTCTGTCTGCCAACTGGGCTATGTGAAAGATG  
CCTGCCGCATGCAGAAGTACGAAGACATCAAGTCAAAGGAAGAGCAGGAGCTGCACGACATCCATTCTAC  
TCGCTCTAAAGAGCGGCTCAATGCGTACACA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG203545 representing BC023461  
 Red=Cloning site Green=Tags(s)

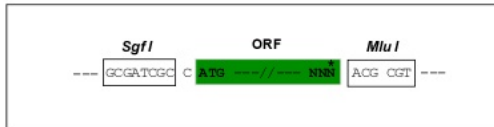
MGCFECCIKCLGGIPYASLIATILLYAGVALFCGCGHEALSGTVNILQTYFELARTAGTDLVFTMIDIF  
 KYVIYGIAAAFFVYGILLMVEGFFTTGAIKDLYGDFKITTCGRCVSAWFIMLTYLFWLAWLGVTAFATSLP  
 VYMYFNVTICRNTTLVEGANLCLDLRQFGIVTIGEEKICTASENFLRMCESTELNMTFHLFIVALAGA  
 GAAVIAMVHYLMVLSANWAYVKDACRMQKYEDIKSKEEQELHDIHSTRSKERLNAVY

TRTRPLE - GFP Tag - V

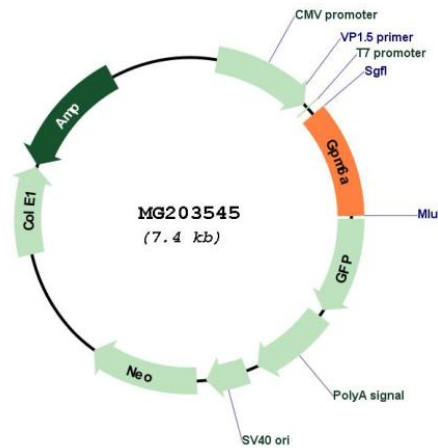
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



**Plasmid Map:**



**ACCN:** BC023461

**ORF Size:** 803 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">BC023461</a> , <a href="#">AAH23461</a>
<b>RefSeq Size:</b>	2780 bp
<b>RefSeq ORF:</b>	803 bp
<b>Locus ID:</b>	234267
<b>Cytogenetics:</b>	8 B1.3
<b>Gene Summary:</b>	Involved in neuronal differentiation, including differentiation and migration of neuronal stem cells. Plays a role in neuronal plasticity and is involved in neurite and filopodia outgrowth, filopodia motility and probably synapse formation. Gpm6a-induced filopodia formation involves mitogen-activated protein kinase (MAPK) and Src signaling pathways. Conflictingly, PubMed:22162747 reports that induced cellular protrusions are simple membrane-wrapped tubules without actin or tubulin-based cytoskeletons and with Gpm6a gliding along membrane edges indicative for a function in actin-independent membrane deformation. May be involved in neuronal NGF-dependent Ca(2+) influx. May be involved in regulation of endocytosis and intracellular trafficking of G-protein-coupled receptors (GPCRs); enhances internalization and recycling of mu-type opioid receptor.[UniProtKB/Swiss-Prot Function]