

Product datasheet for MR203545

Gpm6a (BC023461) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gpm6a (BC023461) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gpm6a
Synonyms:	MGC38999, M6A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203545 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGTGCTTCGAGTGCATTAAATGCCTGGGAGGTATCCCTATGCTTCTCTGATTGCAACCATCC
TGCTGTATGCAGGCGTTGCCCTGTTCTGTGGCTGTGGCCATGAAGCCCTTCTGGAACAGTCAACATTCT
GCAGACCTACTTTGAGTTGGCAAGGACTGCTGGAGACACTGGATGTTTTCACTATGATTGACATCTTT
AAGTATGTGATCTATGGCATTGCGGCTGCTTTCTTTGTCTATGGCATTACTGATGGTAGAAGGTTTCT
TCACAACCTGGGGCTATCAAAGATCTCTATGGAGACTTCAAATCACCACCTGTGGCAGATGTGTGAGCGC
TTGGTTTATCATGCTGACATACCTTTCATGTTGGCCTGGCTGGGAGTCACAGCTTTCACCTCACTGCC
GTGTACATGTATTTCAATGTGTGGACCATCTGCCGGAACACCACTCTAGTGGAGGGAGCAAACTCTGTCT
TGGATCTGCGTCAGTTTGGGATTGTGACAATTGGAGAGGAAAAGAAAATTTGACTGCCTCTGAGAACTT
CCTGAGGATGTGTGAATCTACTGAGCTGAATATGACCTTCCACTTGTTTCATTGTGGCACTTGCTGGAGCT
GGAGCAGCAGTTATTGCTATGGTCCACTACCTGATGGTTCTGTCTGCCAACTGGGCTATGTGAAAGATG
CCTGCCGATGCAGAAGTACGAAGACATCAAGTCAAAGGAAGAGCAGGAGCTGCACGACATCCATTCTAC
TCGCTCTAAAGAGCGGCTCAATGCGTACACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR203545 protein sequence
Red=Cloning site Green=Tags(s)

MGCFECCIKCLGGIPYASLIATILLYAGVALFCGCGHEALSGTVNILQTYFELARTAGDTLDVFTMIDIF
 KYVIYGIAAAFFVYGILLMVEGFFTTGAIKDLYGDFKITTGRCVSAWFIMLTYLFMLAWLGVTAFATSLP
 VYMYFNWVTICRNTTLVEGANLCLDLRQFGIIVTIGEEKICTASENFLRMCESTELNMTFHLFIVALAGA
 GAAVIAMVHYLMVLSANWAYVKDACRMQKYEDIKSKEEQELHDIHSTRSKERLNAVY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: BC023461

ORF Size: 801 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: [BC023461](#), [AAH23461](#)

RefSeq Size: 2780 bp

RefSeq ORF: 803 bp

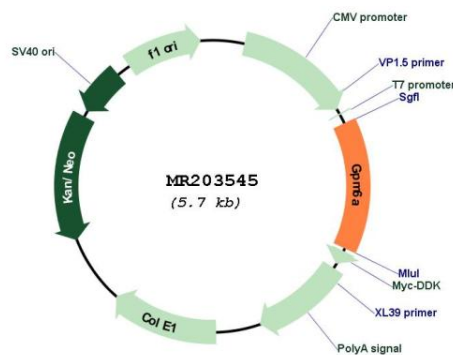
Locus ID: 234267

Cytogenetics: 8 B1.3

MW: 29.8 kDa

Gene Summary: 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]

Product images:



Circular map for MR203545