

Product datasheet for **MG204712**

Fam49b (NM_144846) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fam49b (NM_144846) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fam49b
Synonyms:	0910001A06Rik; AW122079
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG204712 representing NM_144846 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGAATCTTCTTAAAGTTTTGACATGCACAGACCTTGAGCAGGGGCCAAATTTTTCTTGATTTT
AAAATGCCAGCCTACAGAGTCTGAGAAGGAAATATAAATCAGGTGAATGTAGTGTAAAAGATGCAGA
AGGCATCTTGAGGATTTGCAGTCATACAGAGGAGCTGGCCACGAAATACGAGAGGCAATCCAGCATCCA
GCCGATGAGAAGTTGCAAGAGAAGGCGTGGGTGCAGTCGTGCCACTAGTAGGCAAAATTAAGAAGTTTT
ACGAATTTCTCAGAGACTAGAAGCAGCACTAAGAGGCCTTCTGGGAGCCTTGACTAGTACGCCATACTC
GCCACCCAACATCTAGAGCGAGAGCAGGCTCTCGCTAAACAGTTTGCAGAGATTCTTCACTTCACACTC
CGGTTTGATGAGCTCAAGATGACAAATCCTGCCATACAAAATGACTTCAGCTACTACAGAAGAACATTGA
GTCGTATGAGAATTAATAATGTCCCGCAGAAAGGAGAAAATGAAGTAAATGAATTGGCAAAATCGAAT
GTCATTGTTTTACGCTGAGGCCACCCCAATGCTGAAAACCTTAAGTGATGCAACAACAAAATTTGTATCG
GAGAATAAAAATTTGCCAATAGAAAATACCACAGATTGTTAAGCACCATGGCAAGTGTATGCAGAGTCA
TGCTGGAGACACCGGAATACAGAAGCAGATTTACCAATGAAGAGACAGTATCATTCTGCTTGAGGGTAAT
GGTGGGTGTCATAACTCTATGACCACGTCCATCCAGTGGGAGCATTGGCCAAAACCTTCTAAGATTGAT
ATGAAAGGTTGTCAAAGTTCTTAAGGACCAACCTCCTAATAGTGTAGAAGGTCTTCTCAATGCTCTCA
GGTACACAACAAAACATTTGAATGATGAGACTACCTCCAAGCAAAATAGTCCATGCTGCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG204712 representing NM_144846
Red=Cloning site Green=Tags(s)

MGNLLKVLCTDLEQGPNNFFLDFENAQPTSESEKEIYNQVNVVLKDAEGILEDLQSYRGAGHEIREAIQHP
 ADEKLQEKAWGAVVPLVGKLLKFYEFSSQRLEAALRGLLGALTSTPYSPTQHLEREQALAKQFAEILHFTL
 RFDELKMTNPAIQNDFSYRRTL SRMRINNVPAEGENEVNNELANRMSLFYAEATPMLKTLSDATTKFVS
 ENKNLPIENTDCLSTMASVCRVMLETPEYRSRFTNEETVSFCLRVMVGVIILYDHVHPVGAF AKTSKID
 MKGCIKVLKDQPPNSVEGLLNALRYTTKHLNDETTSKQIRSM LQ

TRTRPLE - GFP Tag - V

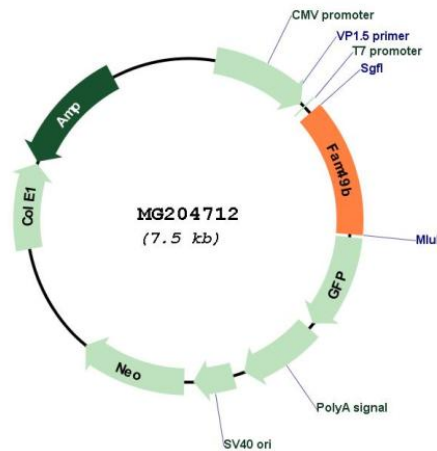
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_144846

ORF Size: 972 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:	<ol style="list-style-type: none">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_144846.5
RefSeq Size:	3798 bp
RefSeq ORF:	975 bp
Locus ID:	223601
UniProt ID:	Q921M7
Cytogenetics:	15 D1
Gene Summary:	Negatively regulates RAC1 signaling and RAC1-driven cytoskeletal remodeling (PubMed:31285585). Regulates chemotaxis, cell migration and epithelial polarization by controlling the polarity, plasticity, duration and extent of protrusions. Limits Rac1 mediated activation of the Scar/WAVE complex, focuses protrusion signals and regulates pseudopod complexity by inhibiting Scar/WAVE-induced actin polymerization (By similarity). Protects against Salmonella bacterial infection. Attenuates processes such as macropinocytosis, phagocytosis and cell migration and restrict sopE-mediated bacterial entry (PubMed:31285585). Restricts also infection mediated by Mycobacterium tuberculosis and Listeria monocytogenes (PubMed:31285585). Involved in the regulation of mitochondrial dynamics and oxidative stress (PubMed:29059164).[UniProtKB/Swiss-Prot Function]