

Product datasheet for **MR204712**

Fam49b (NM_144846) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Fam49b (NM_144846) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Fam49b
Synonyms: 0910001A06Rik; AW122079
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR204712 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGGAATCTTCTTAAAGTTTTGACATGCACAGACCTTGAGCAGGGGCCAAATTTTTCTTGATTTTG
AAAATGCCAGCCTACAGAGTCTGAGAAGGAAATATAAATCAGGTGAATGTAGTGTAAAAGATGCAGA
AGGCATCTTGAGGATTTGCAGTCATACAGAGGAGCTGGCCACGAAATACGAGAGGCAATCCAGCATCCA
GCCGATGAGAAGTTGCAAGAGAAGGCGTGGGGTGCAGTCGTGCCACTAGTAGGCAAAATTAAGAAGTTTT
ACGAATTTCTCAGAGACTAGAAGCAGCACTAAGAGGCCTTCTGGGAGCCTTGACTAGTACGCCATACTC
GCCACCCAACATCTAGAGCGAGAGCAGGCTCTCGCTAAACAGTTTGCAGAGATTCTTCACTTCACACTC
CGGTTTGATGAGCTCAAGATGACAAATCCTGCCATACAAAATGACTTCAGCTACTACAGAAGAACATTGA
GTCGTATGAGAATTAATAATGTCCCGCAGAAAGGAGAAAATGAAGTAAATAATGAATTGGCAAAATCGAAT
GTCATTGTTTTACGCTGAGGCCACCCCAATGCTGAAAACCTTAAGTGATGCAACAACAAAATTTGTATCG
GAGAATAAAAATTTGCCAATAGAAAATACCACAGATTGTTAAGCACCATGGCAAGTGTATGCAGAGTCA
TGCTGGAGACACCGGAATACAGAAGCAGATTTACCAATGAAGAGACAGTATCATTCTGCTTGAGGGTAAT
GGTGGGTGTCATAACTCTATGACCACGTCCATCCAGTGGGAGCATTGGCCAAAACCTTCTAAGATTGAT
ATGAAAGGTTGTATCAAAGTTCTTAAGGACCAACCTCCTAATAGTGTAGAAGGCTTCTCAATGCTCTCA
GGTACACAACAAAACATTTGAATGATGAGACTACCTCCAAGCAAATTAGTCCATGCTGCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >MR204712 protein sequence
Red=Cloning site Green=Tags(s)

MGNLLKVLCTDLEQGPNNFFLDFENAQPTSEKEIYNQVNVVLKDAEGILEDLQSYRGAGHEIREAIQHP
 ADEKLQEKAWGAVVPLVGKLLKFFYEFSQLRLEAALRGLLGALTSTPYSPTQHLEREQALAKQFAEILHFTL
 RFDELKMTNPAIQNDFSYRRTL SRMRINNVPAEGENEVNNELANRMSLFYAEATPMLKTLSDATTKFVS
 ENKNLPIENTTDC LSTMASVCRVMLETPEYRSRFTNEETVSFCLRVMGVVIILYDHPVPGAFAKTSKID
 MKGCIKVLKDPNPNSVEGLLNALRYTTKHLNDETTSKQIRSM LQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_144846

ORF Size: 975 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_144846.5](#)

RefSeq Size: 3808 bp

RefSeq ORF: 975 bp

Locus ID: 223601

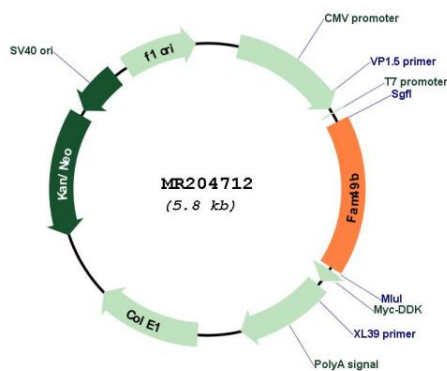
UniProt ID: [Q921M7](#)

Cytogenetics: 15 D1

MW: 36.8 kDa

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]

Product images:



Circular map for MR204712