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Product datasheet for RC203787

FAM107A (NM_001076778) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FAM107A (NM_001076778) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FAM107A
Synonyms:	DRR1; TU3A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203787 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTACTCGGAGATCCAGAGGGAGCGGGCAGACATTGGGGGCCTGATGGCCCGGCCAGAATACAGAGAGT
GGAATCCGGAGCTCATCAAGCCCAAGAAGCTGCTGAACCCCGTGAAGGCCTCTCGGAGTCACCAGGAGCT
CCACCGGGAGCTGCTCATGAACCACAGAAGGGGCCTTGGTGTGGACAGCAAGCCAGAGCTGCAGCGTGTC
CTAGAGCACCGCCGGCGGAACCAGCTCATCAAGAAGAAGAAGGAGGAGCTGGAAGCCAAGCGGCTGCAGT
GCCCCTTTGAGCAGGAGCTGCTGAGACGGCAGCAGAGGCTGAACCAGCTGGAAAAACCACCAGAGAAGGA
AGAGGATCACGCCCCCGAGTTTATTAAAGTCAGGGAAAACCTGCGGAGAATTGCCACACTGACCAGCGAA
GAGAGAGAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203787 protein sequence
Red=Cloning site Green=Tags(s)

MYSEIQRERADIGGLMARPEYREWNPELIKPKKLLNPVKASRSHQELHRELLMNHRRGLGVDSKPELQRV
LEHRRRNQLIKKKKEELEAKRLQCPFEQELLRRQQRLNQLEKPPEKEEDHAPEFIKVRENLRRIATLTSE
EREL

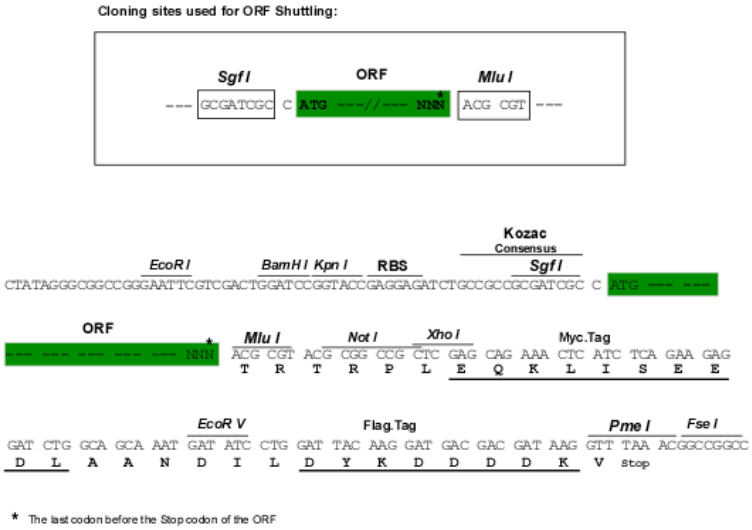
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6720_e01.zip

View online »

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001076778

ORF Size: 432 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_001076778.3

RefSeq Size: 3390 bp

RefSeq ORF: 435 bp

Locus ID: 11170

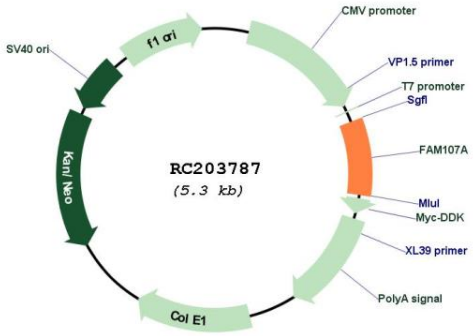
UniProt ID: O95990

Cytogenetics: 3p14.3-p14.2

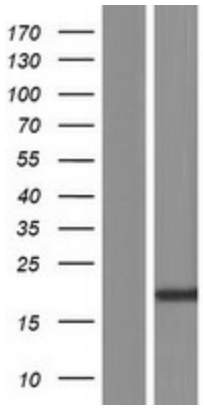
MW: 17.5 kDa

Gene Summary: Stress-inducible actin-binding protein that plays a role in synaptic and cognitive functions by modulating actin filamentous (F-actin) dynamics. Mediates polymerization of globular actin to F-actin. Also binds to, stabilizes and bundles F-actin. Involved in synaptic function by regulating neurite outgrowth in an actin-dependent manner and for the acquisition of hippocampus-dependent cognitive function, such as learning and long-term memory (By similarity). Plays a role in the actin and microtubule cytoskeleton organization; negatively regulates focal adhesion (FA) assembly promoting malignant glial cell migration in an actin-, microtubule- and MAP1A-dependent manner (PubMed:20543869). Also involved in neuroblastoma G1/S phase cell cycle progression and cell proliferation inhibition by stimulating ubiquitination of NF-kappa-B subunit RELA and NF-kappa-B degradation in a COMMD1- and actin-dependent manner (PubMed:10564580, PubMed:28604741). May play a role in tumor development (PubMed:10564580).[UniProtKB/Swiss-Prot Function]

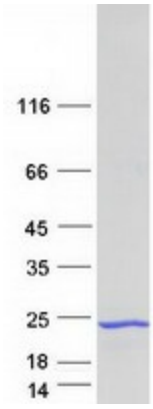
Product images:



Circular map for RC203787



Western blot validation of overexpression lysate (Cat# [LY416150]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC219825] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FAM107A protein (Cat# [TP303787]). The protein was produced from HEK293T cells transfected with FAM107A cDNA clone (Cat# RC203787) using MegaTran 2.0 (Cat# [TT210002]).