

Product datasheet for **RG219825**

FAM107A (NM_007177) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: FAM107A (NM_007177) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: FAM107A
Synonyms: DRR1; TU3A
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG219825 representing NM_007177
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTACTCGGAGATCCAGAGGGAGCGGGCAGACATTGGGGCCTGATGGCCCGCCAGAATACAGAGAGT
 GGAATCCGGAGCTCATCAAGCCCAAGAAGCTGCTGAACCCCGTGAAGGCCTCTCGGAGTCACCGAGAGCT
 CCACCGGGAGCTGCTCATGAACCACAGAAGGGCCTTGGTGTGGACAGCAAGCCAGAGCTGCAGCGTGTC
 CTAGAGCACCGCCGGCGGAACAGCTCATCAAGAAGAAGAAGGAGGAGCTGGAAGCCAAGCGGCTGCAGT
 GCCCCTTTGAGCAGGAGCTGCTGAGACGGCAACAGAGGCTGAACAGCTGGAAAAACCACAGAGAAGGA
 AGAGGATCACGCCCCGAGTTTATTAAAGTCAGGGAACCTGCGGAGAATTGCCACACTGACCAGCGAA
 GAGAGAGAGCTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219825 representing NM_007177
 Red=Cloning site Green=Tags(s)

MYSEIQRERADIGGLMARPEYREWNPELIKPKLLNPVKASRSHQELHRELLMNHRRGLGVDSKPELQRV
 LEHRRRNQLIKKKKEELEAKRLQCPFEQELLRRQRLNLEKPPEKEEDHAPEFIKVRENLRRIATLTSE
 EREL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



View online »

Cloning Scheme:



ACCN: NM_007177

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.

RefSeq: [NM_007177.1](#), [NP_009108.1](#)

RefSeq Size: 3575 bp

RefSeq ORF: 435 bp

Locus ID: 11170

UniProt ID: [O95990](#)

Cytogenetics: 3p14.3-p14.2

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 RG219825