

## Product datasheet for **RG210012**

### **FAM111A (NM\_022074) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FAM111A (NM_022074) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FAM111A
Synonyms:	GCLEB; KCS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG210012 representing NM\_022074  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCTGTAAGAAGCAGAGGTCACGGAAGCACTCAGTCAATGAAAAATGTAATATGAAAAATCGAGCACT  
 ATTTTTCTCCGGTCTCTAAAGAGCAACAGAATAATTGCAGTACTTCTCTAATGAGGATGGAGTCTAGAGG  
 AGACCCAAGAGCCACAATAATACCCAGGCTCAAAGATCCATTACCTAAGAAAAATCCAGAAGACCAG  
 ACCATGCCCAAAATAGGACAATATATGTTACCTTGAAGGTAACCACAGGAGAAACCAAGATATGAAAC  
 TTAAGCTCTCACATAGTGAGAATAGTAGCTTATATATGGCTCTCAACACTCTCCAGGCTGTCAGAAAAA  
 GATAGAAACTACCAAGGCCAAGAAATGCTTGTGCGTGGCACAGAAGGAATCAAAGAGTACATAAACCTT  
 GGAATGCCCTCAGTTGTTCCCTGAAGGTGGCCAGGTGGTCATTACATTTCCCAAAGTAAAAGTAAAGC  
 AGAAGGAAGATAACCACATATTTGGCAGGCAGGACAAAGCATCGACTGAATGTGTCAAATTTACATTCA  
 TGCAATTGGAATTGGGAAGTGTAAAAGAAGGATTGTTAAATGTGGGAAGCTTACAAAAAGGGGCGCAA  
 CTCTGTGTTTATGCTTTCAAAGGAGAAACCATCAAGGATGCACTGTGCAAGGATGGCAGATTTCTTTCT  
 TTCTGGAGAATGATGATTGGAACCTCATTGAAAACAATGACACCATTTTGAAGACCCAGCCAGTTGA  
 TGAATTAGAAGGCAGATACTTTCAAGTTGAGGTTGAGAAAAGAATGGTCCCCAGTGCAGCAGCTTCTCAG  
 AATCCTGAGTCAGAGAAAAAGAACACCTGTGTGTTGAGAGAACAAATCGTGGCTCAGTACCCAGTTTGA  
 AAAGAGAAAGTAAAAAATCATTGAAAACCTCAAGAAAAAATGAAAGTAAAAAATGGGGAAACATTATT  
 TGAATTGCATAGAACAACGTTTGGGAAAGTAAACAAAAATCTTCTTTCGATTAAGTGTGAACTTCTT  
 GTACGCTCAGTGACTCAGTTGGTACTTATTCTGGGACAGTGCAACTACGGGTTACGCCACCTGCTTTG  
 TTTTAAAGGATTGTTCAATTTAACTTGTCCGCATGTAATAGATAGCATTGTGGGAGACGGAATAGAGCC  
 AAGTAAGTGGCAACCATAATTGGTCAATGTGTAAGGTTGACATTTGGTTATGAAGAGCTAAAAGACAAG  
 GAAACAACTACTTTTTGTTGAACCTTGGTTGAGATACATAATGAAGAGCTTGACTATGCTGTCTGA  
 AACTGAAGGAAAAATGGACAACAAGTACCTATGGAACATATAATGGAATTACTCCTGTGCCACTTAGTGG  
 GTTGATACATATTATTGGCCATCCATATGGAGAAAAAAGCAGATTGATGCTTGTGCTGTGATCCCTCAG  
 GGTGAGCAGCAAGAAATGTCAGGAACGTGTTCACTAAAAAGCAGAAAGTCCAGAGTATGTCCATA  
 TGTATACTCAAAGAAGTTCCAGAAAATAGTTCACAACCTGATGTGATTACCTATGACTGAATTTTT  
 CTTTGGGGCTCCGGCTCCCTGTGTTGATTCAAAGGTTTATTGGTGGCCATGCATGCTGCTGGCTTT  
 GCTTATACTTACCAAAATGAGACTCGTAGTATCATTGAGTTTGGCTCTACCATGGATCCATCCTCTTG  
 ATATTAAGCAAAGACATAAACCATGGTATGAAGAAGTATTTGTAATCAGCAGGATGTAGAAATGATGAG  
 TGATGAGGACTTG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG210012 representing NM\_022074  
 Red=Cloning site Green=Tags(s)

MSCCKQRSRKHSVNEKCNMKIEHYFSPVSKEQQNNCSTSLMRMESRGDPRATTNTQAQRFHSPKKNPEDQ  
 TMPQNRITIVYVTLKVNHRRNQDMKLLKLSHSENSLYMALNLTQAVRKEIETHQQQEMLVRGTEGIKEYINL  
 GMPLSCFPEGQVITFSQSKSKQKEDNHIFGRQDKASTEVCVFIYHAIGIGKCKRRIKCGKLLHKKGRK  
 LCVYAFKGETIKDALCKDGRFLSFLNDDWKL IENNDTILESTQPVDELEGRYFQVEVEKRMVPSAAASQ  
 NPSEKRNRCVLRQIVAQYPSLKRESEKIIENFKKKMKVKNGETLFELHRTTFGKVTKNSSSIKVVKLL  
 VRLSDSVGYLFWDSATTGYATCFVFKGLFILTCHRHVIDSIVGDGIEPSKWATIIGQCVRVTFGYEELKDK  
 ETNYFFVEPWFEIHNEELDYAVLKLKENGQQVPMELYNGITPVPLSGLIHIIGHYPYGEKKQIDACAVIPQ  
 GQRAKKQERVQSKKAESPEYVHMYTQRSFQKIVHNPDIITYDTEFFFGASGSPVFDKSGSLVAMHAAGF  
 AITYQNETRSIIIEFGSTMESILLDIKQRHKPWYEEVFVNQQDVENMSDEDL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



ACCN: NM\_022074

ORF Size: 1833 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

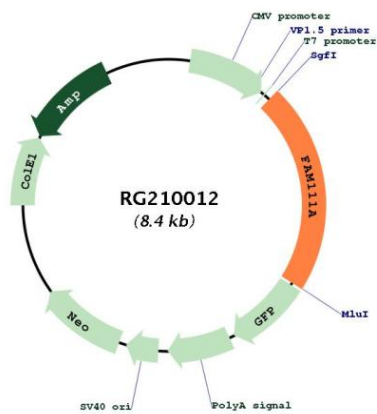
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_022074.2](#), [NP\\_071357.2](#)

**RefSeq Size:** 3662 bp  
**RefSeq ORF:** 1836 bp  
**Locus ID:** 63901  
**UniProt ID:** [Q96PZ2](#)  
**Cytogenetics:** 11q12.1

**Gene Summary:** The protein encoded by this gene is cell-cycle regulated, and has nuclear localization. The C-terminal half of the protein shares homology with trypsin-like peptidases and it contains a PCNA-interacting peptide (PIP) box, that is necessary for its co-localization with proliferating cell nuclear antigen (PCNA). Reduced expression of this gene resulted in DNA replication defects, consistent with the demonstrated role for this gene in Simian Virus 40 (SV40) viral replication. Mutations in this gene have been associated with Kenny-Caffey syndrome (KCS) type 2 and the more severe osteocraniostenosis (OCS, also known as Gracile Bone Dysplasia), both characterized by short stature, hypoparathyroidism, bone development abnormalities, and hypocalcemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015]

**Product images:**



Circular map for RG210012