

Product datasheet for **RC210012**

FAM111A (NM_022074) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | FAM111A (NM_022074) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | FAM111A |
| Synonyms: | GCLEB; KCS2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RC210012 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGCTGTAAGAAGCAGAGGTCACGGAAGCACTCAGTCAATGAAAAATGTAATATGAAAAATCGAGCACT
 ATTTTTCTCCGGTCTCTAAAGAGCAACAGAATAATTGCAGTACTTCTCTAATGAGGATGGAGTCTAGAGG
 AGACCCAAGAGCCACAATAATACCCAGGCTCAAAGATTCATTACCTAAGAAAAATCCAGAAGACCAG
 ACCATGCCCAAAATAGGACAATATATGTTACCTTGAAGGTAACCACAGGAGAAACCAAGATATGAAAC
 TTAAGCTCTCACATAGTGAGAATAGTAGCTTATATATGGCTCTCAACACTCTCCAGGCTGTCAGAAAAGA
 GATAGAAACTACCAAGGCCAAGAAATGCTTGTGCGTGGCACAGAAGGAATCAAAGGTACATAAACCTT
 GGAATGCCCTCAGTTGTTCCCTGAAGGTGGCCAGGTGGTCATTACATTTCCCAAAGTAAAAGTAAAGC
 AGAAGGAAGATAACCACATATTTGGCAGGCAGGACAAAGCATCGACTGAATGTGTCAAATTTACATTCA
 TGCAATTGGAATTGGGAAGTGTAAAAGAAGGATTGTTAAATGTGGGAAGCTTACAAAAAGGGGCGCAAA
 CTCTGTGTTTATGCTTTCAAAGGAGAAACCATCAAGGATGCACTGTGCAAGGATGGCAGATTTCTTTCT
 TTCTGGAGAATGATGATTGGAACCTCATTGAAAACAATGACACCATTTTGAAGACCCAGCCAGTTGA
 TGAATTAGAAGGCAGATACTTTTCAGGTTGAGGTTGAGAAAAGAATGGTCCCCAGTGCAGCAGCTTCTCAG
 AATCCTGAGTCAGAGAAAAGAACACCTGTGTGTTGAGAGAACAAATCGTGGCTCAGTACCCAGTTTGA
 AAAGAGAAAGTAAAAAATCATTGAAAACCTCAAGAAAAAATGAAAGTAAAAAATGGGGAAACATTATT
 TGAATTGCATAGAACAACGTTTGGGAAAGTAACAAAAAATCTTCTTTCGATTAAGTGTGAACTTCTT
 GTACGCTCAGTGACTCAGTTGGTACTTATTCTGGGACAGTGAACACGGGTTACGCCACCTGCTTTG
 TTTTAAAGGATTGTTCAATTTAACTTGTCCGCATGTAATAGATAGCATTGTGGGAGACGGAATAGAGCC
 AAGTAAGTGGCAACCATAATTGGTCAATGTGTAAAGGTTGACATTTGGTTATGAAGAGCTAAAAGACAAG
 GAAACAACTACTTTTTGTTGAACCTTGGTTGAGATACATAATGAAGAGCTTGACTATGCTGTCTGA
 AACTGAAGGAAAAATGGACAACAAGTACCTATGGAACATATAATGGAATTACTCTGTGCCACTTAGTGG
 GTTGATACATAATTATGGCCATCCATATGGAGAAAAAAGCAGATTGATGCTTGTGCTGTGATCCCTCAG
 GGTGAGCAGCAAAAGAAATGTCAGGAACGTGTTCACTCTAAAAAGCAGAAAGTCCAGAGTATGTCCATA
 TGTATACTCAAAGAAGTTCCAGAAAATAGTTCACAACCTGATGTGATTACCTATGACTGAATTTTT
 CTTTGGGGCTCCGGCTCCCTGTGTTGATTCAAAGGTTTATTGGTGGCCATGCATGCTGCTGGCTTT
 GCTTATACTTACCAAAATGAGACTCGTAGTATCATTGAGTTTGGCTCTACCATGGATCCATCCTCTTG
 ATATTAAGCAAAGACATAAACCATGGTATGAAGAAGTATTGTAATCAGCAGGATGTAGAAATGATGAG
 TGATGAGGACTTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210012 protein sequence
 Red=Cloning site Green=Tags(s)

MSCKKQSRKHSVNEKCNMKIEHYFSPVSKEQQNNCSTSLMRMESRGDPRATTNTQAQRFHSPKKNPEDQ
 TMPQNRTIYVTLKVNHRRNQDMKLLSHSENSLYMALNLTQAVRKEIETHQGQEMLVRGTEGIKEYINL
 GMPLSCFPEGQVVITFSQSKSKQKEDNHIFGRQDKASTECVKFYIHAIGIGKCKRRIKCGKLLHKKGRK
 LCVYAFKGETIKDALCKDGRFLSFLENDDWKLIENNDTILESTQPVDELEGRYFQVEVEKRMVPSAAASQ
 NPSEKRNCTVLRQIVAQYPSLKRESEKIIENFKKKMKVKNGETL FELHRTTFGKVTKNSSSIKVVKLL
 VRLSDSVGYLFWDSATTGYATCFVFKGLFILTCRHVIDSIVGDGIEPSKWATIIGQCVRVTFGYEELKDK
 ETNYFFVPEWFEIHNEELDYAVLKLKENGQVPMELYNGITPVPLSGLIHIIGHYPYGEKKQIDACAVIPQ
 GQRRAKQCQERVQSKKAESPEYVHMYTQRSFQKIVHNPVDITYDTEFFFGASGSPVFDKSGSLVAMHAAGF
 AYTQNETRSIIIEFGSTMESILLDIKQRHKPWYEEVFVNQQDVENMSDEDL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6208_d04.zip
 Restriction Sites: SgfI-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 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_022074.4](#)

RefSeq Size: 3609 bp

RefSeq ORF: 1836 bp

Locus ID: 63901

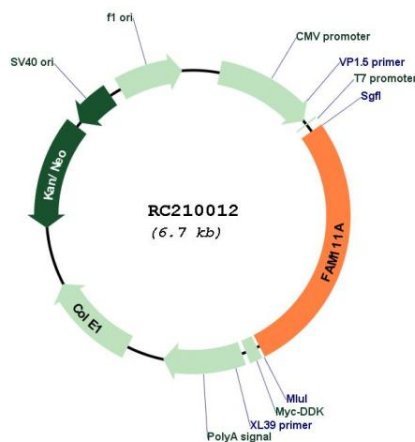
UniProt ID: [Q96PZ2](#)

Cytogenetics: 11q12.1

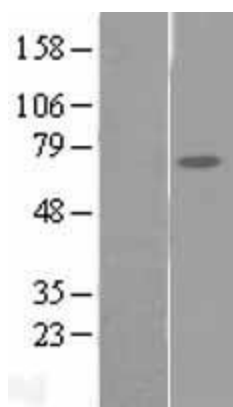
MW: 70.2 kDa

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 RC210012



Western blot validation of overexpression lysate (Cat# [LY411797]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210012 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).