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GGAAAGCTTGGGTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG211894 representing NM_138292

Red=Cloning site Green=Tags(s)

MTLHEPANSSASQSTDLCDFSGDLDPAPNPPHFP SHVIKATFAYISNCHKTKLKSILEILSKSPDSYQKI
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 VFMDVCQNFQPVFRYFCMEKFLDPAIWF EKRLAYTRSVATSSIVGYILGLGDRHVQNILINEQSAELVHI
 DLGVAFEQ GKILPTPETVPFRLTRDIVDGMGITGVEGVFRRCC EK TMEV MRNSQETLLTIVEVLLYDPLF
 DWTMNP LKALYLQORPEDETELHPTLNADDQECKRNLSDIDQSFNKVAERVLMRLQEKLKGVEEGTVLSV
 GGQVNL LIQQAIDPKNLSRLFPGWKAWV

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_138292

ORF Size: 5124 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_138292.3](#), [NP_612149.1](#)

RefSeq Size: 8977 bp

RefSeq ORF: 5126 bp

Locus ID: 472

Cytogenetics: 11q22.3

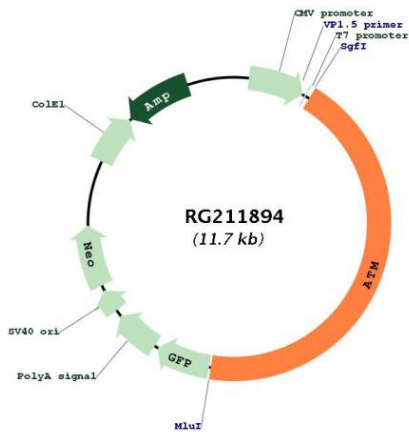
Domains: PI3_PI4_kinase, FAT, FATC

Protein Families: Druggable Genome, Protein Kinase, Transcription Factors

Protein Pathways: Apoptosis, Cell cycle, p53 signaling pathway

Gene Summary: The protein encoded by this gene belongs to the PI3/PI4-kinase family. This protein is an important cell cycle checkpoint kinase that phosphorylates; thus, it functions as a regulator of a wide variety of downstream proteins, including tumor suppressor proteins p53 and BRCA1, checkpoint kinase CHK2, checkpoint proteins RAD17 and RAD9, and DNA repair protein NBS1. This protein and the closely related kinase ATR are thought to be master controllers of cell cycle checkpoint signaling pathways that are required for cell response to DNA damage and for genome stability. Mutations in this gene are associated with ataxia telangiectasia, an autosomal recessive disorder. [provided by RefSeq, Aug 2010]

Product images:



Circular map for RG211894