

Product datasheet for **RG235329**

Complement C4A (C4A) (NM_001252204) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Complement C4A (C4A) (NM_001252204) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	C4A
Synonyms:	C4; C4A2; C4A3; C4A4; C4A6; C4AD; C4S; CO4; CPAMD2; RG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG235329 representing NM_001252204 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG235329 representing NM_001252204
 Red=Cloning site Green=Tags(s)

MRLWGLIWASSFFTL SLQKPRLLL FSPSVVHLGVPLSVGVQLQDVPRGQVVKGSVFLRNPSRNNVPCSP
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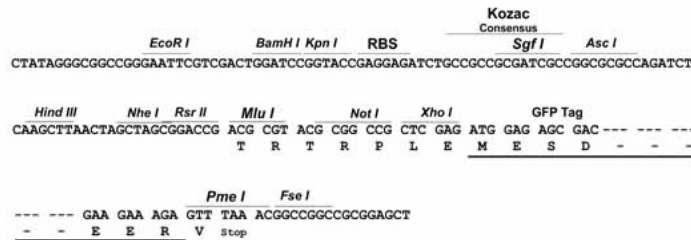
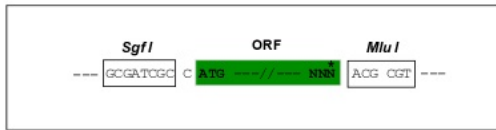
TRTRPLE - GFP Tag - V

Restriction Sites:

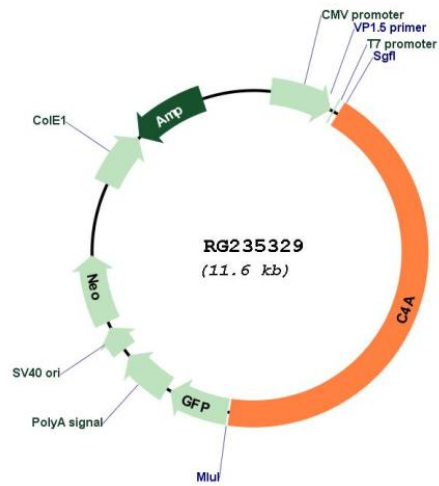
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001252204
 ORF Size: 5094 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_001252204.1](#), [NP_001239133.1](#)

RefSeq Size: 5288 bp

RefSeq ORF: 5097 bp

Locus ID: 720

UniProt ID: [P0C0L4](#)

Cytogenetics: 6p21.33

Protein Pathways: Complement and coagulation cascades, Systemic lupus erythematosus

Gene Summary:

This gene encodes the acidic form of complement factor 4, part of the classical activation pathway. The protein is expressed as a single chain precursor which is proteolytically cleaved into a trimer of alpha, beta, and gamma chains prior to secretion. The trimer provides a surface for interaction between the antigen-antibody complex and other complement components. The alpha chain is cleaved to release C4 anaphylatoxin, an antimicrobial peptide and a mediator of local inflammation. Deficiency of this protein is associated with systemic lupus erythematosus and type I diabetes mellitus. This gene localizes to the major histocompatibility complex (MHC) class III region on chromosome 6. Varying haplotypes of this gene cluster exist, such that individuals may have 1, 2, or 3 copies of this gene. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2014]