

Product datasheet for **RG225328**

CD16 (FCGR3A) (NM_001127596) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CD16 (FCGR3A) (NM_001127596) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FCGR3A
Synonyms:	CD16; CD16A; FCG3; FCGR3; FCGR11; FCR-10; FCR11; FCR11A; IGFR3; IMD20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG225328 representing NM_001127596 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGCAGCTGCTCCTCCCAACTGCTCTGCTACTTCTAGTTTCAGCTGGCATGCGGACTGATCTCCCAA
AGGCTGTGGTGTTCCTGGAGCCTCAATGGTACAGGGTCTCGAGAAGGACAGTGTGACTCTGAAGTGCCA
GGGAGCCTACTCCCCTGAGGACAATCCACACAGTGGTTTCACAATGAGAGCCTCATCTCAAGCCAGGCC
TCGAGCTACTTCATTGACGCTGCCACAGTCGACGACAGTGGAGAGTACAGGTGCCAGACAAACCTCTCCA
CCCTCAGTGACCCGGTGCAGCTAGAAGTCCATATCGGCTGGCTGTTGCTCCAGGCCCTCGGTGGGTGTT
CAAGGAGGAAGACCTATTCACCTGAGGTGTACAGCTGGAAGAACACTGCTCTGCATAAGGTACACATAT
TTACAGAAATGGCAAAGGCAGGAAGTATTTTCATCATAATTCTGACTTCTACATTCAAAAAGCCACTCA
AAGACAGCGGCTCCTACTTCTGCAGGGGCTTTTTGGGAGTAAAAATGTGTCTTCAGAGACTGTGAACAT
CACCATCACTCAAGGTTTGGCAGTGTCAACCATCTCATCATTCTTCCACCTGGGTACCAAGTCTCTTTC
TGCTTGGTGATGGTACTCCTTTTTGCAGTGGACACAGGACTATATTTCTGTGAAGACAAACATTCCGAA
GCTCAACAAGAGACTGGAAGGACCATAAATTTAAATGGAGAAAGGACCCTCAAGACAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG225328 representing NM_001127596
Red=Cloning site Green=Tags(s)

MWQLLLPTALLLLVSAGMRTDLPKAVVFLEPQWYRVLEKDSVTLKCOGAYSPEDNSTQWFHNESLISSQA
 SSYFIDAATVDDSGEYRCQTNLSTLSDPVQLEVHIGWLLLQAPRWVFKEEDPIHLRCHSWKNTALHKVTY
 LQNGKGRKYFHNSDFYIPKATLKDSGSYFCRGLFGSKNVSSETVNITITQGLAVSTISSFFPPGYQVSF
 CLVMVLLFAVDTGLYFSVKTNIRSSTRDWKDHKFKWRKDPQDK

TRTRPLE - GFP Tag - V

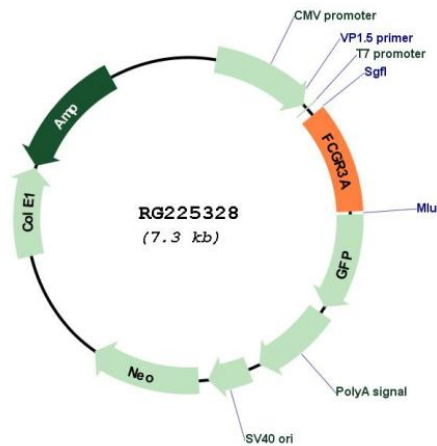
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001127596

ORF Size: 759 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_001127596.2](#)

RefSeq Size: 2183 bp

RefSeq ORF: 762 bp

Locus ID: 2214

UniProt ID: [P08637](#)

Cytogenetics: 1q23.3

Protein Families: ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

Protein Pathways: Fc gamma R-mediated phagocytosis, Natural killer cell mediated cytotoxicity, Systemic lupus erythematosus

Gene Summary:

This gene encodes a receptor for the Fc portion of immunoglobulin G, and it is involved in the removal of antigen-antibody complexes from the circulation, as well as other responses, including antibody dependent cellular mediated cytotoxicity and antibody dependent enhancement of virus infections. This gene (FCGR3A) is highly similar to another nearby gene (FCGR3B) located on chromosome 1. The receptor encoded by this gene is expressed on natural killer (NK) cells as an integral membrane glycoprotein anchored through a transmembrane peptide, whereas FCGR3B is expressed on polymorphonuclear neutrophils (PMN) where the receptor is anchored through a phosphatidylinositol (PI) linkage. Mutations in this gene are associated with immunodeficiency 20, and have been linked to susceptibility to recurrent viral infections, susceptibility to systemic lupus erythematosus, and alloimmune neonatal neutropenia. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2020]