

Product datasheet for RC225398

OriGene Technologies, Inc.

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CD16 (FCGR3A) (NM_001127592) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: CD16 (FCGR3A) (NM_001127592) Human Tagged ORF Clone

Tag: Myc-DDK
Symbol: FCGR3A

Synonyms: CD16; CD16A; FCG3; FCGR3; FCGRIII; FCR-10; FCRIIIA; IGFR3; IMD20

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

Cell Selection: Neomycin

ORF Nucleotide >RC225398 representing NM_001127592
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

ATGGGTGGAGGGGCTGGGGAAAGGCTGTTTACTTCCTCCTGTCTAGTCGGTTTGGTCCCTTTAGGGCTCC
GGATATCTTTGGTGACTTGTCCACTCCAGTGTGGCATCATGTGGCAGCTGCTCCCCAACTGCTCTGCT
ACTTCTAGTTTCAGCTGGCATGCGGACTGATCTCCCAAAGGCTGTGTGTTCCTGGAGCCTCAATGGTAC
AGGGTGCTCGAGAAGGACAGTGTGACTCTGAAGTGCCAGGGAGCCTACTCCCCTGAGGACCAATTCCACAC
AGTGGTTTCACAATGAGAGCCTCATCTCAAGCCAGGCCTCGAGCTACTTCATTGACGCTGCCACAGTCGA
CGACAGTGGAGAGTACAGGTGCCAGACAAACCTCTCCACCCTCAGTGACCCGGTGCAGCTAGAAGTCCAT
ATCGGCTGGCTGTTGCTCCAGGCCCCTCGGTGGGTGTTCAAGGAGGAAGACCCTATTCACCTGAGGTGTC
ACAGCTGGAAGAACACTGCTCTGCATAAGGTCACATATTTACAGAATGGCAAAGGCAGGAAGTATTTTCA
TCATAATTCTGACTTCTACATTCCAAAAGCCACACTCAAAGACAGCGGCTCCTACTTCTGCAGGGGGCTT
TTTGGGAGTAAAAATGTGTCTTCAGAGACTGTGAACATCACCATCACTCAAGGTTTGGCAGTGTCAACCA
TCTCATCATTCTTTCCACCTGGGTACCAAGACAACATTCGAAGGTCCAACAAGAGACCCTTTTTTGCAGTGGA
CACAGGACTATATTTCTCTGTGAAGACAAACATTCGAAGCTCAACAAGAGACCTGGAAGGACCATAAATTT
AAATGGAGAAAAGGACCCTCAAGACAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA





Protein Sequence: >RC225398 representing NM_001127592

Red=Cloning site Green=Tags(s)

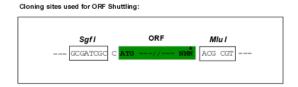
MGGGAGERLFTSSCLVGLVPLGLRISLVTCPLQCGIMWQLLLPTALLLLVSAGMRTDLPKAVVFLEPQWY RVLEKDSVTLKCQGAYSPEDNSTQWFHNESLISSQASSYFIDAATVDDSGEYRCQTNLSTLSDPVQLEVH IGWLLLQAPRWVFKEEDPIHLRCHSWKNTALHKVTYLQNGKGRKYFHHNSDFYIPKATLKDSGSYFCRGL FGSKNVSSETVNITITQGLAVSTISSFFPPGYQVSFCLVMVLLFAVDTGLYFSVKTNIRSSTRDWKDHKF KWRKDPQDK

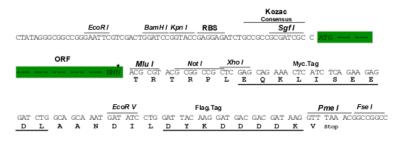
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

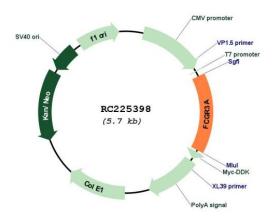
Cloning Scheme:





^{*} The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001127592

ORF Size: 867 bp

CD16 (FCGR3A) (NM_001127592) Human Tagged ORF Clone - RC225398

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: <u>NM 001127592.1, NP 001121064.1</u>

 RefSeq Size:
 2338 bp

 RefSeq ORF:
 1077 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

MW: 32.6 kDa

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]