

## Product datasheet for **RC206429**

### CD16 (FCGR3A) (NM\_000569) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CD16 (FCGR3A) (NM_000569) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CD16
Synonyms:	CD16; CD16A; FCG3; FCGR3; FCGR11; FCR-10; FCR11; FCR11A; IGFR3; IMD20
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206429 representing NM_000569 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGTGGAGGGGCTGGGAAAGGCTGTTACTTCCTCCTGTCTAGTCGGTTTGGTCCCTTTAGGGCTCC  
 GGATATCTTTGGTGACTTGCTCTCCAGTGTGGCATCATGTGGCAGCTGCTCCTCCCAACTGCTCTGCT  
 ACTTCTAGTTTCAGCTGGCATGCGGACTGAAGATCTCCAAAGGCTGTGGTGTCTGGAGCCTCAATGG  
 TACAGGGTGCTCGAGAAGGACAGTGTGACTCTGAAGTCCAGGGAGCCTACTCCCTGAGGACAATTCCA  
 CACAGTGGTTTACAATGAGAGCCTCATCTCAAGCCAGGCCTCGAGCTACTTCATTGACGCTGCCACAGT  
 CGACGACAGTGGAGAGTACAGGTGCCAGACAAACCTCTCCACCCTCAGTGACCCGGTGCAGCTAGAAGTC  
 CATATCGGCTGGCTGTTGCTCCAGGCCCTCGGTGGGTGTTCAAGGAGGAAGACCCTATTCACCTGAGGT  
 GTCACAGCTGGAAGAACTGCTCTGCATAAGGTACATATTTACAGAATGGCAAAGGCAGGAAGTATTT  
 TCATCATAATTCTGACTTCTACATTCAAAAGCCACACTCAAAGACAGCGGCTCTACTTCTGCAGGGGG  
 CTTGTTGGGAGTAAAAATGTGTCTTCAGAGACTGTGAACATCACCATCAAGGTTTGGCAGTGTCAA  
 CCATCTCATCTTTCCACCTGGGTACCAAGTCTCTTCTGCTTGGTGATGGTACTCCTTTTTCAGT  
 GGACACAGGACTATATTTCTCTGTGAAGACAAACATTCAAGCTCAACAAGAGACTGGAAGGACCATAAA  
 TTAAATGGAGAAAGGACCCTCAAGACAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:** >RC206429 representing NM\_000569  
 Red=Cloning site Green=Tags(s)

MGGGAGERLFTSSCLVGLVPLGLRISLVTCP LQCGIMWQLLLPTALLLV SAGMRTE DLPKAVVFLEPQW  
 YRVLEKDSVTLKCQ GAYSPEDNSTQWFHNE SLISSQASSYFIDAATVDDSGEYRCQTNLSTLSDPVQLEV  
 HIGWLLLQAPRWVFKEEDPIHLRCHSWKNTALHKV TYLQNGKGRKYFHHNSDFYIPKATLKDSGSYFCRG  
 LVGSKNVSSETVNITITQGLAVSTISSFFPPGYQVSFCLVMVLLFAVD TGLYFSVKTNIRSSTRDWKDHK  
 FKWRKDPQDK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2536\\_d08.zip](https://cdn.origene.com/chromatograms/mg2536_d08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000569

**ORF Size:** 870 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_000569.4](#)

**RefSeq Size:** 2406 bp

**RefSeq ORF:** 765 bp

**Locus ID:** 2214

**UniProt ID:** [P08637](#)

**Cytogenetics:** 1q23.3

**Domains:** ig, IG

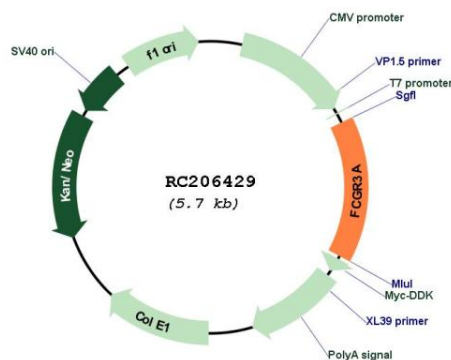
**Protein Families:** ES Cell Differentiation/IPS, Secreted Protein, Transmembrane

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

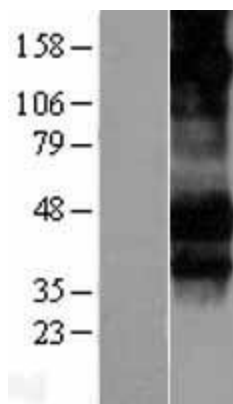
**MW:** 32.64 kDa

**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]

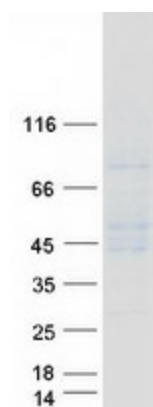
## Product images:



Circular map for RC206429



Western blot validation of overexpression lysate (Cat# [LY400194]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206429 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FCGR3A protein (Cat# [TP306429]). The protein was produced from HEK293T cells transfected with FCGR3A cDNA clone (Cat# RC206429) using MegaTran 2.0 (Cat# [TT210002]).