

# Human CD16

Purified in vivo GOLD™ Functional Grade

### **Monoclonal Antibody**

#### **Product Information**

Product No.:	C2858
Clone:	3G8
RRID:	AB_2829613
lsotype:	Mouse IgG1 κ
Storage:	Sterile 2-8°C

### **Product Description**

### Specificity:

Clone 3G8 recognizes an epitope on human CD16. This clone also cross-reacts with non-human primate CD16.

### Antigen Distribution:

CD16 is expressed on NK cells, activated monocytes, macrophages, neutrophils, and placental trophoblasts.

### Background:

CD16 antibody, 3G8, recognizes human CD16, also known as low-affinity IgG receptor III (FcγRIII). There are two distinct forms of CD16, CD16a (FcγRIIIa) and CD16b (FcγRIIIb). CD16a is a 50-65 kDa heterooligomeric polypeptide-anchored transmembrane protein expressed by NK cells, macrophages, and subsets of monocytes<sup>1</sup>. CD16b is a 48 kDa monomeric glycosylphosphatidylinositol (GPI)-anchored protein expressed on neutrophils<sup>1</sup>. Upon binding to the Fc portion of IgG or IgG-antigen complex, both CD16 isoforms induce signaling cascades resulting in multiple functions, including phagocytosis, cytokine release, proliferation, degranulation, and antibody dependent cell-mediated cytotoxicity (ADCC)<sup>2</sup>.

### Known Reactivity Species:

Baboon, Chimpanzee, Cynomolgus Monkey, Marmoset, Pigtailed Macaque, Rhesus Monkey, Squirrel Monkey, Human

### Format:

Purified in vivo GOLD™ Functional Grade

### Immunogen:

Human PMN cells

### Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

# Purity

≥95% monomer by analytical SEC, >95% by SDS Page

# Endotoxin

< 1.0 EU/mg as determined by the LAL method

# Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at  $\leq$  -70°C.

### Avoid Repeated Freeze Thaw Cycles.

# **Product Datasheet**

www.leinco.com



### **Product Preparation**

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

# **Applications**

### Applications and Recommended Usage (Quality Tested By Leinco):

FC The suggested concentration for this 3G8 antibody for staining cells in flow cytometry is  $\leq 2.0 \ \mu$ g per 10<sup>6</sup> cells in a volume of 100  $\mu$ l or 100 $\mu$ l of whole blood. Titration of the reagent is recommended for optimal performance for each application.

### Other Applications Reported in Literature:

CyTOF® IHC (Frozen) IP B Country of Origin USA

### References

1. Ravetch JV & Perussia B. (1989) J Exp Med. 170(2):481-497

2. Nimmerjahn F & Ravetch JV (2008) Nat Rev Immunol. 8(1):34-47