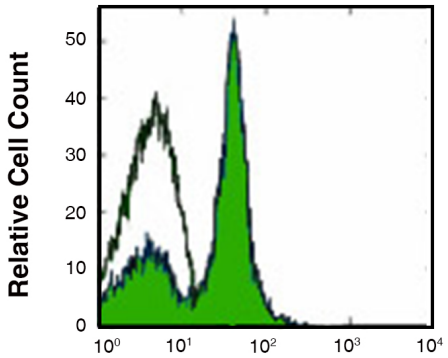
Leinco Technologies, Inc.
excellence in early discovery research™

Mouse CD32/CD16 Antibody

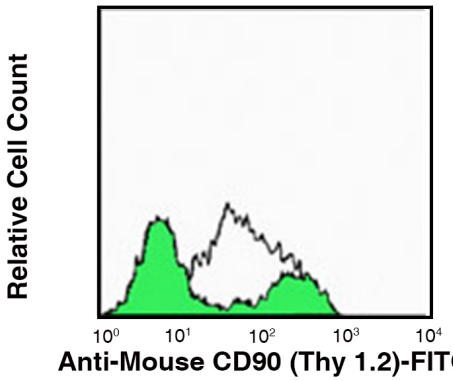
Purified *in vivo* GOLD™ Functional Grade Monoclonal Antibody

Product Information

Product No.:	C381
Clone:	2.4G2
RRID:	AB_2737484
Isotype:	Rat Rat IgG2b
Storage:	Sterile 2-8°C



Staining of BALB/c splenocytes with Anti-Mouse CD32/16 Purified (green histogram) or Rat IgG1 Isotype Control Purified (open histogram) followed by Goat Anti-Rat IgG (H&L)-FITC.



The green histogram demonstrates the increased resolution of Anti-Mouse CD90 (Thy 1.2)-FITC (clone 30-H12) (Leinco Prod. No.: C285) staining of BALB/c splenocytes in the presence of purified Anti-Mouse CD32/CD16 (Fc UltraBlock). The open histogram shows Anti-Mouse CD90 (Thy 1.2)-FITC staining without Anti-Mouse CD32/CD16 (Fc UltraBlock).

Product Description

Specificity:
Clone 2.4G2 recognizes the FcγIII and FcγII receptors.

Antigen Distribution:
These receptors are present on B cells, monocyte/macrophages, NK cells, neutrophils, mast cells and dendritic cells.

Background:
CD16 is expressed in two forms: CD16a and CD16b. CD16a (FcγRIIIA) is a 50-65 kD polypeptide-anchored transmembrane protein. CD16b (FcγRIIIB) is a 48 kD GPI-anchored protein whose extracellular domain is over 95% homologous to that of CD16a. CD16 regulates both phagocytosis and antibody-dependent cell-mediated cytotoxicity. It has been reported that CD16 is involved in Natural Killer Cell activation and plays a role in signal transduction. The receptors, CD32 (FcγRIII) and CD16 (FcγRII), are 40-60 kD and bind antibody-antigen immune complexes and mediate adaptive immune responses.

Known Reactivity Species:
Mouse

Format:
Purified in vivo GOLD™ Functional Grade

Immunogen:
Sorted pre-B 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 ≤ -70°C.
Avoid Repeated Freeze Thaw Cycles.

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 2.4G2 antibody for staining cells in flow cytometry is ≤ 1 µg per 10^6 cells in a volume of 100 µl. Titration of the reagent is recommended for optimal performance for each application.
WB The suggested concentration for this 2.4G2 antibody for use in western blotting is 1-10 µg/ml.

Other Applications Reported in Literature:
CODEX®

Country of Origin
USA

References
1.) Titas, J. A. *et al.* (1982) *J. Immunol.* **133**:556
2.) Rodewald, H. *et al.* (1992) Cell **69**:139
3.) Skyberg, J. A. *et al.* (2020) *Infection and Immunity.* **88**: 5
4.) Forte *et al.* (2020) *Cell Reports.* **30**:3149–3163 Journal Link
5.) Forte, E. *et al.* (2020) *Cell Reports* **30**(9):3149-3163.e6 Journal Link