# **Product Datasheet**

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Anti-Human CD11a Purified *in vivo* GOLD™ Functional Grade Monoclonal Antibody

# **Product Information**

Product No.:	C373
Clone:	38
RRID:	AB_2829685
Isotype:	Mouse IgG2a
Storage:	Sterile 2-8°C

## **Product Description**

#### Specificity:

Clone 38 recognizes an epitope on human CD11a.

#### Antigen Distribution:

CD11a is present on thymocytes, blood lymphocytes, bone marrow cells and certain lymphoma and macrophage-like cell lines.

## Background:

LFA-1α (CD11a) and CD18 are the Integrin alpha-L and beta-2 chains respectively that combine to form LFA-1, a glycoprotein and a member of the Integrin family. Integrin alpha-L/beta-2 is a receptor for ICAM1, ICAM2, ICAM3, ICAM4 and for F11R. LFA-1 participates in the immunological synapses between CD8+ T lymphocytes and antigen-presenting cells. The absence of LFA-1α or ß may induce LAD. The antigen contributes to natural killer cell cytotoxicity, and is involved in various immune phenomena such as leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. The CD11b/CD18 antigen is a heterodimeric surface glycoprotein on leukocytes and belongs to the ß2 integrin family. CD11b functions as a receptor for C3bi complement, clotting factor X, fibrinogen and ICAM-1. CD11c forms an α/ß heterodimeric glycoprotein (CD11c/CD18 complex) which belongs to the ß2 integrin family. The complex binds fibrinogen and reportedly serves as a receptor for iC3b and ICAM-1. During inflammatory responses, it mediates cell to cell interaction and is important in both monocyte adhesion and chemotaxis.

#### Known Reactivity Species:

Human

#### Format:

in vivo GOLD™, Purified in vivo Functional Grade

#### Immunogen:

Fibronectin purified monocytes.

#### 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.

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

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# **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 38 antibody for staining cells in flow cytometry is  $\leq 1 \ \mu g$  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.

# Country of Origin

USA

#### References

- 1. Stern, LJ. et al. (2005) Proc Natl Acad Sci U S A.102(10):3744-9 PubMed
- 2. Taher, A. et al. (2008) Haematologica. 93(6):941-2. Article Link
- 3. Fliedner, TM et al. (1996) Cytometry.25(1):46-57. Article Link
- 4. Dransfield, I. et al. (1989) The EMBO Journal 8:3759



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