

Anti-Mouse CD370 (CLEC9A/DNGR1) Purified *in vivo* GOLD™ Functional Grade Monoclonal Antibody

Product Information

Product No.: I-2001
Clone: 1F6
RRID: AB_2893827
Isotype: Mouse IgG1
Storage: Sterile 2-8°C

Product Description

Specificity:

This clone 1F6 monoclonal antibody recognizes a direct epitope on mouse DNGR1/CLEC9A for CD8+ dendritic cells, which can be exploited for tumor therapy, whilst also recognizing necrotic cells. This antibody can recognize both the short and long isoform of DNGR-1, which varies in a segment of the stalk region.

Antigen Distribution:

CD370 (CLEC9A) in mice is expressed on CD8+ DCs and at low levels by plasmacytoid DCs

Background:

CLEC9A antibody, 1F6, recognizes C-type lectin domain family 9 member A (CLEC9A), also known as CD370 and DNGR-1. CLEC9A is a type II transmembrane glycoprotein that belongs to the C-type lectin superfamily. In mice and humans, CLEC9A is expressed by CD8a+ conventional dendritic cells (cDCs) in mice^{1,2} and BDCA3+ DCs in humans³, which are specialized for the cross-presentation of exogenous antigens on MHC class I⁴. In mice, type I interferon (IFN)-secreting plasmacytoid DCs (pDCs) also express CLEC9A². The ligand for CLEC9A is filamentous actin exposed on apoptotic cells^{5,6}, and ligation of CLEC9A results in the cross-presentation and induction of CD8 T cell responses. CLEC9A is a target for vaccine enhancement, and antibodies targeting CLEC9A in vaccination studies lead to enhanced presentation by DCs, eliciting CD8 and CD4 T cell proliferation and strong humoral immunity⁷⁻¹¹. In addition, antigen targeting DCs via CLEC9A can enhance anti-tumor immunity¹².

Known Reactivity Species:

Mouse

Format:

in vivo GOLD™, Purified *in vivo* Functional Grade

Immunogen:

RBL-2H3 cells expressing mouse DNGR-1 fused to an HA epitope

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.**

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

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

WB

Other Applications Reported in Literature:

IF

Country of Origin

USA

References

1. Murphy KM, et al. (2012) Blood. 119(25):6052–62
2. Ahmet F, et al. (2008) Blood. 112(8):3264-3273
3. Brown GD, et al. (2008) J Biol Chem. 283(24):16693-701

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