Leinco Technologies, Inc.
excellence in early discovery research™

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

Product Information
Product No.: I-2020
Clone: 1F6
RRID: AB_2893830
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 humans[3], which are specialized for the cross-presentation of exogenous antigens on MHC class I[4]. In mice, type I interferon (IFN)-secreting plasmacytoid DCs (pDCs) also express CLEC9A[2]. 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 immunity<sup.7-11. In addition, antigen targeting DCs via CLEC9A can enhance anti-tumor immunity[12].
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
≤ 0.5 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.**

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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.

Pathogen Testing

To protect mouse colonies from infection by pathogens and to assure that experimental preclinical data is not affected by such pathogens, all of Leinco's Purified Functional PLATINUM™ antibodies are tested and guaranteed to be negative for all pathogens in the IDEXX IMPACT I Mouse Profile.

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

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