Leinco Technologies, Inc.
excellence in early discovery research™

Anti-Mouse CD24 [Clone M1/69] — Purified *in vivo* GOLD™ Functional Grade

Monoclonal Antibody

Product Information

Product No.:	C333
Clone:	M1/69
RRID:	AB_2829441
Isotype:	Rat Rat IgG2b κ
Storage:	Sterile 2-8°C

Product Description

Specificity:
Anti-CD24 antibody (clone M1/69) activity is directed against mouse CD24, also known as Heat Stable Antigen (HSA) or Ly-52.

Antigen Distribution:
CD24 is expressed on B cells, T cells, neutrophils, eosinophils, macrophages, neural cells, ganglion cells, keratinocytes, muscle cells, pancreas cells, lymphocytes, granulocytes, epithelial cells, thymocytes, monocytes, erythrocytes, dendritic cells and is overexpressed in many cancers. Expression varies during T and B cell differentiation. Peripheral T cells are mainly negative.

Background:
Mouse CD24 is a small 27 amino acid sialoglycoprotein that is anchored to plasma membranes via a glycosyl-phosphatidylinositol linker[1]. CD24 is widely distributed and plays a role in many diverse functions including adaptive immunity, inflammation, autoimmunity, and cancer[1,2]. CD24 modulates growth and differentiation signals to granulocytes and B cells, is required for homeostatic cell renewal, binds to P-selectin on activated endothelial cells, plays a role in cell adhesion[3], lymphocyte proliferation for homeostatic purposes[4], lymphocyte costimulation via CD28-independent pathways[5] as well as a crucial role in cell selection and maturation during hematopoiesis.

CD24 tends to be expressed more abundantly in progenitor cells and metabolically active cells relative to terminally differentiated cells[2]. For example, CD24 is expressed on B-cell progenitors and mature resting B cells, but not terminally differentiated plasma cells. Similarly, CD24 is abundantly expressed on immature T cells and activated T cells but weakly expressed on peripheral T cells. As such, CD24 is used as a marker for the differentiation of hematopoietic and neuronal cells as well as tumor stem cells.

In humans, CD24 is overexpressed in various malignancies and its downregulation reduces cell tumorgenicity[6]. When CD24 is expressed early during carcinogenesis and blocked with monoclonal

antibodies or small interfering RNA, tumor growth in xenograft mouse models is reduced.

M1/69 was generated by fusing the spleen cells of a DA rat immunized with B10 mouse spleen cells enriched for T cells with cells from a nonsecreting mouse myeloma line (NSI)[7].

Known Reactivity Species:
Mouse

Format:
in vivo GOLD™, Purified in vivo Functional Grade

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[8,9,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28], [7]

Other Applications Reported in Literature:

IHC[29, 31],
IF[29, 30],
IF Microscopy[29,]
IP[18]

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Country of Origin

USA

References

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