Technical Data Sheet

RecombiMAb anti-human/monkey CD74

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Lot Specific Information

Lot Number: **Lot Specific***
Volume: **Lot Specific***
Concentration: **Lot Specific* (generally 4 to 11 mg/ml) ***
Total Protein: **Lot Specific***

*This information will be noted on the certificate of analysis that ships with this product.

Product Information

Catalog Number:	**CP241**
Clone:	**LL1-CP241**
Isotype:	Mouse IgG1, κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG1 isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Raji human Burkitt lymphoma cells
Reported Applications:	*in vivo* imaging via radioimmunodetection Antibody-drug conjugate synthesis *in vivo* functional assay *in vitro* functional assay Flow cytometry Immunofluorescence Immunohistochemistry (paraffin) Immunohistochemistry (frozen) Western blot
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤0.5EU/mg (≤0.0005EU/µg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 µm filtration
Production:	Purified from mammalian cell supernatant in an animal-free facility
Purification:	Protein G
Aggregation:	<5% Determined by SEC
Molecular Weight:	150 kDa

Murine Pathogen Test Results

Mouse Norovirus: Negative, Mouse Parvovirus: Negative, Mouse Minute Virus: Negative, Mouse Hepatitis Virus: Negative, Reovirus Screen: Negative, Lymphocytic Choriomeningitis virus: Negative, Lactate Dehydrogenase-Elevating Virus: Negative, Mouse Rotavirus: Negative, Theiler's Murine Encephalomyelitis: Negative, Ectromelia/Mousepox Virus: Negative, Hantavirus: Negative, Polyoma Virus: Negative, Mouse Adenovirus: Negative, Sendai Virus: Negative, Mycoplasma Pulmonis: Negative, Pneumonia Virus of Mice: Negative, Mouse Cytomegalovirus: Negative, K Virus: Negative

Description

The recombinant LL1 antibody (mouse IgG1) reacts with human CD74, the MHC class II–associated invariant chain (Ii). The parental murine antibody, also known as mLL1, was originally designated EPB-1 or EB-1. CD74 is a non-polymorphic type II

transmembrane glycoprotein expressed by antigen-presenting cells (APCs), including B cells, dendritic cells (DCs), and macrophages, as well as by cells in several hematological malignancies. CD74 associates with MHC class II α/β heterodimers, stabilizing them and directing their trafficking to endosomal compartments. The CLIP region of CD74 occupies the MHC class II peptide-binding groove, preventing premature peptide loading. After the proteolytic degradation of CD74 in endosomal/lysosomal compartments, CLIP remains bound to MHC class II until HLA-DM facilitates its exchange for antigenic peptides. In addition to its role as an MHC class II chaperone, CD74 acts as a cell membrane high-affinity receptor for MIF and D-DT/MIF-2, and it also participates in the trafficking of the angiotensin II type I receptor. Other important functions of CD74 include regulation of T-cell and B-cell development, DC motility, thymic selection, and macrophage inflammation. Depending on the cellular context, CD74-containing receptor complexes can participate in cell signaling through ERK1/2, PI3K–Akt, NF-κB, and AMPK pathways. These diverse roles of CD74 have been leading to its emergence as an investigational target in inflammatory diseases and cancer. The LL1 antibody's binding with CD74 follows rapid internalization and trafficking to lysosomes, thereby making it a great tool for CD74 internalization and targeted intracellular delivery experiments. Notably, this LL1/mLL1 antibody's humanized recombinant variant, hLL1/MEDI-115/IMMU-115 (milatuzumab), has been extensively studied for experimental therapeutics of multiple myeloma, non-Hodgkin's lymphoma, and chronic lymphocytic leukemia.

Storage

Store at the stock concentration at 4°C . **Do not freeze.**
It is not uncommon for a floccule or precipitate to appear during storage. The floccule is typically buffer salts precipitating out of solution or a small bit of protein aggregation. For information on how to remove floccules or precipitates see our FAQ's at https://bioxcell.com/faqs.

Protocol Information

Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit ?utm_source=cr9k1b#tab_references or scan the QR code below.

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