Technical Data Sheet

RecombiMAb anti-mouse CD39 (Entpd1) (LALA-PG)

Attention: Use of this product constitutes an agreement to Bio X Cell's Terms and Conditions which are included with this product in print and can also be found at https://bioxcell.com/terms-and-conditions.

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:	**CP111**
Clone:	**C39Mab-1-CP111**
Isotype:	Mouse IgG2a (LALA-PG), κ
Recommended Isotype Control(s):	RecombiMAb mouse IgG2a (LALA-PG) isotype control, anti-hen egg lysozyme
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Mutations:	LALA-PG
Immunogen:	LN229 cells over-expressing mouse CD39
Reported Applications:	Flow cytometry Western blot For details on *in vivo* applications please contact technicalservice@bioxcell.com
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 A
Aggregation:	<5% Determined by SEC
RRID:	
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 C39Mab-1-CP111 monoclonal antibody is a recombinant, chimeric version of the original C39Mab-1 antibody. The variable domain sequences are identical but the constant region sequences have been switched from Rat IgG2a, κ to mouse IgG2a, κ for use in murine models. Additionally, C39Mab-1-CP111 contains LALA-PG mutations in the heavy chain Fc fragment rendering it unable to bind endogenous murine Fcγ receptors or C1q to induce antibody-dependent, cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). The LALA-PG variant has demonstrated significantly reduced effector function, C1q binding and C3 fixation compared to other common silencing mutations such as the LALA

and DANG variants while retaining favorable biophysical and manufacturing properties. Species-matched chimeric antibodies demonstrate reduced immunogenicity and formation of anti-drug antibodies (ADAs) compared to xenogenic antibodies in animal models. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. The C39Mab-1 monoclonal antibody reacts with mouse CD39, also known as ectonucleoside triphosphate diphosphohydrolase 1 (Entpd1), NTPDase-1, ATP-DPH, and Ecto-ATPase 1. The major function of CD39 is to hydrolyze extracellular adenosine triphosphate (eATP) to diphosphate (eADP) and adenosine monophosphate (AMP). 5'-nucleotidase (NT5E/CD73) dephosphorylates AMP to generate adenosine, which mediates an immunosuppressive tumor microenvironment in tumors. CD39 acts as an "immunological switch" by regulating the balance between immunostimulatory or pro-inflammatory eATP and immunosuppressive adenosine nucleotides, thereby controlling inflammation and immune responses. This function is critical in various processes, including immune cell regulation, anti-tumor immunity, and vascular inflammation.

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 https://bioxcell.com/cp111?bxcs=9k1b3a#tab_references or scan the QR code below.

Bio X Cell, LLC
https://bioxcell.com
+1-866-787-3444
customerservice@bioxcell.com

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