Technical Data Sheet

RecombiMAb anti-mouse CD3ε (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:	**CP083**
Clone:	**145-2C11-CP083**
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:	Mouse BM10-37 cytotoxic T cells
Reported Applications:	*in vitro* T cell stimulation/activation *in vivo* T cell stimulation/activation Immunofluorescence Flow cytometry Western blot *Reported for the original 145-2C11 antibody. For information 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 G
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 145-2C11-CP083 monoclonal antibody is a recombinant, Fc-engineered chimeric version of the original 145-2C11

antibody. The variable domain sequences are identical but the constant region sequences have been switched from hamster IgG1 to mouse IgG2a, κ for use in murine models. Species-matched chimeric antibodies demonstrate reduced immunogenicity and formation of anti-drug antibodies (ADAs) compared to xenogenic antibodies in animal models. Additionally, 145-2C11-CP083 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). Studies have shown recombinant, Fc-silenced 145-2C11 minimizes cytokine-release and acute toxicity while retaining CD3-TCR downregulation, T-cell killing and immunosuppressive function. The LALA-PG variant has demonstrated significantly reduced effector function, C1q binding and C3 fixation compared to other common silencing mutations such as the D265A and DANG variants while retaining favorable biophysical and manufacturing properties. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. The 145-2C11-CP083 monoclonal antibody reacts with mouse CD3ε, a 20 kDa transmembrane cell-surface protein that belongs to the immunoglobulin superfamily. CD3ε is one of five polypeptide chains that combine to form the TCR complex. CD3ε is expressed on T lymphocytes, NK-T cells, and to varying degrees on developing thymocytes. CD3 plays roles in TCR signaling, T lymphocyte activation, and antigen recognition. Additionally, the 145-2C11 antibody has been reported to block the binding of the 17A2 antibody to CD3ε+ T lymphocytes. References: Alegre, M L et al. “An anti-murine CD3 monoclonal antibody with a low affinity for Fc gamma receptors suppresses transplantation responses while minimizing acute toxicity and immunogenicity.” Journal of immunology (Baltimore, Md. : 1950) vol. 155,3 (1995): 1544-55. Dépis, Fabien et al. “Characterization of a surrogate murine antibody to model anti-human CD3 therapies.” mAbs vol. 5,4 (2013): 555-64. doi:10.4161/mabs.24736 Hale, Geoff. “Living in LALA land? Forty years of attenuating Fc effector functions.” Immunological reviews vol. 328,1 (2024): 422-437. doi:10.1111/imr.13379

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/cp083?bxcs=9k1b3a#tab_references or scan the QR code below.

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

Conditions: For research use only. Not for use in diagnostic or therapeutic procedures.
Not for resale.
Bio X Cell, Bio X Cell logo, and all other trademarks are the property of Bio X Cell, LLC © 2026 Bio X Cell, LLC