

Technical Data Sheet

RecombiMAb anti-mouse CD20 (LALA-PG)



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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: CP215
Clone: MB20-11-CP215
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 CD20-GFP transfected 300.19 cells
Reported Applications: ELISA
Western Blot
Flow Cytometry
Formulation: PBS, pH 7.0
Contains no stabilizers or preservatives
Endotoxin: $\leq 0.5\text{EU/mg}$ ($\leq 0.0005\text{EU}/\mu\text{g}$)
Determined by LAL assay
Purity: $\geq 95\%$
Determined by SDS-PAGE
Sterility: $0.2\ \mu\text{m}$ filtration
Production: Purified from mammalian cell supernatant in an animal-free facility
Purification: Protein A
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 MB20-11-CP215 monoclonal antibody is a recombinant, chimeric version of the original MB20-11 antibody. The variable domain sequences are identical to clone MB20-11, but the constant region has been converted from mouse IgG2c to mouse IgG2a. Additionally, the constant region includes the Fc silencing mutation variant LALA-PG, rendering MB20-11-CP215 unable to bind endogenous murine Fc γ receptors or C1q to induce target cell depletion through antibody-dependent cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). This is useful when the desired effect is blocking or labeling CD20+ B cells without depletion, comparing B cell depletion vs B cell blockade, or eliminating

confounding Fc-mediated effects in combination studies. Fc-silent antibodies can also improve in-vitro assays by reducing non-specific signaling and background. The LALA-PG variant has demonstrated significantly reduced effector function, C1q binding and C3 fixation compared to other common silencing mutations while retaining favorable biophysical and manufacturing properties and preserving FcRn-mediated half-life. The highly controlled sequence and lack of genetic drift in recombinant antibodies provide more reliable and reproducible results over hybridoma derived antibodies. MB20-CP215 binds mouse CD20, a ~33–37 kDa, B-cell-restricted transmembrane protein expressed from the late pre-B/immature stage through mature B cells but lost on plasma cells. CD20 modulates BCR-driven calcium fluxes and optimizes activation and T-independent responses without being essential for development. CD20 is widely used as a lineage marker and therapeutic target. CD20 blockade is a versatile tool for dissecting B-cell biology and optimizing CD20-targeted immunotherapies in preclinical models.

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](https://bioxcell.com/?utm_source=cr9k1b#tab_references) or scan the QR code below.



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