

Technical Data Sheet

RecombiMab anti-mouse CD71 (TfR1) (LALA-PG)



bioxcell.com

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: CP212
Clone: R17 217.1.3-CP212
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 erythroleukemia cell line 745.6
Reported Applications: ELISA
Antibody-oligonucleotide conjugate (AOC) synthesis
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 HEK293 cell supernatant in an animal-free facility
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 R17 217.1.3-CP212 monoclonal antibody is a recombinant, chimeric version of the original R17 217.1.3 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, R17 217.1.3-CP212 includes the Fc silencing mutation variant LALA-PG, rendering it unable to bind endogenous murine Fc γ receptors or C1q to induce antibody-dependent cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). Studies have demonstrated administration of anti-TfR1 antibodies with full Fc effector function in mice resulted in acute clinical signs of toxicity and a decrease in reticulocyte count. These adverse effects were eliminated through silencing of the Fc region of the antibody. The LALA-PG variant has demonstrated significantly reduced effector function, C1q binding and C3 fixation while retaining favorable biophysical and manufacturing properties and preserving FcRn-mediated half-life. 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 R17 217.1.3/TIB-219 monoclonal antibody reacts with mouse CD71 also known as transferrin receptor protein 1 (TfR1). CD71 is a 170-180 kDa type II homodimeric transmembrane glycoprotein which is expressed on the surface of proliferating cells, reticulocytes, and erythroid precursors. CD71 plays a role in the control of cellular proliferation and is required for iron import from transferrin into cells by endocytosis. Due to its important role in proliferation and cellular iron intake as well as the fact that many cancerous cells express high levels of CD71 it is being explored as a potential new target in cases of human leukemia & lymphoma. The R17 217.1.3 antibody is frequently used for synthesis of antibody-oligonucleotide conjugates (AOCs) in research involving targeted delivery of pre-clinical therapeutic oligonucleotides or to improve detection sensitivity in experimental molecular diagnostics.

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.



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 © Bio X Cell, LLC