Technical Data Sheet

InVivoMAb anti-mouse CD71 (TfR1)

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:	**BE0329**
Clone:	**8D3**
Isotype:	Rat IgG2a
Recommended Isotype Control(s):	InVivoMAb rat IgG2a isotype control, anti-trinitrophenol
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Mouse transformed endothelioma cell line t.end1
Reported Applications:	*in vivo* depletion of CD71+ cells Immunofluorescence Immunohistochemistry (frozen) Western blot
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/µg) Determined by LAL gel clotting assay
Purity:	≥95% Determined by SDS-PAGE
Sterility:	0.2 µm filtration
Production:	Purified from cell culture supernatant in an animal-free facility
Purification:	Protein G
RRID:	AB_2894749
Molecular Weight:	150 kDa

Description

The 8D3 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. CD71 is expressed on malignant cells at high levels and its expression correlates with cancer progression. This high expression on malignant cells along with CD71's ability to internalize, and the necessity of iron for cancer cell proliferation make the transferrin receptor an attractive target to exploit for the delivery of drugs into malignant cells. The 8D3 antibody has been shown to deplete CD71+ cells in vivo. Bio X Cell is pleased to offer recombinant versions of the original 8D3 antibody, 8D3-CP055 and 8D3-CP078. The 8D3-CP055 monoclonal antibody is a murine chimeric version of the original 8D3 antibody with the constant regions converted to mouse IgG2a, kappa for use in murine models. Additionally, murine chimeric 8D3-CP078 contains LALA-PG mutations in the mouse IgG2a heavy chain rendering it unable to bind endogenous murine Fcγ receptors or C1q to induce antibody-dependent, cell-mediated cytotoxicity (ADCC) or complement-dependent cytotoxicity (CDC). Species-matched chimeric antibodies exhibit regulated effector functions and result in less immunogenicity and formation of anti-drug antibodies (ADAs) than 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.

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

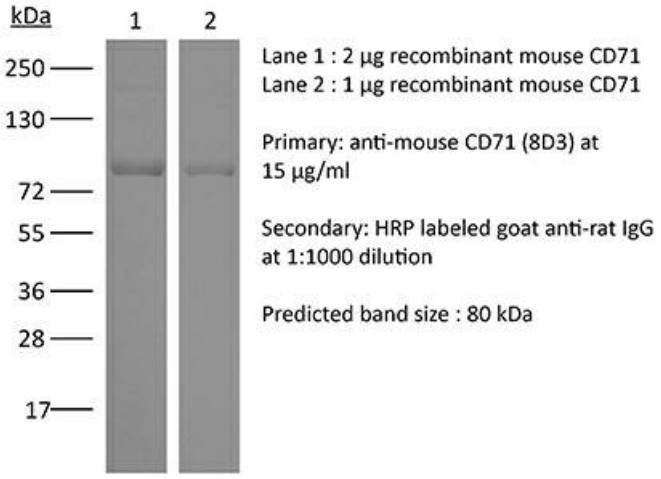
Since applications vary, each investigator should use the application references as a guide to help estimate the appropriate dose or concentration. The dose or concentration can be further optimized experimentally in a dose response or titration experiment.

Application References

For a complete list of references, visit https://bioxcell.com/be0329?bxcs=9k1b3a#tab_references or scan the QR code below.

Binding Validation

Validation data shown below confirms that this clone binds to its target antigen. For lot specific binding validation data, e-mail technicalservice@bioxcell.com.



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