Technical Data Sheet

InVivoMAb anti-mouse c-Kit (CD117) f(ab')2 fragments

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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 Website Link: https://bioxcell.com/invivomab-anti-mouse-c-kit-cd117-f-ab-2-fragments-be0280fab

Product Information

Catalog Number:	**BE0280FAB**
Clone:	**2B8 f(ab')2 Fragments**
Isotype:	Rat IgG2b, κ
Recommended Dilution Buffer:	InVivoPure pH 7.0 Dilution Buffer
Immunogen:	Mouse bone marrow mast cells
Formulation:	PBS, pH 7.0 Contains no stabilizers or preservatives
Endotoxin:	≤1EU/mg (≤0.001EU/µg) Determined by LAL assay
Purity:	≥95% Determined by SDS-PAGE and SEC
Sterility:	0.2 µm filtered
Production:	Pepsin Digest
Purification:	Protein G
RRID:	

Description

This product is an F(ab) fragment derived from the anti-mouse c-Kit antibody clone 2B8. The 2B8 monoclonal antibody reacts with mouse c-Kit, also known as CD117, Steel factor receptor, stem cell factor receptor, and mast cell growth factor receptor. c-Kit is a 145 kDa transmembrane receptor tyrosine kinase and member of the immunoglobulin superfamily. It is expressed on hematopoietic stem and progenitor cells, mast cells, and acute myeloid leukemia (AML) cells, where it serves as a critical receptor for the cytokine stem cell factor (SCF). Interaction between c-Kit and SCF promotes the proliferation, survival, and differentiation of hematopoietic progenitor cells. Unlike a full-length antibody, this F(ab) fragment contains only the antigen-binding region and lacks the Fc domain. As a result, the fragment retains specific binding to mouse c-Kit while eliminating Fc-mediated effector functions such as complement activation and Fcγ receptor engagement. Because the Fc region is absent, this format is useful in experiments where c-Kit binding, receptor engagement, or cell targeting is desired without Fc-dependent immune effects, including antibody-mediated cytotoxicity, Fcγ receptor–mediated cross-linking by accessory cells, or complement activation. The full-length 2B8 antibody has been studied extensively as a c-Kit-targeting reagent, including in antibody-drug conjugate approaches designed to selectively deplete hematopoietic stem cells. When conjugated to a cytotoxic compound, 2B8-based ADCs have been reported to potently deplete hematopoietic stem cells in vivo and enable donor hematopoietic cell engraftment without causing broad neutropenia or lymphopenia. Studies have also shown that 2B8-ADC is efficiently internalized and can deplete immunophenotypic and functional HSCs more effectively than some other murine anti-c-Kit clones. The F(ab) fragment format may provide a useful tool for studying c-Kit binding, receptor engagement, internalization, and targeted delivery while minimizing secondary Fc-mediated mechanisms that can complicate interpretation of results. This anti-mouse c-Kit F(ab) fragment is well suited for studies focused on c-Kit targeting, hematopoietic stem and progenitor cell biology, mast cell biology, AML research, and receptor-directed delivery approaches.

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/invivomab-anti-mouse-c-kit-cd117-f-ab-2-fragments-be0280fab?utm_source=cr9k1b#tab_references or scan the QR code below.

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