

Anti-mCD20-mIgG2a InvivoFit™

18B12-derived recombinant mouse monoclonal antibody against murine CD20

Catalog code: mcd20-mab10-1, mcd20-mab10-10

<https://www.invivogen.com/anti-mcd20-migg2a-invivofit>

For research use only, not for diagnostic or therapeutic use

Version 22G12-AK

PRODUCT INFORMATION

Contents:

Anti-mCD20-mIgG2a InvivoFit™, purified monoclonal antibody (mAb), provided azide-free and lyophilized. It is available in two pack sizes:

- 1 mg • 10 mg

Target: Murine CD20 (aka B-lymphocyte antigen CD20; Ly-44)

Clone: 18B12-derived

Sequence: 100 % of mouse origin (variable + constant region)

Source: Chinese hamster ovary (CHO) cells

Isotype: Murine IgG2a (mIgG2a)

Light chain type: Kappa

Purification: Affinity chromatography with protein A

Formulation: 0.2 µm filtered solution in 150 mM sodium chloride, 20 mM sodium phosphate buffer with 5% saccharose

Administration: Suitable for parenteral delivery in mice

Applications: Flow cytometry; *in vivo* depletion

Antibody resuspension (2 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti-mCD20-mIgG2a InvivoFit™ with sterile water:

Add 500 µl to 1 mg or 5 ml to 10 mg

Storage and stability

- Product is shipped at room temperature. Store lyophilized antibody at -20 °C. Lyophilized product is stable for at least 1 year.
- Reconstituted antibody is stable for 1 month at 4 °C and for 1 year at -20 °C. Avoid repeated freeze-thaw cycles.

Quality control

- Binding of Anti-mCD20-mIgG2a InvivoFit™ to mCD20 has been confirmed using Flow cytometry.
- The complete sequence of the antibody construct has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-mCD20-mIgG2a InvivoFit™ is filter-sterilized (0.2 µm) and its endotoxin level is <1 EU/mg (determined by the LAL assay).

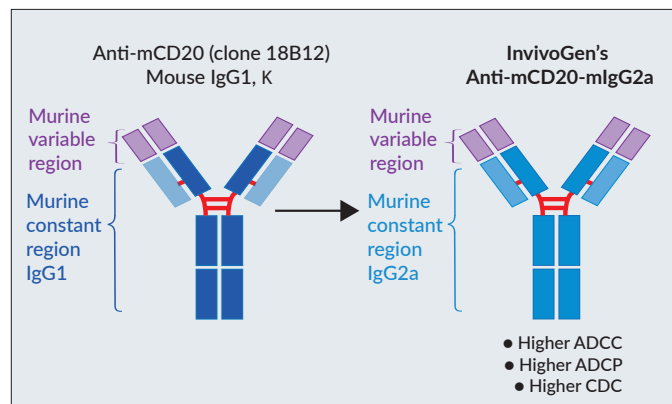
BACKGROUND

The cluster of differentiation 20 (CD20, aka Ly-44, or B-lymphocyte antigen) is a ~35 KDa cell surface protein mainly expressed by resting and activated B lymphocytes, but not plasma cells¹. CD20 is also expressed by most malignant B cells, which makes it an ideal target for antibody-based immunotherapies against lymphoid malignancies¹⁻⁴. For example, Rituximab, Obinutuzumab, and Ofatumumab are FDA approved monoclonal anti-human CD20 antibodies for the treatment of B-cell non-Hodgkin's lymphoma and B-cell chronic lymphocytic leukemia¹⁻⁴. These antibodies mediate the target cell destruction through different mechanisms including direct signaling of apoptosis, complement activation (CDC), and cell-mediated cytotoxicity (ADCC).

DESCRIPTION

Anti-mCD20-mIgG2a InvivoFit™ is a mouse anti-mouse monoclonal antibody (mAb) featuring the variable region of the previously described anti-mCD20 18B12 clone⁵. Using recombinant technology, the original 18B12 murine IgG1 constant region has been replaced with a murine IgG2a format which mediates potent cytotoxic functions⁶. The anti-mCD20 18B12 mAb is commonly used *in vivo* to examine the role of B cells in various immune responses, including in auto-immune or tumoral contexts^{5,7}.

Anti-mCD20-mIgG2a InvivoFit™ is produced in Chinese hamster ovary (CHO) cells and purified by affinity chromatography with protein A.



1. Uchida J. *et al.*, 2004. Mouse CD20 expression and function. *Int Immunol.* 16(1):119-29.
2. Cvetković R.S. & Perry C.M., 2006. Rituximab. *Drugs.* 66:791-820.
3. Freeman C. L. & Sehn L. H., 2018. A tale of two antibodies: obinutuzumab versus rituximab. *Br. J. Haematol.* 182(1):29-45.
4. Soe Z. N. & Allsup D., 2017. The use of ofatumumab in the treatment of B-cell malignancies. *Future Oncol.* 13(29):2611-2628.
5. Ahuja A. *et al.*, 2007. Depletion of B cells in murine lupus: efficacy and resistance. *J. Immunol.* 179(5):3351-3361.
6. Nimmerjahn F. & Ravetch J.V., 2005. Divergent immunoglobulin g subclass activity through selective Fc receptor binding. *Science.* 310:1510-2.
7. Magliocco A *et al.*, 2017. B cells inhibit the antitumor immunity against an established murine fibrosarcoma. *Oncology letters.* 13(5):3225-3232.

RELATED PRODUCTS

Product	Catalog Code
Mouse IgG2a control	bgal-mab10-1
Anti-mCD4-mIgG2a InvivoFit™	mcd4-mab10-1
Anti-mCD8-mIgG2a InvivoFit™	mcd8-mab10-1
Anti-mCD3-mIgG2a InvivoFit™	mcd3-mab10-1
Anti-hCD20-hIgG1	hcd20-mab1
Anti-hCD20-Ga-hIgG1	hcd20ga-mab1
Anti-hCD20-Of-hIgG1	hcd20of-mab1
For more information visit https://www.invivogen.com/mouse-anti-mouse-mabs and https://www.invivogen.com/anti-hCD20	

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