

Anti-β-Gal-mIgG1e3 InvivoFit™

Mouse IgG1e3 monoclonal antibody against β-galactosidase; Isotype control

Catalog code: bgal-mab15-1, bgal-mab15-10, bgal-mab15-50

<https://www.invivogen.com/anti-beta-gal-migg1e3>

For research use only, not for diagnostic or therapeutic use

Version 21I13-EG

PRODUCT INFORMATION

Contents:

Anti-β-Gal-mIgG1e3 InvivoFit™, provided azide-free and lyophilized, is a purified monoclonal antibody (mAb). It is available in two pack sizes:

- 1 mg
- 10 mg
- 50 mg (5 x 10 mg)

Target: *E. coli* β-galactosidase (β-Gal)

Species reactivity: Does not react with murine proteins

Source: Chinese hamster ovary (CHO) cells

Sequence: ~100% murine (constant region and variable region)

Isotype: Murine IgG1e3 (D265A mutation; no effector function)

Light chain type: Kappa

Purification: By affinity chromatography with protein G

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

Tested applications: Flow cytometry and ELISA

Antibody resuspension (2 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti-β-Gal-mIgG1e3 InvivoFit™ with sterile water

- Add 500 μl to 1 mg
- Add 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 when stored at 4°C and for 1 year when aliquoted and stored at -20°C. Avoid repeated freeze-thaw cycles.

Quality control

- Absence of binding of Anti-β-Gal-mIgG1e3 InvivoFit™ to mouse cell lines has been tested using flow cytometry.
- The complete sequence of this antibody has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-β-Gal-mIgG1e3 InvivoFit™ is guaranteed sterile and its endotoxin level is <1 EU/mg of the protein (determined by the LAL assay).

MOUSE ANTI-MOUSE MABS

InvivoGen offers a collection of InvivoFit™ recombinant mouse anti-mouse mAbs specifically adapted for *in vivo* studies. This collection includes mAbs targeting immune checkpoints such as PD-1. For more information visit www.invivogen.com/mouse-anti-mouse-mabs.

For your research, InvivoGen provides anti-β-Gal isotype controls, comprising the variable region of a mouse monoclonal antibody targeting β-Gal and the constant region of either the engineered mouse IgG1e3 isotype or the native mouse IgG2a isotype. These isotypes differ in their effector functions, such as antibody-dependent cellular cytotoxicity (ADCC), antibody-dependent cell phagocytosis (ADCP), and complement-dependent cytotoxicity (CDC) as presented in the table below.

Effector function	Mouse IgG1e3	Mouse IgG2a
ADCC	-	++
ADCP	-	+++
CDC	-	++

DESCRIPTION

Anti-β-Gal-mIgG1e3 InvivoFit™ is a recombinant mAb comprising the variable region of the hybridoma-derived mAb Mouse IgG2a Control (clone: T9C6) that targets *E. coli* β-galactosidase (β-Gal). This mAb does not react with murine proteins. Of note, Mouse IgG2a Control was generated by DNA immunization with a plasmid expressing the β-Gal gene in Swiss mice.

Anti-β-Gal-mIgG1e3 InvivoFit™ features the engineered murine IgG1e3 that contains a point mutation D265A (a replacement of aspartic acid by alanine at position 265), resulting in the complete loss of cytolytic effector functions (ADCC, ADCP, and CDC)^{1,2}.

Anti-β-Gal-mIgG1e3 InvivoFit™ is provided as an isotype control for use with InvivoGen's IgG1e3 antibodies in the mouse anti-mouse mAbs collection (see above). This mAb has been produced in CHO cells and purified by affinity chromatography with protein G.

1. Yamazaki T. et al., 2005. Blockade of B7-H1 on macrophages suppresses CD4+ T cell proliferation by augmenting IFN-gamma-induced nitric oxide production. *J Immunol.* 175(3):1586-92. **2. Baudino L. et al., 2008.** Crucial role of aspartic acid at position 265 in the CH2 domain for murine IgG2a and IgG2b Fc-associated effector functions. *J Immunol.* 181(9):6664-9.

RELATED PRODUCTS

Product	Catalog Code
Anti-mPD-1-mIgG1e3 InvivoFit™	mpd1-mab15-1
Anti-PD-L1-mIgG1e3 InvivoFit™	pdl1-mab15-1
Anti-β-Gal-mIgG2a InvivoFit™	bgal-mab10-1
Mouse IgG2a Control	mabg2a-ctrlm

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