

Anti- β -Gal-mIgG1e3 InvivoFit™

Mouse IgG1e3 monoclonal antibody against β -galactosidase; Isotype control

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

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

For research use only, not for diagnostic or therapeutic use

Version 22E18-AK

PRODUCT INFORMATION

Contents:

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

- 1 mg
- 10 mg
- 50 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 μ m filtered solution in a sodium phosphate buffer with glycine, saccharose and stabilizing agents

Administration: Suitable for parenteral delivery in mice

Tested applications: Flow cytometry and ELISA

Antibody resuspension

Note: Ensure you see the lyophilized pellet before resuspension.

Add 500 μ l of sterile water to 1 mg of Anti- β -Gal-mIgG1e3 InvivoFit™ to obtain a concentration of 2 mg/ml.

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 IgG1 and 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	mIgG1	mIgG1e3	mIgG2a
ADCC	+/-	-	++
ADCP	+	-	+++
CDC	-	-	++

DESCRIPTION

Anti- β -Gal-mIgG1e3 InvivoFit™ is a recombinant mAb comprising the variable region of the hybridoma-derived mAb Mouse IgG1e3 Control (clone: T9C6) that targets *E. coli* β -galactosidase (β -Gal). This mAb does not react with murine proteins.

It 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). It 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	Cat.Code
Anti-mPD-1-mIgG1e3 InvivoFit™	mpd1-mab15-1
Anti-PD-L1-mIgG1e3 InvivoFit™	pdl1-mab15-1

TECHNICAL SUPPORT

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