

Anti- β -Gal-mIgG1e3

Mouse IgG1e3 monoclonal antibody against β -galactosidase; Isotype control

Catalog code: bgal-mab15-02

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

For research use only

Version 22J13-AK

PRODUCT INFORMATION

Contents: 200 μ g purified Anti- β -Gal-mIgG1e3 monoclonal antibody (mAb) is provided azide-free and lyophilized.

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

Species reactivity: Does not react with murine proteins
Clone: T9C6

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

Source: Chinese hamster ovary (CHO) cells

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

Light chain type: Kappa

Purification: By affinity chromatography with protein A

Formulation: 0.2 μ m filtered solution in a sodium phosphate buffer with glycerine, saccharose, and stabilizing agents

Tested applications: Flow cytometry and ELISA

Antibody resuspension (0.1 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti- β -Gal-mIgG1e3 with sterile water:

Add 2 ml of sterile water per 200 μ g vial.

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

- Functionality of Anti- β -Gal-mIgG1e3 has been tested using flow cytometry and ELISA.
- The complete sequence of the antibody construct has been verified.
- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION

Anti- β -Gal-mIgG1e3 is a recombinant control mAb comprising the variable region of the hybridoma-derived mAb mouse (m)IgG2a 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^{1,2}. Anti- β -Gal-mIgG1e3 is provided as an isotype control for InvivoGen's mIgG1e3 antibodies. It is generated by recombinant DNA technology, produced in CHO cells and purified by affinity chromatography.

APPLICATIONS

InvivoGen provides anti- β -Gal isotype controls, comprising the variable region of a murine mAbs targeting β -Gal, and the constant region of either the engineered mIgG1e3 isotype or the native mIgG1 and mIgG2a 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 below. They are also available in the InvivoFit™ grade, specifically adapted for *in vivo* experiments.

Effector function	mIgG1	mIgG1e3	mIgG2a
ADCC	+/-	-	++
ADCP	+	-	+++
CDC	-	-	++

RELATED PRODUCTS

Product	Cat. Code
Anti- β -Gal-mIgG1e3 InvivoFit™	bgal-mab15-1

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.

TECHNICAL SUPPORT

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