

# Anti- $\beta$ -Gal-mIgG1

Mouse IgG1 monoclonal antibody against  $\beta$ -galactosidase; Isotype control

Catalog code: bgal-mab9-02

<https://www.invivogen.com/anti-beta-gal-mlgg1>

For research use only

Version 22J17-AK

## PRODUCT INFORMATION

**Contents:** 200  $\mu$ g purified Anti- $\beta$ -Gal-mIgG1 monoclonal antibody (mAb) is provided azide-free and lyophilized.

**Target:** *E. coli*  $\beta$ -galactosidase ( $\beta$ -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 IgG1

**Light chain type:** Kappa

**Purification:** By affinity chromatography with protein A

**Formulation:** 0.2  $\mu$ 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- $\beta$ -Gal-mIgG1 with sterile water:

Add 2 ml of sterile water per 200  $\mu$ 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- $\beta$ -Gal-mIgG1 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- $\beta$ -Gal-mIgG1 is a recombinant mAb comprising the variable region of the hybridoma-derived mAb Mouse IgG2a control (clone T9C6) that targets *E. coli*  $\beta$ -Gal. This mAb does not react with any murine proteins and displays low ADCC and no CDC effector functions<sup>1</sup>. Anti- $\beta$ -Gal-mIgG1 is provided as an isotype control for use with InvivoGen's IgG1 antibodies. It has been produced in CHO cells and purified by affinity chromatography with protein A.

## APPLICATIONS

InvivoGen provides anti- $\beta$ -Gal isotype controls, comprising the variable region of a murine mAbs targeting  $\beta$ -Gal, and the constant region of either the engineered mIgG1 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	mIgG1	mIgG2a
ADCC	+/-	-	++
ADCP	+	-	+++
CDC	-	-	++

1. 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- $\beta$ -Gal-mIgG1 InvivoFit™	bgal-mab9-1

## TECHNICAL SUPPORT

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