

# Anti- $\beta$ -Gal-mIgG2a InvivoFit™

Mouse IgG2a monoclonal antibody against  $\beta$ -galactosidase; Isotype control

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

<https://www.invivogen.com/anti-beta-gal-migg2a>

For research use only, not for diagnostic or therapeutic use

Version 20C06-MM

## PRODUCT INFORMATION

### Contents:

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

- 1 mg
- 10 x1 mg

**Target:** *E. coli*  $\beta$ -galactosidase ( $\beta$ -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 IgG2a

**Light chain type:** Kappa

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

**Formulation:** 0.2  $\mu$ m 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

*Note: Ensure you see the lyophilized pellet before resuspension.*

Add 500  $\mu$ l of sterile water to 1 mg of Anti- $\beta$ -Gal-mIgG2a 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- $\beta$ -Gal-mIgG2a 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- $\beta$ -Gal-mIgG2a 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](http://www.invivogen.com/mouse-anti-mouse-mabs).

For your research, InvivoGen provides anti- $\beta$ -Gal isotype controls, comprising the variable region of a mouse monoclonal antibody targeting  $\beta$ -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- $\beta$ -Gal-mIgG2a InvivoFit™ is a recombinant mAb comprising the variable region of the hybridoma-derived mAb Mouse IgG2a Control (clone: T9C6) that targets *E. coli*  $\beta$ -galactosidase ( $\beta$ -Gal). This mAb does not react with murine proteins. Of note, Mouse IgG2a Control was generated by DNA immunization with a plasmid expressing the  $\beta$ -Gal gene in Swiss mice.

Anti- $\beta$ -Gal-mIgG2a InvivoFit™ features the murine IgG2a isotype, a major immunoglobulin present in serum. This isotype displays very high ADCC, high ADCC and high CDC<sup>1</sup>.

Anti- $\beta$ -Gal-mIgG2a InvivoFit™ is provided as an isotype control for use with InvivoGen's IgG2a 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. Nimmerjahn F. et al., 2005. Fc $\gamma$ RIV: a novel FcR with distinct IgG subclass specificity. *Immunity*. 2005 Jul;23(1):41-51.

## RELATED PRODUCTS

Product	Catalog Code
Anti-mCTLA4-mIgG2a InvivoFit™	mctla4-mab10-1
Anti-mgp75-mIgG2a InvivoFit™	mgp75-mab10-1
Anti- $\beta$ -Gal-mIgG1e3 InvivoFit™	bgal-mab15-1
Mouse IgG2a Control	mabg2a-ctrlm

## TECHNICAL SUPPORT

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