

# Anti-mCD8-mIgG2a InvivoFit™

YTS 169.4-derived recombinant mouse monoclonal antibody against murine CD8 $\alpha$

Catalog code: mcd8-mab10-1, mcd8-mab10-10

<https://www.invivogen.com/anti-mcd8-migg2a-invivofit>

For research use only, not for diagnostic or therapeutic use

Version 20K10-NJ

## PRODUCT INFORMATION

### Contents:

Anti-mCD8-mIgG2a InvivoFit™, purified monoclonal antibody (mAb), provided azide-free and lyophilized. It is available in two pack sizes:

- 1 mg
- 10 mg

**Target:** Murine CD8 $\alpha$  (aka Lyt-2, Ly-2, or T8)

**Clone:** YTS 169.4-derived

**Sequence:** ~65 % of mouse origin (constant region)

**Source:** Chinese hamster ovary (CHO) cells

**Isotype:** Murine IgG2a (mIgG2a)

**Light chain type:** Kappa

**Purification:** Affinity chromatography with protein A

**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; *in vivo* depletion

### Antibody resuspension (2 mg/ml)

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

Resuspend Anti-mCD8-mIgG2a InvivoFit™ with sterile water:

Add 500  $\mu$ l to 1 mg or 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 at 4 °C and for 1 year at -20 °C. Avoid repeated freeze-thaw cycles.

### Quality control

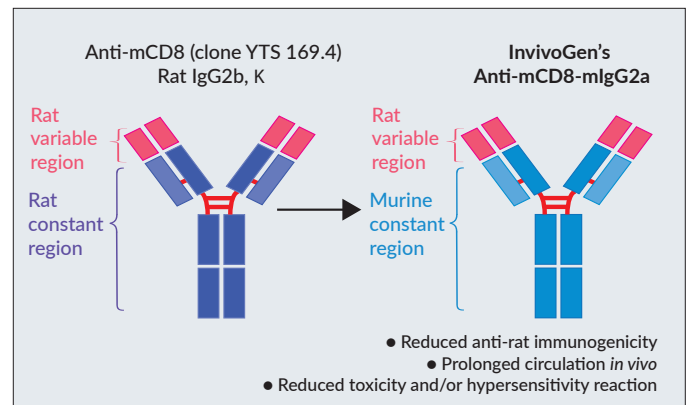
- Binding of Anti-mCD8-mIgG2a InvivoFit™ to mCD8 $\alpha$  has been confirmed using Flow cytometry.
- Mouse CD8<sup>+</sup> T cell *in vivo* depletion using Anti-mCD8-mIgG2a InvivoFit™ has been confirmed.
- The complete sequence of this antibody has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-mCD4-mIgG2a InvivoFit™ is guaranteed sterile and its endotoxin level is <1 EU/mg (determined by the LAL assay).

## BACKGROUND

The cluster of differentiation 8 (CD8) receptor (formerly named T8) is a 34 kDa transmembrane protein primarily expressed on most thymocytes, and highly expressed by peripheral mature CD8<sup>+</sup> T cells<sup>1,2</sup>. Two isoforms, CD8 $\alpha$  (Lyt-2) and CD8 $\beta$  (Lyt-3), are usually co-expressed and form a CD8 $\alpha/\beta$  heterodimer that plays a critical role in CD8<sup>+</sup> T cell development and activation. CD8 $\alpha$  is mandatory for the development of MHC class I-restricted cytotoxic T cells (CTLs)<sup>1</sup>. CTLs recognize and eliminate infected cells and tumor cells through the interaction between the TCR on the T cell and the MHC-peptide complex on the antigen-presenting cell<sup>2,3</sup>. Upon antigen recognition, the proximity association of CD8 and the TCR/CD3 complex on T cells triggers downstream intracellular signaling and participates in the cytotoxic T cell activation<sup>1,2</sup>. Other immune cells, such as Natural Killer cells, subsets of dendritic cells also express CD8 $\alpha$ <sup>4</sup>.

## DESCRIPTION

Anti-mCD8-mIgG2a InvivoFit™ is a mouse anti-mouse monoclonal antibody (mAb) featuring the variable region of the previously described anti-mCD8 YTS 169.4 clone<sup>6</sup>. Using recombinant technology, the original YTS 169.4 rat IgG2b constant region has been replaced with a murine IgG2a format which mediates potent cytotoxic functions<sup>7</sup>. The anti-mCD8 YTS 169.4 mAb is commonly used for *in vivo* depletion of the CD8<sup>+</sup> T cell population to study its role in various immune responses, including in a viral or tumoral context<sup>8,9</sup>. Depending on the nature of the experiment, extended treatment schedules (up to several months) may be required. Upon repeated injection of a xenogeneic mAb, mice produce anti-species antibodies, causing removal of the administered mAb from circulation, thereby reducing its *in vivo* efficacy. Moreover, this immunogenicity can lead to fatal hypersensitivity reactions<sup>10,11</sup> which can be reduced by mAb murinization<sup>11</sup>. Anti-mCD8-mIgG2a InvivoFit™ is produced in Chinese hamster ovary (CHO) cells, purified by affinity chromatography with protein A.



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## RELATED PRODUCTS

Product	Catalog Code
Mouse IgG2a control	bgal-mab10-1
Anti-mCD4-mIgG2a InvivoFit™	mcd4-mab10-1
For more information visit <a href="https://www.invivogen.com/mouse-anti-mouse-mabs">https://www.invivogen.com/mouse-anti-mouse-mabs</a> .	

## TECHNICAL SUPPORT

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