

# Anti-mTIGIT-mlgG2a InvivoFit™

10A7-derived recombinant monoclonal antibody against murine TIGIT

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

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

For research use only, not for diagnostic or therapeutic use

Version 22G12-AK

## PRODUCT INFORMATION

### Contents:

Anti-mTIGIT-mlgG2a InvivoFit™, purified monoclonal antibody (mAb), provided azide-free and lyophilized. It is available in two pack sizes:

- 1 mg
- 10 mg

**Target:** Murine TIGIT (aka VSIG9, or VSTM3)

**Clone:** 10A7-derived

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

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

**Isotype:** Murine IgG2a (mlgG2a)

**Light chain type:** Kappa

**Purification:** Affinity chromatography with protein A

**Formulation:** 0.2 µm filtered solution in 150 mM sodium chloride,

20 mM sodium phosphate buffer with 5% saccharose

**Administration:** Suitable for parenteral delivery in mice

**Applications:** ELISA; Flow cytometry; *in vivo* depletion

### Antibody resuspension (2 mg/ml)

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

Resuspend Anti-mTIGIT-mlgG2a InvivoFit™ with sterile water:

Add 500 µl 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

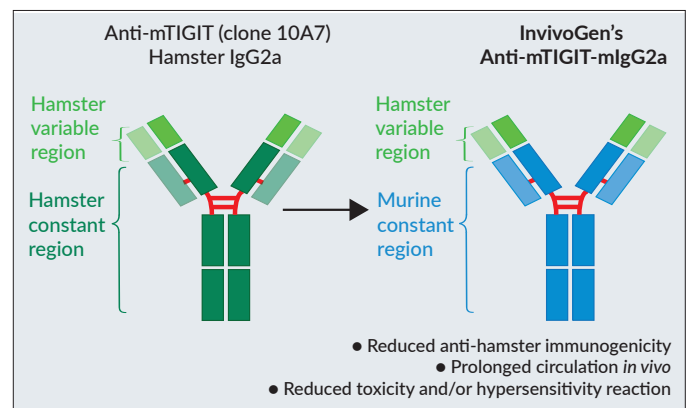
- Binding of Anti-mTIGIT-mlgG2a InvivoFit™ to mouse TIGIT has been confirmed using Flow cytometry.
- The complete sequence of the antibody construct has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-mTIGIT-mlgG2a InvivoFit™ is filter-sterilized (0.2 µm) and its endotoxin level is <1 EU/mg (determined by the LAL assay).

## BACKGROUND

TIGIT (T cell immunoglobulin and ITIM domain) is a 27 kDa cell surface immunoreceptor described as an inhibitory immune checkpoint<sup>1</sup>. It is specifically expressed on immune cells including Natural Killer (NK) cells, activated and memory T cells, as well as regulatory T cells (Tregs). TIGIT is a target for monoclonal antibodies in cancer treatments<sup>2</sup>.

## DESCRIPTION

Anti-mTIGIT-mlgG2a InvivoFit™ is an anti-mTIGIT mAb featuring the variable region of the previously described 10A7 hamster IgG2a clone<sup>1</sup> and a murinized IgG2a constant region. The 10A7 mAb and its mlgG2a derivative have been used to block TIGIT signaling in Tregs and chronically stimulated CD8+ T cells, respectively<sup>3,4</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>5</sup>. To overcome such unwanted effects and allow potent antibody-mediated cytotoxic functions, we used recombinant technology to replace the original 10A7 hamster constant region with a murine IgG2a format<sup>6</sup>. Anti-mTIGIT-mlgG2a InvivoFit™ is produced in Chinese hamster ovary (CHO) cells, purified by affinity chromatography with protein A.



## RELATED PRODUCTS

Product	Catalog Code
Mouse IgG2a control	bgal-mab10-1
Anti-mCD4-IgG2a InvivoFit™	mcd4-mab10-1
Anti-mCD8-IgG2a InvivoFit™	mcd8-mab10-1
Anti-mCD20-IgG2a InvivoFit™	mcd20-mab10-1

For more information visit <https://www.invivogen.com/mouse-anti-mouse-mabs>.

1. Yu X. *et al.*, 2009. The surface protein TIGIT suppresses T cell activation by promoting the generation of mature immunoregulatory dendritic cells. *Nat Immunol.* 10(1):48.
2. Chauvin J.M. & Zarour H.M., 2020. TIGIT in cancer immunotherapy. *J. Immunother. Cancer* 8:e000957.
3. Jonhston R.J., *et al.* 2014. The immunoreceptor TIGIT regulates antitumor and antiviral CD8(+) T cell effector function. *Cancer Cell.* 26(6):923.
4. Joller, N. *et al.* 2014. Treg Cells Expressing the Coinhibitory Molecule TIGIT Selectively Inhibit Proinflammatory Th1 and Th17 Cell Responses. *Immunity.* 40(4):569.
5. Belmar N.A. *et al.* 2017. Murinization and H chain isotype matching of Anti-GITR antibody DTA-1 reduces immunogenicity-mediated anaphylaxis in C57BL/6 mice. *J Immunol.* 198:4502.
6. Nimmerjahn F. & Ravetch J.V., 2005. Divergent immunoglobulin g subclass activity through selective Fc receptor binding. *Science.* 310:1510.

### TECHNICAL SUPPORT

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