

Anti-mgp75-mIgG2a InvivoFit™

TA99-derived recombinant mouse monoclonal antibody against gp75/TYRP1

Catalog code: mgp75-mab10-1, mgp75-mab10-10

<https://www.invivogen.com/anti-mgp75-migg2a-invivofit>

For research use only, not for diagnostic or therapeutic use

Version 19D23-MM

PRODUCT INFORMATION

Contents:

Anti-mgp75-mIgG2a InvivoFit™, purified monoclonal antibody (mAb), provided azide-free and lyophilized. It is available in two pack sizes:

- 1 mg
- 10 mg

Target: Glycoprotein 75 (gp75); the mature form of tyrosinase-related protein 1 (TYRP1) also known as MEL-5

Clone: TA99-derived

Source: Chinese hamster ovary (CHO) cells

Sequence: 100% of mouse origin (constant and variable region)

Isotype: Murine IgG2a (mIgG2a)

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

Tested applications: ELISA

Antibody resuspension (2 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti-mgp75-mIgG2a InvivoFit™ with sterile water:

- Add 500 µl to 1 mg
- Add 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-mgp75-mIgG2a InvivoFit™ to mgp75 has been confirmed using ELISA.
- The complete sequence of this antibody has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-mgp75-mIgG2a InvivoFit™ is guaranteed sterile and its endotoxin level is <1 EU/mg (determined by the LAL assay).

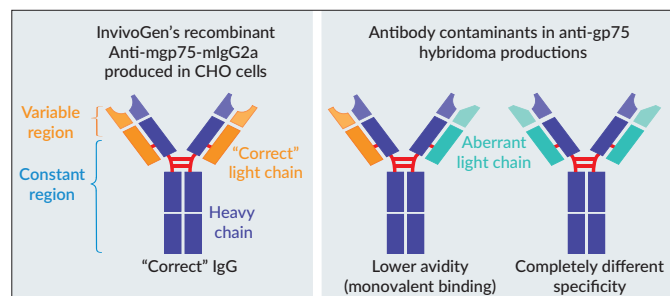
BACKGROUND

Glycoprotein 75 (gp75) is a tumor-associated antigen specifically located within the membrane of melanosomes; the organelles producing melanin in melanocytes. This 75-kDa polypeptide is the mature form of tyrosinase-related protein 1 (TYRP1; also known as MEL-5). This enzyme is the most abundant glycoprotein synthesized by pigmented melanocytes and melanomas. It is involved in melanin synthesis as well as the proliferation and cell death of melanocytes¹. Importantly, gp75 is a target of choice for antibody-based immunotherapy against primary and metastatic melanoma^{1,2}.

DESCRIPTION

Anti-mgp75-mIgG2a InvivoFit™ is a recombinant mouse anti-mouse mAb designed for *in vivo* studies in mice. It features the variable region of the previously described anti-gp75 hybridoma (TA99 clone)¹ and the constant region of the murine IgG2a (mIgG2a) isotype. The TA99 clone was obtained upon mouse immunization with the human melanoma cell line SK-MEL-23, and fusion of splenocytes from the immunized mouse with NS-1 mouse myeloma cells generating the mAb secreting hybridoma. Of note, it reacts with both human and mouse gp75 antigens¹. This mAb prevents metastasis in a murine melanoma experimental model using the B16 cell line^{2,3}.

InvivoGen provides a TA99-derived recombinant mAb produced in CHO cells, to prevent the generation of non-relevant mAbs with aberrant light chains, described in the original hybridoma-based productions¹. Anti-mgp75-mIgG2a InvivoFit™ has a sequence that is 100% murine (constant and variable regions), thus ensuring minimal immunogenicity upon repeated injections into mice. Notably, IgG2a is the isotype of choice for this antibody, as anti-mgp75 mAbs featuring the IgG2a constant regions display enhanced tumor clearance and antibody-dependent cellular cytotoxicity⁴. This recombinant mouse anti-mouse mAb is purified by affinity chromatography with protein A.



InvivoGen's Anti-mgp75-mIgG2a is free of aberrant light chains.

1. Thomson T.M. *et al.*, 1985. Pigmentation-associated glycoprotein of human melanomas and melanocytes: definition with a mouse monoclonal antibody. *J Invest Dermatol.* 85(2):169-74. 2. Hara I. *et al.*, 1995. Implicating a role for immune recognition of self in tumor rejection: passive immunization against the brown locus protein. *J Exp Med.* 182(5):1609-14. 3. Boross P. *et al.*, 2014. Anti-tumor activity of human IgG1 anti-gp75 TA99 mAb against B16F10 melanoma in human FcγRI transgenic mice. *Immunol Lett.* 160(2):151-7. 4. Nimmerjahn F. & Ravetch J.V. 2005. Divergent immunoglobulin g subclass activity through selective Fc receptor binding. *Science.* 310(5753):1510-2.

RELATED PRODUCTS

| Product | Catalog Code |
|-------------------------|--------------|
| B16-Blue™ IFN-α/β Cells | bb-ifnt1 |
| B16-Blue™ ISG Cells | bb-ifnabg |

Other antibody isotype families are available, such as Anti-CD20 and Anti-PD-1. For more information visit <https://www.invivogen.com/antibody-isotypes>.

TECHNICAL SUPPORT

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