

Anti-PD-L1-mIgG1e3 InvivoFit™

Recombinant mouse monoclonal antibody against murine PD-L1

Catalog code: pdl1-mab15-1, pdl1-mab15-10, pdl1-mab15-50

<https://www.invivogen.com/anti-pdl1-migg1e3-invivoFit>

For research use only, not for diagnostic or therapeutic use

Version 21113-EG

PRODUCT INFORMATION

Contents:

Anti-PD-L1-mIgG1e3 InvivoFit™, provided azide-free and lyophilized, is a purified monoclonal antibody (mAb). It is available in two pack sizes:

- 1 mg
- 10 mg
- 50 mg (5 x 10 mg)

Target: Programmed cell death ligand 1 (PD-L1)

Species reactivity: Reacts with human and murine PD-L1

Source: CHO cells

Sequence: ~65% murine (constant region) and ~35% humanized (variable region)

Isotype: Murine IgG1e3 (D265A mutation; no effector function)

Light chain type: Kappa

Purification: By affinity chromatography with protein G

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: Flow cytometry and ELISA

Antibody resuspension (2 mg/ml)

Note: Ensure you see the lyophilized pellet before resuspension.

Resuspend Anti-PD-L1-mIgG1e3 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 when stored at 4°C and for 1 year when aliquoted and stored at -20°C. Avoid repeated freeze-thaw cycles.

Quality control

- Binding of Anti-PD-L1-mIgG1e3 InvivoFit™ to mouse PD-L1 has been validated using flow cytometry with EL4 cells expressing membrane bound mouse PD-L1.
- The complete sequence of this antibody has been verified.
- <5% aggregates (confirmed by size exclusion chromatography).
- Anti-PDL1-mIgG1e3 InvivoFit™ is guaranteed sterile and its endotoxin level is <1 EU/mg of the protein (determined by the LAL assay).

BACKGROUND

Programmed cell death ligand 1 (PD-L1; also called B7-H1 or CD274) is a transmembrane protein expressed on antigen-presenting cells. PD-L1 binds to programmed cell death protein 1 (PD-1) on T cells and contributes to T cell exhaustion during chronic infections. Moreover, it has been shown that the engagement of PD-1 on T cells by PD-L1 on tumor cells is associated with the immune escape of tumors. Clinical trials have highlighted the anti-tumor efficacy of blockades targeting the PD-1/PD-L1 pathway¹.

TECHNICAL SUPPORT

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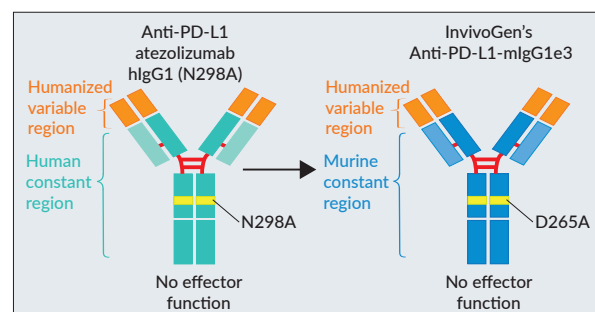
DESCRIPTION

Anti-PD-L1-mIgG1e3 InvivoFit™ is a recombinant mAb designed for *in vivo* studies in mice. It features the variable region of the previously described anti-PD-L1 atezolizumab² and the engineered murine IgG1e3 constant region. Atezolizumab (formerly known as MPDL3280A) is a therapeutic mAb that targets programmed cell death ligand 1 (PD-L1), blocking the interaction with its receptor PD-1. This mAb binds both murine and human PD-L1².

Atezolizumab contains an engineered constant region designed to limit effector functions, such as antibody-dependent cytotoxicity and complement-dependent cytotoxicity³. However, as it is a humanized antibody, it is immunogenic in mice. To overcome this issue, Anti-PD-L1-mIgG1e3 InvivoFit™ was generated by recombinant DNA technology so that it is ~65% murine (constant region). Notably, its constant region contains a point mutation D265A (a replacement of aspartic acid by alanine at position 265), resulting in the complete loss of cytolytic effector function⁴.

This antibody is produced in CHO cells and purified by affinity chromatography with protein A.

1. McDermott D. & Atkins M. 2013. PD-1 as a potential target in cancer therapy. *Cancer Med.* 2(5): 662–673. 2. Lesniak W.G. et al., 2016. PD-L1 Detection in Tumors Using [(64)Cu]Atezolizumab with PET. *Bioconjug Chem.* 27(9):2103-10. 3. Herbst R.S. et al., 2014. Predictive correlates of response to the anti-PD-L1 antibody MPDL3280A in cancer patients. *Nature.* 515(7528):563-7. 4. 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.



InvivoGen's engineered Anti-PD-L1-mIgG1e3 InvivoFit™ antibody.

RELATED PRODUCTS

Product	Catalog Code
Anti-β-Gal-mIgG1e3 InvivoFit™	bgal-mab15-1
Anti-hPD-L1-hIgG1 (N298A) (Atezolizumab)	hpd1-mab12
Anti-mPD-1-mIgG1e3 InvivoFit™	mpd1-mab15-1

Other mouse anti-mouse antibodies are available such as anti-mCTLA4. For more information, visit: <https://www.invivogen.com/mouse-anti-mouse-mabs>.