

Anti-hPD-L1-mIgG1 InvivoFit™

Monoclonal mouse IgG1 antibody against human PD-L1

Catalog code: hpd11-mab9-5

<https://www.invivogen.com/anti-hpd11-migg1>

For research use only, not for diagnostic or therapeutic use

Version 19B07-MM

PRODUCT INFORMATION

Content: 5 x 1 mg of Anti-hPD-L1-mIgG1 InvivoFit™, purified antibody, provided azide-free and lyophilized

Target: Human programmed cell death ligand 1 (PD-L1)

Species reactivity: Reacts with human and mouse PD-L1

Source: CHO cells

Isotype: Mouse IgG1

Light chain type: Kappa

Clonality: Monoclonal

Purification: By affinity chromatography with protein G

Formulation: 0.2 µm filtered solution in a sodium phosphate buffer with glycine, saccharose and stabilizing agents

Osmolarity: Suitable for parenteral administration in animal models

Tested applications: Flow cytometry

Antibody resuspension

Add 500 µl of sterile water to obtain a concentration of 2 mg/ml.

Storage

- 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-hPD-L1-mIgG1 InvivoFit™ to mouse PD-L1 has been validated using flow cytometry in 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-hPD-L1-mIgG1 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 engagement of PD-1 on T cells by PD-L1 on tumor cells is associated with the immune escape of tumors, and clinical trials have highlighted the anti-tumor efficacy of blockade of the PD-1/PD-L1 pathway¹.

DESCRIPTION

Anti-hPD-L1-mIgG1 InvivoFit™ is an atezolizumab-derived monoclonal antibody (mAb) designed for mouse studies. It features the variable region of atezolizumab, a therapeutic mAb that targets human PD-L1, blocking the interaction with its receptor PD-1.

Atezolizumab (formerly known as MPDL3280A) is a humanized monoclonal antibody with a modified Fc region designed to limit antibody-dependent cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC)^{2,3}. It contains a N298A mutation that eliminates its ability to bind to human Fcγ receptors.

In contrast to nivolumab, a therapeutic mAb that targets only human PD-1, atezolizumab targets both human and mouse PD-L1. To enable studies in mice, the human effectorless Fc domain of atezolizumab has been replaced by the Fc domain of mouse IgG1, an isotype exhibiting low CDC and no ADCC.

Anti-hPD-L1-mIgG1 InvivoFit™ was generated by recombinant DNA technology, produced in CHO cells and purified by affinity chromatography with protein G.

1. McDermott D. & Atkins M. 2013. PD-1 as a potential target in cancer therapy. *Cancer Med.* 2(5): 662-673. 2. Spigel D. *et al.*, 2013. Clinical activity, safety, and biomarkers of MPDL3280A, an engineered PD-L1 antibody in patients with locally advanced or metastatic non-small cell lung cancer (NSCLC) [ASCO abstract 8008]. *J Clin Oncol.* 31(15)(suppl). 3. Herbst RS. *et al.*, 2014. Predictive correlates of response to the anti-PD-L1 antibody MPDL3280A in cancer patients. *Nature.* 515(7528):563-7.

RELATED PRODUCTS

Product	Catalog Code
Anti-hPD-L1-hIgG1	hpd11-mab1
Anti-hPD-L1-hIgG1 (N298A) (Atezolizumab)	hpd11-mab12
Anti-hPD1-Ni-hIgG4 (S228P) (Nivolumab)	hpd1ni-mab14

Antibody isotype families are available for other clinically relevant antibodies, such as Anti-hPD1 (Nivolumab), Anti-hCD20 (rituximab), Anti-HER2 (trastuzumab) and Anti-β-Gal (control).

For more information visit <https://www.invivogen.com/antibody-isotypes>.

TECHNICAL SUPPORT

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