

Anti-hPD-L1-mIgG1

Monoclonal mouse IgG1 antibody against human PD-L1

Catalog # hpd11-mab9

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

For research use only, not for diagnostic or therapeutic use

Version # 17A02-MM

PRODUCT INFORMATION

Content: 100 µg of Anti-hPD-L1-mIgG1, 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

Isotype: Mouse IgG1

Clonality: Monoclonal

Source: CHO cells

Purity: Protein G purified

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

Tested applications: Flow cytometry

Antibody resuspension

Add 1 ml of sterile water to obtain a concentration of 0.1 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 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.

- The absence of bacterial contamination (e.g. lipoproteins and endotoxins) has been confirmed using HEK-Blue™ TLR2 and HEK-Blue™ TLR4 cells.

DESCRIPTION

Anti-hPD-L1-mIgG1 features the constant region of the mouse IgG1 isotype and the variable region of atezolizumab. Atezolizumab (also known as MPDL3280A) is a fully humanized IgG1 (N298A) monoclonal antibody that targets the programmed cell death ligand 1 (PD-L1), a transmembrane protein over-expressed on tumor cells and tumor infiltrating immune cells, such as macrophages. PD-L1 binds to programmed cell death protein 1 (PD-1) on cytotoxic T cells, inhibiting the antitumor immune response. Atezolizumab blocks the interaction of PD-L1 with PD-1 and induces anti-tumor immune reactivation. This mAb contains a modified Fc region designed to limit antibody-dependent cytotoxicity (ADCC) and complement-dependent cytotoxicity (CDC)^{2, 3}. The mutation N298A eliminates its ability to bind to human Fcγ receptors. FDA has granted atezolizumab priority review for advanced bladder cancer.

In contrast to nivolumab, a therapeutic mAb which 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 was generated by recombinant DNA technology. It has been 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.

ANTIBODY ISOTYPE FAMILY

For your research, InvivoGen provides an anti-hPD-L1 isotype family. This family consists of monoclonal antibodies comprising the variable region of atezolizumab, and the constant region of three different isotypes; human IgG1 and IgG1 (N298A), and mouse IgG1. The isotypes differ in their effector functions, such as CDC and ADCC, as presented in the table below.

Isotype	Description
Human IgG1	High CDC, high ADCC
Human IgG1 (N298A)	No CDC, no ADCC
Mouse IgG1	Low CDC, no ADCC

RELATED PRODUCTS

Product	Catalog Code
Anti-hPD-L1-hIgG1	hpd11-mab1
Anti-hPD-L1-mIgG1	hpd11-mab9
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 www.invivogen.com

TECHNICAL SUPPORT

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