

# Anti-hPD-L1-hIgG2

Monoclonal human IgG2 antibody against human PD-L1

Catalog # hpd11-mab2

<http://www.invivogen.com/anti-hpd11-higg2>

For research use only, not for diagnostic or therapeutic use

Version # 17C20-MM

## PRODUCT INFORMATION

**Content:** 100 µg of Anti-hPD-L1-hIgG2, 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:** Human IgG2

**Light chain type:** kappa

**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 1 year when stored at -20°C.
- 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-hIgG2 to human PD-L1 has been validated using flow cytometry in EL4 cells expressing membrane-bound human PD-L1.
- ADCC has been tested using CD16-expressing Jurkat-NFAT reporter cells.
- 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-hIgG2 features the constant region of the human IgG2 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 anti-tumor immune response<sup>1</sup>. 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)<sup>2, 3</sup>. The mutation N298A eliminates its ability to bind to human Fcγ receptors. FDA has granted atezolizumab priority review for advanced bladder cancer.

Anti-hPD-L1-hIgG2 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 four different isotypes; human IgG1, IgG1 (N298A) and IgG2, and mouse IgG1. The isotypes differ in their effector functions, such CDC and ADCC, as presented in the table below.

Isotype	Description
Human IgG1	High CDC, high ADCC
Human IgG1 (N298A)	No CDC, no ADCC
Human IgG2	Low CDC, low ADCC
Mouse IgG1	Low CDC, no ADCC

## RELATED PRODUCTS

Product	Catalog Code
Anti-hPD-L1-hIgG1	hpd11-mab1
Anti-hPD-L1-hIgG1fut	hpd11-mab13
Anti-hPD-L1-hIgG1 (N298A)	hpd11-mab12
Anti-hPD-L1-mIgG1	hpd1-mab9

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](http://www.invivogen.com)

### TECHNICAL SUPPORT

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