

Anti-Human PD-L1 (CD274) (Clone 29E.2A3) Purified *in vivo* PLATINUM™ Functional Grade Hybridoma Monoclonal Antibody

Product Information

Product No.: P603
Clone: 29E.2A3
Isotype: Mouse IgG2b κ

Product Description

Specificity:

Human PD-L1 (CD274)

Antigen Distribution:

PD-L1 is commonly expressed on the surface of antigen presenting cells (macrophages, activated B cells, dendritic cells), some epithelial cells under inflammatory conditions, some activated T cells, and several types of tumors as well as tumor infiltrating immune cells. PD-L1 can also exist in a soluble form (sPD-L1) in myeloid-derived cells (monocytes, macrophages, and dendritic cells) and several human cancer lines.

Background:

Programmed cell death 1 ligand 1 (PD-L1; CD274; B7-H1) is a type I transmembrane glycoprotein widely expressed in many types of tissues that acts as a ligand for the immune inhibitory receptor programmed cell death 1 (PD-1; CD279)^{1,2,3}. The PD-1 pathway is responsible for T cell activation, proliferation, and cytotoxic secretion, with PD-1/PD-L1 interaction triggering inhibitory signals that dampen T cell function. PD-L1 also plays a critical role in the differentiation of inducible regulatory T cells⁴.

In normal tissues, PD-L1/PD-1 ligation is crucial to maintaining homeostasis of the immune system and preventing autoimmunity during infection and inflammation⁴. In the tumor microenvironment, their interaction provides an immune escape mechanism for tumor cells by turning off cytotoxic T cells. As such, blocking the PD-L1/PD-1 interaction is a target of many anti-cancer immunotherapies.

29E.2A3 was generated by immunizing female BALB/c mice with purified hPD-L1 cDNA⁵. Spleen cells were fused with SP2/0 myeloma cells, and the resulting hybridomas were screened by ELISA for reactivity against hPD-L1-Ig fusion protein followed by cell-surface staining of hPD-L1-transfected Chinese hamster ovary cells and 300.19 cells.

Known Reactivity Species:

Human

Format:

Purified *in vivo* Functional Grade, *in vivo* PLATINUM™

Immunogen:

Full length Human PD-L1

Formulation

This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.

Purity

≥95% by SDS Page, ≥98% monomer by analytical SEC

Endotoxin

≤ 0.5 EU/mg as determined by the LAL method

Storage and Stability

Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. **Avoid Repeated Freeze Thaw Cycles.**

Products are for research use only. Not for use in diagnostic or therapeutic procedures.

Product Datasheet

www.leinco.com



Product Preparation

Functional grade preclinical antibodies are manufactured in an animal free facility using *in vitro* cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

Other Applications Reported in Literature:

B,
FA,
IHC,
FC

Country of Origin

USA

References

1. Freeman GJ, Long AJ, Iwai Y, et al. J Exp Med. 2000;192(7):1027-1034. 2000.
2. Tsai KK, Zarzoso I, Daud AI. Hum Vaccin Immunother. 10(11):3111-3116. 2014.
3. Han Y, Liu D, Li L. Am J Cancer Res. 10(3):727-742. 2020.
4. Dermani FK, Samadi P, Rahmani G, et al. J Cell Physiol. 234(2):1313-1325. 2019.

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