

Purified anti-human CD274 (B7-H1, PD-L1) (Maxpar[®] Ready) Antibody

Catalog# / Size	329719 / 100 µg
Clone	29E.2A3
Regulatory Status	RUO
Other Names	Programmed cell death ligand 1 (PD-L1), B7 homolog 1 (B7-H1)
Isotype	Mouse IgG2b, κ
Description	CD274, also known as PD-L1 and B7-H1, is type I transmembrane glycoprotein that serves as a ligand for CD279 (PD-1). This interaction is believed to regulate the balance between the stimulatory and inhibitory signals needed for responses to microbes and maintenance of self-tolerance. CD274 is involved in the costimulation of T cell proliferation and IL-10 and IFN-γ production in an IL-2-dependent and CD279-independent manner. Conflicting data has shown that CD274 can inhibit T cell proliferation and cytokine production, and alternatively, enhance T cell activation. Other studies suggest that CD274 may signal bidirectionally, raising interesting implications for its expression in a wide variety of cell types, including T and B cells, antigen-presenting cells, and nonhematopoietic cells.

Product Details

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Full length human PD-L1
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and EDTA.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1.0 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C.
Application	FC - Quality tested CyTOF[®] - Verified
Recommended Usage	This product is suitable for use with the Maxpar[®] Metal Labeling Kits . For metal labeling using Maxpar [®] Ready antibodies, proceed directly to the step to Partially Reduce the Antibody by adding 100 µl of Maxpar [®] Ready antibody to 100 µl of 4 mM TCEP-R in a 50 kDa filter and continue with the protocol. Always refer to the latest version of Maxpar [®] User Guide when conjugating Maxpar [®] Ready antibodies.
Application Notes	<p>Clone 29E.2A3 is reported to recognize an epitope on PD-L1 within the PD-L1-CD80 binding region⁵. Additional reported applications (for the relevant formats) include: blocking¹⁻³ and immunohistochemical staining of acetone-fixed frozen sections¹. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 329715, 329716, 329745 - 329748).</p> <p>It has been observed that clone 29E.2A3 is able to bind to Alexa Fluor[®] 700 antibody conjugates during multi-color immunofluorescent staining. This interaction can be resolved by sequentially staining with the 29E.2A3 antibody first and then followed by the Alexa Fluor[®] 700 conjugate of interest.</p> <p>Clone 29E.2A3 does not work in Western blot applications⁷.</p>
Additional Product Notes	Maxpar [®] is a registered trademark of Standard BioTools Inc.
Application References	1. Brown J, <i>et al.</i> 2003. <i>J. Immunol.</i> 170:1257. (FC, IHC, Block) 2. Radziewicz H, <i>et al.</i> 2007. <i>J. Virol.</i> 81:2545. (Block)
(PubMed link indicates	

- BioLegend citation)**
3. Nakamoto N, *et al.* 2009. *PLoS Pathog.* 5:e1000313. (Block)
 4. Barsoum IB, *et al.* 2014. *Cancer Res.* 74:665. [PubMed](#)
 5. Haile, S *et al.* 2013. *J. Immunol.* 191:2829.
 6. RL M, *et al.* 2015. *PNAS.* 112:6506-6514. [PubMed](#)
 7. Mahoney KM, *et al.* 2015. *Cancer Immunol. Res.* 3:1308.

- Product Citations**
1. Alcántara-Hernández M *et al.* 2017. *Immunity.* 47(6):1037-1050 . [PubMed](#)
 2. Gañán-Gómez I, *et al.* 2022. *Nat Med.* . [PubMed](#)
 3. Jordan S, *et al.* 2020. *Cell.* 178(5):1102-1114.e17.. [PubMed](#)
 4. Roussel M, *et al.* 2021. *Cell Reports Medicine.* 2(6):100291. [PubMed](#)
 5. Mishra A, *et al.* 2021. *Cell.* 184(13):3394-3409.e20. [PubMed](#)

RRID AB_2565429 (BioLegend Cat. No. 329719)

Antigen Details

Distribution	T cells, B cells, NK cells, monocytes/macrophages, granulocytes and dendritic cells
Function	CD274 is involved in the costimulatory signal, essential for T lymphocyte proliferation and production of IL-10 and IFN- γ , in an IL-2-dependent and a PD-1-CD1-independent manner. Its interaction with PD-1-CD1 inhibits T-cell proliferation and cytokine production.
Ligand/Receptor	PD-1 (PDCD1)
Cell Type	B cells, Dendritic cells, Fibroblasts, Granulocytes, Macrophages, Monocytes, NK cells, T cells
Biology Area	Cancer Biomarkers, Costimulatory Molecules, Immunology
Molecular Family	Adhesion Molecules, CD Molecules, Immune Checkpoint Receptors
Antigen References	1. Sharpe A, <i>et al.</i> 2007. <i>Nat. Immunol.</i> 8:239.
Gene ID	29126

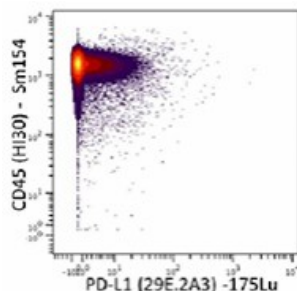
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

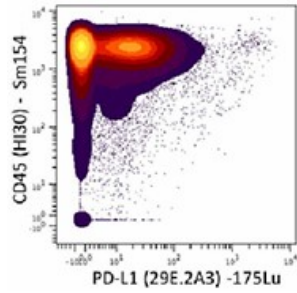
Other Formats

Purified anti-human CD274 (B7-H1, PD-L1), Biotin anti-human CD274 (B7-H1, PD-L1), PE anti-human CD274 (B7-H1, PD-L1), APC anti-human CD274 (B7-H1, PD-L1), Brilliant Violet 421™ anti-human CD274 (B7-H1, PD-L1), Ultra-LEAF™ Purified anti-human CD274 (B7-H1, PD-L1), PE/Cyanine7 anti-human CD274 (B7-H1, PD-L1), Purified anti-human CD274 (B7-H1, PD-L1) (Maxpar® Ready), Brilliant Violet 711™ anti-human CD274 (B7-H1, PD-L1), Brilliant Violet 605™ anti-human CD274 (B7-H1, PD-L1), GoInVivo™ Purified anti-human CD274 (B7-H1, PD-L1), PE/Dazzle™ 594 anti-human CD274 (B7-H1, PD-L1), Brilliant Violet 785™ anti-human CD274 (B7-H1, PD-L1), Brilliant Violet 510™ anti-human CD274 (B7-H1, PD-L1), PerCP/Cyanine5.5 anti-human CD274 (B7-H1, PD-L1), Brilliant Violet 650™ anti-human CD274 (B7-H1, PD-L1), Alexa Fluor® 594 anti-human CD274 (B7-H1, PD-L1), TotalSeq™-A0007 anti-human CD274 (B7-H1, PD-L1), TotalSeq™-B0007 anti-human CD274 (B7-H1, PD-L1), TotalSeq™-C0007 anti-human CD274 (B7-H1, PD-L1), TotalSeq™-D0007 anti-human CD274 (B7-H1, PD-L1), PE/Fire™ 810 anti-human CD274 (B7-H1, PD-L1) Antibody, PE/Cyanine5 anti-human CD274 (B7-H1, PD-L1), Spark YG™ 570 anti-human CD274 (B7-H1, PD-L1)

Product Data



Human PBMCs were incubated for three days in media alone (top) or with PHA (bottom) and then cells were stained with 154Sm-anti-CD45 (HI30) and 175Lu-anti-CD274/PD-L1 (29E.2A3).



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