

## Technical Data Sheet

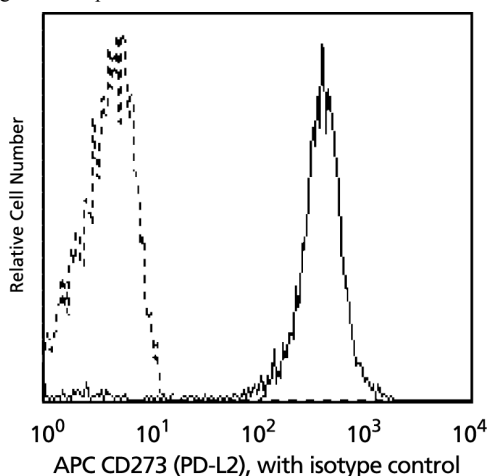
## APC Mouse Anti-Human CD273

## Product Information

<b>Material Number:</b>	557926
<b>Alternate Name:</b>	PDCD1LG2; PDCD1 ligand 2; PDCD1L2; PD-1 ligand 2; PD-L2; PDL2; B7-DC; Btdc
<b>Size:</b>	100 tests
<b>Vol. per Test:</b>	20 µl
<b>Clone:</b>	MIH18
<b>Isotype:</b>	Mouse IgG1, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

## Description

The MIH18 monoclonal antibody specifically binds to CD273, the Programmed Death Ligand 2 (PD-L2). PD-L1 and PD-L2 are newly discovered members of the B7 family that are the ligands for the Programmed Death 1 (PD-1) receptor. They are expressed on immature dendritic cells and mature dendritic cells. PD-L1 is expressed on antigen-presenting cells, including IFN-γ-stimulated monocytes and activated human and mouse dendritic cells. Monoclonal antibodies that block PD-1 and PD-L2 on dendritic cells result in enhanced T cell proliferation and cytokine production. PD-L2, also called B7-DC, is expressed on placental trophoblasts, myocardial endothelium and medullary thymic epithelial cells. Studies show overlapping functions of PD-L1 and PD-L2 and indicate an important role for the PD-L:PD-1 pathway in regulating T cell responses.



**Specificity of mAb MIH18 for CD273.** The PD-L2-transfected cell line MIH90 was stained with either Mouse IgG1, κ isotype control mAb MOPC-21 (Cat. no. 555751, dashed histogram) or APC mAb MIH18 (solid histogram). When the PD-1-transfected cell line MIH43 was stained in parallel with the same reagents, no difference was seen between isotype control and anti-CD273 (data not shown). Flow cytometry was performed on a BD FACSCalibur™ flow cytometry system.

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

## Application Notes

## Application

Flow cytometry	Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
555751	APC Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
554656	Stain Buffer (FBS)	500 ml	(none)

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

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4. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
6. Please refer to [www.bdbiosciences.com/pharming/protocols](http://www.bdbiosciences.com/pharming/protocols) for technical protocols.

## References

Bennett F, Luxenberg D, Ling V, et al. Program death-1 engagement upon TCR activation has distinct effects on costimulation and cytokine-driven proliferation: attenuation of ICOS, IL-4 and IL-21, but not CD28, IL-7, and IL-15 responses. *J Immunol.* 2003; 170:711-718. (Biology)

Brown JA, Dorfman DM, Ma FR, et al. Blockade of programmed death-1 ligand on dendritic cells enhances T cell activation and cytokine production. *J Immunol.* 2003; 170:1257-1266. (Biology)

Carter L, Fouser LA, Jussif J, et al. PD-1:PD-L inhibitory pathway affects both CD4(+) and CD8(+) T cells and is overcome by IL-2. *Eur J Immunol.* 2002; 32:634-643. (Biology)

Latchman Y, Wood CR, Chernova T, et al. PD-L2 is a second ligand for PD-1 and inhibits T cell activation. *Nat Immunol.* 2001; 2(3):261-268. (Biology)

Ohgashi Y, Sho M, Yamada Y, et al. Clinical significance of programmed death-1 ligand-1 and programmed death-1 ligand-2 expression in human esophageal cancer. *Clin Cancer Res.* 2005; 11:2947-2953. (Immunogen)

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