

CD274 (PD-L1, B7-H1) Monoclonal Antibody (MIH1), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Dog, Human, Mouse
Host/Isotope	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	MIH1
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage Conditions	4° C
RRID	AB_467784

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	31 Publications
Immunocytochemistry (ICC)	1:100	-
Immunofluorescence (IF)	1:100	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	5 Publications
Western Blot (WB)	Assay-Dependent	5 Publications
ChIP assay (ChIP)	-	1 Publication
Functional Assay (FN)	-	2 Publications
Immunohistochemistry (IHC)	-	7 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Inhibition Assays (IA)	-	3 Publications
Neutralization (Neu)	-	9 Publications

Product Specific Information

Description: The MIH1 monoclonal antibody reacts with human B7-H1, also known as PD-L1. B7-H1, a member of the B7 family, has a predicted molecular weight of approximately 40 kDa and belongs to the Ig superfamily. B7-H1 is expressed on a majority of leukocytes. B7-H1 is a ligand for PD-1. Interaction of PD-1 with either PD-L1 (B7-H1) or PD-L2 (B7-DC) results in inhibition of T and B cell responses. MIH1 is reported to be a blocking antibody.

Applications Reported: The MIH1 antibody has been reported for use in flow cytometric analysis, and immunohistochemical

staining of frozen tissue sections. It has also been reported in blocking in in vitro functional assays. (Please use Functional Grade purified MIH1, cat. 16-5983, in functional assays.).

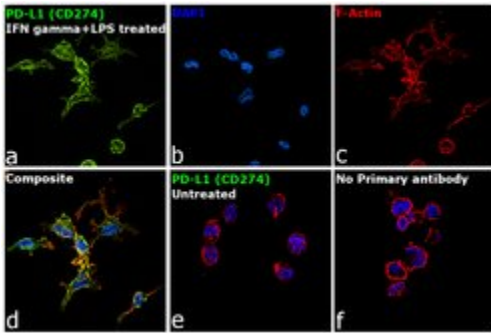
Applications Tested: The MIH1 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data

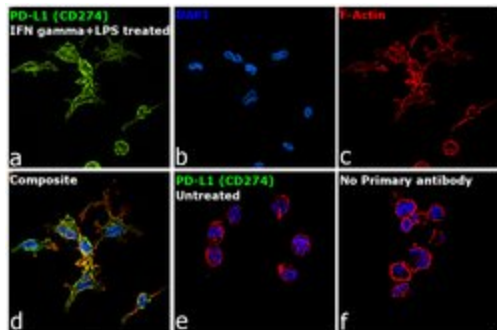


CD274 (PD-L1, B7-H1) Antibody (14-5983-82)

Antibody specificity was demonstrated by the detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Immunofluorescence analysis using Anti-CD274 (PD-L1, B7-H1) Monoclonal Antibody (MIH1), eBioscience™ (Product # 14-5983-82), shows upregulation of CD274 (PD-L1, B7-H1) expression in THP1 cells polarized into M1 macrophages. Relative expression validation info.

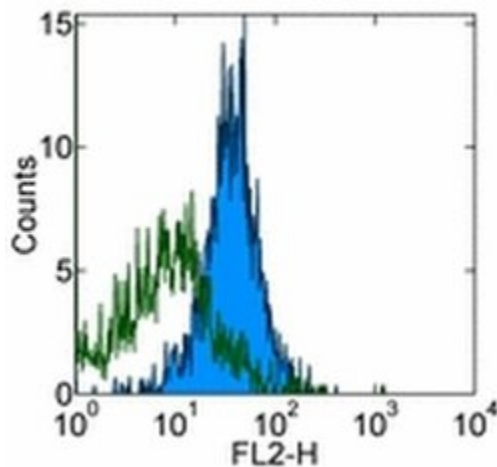
CD274 (PD-L1, B7-H1) Antibody (14-5983-82) in ICC

Immunofluorescence analysis of Programmed cell death 1 ligand 1 was performed using 70% confluent log phase THP-1 cells treated with PMA (200 ng/ml for 6h) and further polarized into M1 macrophages using IFN gamma (20 ng/ml) and LPS (100 ng/ml) for 18h. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with CD274 (PD-L1, B7-H1) Monoclonal Antibody (MIH1), eBioscience™ (Product # 14-5983-82) at 1:100 dilution in 0.1% BSA, incubated at 4-degree Celsius overnight and then labeled with Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor Plus 488 (Product # A32766), (1:2000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b: Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300 dilution). Panel d represents the merged image showing membranous localization. Panel e represents untreated cells. Panel f represents control cells with no primary antibody to assess the background. The images were captured at 60X magnification.



CD274 (PD-L1, B7-H1) Antibody (14-5983-82) in Flow

Staining of normal human peripheral blood cells with 0.5 µg of Mouse IgG1 K Isotype Control Purified (Product # 14-4714-82) (open histogram) or 0.5 µg of Anti-Human CD274 (B7-H1) Purified (filled histogram) followed by Anti-Mouse IgG Biotin (Product # 13-4013-85) and Streptavidin PE (Product # 12-4317-87). Cells in the lymphocyte gate were used for analysis.



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Flow Cytometry (31)

Frontiers in pharmacology

Disruption of PD-1 Enhanced the Anti-tumor Activity of Chimeric Antigen Receptor T Cells Against Hepatocellular Carcinoma.

"Published figure using CD274 (PD-L1, B7-H1) monoclonal antibody (Product # 14-5983-82) in Flow Cytometry"

Authors: Guo X, Jiang H, Shi B, Zhou M, Zhang H, Shi Z, Du G, Luo H, Wu X, Wang Y, Sun R, Li Z

Species
Not Applicable

Dilution
Not Cited

Year
2020

Oncoimmunology

Amplification of N-Myc is associated with a T-cell-poor microenvironment in metastatic neuroblastoma restraining interferon pathway activity and chemokine expression.

"Published figure using CD274 (PD-L1, B7-H1) monoclonal antibody (Product # 14-5983-82) in Flow Cytometry"

Authors: Layer JP, Kronmüller MT, Quast T, van den Boorn-Konijnenberg D, Efferm M, Hinze D, Althoff K, Schramm A, Westermann F, Peifer M, Hartmann G, Tüting T, Kolanus W, Fischer M, Schulte J, Hölzel M

Species
Not Applicable

Dilution
Not Cited

Year
2020

[View more Flow references on thermofisher.com](#)

Functional Assay (2)

Frontiers in immunology

Exhaustion of the CD8⁺ T Cell Compartment in Patients with Mutations in Phosphoinositide 3-Kinase Delta.

"14-5983 was used in Functional assays to study exhaustion of the CD8+ T cell compartment in activated phosphoinositide 3-kinase delta syndrome patients and compare them with healthy controls and HIV patients."

Authors: Wentink MWJ, Mueller YM, Dalm VASH, Driessen GJ, van Hagen PM, van Montfrans JM, van der Burg M, Katsikis PD

Species
Human

Dilution
Not Cited

Year
2019

Nephron. Experimental nephrology

Expression of B7-H1 in inflammatory renal tubular epithelial cells.

Authors: Chen Y, Zhang J, Li J, Zou L, Zhao T, Tang Y, Wu Y

Species
Not Applicable

Dilution
Not Cited

Year
2006

More applications with references on thermofisher.com

WB (5) IF (1) IA (3) IHC (7) Neu (9) IHC (F) (5) ChIP (1) IHC (P) (1)

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