

# CD274 (PD-L1, B7-H1) Monoclonal Antibody (MIH5), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Human, Mouse
Host/Isotype	Rat / IgG2a, lambda
Class	Monoclonal
Type	Antibody
Clone	MIH5
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_467781

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	41 Publications
Functional Assay (FN)	Assay-Dependent	2 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	1 Publication
Neutralization (Neu)	Assay-Dependent	9 Publications
Western Blot (WB)	1:500	2 Publications
Immunofluorescence (IF)	-	4 Publications
Immunohistochemistry (IHC)	-	7 Publications
Inhibition Assays (IA)	-	1 Publication

## Product Specific Information

**Description:** The MIH5 monoclonal antibody reacts with mouse 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 including T, B, NK and DC. 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. MIH5 is reported to be a blocking antibody.

**Applications Reported:** The MIH5 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 and in vivo functional assays. (Please use Functional Grade Purified MIH5, cat. 16-5982, in functional assays. Fluorochrome-conjugated MIH5 is recommended for use in flow cytometry.).

**Applications Tested:** This MIH5 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at

less than or equal to 0.25 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 10<sup>5</sup> to 10<sup>8</sup> 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.

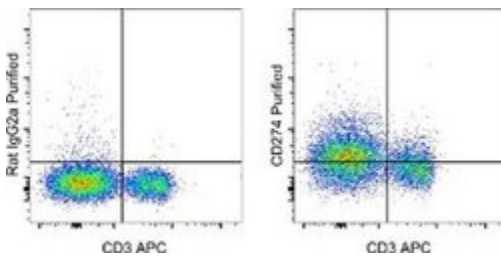
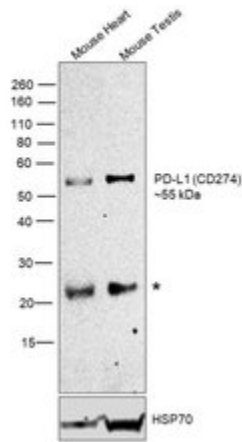
Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

## Product Images For CD274 (PD-L1, B7-H1) Monoclonal Antibody (MIH5), eBioscience™

### CD274 (PD-L1, B7-H1) Antibody (14-5982-82) in WB

Western blot was performed using Anti-CD274 (PD-L1, B7-H1) Monoclonal Antibody (MIH5), eBioscience™ (Product # 14-5982-82) and a 55kDa band corresponding to Programmed cell death 1 ligand 1 was observed across tissue extracts tested. A 25 kDa band (\*) corresponding to IgG was also observed in these tissues. Tissue extracts (30 µg lysate) of Mouse Heart (Lane 1) and Mouse Testis (Lane 2) were electrophoresed using NuPAGE™ 10% Bis-Tris Protein Gel (Product # NP0302BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:500 dilution) and detected by chemiluminescence with F(ab2-Rabbit anti-Rat IgG (H+L) Secondary Antibody, HRP (Product # PA1-29927, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using SuperSignal™ West Dura Extended Duration Substrate (Product # 34076).



### CD274 (PD-L1, B7-H1) Antibody (14-5982-82) in Flow

Staining of C57Bl/6 splenocytes with Anti-Mouse CD3e APC (Product # 17-0031-82) and 0.25 µg of Rat IgG2a K Isotype Control Purified (Product # 14-4321-82) (left) or 0.25 µg of Anti-Mouse CD274 (PD-L1, B7-H1) Purified (right) followed by Anti-Rat IgG Biotin (Product # 13-4813-85) and Streptavidin PE (Product # 12-4317-87). Total viable cells were used for analysis.

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## Western Blot (2)

### Cancer research

#### A mechanism of hypoxia-mediated escape from adaptive immunity in cancer cells.

"14-5982 was used in Flow cytometry/Cell sorting to investigate whether exposure of mouse and human tumour cells to hypoxia increases their resistance to T cell-mediated immunity."

Authors: Barsoum IB, Smallwood CA, Siemens DR, Graham CH

**Species**  
Mouse

**Dilution**  
1:250

**Year**  
2014

### Nature communications

#### Neuronal IFN-beta-induced PI3K/Akt-FoxA1 signalling is essential for generation of FoxA1<sup>+</sup>T<sub>reg</sub> cells.

"Published figure using CD274 (PD-L1, B7-H1) monoclonal antibody (Product # 14-5982-82) in Western Blot"

Authors: Liu Y, Marin A, Ejlerskov P, Rasmussen LM, Prinz M, Issazadeh-Navikas S

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2017

## Immunohistochemistry (7)

### PloS one

#### Preclinical Development of Ipilimumab and Nivolumab Combination Immunotherapy: Mouse Tumor Models, In Vitro Functional Studies, and Cynomolgus Macaque Toxicology.

"14-5982 was used in Immunohistochemistry to exhibit a preclinical strategy for the identification and development of highly effective antitumour combination immunotherapies."

Authors: Selby MJ, Engelhardt JJ, Johnston RJ, Lu LS, Han M, Thudium K, Yao D, Quigley M, Valle J, Wang C, Chen B, Cardarelli PM, Blanset D, Korman AJ

**Species**  
Mouse

**Dilution**  
1:100

**Year**  
2017

### Oncotarget

#### Enhanced antitumor effects by combining an IL-12/anti-DNA fusion protein with avelumab, an anti-PD-L1 antibody.

"14-5982 was used in Immunohistochemistry to study the therapeutic potential of an IL-12/anti-DNA fusion protein combined with avelumab treatment against solid tumours."

Authors: Fallon JK, Vandever AJ, Schlom J, Greiner JW

**Species**  
Mouse

**Dilution**  
1:500

**Year**  
2017

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## More applications with references on thermofisher.com

IHC (F) (1) IF (4) Flow (41) Neu (9) FN (2) IA (1)

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