

## Datasheet: MCA2626EL

<b>Description:</b>	RAT ANTI MOUSE CD274:Low Endotoxin
<b>Specificity:</b>	CD274
<b>Other names:</b>	PD-L1
<b>Format:</b>	Low Endotoxin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MIH6
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.5 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/200
Immunohistology - Frozen	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	Mouse CD274 - transfected L5178Y cells.

**External Database  
Links**

**UniProt:**

[Q9EP73](#)   [Related reagents](#)

**Entrez Gene:**

[60533](#)   Cd274   [Related reagents](#)

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**Synonyms**

B7h1, Pdc111, Pdc11g1, Pdl1

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**Fusion Partners**

Spleen cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.

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**Specificity**

**Rat anti Mouse CD274 antibody, clone MIH6** detects mouse CD274, also known as B7-H1 and PD-1L, a single pass type I cell membrane glycoprotein, a member of the B7 family of co-stimulatory molecules. CD274 is expressed constitutively on macrophages and dendritic cells, and is induced on activated T-cells, B-cells ([Ishada et al. 2002](#)), endothelial cells ([Eppihimer et al. 2002](#)) and epithelial cells in response to Interferons alpha, beta and gamma.

CD274 is reported to possess dual functions; inhibition of activated effector T cells and co-stimulation of naïve T cells ([Selenko-Gebauer et al. 2003](#)). CD274 inhibits proliferation of activated T cells via ligation to the co-inhibitory molecule CD279 (programmed death-1; PD-1) leading to the secretion of the regulatory cytokine interleukin-10 ([Cao et al. 2003](#)). CD274 has also been shown to costimulate early T cell priming and differentiation.

Deregulated CD274 function has been reported in chronic viral and intracellular bacterial infection, as well as in many autoimmune diseases and cancers ([Iwai et al. 2002](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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**References**

1. Kanai, T. *et al.* (2003) Blockade of B7-H1 suppresses the development of chronic intestinal inflammation. [J Immunol. 171 \(8\): 4156-63.](#)
2. Yamazaki, T. *et al.* (2002) Expression of programmed death 1 ligands by murine T cells and APC. [J Immunol. 169 \(10\): 5538-45.](#)
3. Furuhashi, K. *et al.* (2011) Mouse Lung CD103<sup>+</sup> and CD11b<sup>high</sup> dendritic cells preferentially induce distinct CD4<sup>+</sup> T cell responses. [Am J Respir Crit Care Med 181: 2010: A3795](#)
4. Silk, K.M. *et al.* (2012) Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype. [J Biomed Biotechnol. 2012: 172420.](#)
5. Haile, S.T. *et al.* (2013) Soluble CD80 Restores T Cell Activation and Overcomes Tumor Cell Programmed Death Ligand 1-Mediated Immune Suppression. [J Immunol. 191: 2829-36.](#)
6. Lopez-Medina, M. *et al.* (2015) *Salmonella* induces PD-L1 expression in B cells. [Immunol Lett. pii: S0165-2478\(15\)30018-3.](#)
7. Yao, L. *et al.* (2016) Characterization of Liver Monocytic Myeloid-Derived Suppressor Cells and Their Role in a Murine Model of Non-Alcoholic Fatty Liver Disease. [PLoS One. 11 \(2\): e0149948.](#)
8. López-Medina, M. *et al.* (2015) *Salmonella* impairs CD8 T cell response through PD-1: PD-L axis. [Immunobiology. 220 \(12\): 1369-80.](#)
9. Waddell, A. *et al.* (2011) Colonic eosinophilic inflammation in experimental colitis is mediated by Ly6C(high) CCR2(+) inflammatory monocyte/macrophage-derived CCL11. [J Immunol. 186 \(10\): 5993-6003.](#)
10. Naujoks, M. *et al.* (2014) Alterations of costimulatory molecules and instructive cytokines expressed by dendritic cells in the microenvironment of an endogenous mouse lymphoma. [Cancer Immunol Immunother. 63 \(5\): 491-9.](#)
11. Arrevillaga-Boni, G. *et al.* (2014) Intercellular communication through contacts between continuous pseudopodial extensions in a macrophage-like cell line. [Cell Commun Adhes. 21 \(4\): 213-20.](#)

12. Volchenkov, R. *et al.* (2013) Type 1 regulatory T cells and regulatory B cells induced by tolerogenic dendritic cells. [Scand J Immunol. 77 \(4\): 246-54.](#)

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<b>Storage</b>	Store at -20°C only. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Shelf Life</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10162 available at: 10162: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®549</a> , <a href="#">DyLight®649</a> , <a href="#">DyLight®800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Low Endotoxin \(MCA1212EL\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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