

## Datasheet: MCA2626GA

<b>Description:</b>	RAT ANTI MOUSE CD274
<b>Specificity:</b>	CD274
<b>Other names:</b>	PD-L1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MIH6
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.1 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	▪			1/10 - 1/100
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>	0.09% Sodium Azide (NaN <sub>3</sub> )

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Mouse CD274 - transfected L5178Y cells.
External Database Links	<p><b>UniProt:</b>  <a href="#">Q9EP73</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">60533</a>    Cd274    <a href="#">Related reagents</a></p>
Synonyms	B7h1, Pdcd1l1, Pdcd1lg1, Pdl1
RRID	AB_1125242
Fusion Partners	Spleen cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.
Specificity	<p><b>Rat anti Mouse CD274 antibody, clone MIH6</b> 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 (<a href="#">Ishada et al. 2002</a>), endothelial cells (<a href="#">Eppihimer et al. 2002</a>) and epithelial cells in response to Interferons alpha, beta and gamma.</p> <p>CD274 is reported to possess dual functions; inhibition of activated effector T cells and co-stimulation of naïve T cells (<a href="#">Selenko-Gebauer et al. 2003</a>). 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 (<a href="#">Cao et al. 2003</a>). CD274 has also been shown to costimulate early T cell priming and differentiation.</p> <p>Deregulated CD274 function has been reported in chronic viral and intracellular bacterial infection, as well as in many autoimmune diseases and cancers (<a href="#">Iwai et al. 2002</a>).</p>
Flow Cytometry	<p>Use 10ul of the suggested working dilution to label <math>1 \times 10^6</math> cells in 100ul.</p> <p>The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (<a href="#">BUF041A/B</a>).</p>
References	<ol style="list-style-type: none"> <li>1. Kanai, T. <i>et al.</i> (2003) Blockade of B7-H1 suppresses the development of chronic intestinal inflammation. <a href="#">J Immunol. 171 (8): 4156-63.</a></li> <li>2. Yamazaki, T. <i>et al.</i> (2002) Expression of programmed death 1 ligands by murine T cells and APC. <a href="#">J Immunol. 169 (10): 5538-45.</a></li> <li>3. Furuhashi, K. <i>et al.</i> (2011) Mouse Lung CD103<sup>+</sup> and CD11b<sup>high</sup> dendritic cells preferentially induce distinct CD4<sup>+</sup> T cell responses. <a href="#">Am J Respir Crit Care Med 181: 2010: A3795</a></li> </ol>

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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.](#)

<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>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.</p>
<b>Guarantee</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a></p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

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

## Recommended Negative Controls

### [RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

<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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