

Datasheet: MCA2626A488

Description:	RAT ANTI MOUSE CD274:Alexa Fluor® 488
Specificity:	CD274
Other names:	PD-L1
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	MIH6
Isotype:	IgG2a
Quantity:	100 TESTS/1ml

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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			neat - 1/10

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.

Target Species	Mouse		
Product Form	Purified IgG conjugated to Alexa Fluor® 488 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®488	495	519
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.05mg/ml		

Immunogen	Mouse CD274 - transfected L5178Y cells.
External Database Links	<p>UniProt: Q9EP73 Related reagents</p> <p>Entrez Gene: 60533 Cd274 Related reagents</p>
Synonyms	B7h1, Pdcd111, Pdcd1lg1, Pdl1
RRID	AB_2073555
Fusion Partners	Spleen cells from immunized SD rats were fused with cells of the P3U1 myeloma cell line.
Specificity	<p>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.</p> <p>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.</p> <p>Deregulated CD274 function has been reported in chronic viral and intracellular bacterial infection, as well as in many autoimmune diseases and cancers (lwai et al. 2002).</p>
Flow Cytometry	<p>Use 10ul of the suggested working dilution to label 1x10⁶ 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 (BUF041A/B).</p>
References	<ol style="list-style-type: none"> 1. Kanai, T. <i>et al.</i> (2003) Blockade of B7-H1 suppresses the development of chronic intestinal inflammation. J Immunol. 171 (8): 4156-63. 2. Yamazaki, T. <i>et al.</i> (2002) Expression of programmed death 1 ligands by murine T cells and APC. J Immunol. 169 (10): 5538-45. 3. Furuhashi, K. <i>et al.</i> (2011) Mouse Lung CD103⁺ and CD11b^{high} dendritic cells preferentially induce distinct CD4⁺ T cell responses. Am J Respir Crit Care Med 181: 2010: A3795 4. Silk, K.M. <i>et al.</i> (2012) Rapamycin conditioning of dendritic cells differentiated from human ES cells promotes a tolerogenic phenotype. J Biomed Biotechnol. 2012: 172420. 5. Haile, S.T. <i>et al.</i> (2013) Soluble CD80 Restores T Cell Activation and Overcomes Tumor Cell Programmed Death Ligand 1-Mediated Immune Suppression. J Immunol. 191: 2829-36.

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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.](#)

Storage Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 18 months from date of despatch.

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA1212A488\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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'M349458:190306'

Printed on 09 Feb 2021

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