Datasheet: MCA2626F

Description:	RAT ANTI MOUSE CD274:FITC
Specificity:	CD274
Other names:	PD-L1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MIH6
Isotype:	IgG2a
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

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 0.1mg/ml

Immunogen

Mouse CD274 - transfected L5178Y cells.

External Database Links

UniProt:
Q9EP73 Related reagents

Entrez Gene:
60533 Cd274 Related reagents

Synonyms	B7h1, Pdcd1l1, Pdcd1lg1, Pdl1
Fusion Partners	Spleen cells from immunized SD rats were fuzed with cells of the P3U1 myeloma cell line.
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).
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul. 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).
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$^+$ and CD11bhigh dendritic cells preferentially induce distinct CD4$^+$ 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.

Storage	Store at +4ºC or at -20ºC 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.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation available at: Material Safety Datasheet Documentation #10041 available at: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)

Recommended Useful Reagents

MOUSE SEROBLOCK FcR (BUF041A)
MOUSE SEROBLOCK FcR (BUF041B)

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