



## RayBiotech, Inc.

3607 Parkway Lane suite 200  
Norcross, GA 30092  
Tel: 770-729-2992, 1-888-494-8555  
Fax: 770-206-2393  
Website: [www.raybiotech.com](http://www.raybiotech.com)  
Email: [info@raybiotech.com](mailto:info@raybiotech.com)

### Certificate of Analysis and Data Sheet

## Rat Anti Mouse CD274

With HRP-conjugated Secondary Antibody

**Catalog No.**  
DS-MB-03793

**Species**  
Mouse

**Isotype**  
IgG2a

### Synonyms

B7H1, PD-1, PDCD1L1, PDCD1LG1, PDL1

### Preparation

**Immunogen:** Mouse CD274 - transfected L5178Y cells

**Preparation:** Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

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

### Formulation

**Product Type:** Monoclonal Antibody

**Product Form:** Purified IgG - liquid

**Buffer Solution:** Phosphate buffered saline pH7.4

**Preservative & Stabilizers:** 0.09% Sodium Azide ( $\text{NaN}_3$ )

**Approx. Protein Concentrations:** IgG concentration 1.0mg/ml

### Specificity

DS-MB-03793 detects mouse CD274, also known as B7-H1 and PD-1, a cell surface glycoprotein which is 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, endothelial cells 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. 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. 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.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### Applications

Table Summary of antibody applications and working conditions

<b>Options</b> <b>Functions</b>	<b>YES</b>	<b>NO</b>	<b>Not determined</b>	<b>Recommended Work dilution or concentration</b>
ELISA			▪	
Western Blot			▪	
Flow Cytometry (1)	▪			Neat - 1/10
Immunoprecipitation	▪			
Immunohistology – Frozen	▪			

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.  
(1) Flow Cytometry: Use 10ul of the suggested working dilution to label 1x10<sup>6</sup> cells in 100ul.

### Secondary Antibody Applications

<b>Options</b> <b>Functions</b>	<b>YES</b>	<b>NO</b>	<b>Not determined</b>	<b>Recommended Work dilution or concentration</b>
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

### 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. 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 dispatch

### Reference

1. Kanai, T. *et al.* (2003) Blockade of B7-H1 suppresses the development of chronic intestinal inflammation. *J. Immunol.* 171: 4156-4163.

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2. Yamazaki, T. *et al.* (2002) Expression of programmed death 1 ligands by murine T cells and APC. *J. Immunol.* 169: 5538-5545.

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