

Mouse PD-L1/B7-H1 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2341A Catalog Number: MAB90783

DESCRIPTION			
Species Reactivity	Mouse		
Specificity	Detects mouse PD-L1/B7-H1 in direct ELISAs.		
Source	Recombinant Monoclonal Rabbit IgG Clone # 2341A		
Purification	Protein A or G purified from cell culture supernatant		
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse PD-L1/B7-H1 Phe19-His239 Accession # Q9EP73		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

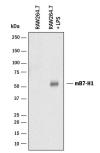
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

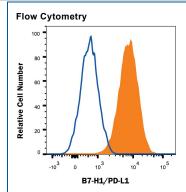
	Recommended Concentration	Sample	
Western Blot	2 μg/mL	See Below	
Flow Cytometry	0.25 μg/10 ⁶ cells	See Below	
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.		
Blockade of Receptor-ligand Interaction	Recombinant Mouse	A, 0.8-4 μg/mL of this antibody will block 50% of the binding of 1.5 μg/mL of a PD-L1/B7-H1 Fc Chimera (Catalog # 1019-B7) to immobilized Recombinant Mouse PD-1 Fc 1021-PD) coated at 1 μg/mL (100 μL/well). At 10 μg/mL, this antibody will block >90% of the	

DATA

Western Blot

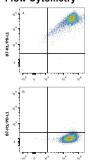


Detection of Mouse PD-L1/B7-H1 by Western Blot. Western blot shows lysates of RAW 264.7 mouse monocyte/macrophage cell line untreated (-) or treated (+) with 10 ug/mL LPS for 4 hours. PVDF membrane was probed with 2 µg/mL of Rabbit Anti-Mouse PD-L1/B7-H1 Monoclonal Antibody (Catalog # MAB90783) followed by HRP-conjugated Anti-Rabbit 1gG Secondary Antibody (Catalog # HAF008). A specific band was detected for PD-L1/B7-H1 at approximately 55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.



Detection of PD-L1/B7-H1 in RAW 264.7 Mouse Cell Line by Flow Cytometry. RAW 264.7 mouse monocyte/macrophage cell line either treated with LPS overnight (filled histogram) or untreated (open histogram) was stained with Rabbit Anti-Mouse PD-L1/B7-H1 Monoclonal Antibody (Catalog # MAB90783), followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111). View our protocol for Staining Membrane-associated Proteins. View our protocol for Staining Membrane-associated Proteins.

Flow Cytometry



Detection of PD-L1/B7-H1 in HEK293 Human Cell Line Transfected with Mouse PD-L1/B7-H1 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with either (A) mouse PD-L1/B7-H1 or (B) irrelevant transfectants and eGFP was stained with Rabbit Anti-Mouse PD-L1/B7-H1 Monoclonal Antibody (Catalog # MAB90783) followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111). Quadrant markers were set based on control antibody staining (Catalog # MAB1050). View our protocol for Staining Membrane-associated Proteins.

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PREPARATION AND STORAGE			
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.		
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C		
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.		

BACKGROUND

Mouse B7 homolog 1(B7-H1), also called programmed death ligand 1 (PD-L1) and programmed cell death 1 ligand 1 (PDCD1L1), is a member of the B7 family of proteins that provide signals for regulating T-cell activation and tolerance (1-4). Other family members include B7-1, B7-2, B7-H2, B7-H3 and PD-L2. B7 proteins are immunoglobulin (Ig) superfamily members with extracellular Ig-V-like and Ig-C-like domains and a short cytoplasmic region. Among the family members, they share from 20-40% amino acid (aa) sequence identity. The cloned mouse B7-H1/PD-L1 cDNA encodes a 290 aa type I membrane precursor protein with a putative 18 aa signal peptide, a 220 aa extracellular region containing one V-like and one C-like Ig domain, a 22 aa transmembrane region, and a 30 aa cytoplasmic domain. Mouse and human B7-H1/PD-L1 share approximately 70% aa sequence identity. B7-H1/PD-L1 is one of two ligands for programmed death-1 (PD-1), a member of the CD28 family of immunoreceptors. The other identified ligand is PD-L2. Mouse B7-H1/PD-L1 and PD-L2 share approximately 34% aa sequence identity and have similar functions. B7-H1/PD-L1 is constitutively expressed in various lymphoid and non-lymphoid organs including placenta, heart, pancreas, lung, liver, and endothelium (1-4). The expression of B7-H1/PD-L1 is detected on B cells, T cells, monocytes, dendritic cells and thymic epithelial cells. IFN-y treatment induces B7-H1/PD-L1 expression in monocytes, dendritic cells, and endothelial cells. B7-H1/PD-L1 interaction with PD-1 inhibits TCR-mediated proliferation and cytokine production, suggesting an inhibitory role in regulating immune responses. In contrast, a costimulatory function for the PD-1 ligands on resting T cells has also been reported (1-4).

References:

- 1. Tamura, H. et al. (2001) Blood 97:1809.
- 2. Freeman, G. et al. (2000) J. Exp. Med. 192:1027.
- 3. Sharpe, A.H. and G. J. Freeman (2002) Nat. Rev. Immunol. 2:116.
- 4. Coyle, A. and J. Gutierrez-Ramos (2001) Nat. Immunol. 2:203