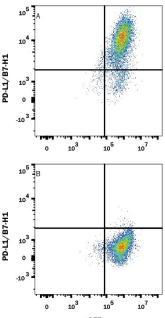
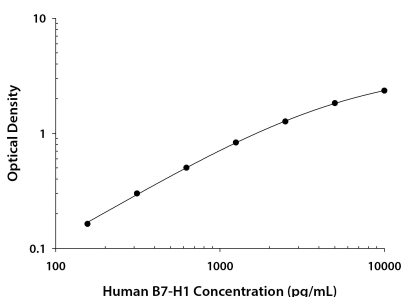


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human PD-L1/B7-H1 in direct ELISAs.
Source	Recombinant Monoclonal Mouse IgG ₁ Clone # 130021R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human PD-L1/B7-H1 Phe19-Thr239 Accession # Q9NZQ7
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
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CytoTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	
ELISA	This antibody functions as an ELISA capture antibody when paired with Goat Anti-Human PD-L1/B7-H1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF156). <i>This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human PD-L1/B7-H1 DuoSet ELISA Kit (Catalog # DY156) for convenient development of a sandwich ELISA or the Human/Cynomolgus Monkey PD-L1/B7-H1 Quantikine ELISA Kit (Catalog # DB7H10) for a complete optimized ELISA.</i>	

DATA	
<p>Flow Cytometry</p>  <p>Detection of PD-L1/B7-H1 in HEK293 Human Cell Line Transfected with Human PD-L1/B7-H1 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with (A) PD-L1/B7-H1 or (B) irrelevant protein, and eGFP were stained with Mouse Anti-Human PD-L1/B7-H1 Monoclonal Antibody (Catalog # MAB1561R) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). Quadrant markers were set based Mouse IgG1 Isotype Control Antibody staining (Catalog # MAB002, data not shown). View our protocol for Staining Membrane-associated Proteins.</p>	<p>ELISA</p>  <p>Human PD-L1/B7-H1 ELISA Standard Curve. Recombinant Human PD-L1/B7-H1 protein was serially diluted 2-fold and captured by Mouse Anti-Human PD-L1/B7-H1 Monoclonal Antibody (Catalog # MAB1561R) coated on a Clear Polystyrene Microplate (Catalog # DY990). Goat Anti-Human PD-L1/B7-H1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF156) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).</p>

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. <ul style="list-style-type: none"> • 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

Human 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 growing B7 family of immune proteins that provide signals for both stimulating and inhibiting T cell activation. Other family members include B7-1, B7-2, B7-H2, PDL2 and B7-H3. B7 proteins are members of the immunoglobulin (Ig) superfamily. Their extracellular domains contain 2 Ig-like domains and all members have short cytoplasmic domains. Among the family members, there is about 20-25% amino acid identity. Human and mouse B7-H1 share approximately 70% amino acid sequence identity. B7-H1 has been identified as one of two ligands for programmed death-1 (PD-1), a member of the CD28 family of immunoreceptors. The B7-H1 gene encodes a 291 amino acid (aa) type I membrane precursor protein with a putative 18 aa signal peptide, a 220 aa extracellular domain, a 21 aa transmembrane region, and a 31 aa cytoplasmic domain. Human B7-H1 is constitutively expressed in several organs such as heart, skeletal muscle, placenta and lung, and in lower amounts in thymus, spleen, kidney and liver. B7-H1 expression is upregulated in a small fraction of activated T and B cells and a much larger fraction of activated monocytes. B7-H1 expression is also induced in dendritic cells and keratinocytes after IFN- γ stimulation. Interaction of B7-H1 with PD-1 results in inhibition of TCR-mediated proliferation and cytokine production. The B7-H1:PD-1 pathway is involved in the negative regulation of some immune responses and may play an important role in the regulation of peripheral tolerance.

References:

1. Nishimura, H. and T. Honjo (2001) Trends Immunol. **22**:265.
2. Freeman, G.J. *et al.* (2000) J. Exp. Med. **192**:1027.
3. Latchman, Y. *et al.* (2001) Nat. Immunol. **2**:261.