**Human B7- H1/PD- L1 PE- conjugated Antibody**

Monoclonal Mouse IgG, Clone # 130021
Catalog Number: FAB1561P
100 TESTS, 25 TESTS

**DESCRIPTION**

**Species Reactivity** Human

**Specificity** Detects human B7-1/PD-L1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) B7-1, -2, -H2, -H3, -H3b, -H4, rhPD-L2, recombinant mouse B7-H1, recombinant rat (r) B7-1, or rB7-2 is observed.

**Source** Monoclonal Mouse IgG, Clone # 130021

**Purification** Protein A or G purified from hybridoma culture supernatant

**Immunogen** Mouse myeloma cell line NSO-derived recombinant human B7-1/PD-L1

**Clone** Phe19-Thr239 Accession # Q9NQ7

**Conjugate** Phycoerythrin

**Excitation Wavelength:** 488 nm

**Emission Wavelength:** 565-605 nm

**Formulation** Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.

*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.*

**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 
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10 µL/10^6 cells</td>
<td>See Below</td>
</tr>
</tbody>
</table>

**DATA**

**Flow Cytometry**

Detection of B7-1/PD-L1 in Human PBMCs by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) untreated (A) or treated (B) overnight with 1 µg/mL LPS were stained with Mouse Anti-Human B7-1/PD-L1 PE-conjugated Monoclonal Antibody (Catalog # FAB1561P) and Mouse Anti-Human CD14 APC-conjugated Monoclonal Antibody (Catalog # FAB3832A). Quadrant markers were set based on control antibody staining (Catalog #ICX002P). View our protocol for Staining Membrane-associated Proteins.

**PREPARATION AND STORAGE**

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze.
- 12 months from date of receipt, 2 to 8 °C as supplied.

**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:**