

DESCRIPTION

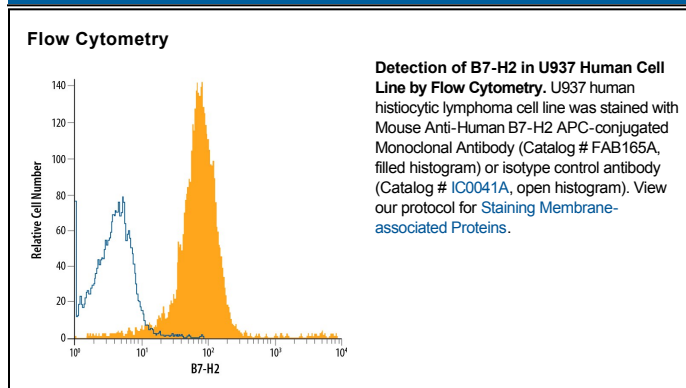
| | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human B7-H2 in direct ELISAs. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) B7-1, rhB7-2, rhB7-H1, rhB7-H3, or recombinant mouse B7-H2 is observed. |
| Source | Monoclonal Mouse IgG _{2B} Clone # 136726 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human B7-H2 Asp19-Ser258 Accession # O75144 |
| Conjugate | Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 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 |
|-----------------------|----------------------------------|-----------|
| Flow Cytometry | 10 μ L/10 ⁶ cells | See Below |

DATA



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-H2, also called B7RP-1, B7h, LICOS, and GL50, is a 60 kDa member of the B7 family of immune costimulatory proteins, which includes B7-1, B7-2, B7-H1 (PD-L1), PD-L2, and B7-H3. B7 proteins are members of the immunoglobulin (Ig) superfamily, the extracellular domains contain 2 Ig-like domains and all members have short cytoplasmic domains. Family members share about 20–25% amino acid identity. Within the extracellular domain, human B7-H2 shares 49% and 54% amino acid sequence identity with mouse and rat B7-H2, respectively. B7-H2 has been identified as the ligand for ICOS, a member of the CD28 family of costimulatory receptors. Human B7-H2 is a 309 amino acid (aa) protein with a putative 18 aa signal peptide, a 239 aa extracellular domain, an 18 aa transmembrane region, and a 33 aa cytoplasmic domain. Human B7-H2 is expressed constitutively on resting B cells, dendritic cells, and at low levels on monocytes. The B7-H2/ICOS interaction appears to play roles in T cell dependent B cell activation and T_H differentiation.

References:

1. Coyle, A.J. and J.C. Gutierrez-Ramos (2001) *Nat. Immunol.* **2**:203.
2. Ling, V. *et al.* (2000) *J. Immunol.* **164**:1653.
3. Wang, S. *et al.* (2000) *Blood* **96**:2808.
4. Brodie, D. *et al.* (2000) *Curr. Biol.* **10**:333.
5. Mages, H.W. *et al.* (2000) *Eur. J. Immunol.* **30**:1040.
6. Swallow, M.M. *et al.* (1999) *Immunity* **11**:423.
7. Yoshinaga, S.K. *et al.* (1999) *Nature* **402**:827.