

DESCRIPTION

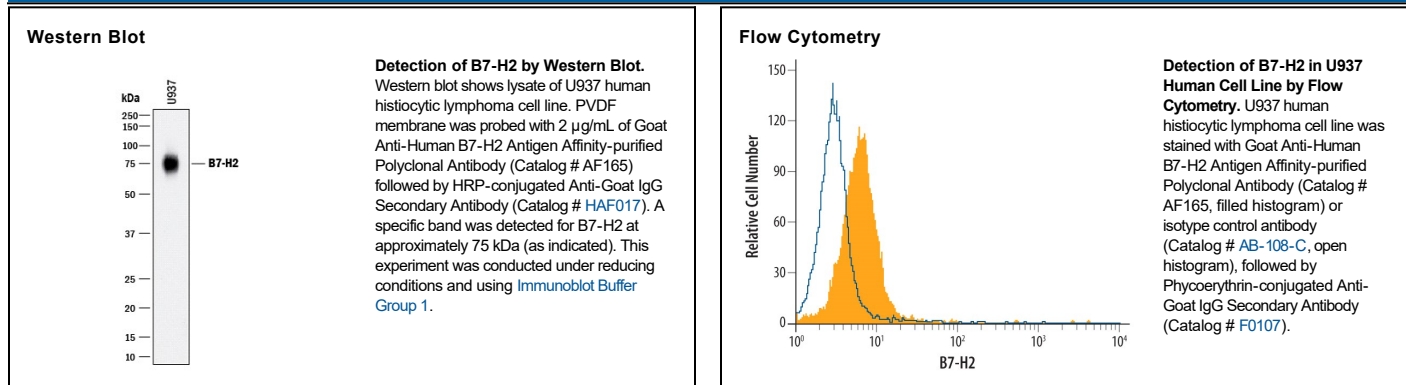
Species Reactivity	Human
Specificity	Detects human B7-H2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant mouse B7-H2 and recombinant human B7-H1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human B7-H2 Asp19-Ser258 Accession # O75144
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.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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-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 human 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:

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

