

DESCRIPTION

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| Species Reactivity | Human |
| Specificity | Detects human B7-H6 in direct ELISAs. |
| Source | Monoclonal Mouse IgG ₁ Clone # 875002 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse myeloma cell line NS0-derived recombinant human B7-H6 Met1-Ser262 Accession # Q68D85 |
| Conjugate | Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm |
| Formulation | Supplied 0.2 mg/mL 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 | 0.25-1 µg/10 ⁶ cells | HeLa human cervical epithelial carcinoma cell line and HEK293 Human Cell Line Transfected with Human B7-H6 and eGFP |

PREPARATION AND STORAGE

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| 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. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied. |

BACKGROUND

B7-H6 is a glycosylated member of the B7 family of immune co-stimulatory proteins (1, 2). Mature human B7-H6 consists of a 238 amino acid (aa) extracellular domain (ECD) that contains one Ig-like V domain and one Ig-like C1 domain, a 21 aa transmembrane segment, and a 171 aa cytoplasmic domain that contains one ITIM, one SH2, and one SH3 motif (3). Both of the Ig-like domains carry N-linked glycosylation (4). Within the ECD, human B7-H6 shares 99%, 94%, and 87% aa sequence identity with chimpanzee, orangutan, and gibbon B7-H6, respectively, and 53%-56% with bovine, canine, and equine B7-H6. Orthologs in mouse and rat have not been identified. The Ig-like V domain mediates 1:1 stoichiometric binding of B7-H6 to NKp30 expressed on NK cells (4, 5). It does not show binding to NKp44, NKp46, or NKG2D (3, 6). Ligation of NKp30 by B7-H6 induces NK cell activation and target cell cytolysis (3). B7-H6 is expressed on a wide range of hematopoietic, carcinoma, and melanoma tumor cells, which is consistent with the detection of NKp30 binding sites on many tumors (3, 7). The expression of NKp30 ligands on tumor cells correlates with tumor cell sensitivity to NKp30-dependent cell lysis (7).

References:

1. Zou, W. and L. Chen (2008) *Nat. Rev. Immunol.* **8**:467.
2. Bour-Jordan, H. *et al.* (2011) *Immunol. Rev.* **241**:180.
3. Brandt, C.S. *et al.* (2009) *J. Exp. Med.* **206**:1495.
4. Li, Y. *et al.* (2011) *J. Exp. Med.* **208**:703.
5. Joyce, M.G. *et al.* (2011) *Proc. Natl. Acad. Sci.* **108**:6223.
6. Arnon, T.I. *et al.* (2006) *Semin. Cancer Biol.* **16**:348.
7. Byrd, A. *et al.* (2007) *PLoS ONE* **2**:e1339.

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