

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human B7-H6 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG ₁ Clone # 2167B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human B7-H6 protein Asp25-Ser262 Accession # Q68D85
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
CytoF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Flow Cytometry

Detection of B7-H6 in HeLa Human Cell Line by Flow Cytometry. HeLa human cervical epithelial carcinoma cell line was stained with Rabbit Anti-Human B7-H6 Monoclonal Antibody (Catalog # MAB71443, filled histogram) or isotype control antibody (Catalog # MAB1050, open histogram), followed by Allophycocyanin-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # F0111). View our protocol for [Staining Membrane-associated Proteins](#).

Flow Cytometry

Detection of B7-H6 in HEK293 Human Cell Line Transfected with Human B7-H6 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with human B7-H6 and eGFP was stained with either (A) Rabbit Anti-Human B7-H6 Monoclonal Antibody (Catalog # MAB71443) or (B) Rabbit IgG control antibody (Catalog # MAB1050) followed by APC-conjugated Goat anti-Rabbit IgG Secondary Antibody (Catalog # F0111). View our protocol for [Staining Membrane-associated Proteins](#).

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

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 cytotoxicity (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.