Human B7-H7/HHLA2 Antibody

Recombinant Monoclonal Mouse IgG_1 Clone # 907812R

Catalog Number: MAB80841R

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human B7-H7/HHLA2 in direct ELISAs.
Source	Recombinant Monoclonal Mouse IgG_1 Clone # 907812R
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell line HEK293-derived human B7-H7/HHLA2 Met1-Asn344 Accession # Q9UM44
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

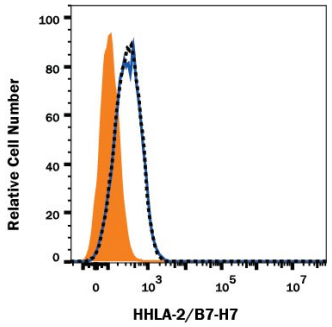
APPLICATIONS

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.	
Blockade of Receptor-ligand Interaction	In a functional flow cytometry test, biotinylated recombinant human TMIGD2/CD28H binds to HEK293 human embryonic kidney cell line transfected with human B7-H7/HHLA2. Binding is completely blocked by Mouse Anti-Human B7-H7/HHLA2 Monoclonal Antibody.	

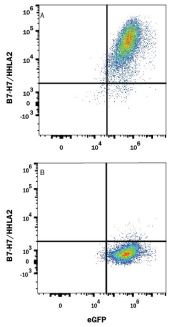
DATA

Blockade of Receptor-ligand Interaction



TMIGD2/CD28H Binding to B7-H7/HHLA2-transfected HEK293 Human Cell Line is Blocked by Human B7-H7/HHLA2 Antibody. In a functional flow cytometry test, biotinylated recombinant human TMIGD2/CD28H (10 ng/mL, Catalog # Catalog # 8316-TR) binds to HEK293 human embryonic kidney cell line transfected with human B7-H7/HHLA2 (black dotted line). Binding is completely blocked (orange histogram) by 2.5 µg/mL of Mouse Anti-Human B7-H7/HHLA2 Monoclonal Antibody (Catalog # MAB80841R). Mouse IgG1 Isotype Control (Catalog # Catalog # MAB002) at 2.5 µg/mL was used as a control (blue line). Cells were stained with Streptavidin-APC (Catalog # Catalog # F0050).

Flow Cytometry



Detection of B7-H7/HHLA2 in HEK Human Cell Line Transfected with Human B7-H7/HHLA2 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with either (A) human B7-H7/HHLA2 or (B) irrelevant protein, and eGFP was stained with Mouse Anti-Human B7-H7/HHLA2 Monoclonal Antibody (Catalog # MAB80841R) followed by anti-Mouse IgG APC-conjugated secondary antibody (Catalog # Catalog # F0101B). Quadrant markers were set based on control antibody staining (Catalog # Catalog # MAB002). View our protocol for Staining Membrane-associated Proteins.

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.** • 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.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Human B7-H7/HHLA2 Antibody

Recombinant Monoclonal Mouse IgG_1 Clone # 907812R

Catalog Number: MAB80841R

BACKGROUND

B7-H7, also known as HHLA2 (HERV-H LTR-associating 2), is a member of the B7 family of immune regulatory proteins (1, 2). Mature human B7-H7 consists of a 322 amino acid (aa) extracellular domain (ECD) with three immunoglobulin-like domains, a 21 aa transmembrane segment, and a 49 aa cytoplasmic domain (3-5). B7-H7 is constitutively expressed on monocytes and is up-regulated by LPS and IFN-γ stimulation. It is expressed on LPS/IFN-γ treated B cells but not on resting B cells (5). B7-H7 binds to cell surface determinants on resting and mature T cells, B cells, and monocytes as well as on immature and mature dendritic cells (5). Soluble B7-H7 inhibits the proliferation of activated $CD4^+$ and $CD8^+$ T cells and their production of IFN-γ, TNF-α, IL-5, IL-10, IL-13, IL-17A, and IL-22 (5).

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. Mager, D.L. *et al.* (1999) Genomics **59**:255.
4. Flajnik, M.M. *et al.* (2012) Immunogenetics **64**:571.
5. Zhao, R. *et al.* (2013) Proc. Natl. Acad. Sci. USA **110**:9879.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449