

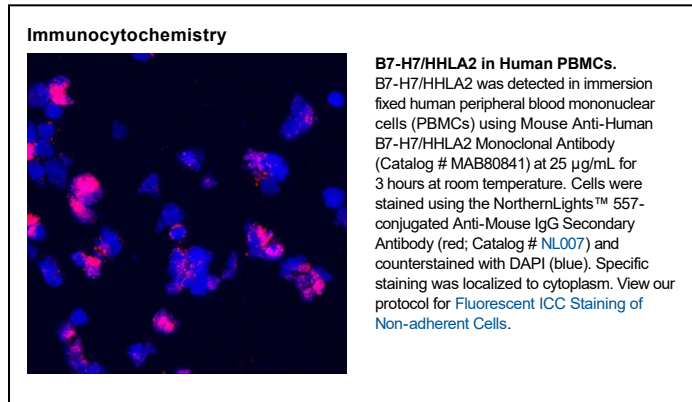
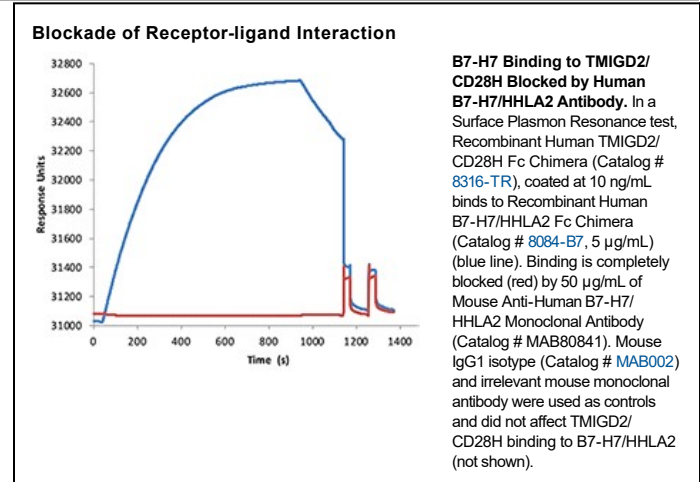
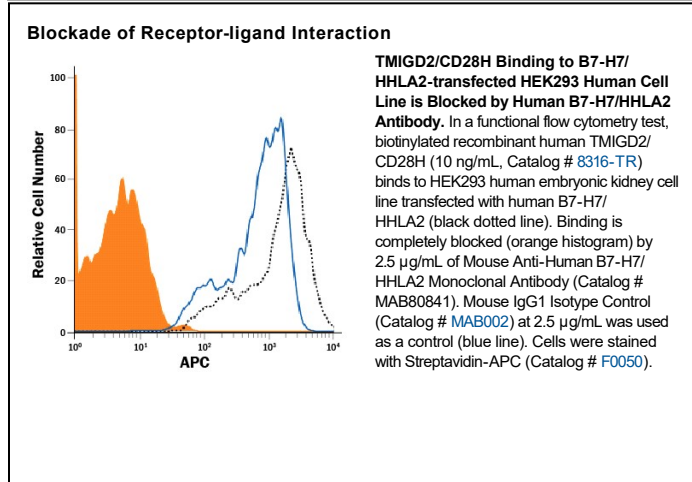
DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human B7-H7/HHLA2 in direct ELISAs.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 907812
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Human embryonic kidney cell line HEK293-derived human B7-H7/HHLA2 Met1-Asn344 Accession # Q9UM44
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	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
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Blockade of Receptor-ligand Interaction</b>	In a functional ELISA, 100-300 ng/mL of Mouse anti-Human B7-H7/HHLA2 Antibody (Catalog # MAB80841) will block 50% of the binding of 500 ng/mL of Recombinant Human B7-H7/HHLA2 Fc Chimera (Catalog # 8084-B7) to immobilized Recombinant Human TMIGD2/CD28H Fc Chimera (Catalog # 8316-TR) coated at 125 ng/mL (100 µL/well). At 1.25 µg/mL, this antibody will block >90% of the binding.	

**DATA**



## 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.

- 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-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- $\gamma$  stimulation. It is expressed on LPS/IFN- $\gamma$  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<sup>+</sup> and CD8<sup>+</sup> T cells and their production of IFN- $\gamma$ , TNF- $\alpha$ , 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.