

#### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human B7-H7/HHLA2 in direct ELISAs.
<b>Source</b>	Recombinant Monoclonal Mouse IgG <sub>1</sub> Clone # 907812R
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Human embryonic kidney cell line HEK293-derived human B7-H7/HHLA2 Met1-Asn344 Accession # Q9UM44
<b>Conjugate</b>	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
<b>Formulation</b>	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.  *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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	0.25-1 µg/10 <sup>6</sup> cells	HEK Human Cell Line Transfected with Human B7-H7/HHLA2 and eGFP

#### PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

#### 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<sup>+</sup> and CD8<sup>+</sup> 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.

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