

## Recombinant Human HVEM-Fc Chimera (carrier-free)

<b>Catalog# / Size</b>	596504 / 20 µg 596506 / 100 µg
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Herpes virus entry mediator (HVEM), TNFRSF14, ATAR, TR2, CD270
<b>Description</b>	Herpes virus entry mediator (HVEM), a member of the tumor necrosis factor (TNF) receptor family, mediates herpes virus entry into cells during infection. Upon overexpression, HVEM activates NF-kappaB and AP-1 through a TNF receptor-associated factor (TRAF)-mediated mechanism. HVEM ligands belong to two distinct families: the TNF-related cytokines LIGHT and lymphotoxin- $\alpha$ , and the Ig-related membrane proteins BTLA and CD160. HVEM and its ligands have been involved in the pathogenesis of various autoimmune and inflammatory diseases, tumor progression and resistance to immune response. It has been demonstrated that HVEM induces a novel signaling pathway downstream leading to signal transduction and activation of STAT3 in epithelial cells. Since STAT3 regulates the expression of genes important for host defense in epithelial cells, as well as the differentiation of retinoid-related orphan receptor ROR $\gamma$ +, Th17, and innate lymphoid cells. This finding suggests that HVEM may play an important role in mucosal host defense.

### Product Details

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<b>Source</b>	Human HVEM, amino acids (Leu39-Lys184) (Accession# NP_003811.2) with a human IgG1-Fc tag, was expressed in insect cells.
<b>Molecular Mass</b>	The 376 amino acid recombinant protein consists of an N-terminal domain corresponding to the extracellular domain of HVEM and C-terminal portion corresponding to amino acid 102 to 330 of human IgG1. The protein has a predicted molecular mass of approximately 45 kD. The predicted N-terminal amino acid is Leu.
<b>Purity</b>	>98%, as determined by Coomassie stained SDS-PAGE.
<b>Formulation</b>	Lyophilized
<b>Endotoxin Level</b>	Less than 0.1 ng per µg of protein.
<b>Storage &amp; Handling</b>	Unopened vial can be stored at -20°C or -70°C. For maximum results, quick spin vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. It is recommended to further dilute in a buffer containing a carrier protein such as 0.1% BSA and store in working aliquots at -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>
<b>Activity</b>	Human HVEM-Fc is able to neutralize 0.25 ng/ml of human TNF- $\beta$ induced cytotoxicity on murine L929 cells. The ED <sub>50</sub> is 1.3 - 1.9 µg/ml, corresponding to a specific activity of 5.26 x 10 <sup>2</sup> - 7.69 x 10 <sup>2</sup> units/mg.
<b>Application</b>	<a href="#">Bioassay</a>
<b>Application Notes</b>	This product is reactive with human and mouse.

### Antigen Details

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<b>Structure</b>	Cytokine
<b>Distribution</b>	Spleen, thymus, lung, macrophages, B cells and T cells.
<b>Function</b>	HVEM plays a role in mucosal host defense, autoimmune and inflammatory diseases, and tumor progression.
<b>Ligand/Receptor</b>	LIGHT, lymphotoxin-alpha.
<b>Bioactivity</b>	Neutralize TNF $\beta$ induced cytotoxicity on murine L929 cells.
<b>Cell Type</b>	Tregs

<b>Biology Area</b>	Cell Adhesion, Cell Biology, Immunology, Signal Transduction
<b>Molecular Family</b>	Adhesion Molecules, CD Molecules, Immune Checkpoint Receptors
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Pasero C. <i>et al.</i> 2012. <i>Curr. Opin. Pharmacol.</i> 12:478.</li><li>2. Hsu H. <i>et al.</i> 1997. <i>J. Biol. Chem.</i> 272:13471.</li><li>3. Mauri DN. <i>et al.</i> 1998. <i>Immunity.</i> 8:21.</li><li>4. Montgomery R.I. <i>et al.</i> 1996 <i>Cell.</i> 87:427.</li><li>5. Shui J.W. <i>et al.</i> 2012. <i>Nature.</i> 488:222.</li></ol>
<b>Gene ID</b>	<a href="#">8764</a>

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