

## HVEM/TNFRSF14 Protein, Human (HEK293, hFc)

<b>Cat. No.:</b>	HY-P700452
<b>Synonyms:</b>	Tumor Necrosis Factor Receptor Superfamily Member 14; Herpes Virus Entry Mediator A; Herpesvirus Entry Mediator A; HveA; Tumor Necrosis Factor Receptor-Like 2; TR2; CD270; TNFRSF14; HVEA; HVEM
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q92956 (L39-V202)
<b>Gene ID:</b>	8764
<b>Molecular Weight:</b>	48.5 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>           L P S C K E D E Y P    V G S E C C P K C S    P G Y R V K E A C G    E L T G T V C E P C            P P G T Y I A H L N    G L S K C L Q C Q M    C D P A M G L R A S    R N C S R T E N A V            C G C S P G H F C I    V Q D G D H C A A C    R A Y A T S S P G Q    R V Q K G G T E S Q            D T L C Q N C P P G    T F S P N G T L E E    C Q H Q T K C S W L    V T K A G A G T S S            S H W V         </p>
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, 6% Trehalose, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>           HVEM/TNFRSF14, a receptor for four distinct ligands, intricately orchestrates a complex network of stimulatory and inhibitory signaling pathways. Ligands, including TNFSF14/LIGHT, homotrimeric LTA/lymphotoxin-alpha, and immunoglobulin superfamily members BTLA and CD160, collectively define this intricate signaling network. Operating through the TRAF2-TRAF3 E3 ligase pathway, HVEM/TNFRSF14 signals to promote immune cell survival and differentiation, playing a pivotal role in bidirectional cell-cell contact signaling between antigen-presenting cells and lymphocytes. Upon TNFSF14/LIGHT ligation, HVEM/TNFRSF14 delivers costimulatory signals to T cells, fostering cell proliferation and effector functions. Interactions with CD160 on NK cells enhance IFNG production and anti-tumor immune responses. In bacterial infections, HVEM/TNFRSF14 acts as a signaling receptor on epithelial cells for CD160 from intraepithelial lymphocytes,         </p>
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triggering the production of antimicrobial proteins and pro-inflammatory cytokines. Furthermore, HVEM/TNFRSF14, through binding CD160 on activated CD4+ T cells, down-regulates CD28 costimulatory signaling, restricting memory and alloantigen-specific immune responses. HVEM/TNFRSF14 exhibits both cis and trans interactions with BTLA, playing diverse roles in immune regulation and survival signaling during adaptive immune responses. Additionally, as a receptor for Herpes simplex virus 1/HHV-1, HVEM/TNFRSF14 is implicated in microbial infection.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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