

# HVEM / TNFRSF14 Antibody

Rabbit Polyclonal Antibody Catalog # ABV11778

## **Product Information**

Application	WB, IHC
Primary Accession	<u>Q92956</u>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	30392

# **Additional Information**

Gene ID	8764
Positive Control Application & Usage Alias Symbol Other Names	IHC, WB, IFC IHC: 1 [g/ml; WB: 1-2 [g/ml; IFC: 10 [g/ml TNFRSF14 TNFRSF14 Antibody: TR2, ATAR, HVEA, HVEM, CD270, LIGHTR, UNQ329/PRO509, Tumor necrosis factor receptor superfamily member 14, Herpes virus entry mediator A, Herpesvirus entry mediator A, tumor necrosis factor receptor superfamily, member 14 (herpesvirus entry mediator)
Appearance	Colorless liquid
Reconstitution & Storage	-20 °C
Background Descriptions Precautions	HVEM / TNFRSF14 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### **Protein Information**

Name	TNFRSF14 ( <u>HGNC:11912</u> )
Function	Receptor for four distinct ligands: The TNF superfamily members TNFSF14/LIGHT and homotrimeric LTA/lymphotoxin-alpha and the immunoglobulin superfamily members BTLA and CD160, altogether defining a complex stimulatory and inhibitory signaling network (PubMed: <u>10754304</u> , PubMed: <u>18193050</u> , PubMed: <u>23761635</u> , PubMed: <u>9462508</u> ). Signals via the TRAF2-TRAF3 E3 ligase pathway to promote immune cell survival and differentiation (PubMed: <u>19915044</u> , PubMed: <u>9153189</u> , PubMed: <u>9162022</u> ). Participates in bidirectional cell-cell contact signaling between antigen presenting cells and lymphocytes. In response to ligation of TNFSF14/LIGHT,

	delivers costimulatory signals to T cells, promoting cell proliferation and effector functions (PubMed:10754304). Interacts with CD160 on NK cells, enhancing IFNG production and anti-tumor immune response (PubMed:23761635). In the context of bacterial infection, acts as a signaling receptor on epithelial cells for CD160 from intraepithelial lymphocytes, triggering the production of antimicrobial proteins and pro-inflammatory cytokines (By similarity). Upon binding to CD160 on activated CD4+ T cells, down- regulates CD28 costimulatory signaling, restricting memory and alloantigen-specific immune response (PubMed:18193050). May interact in cis (on the same cell) or in trans (on other cells) with BTLA (By similarity) (PubMed:19915044). In cis interactions, appears to play an immune regulatory role inhibiting in trans interactions in naive T cells to maintain a resting state. In trans interactions, can predominate during adaptive immune response to provide survival signals to effector T cells (By similarity) (PubMed:19915044).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Widely expressed, with the highest expression in lung, spleen and thymus. Expressed in a subpopulation of B cells and monocytes (PubMed:18193050). Expressed in naive T cells (PubMed:19915044).

## Background

TNFRSF14 Antibody: Tumor necrosis factor receptor (TNFR) superfamily members are defined by cysteine-rich domains in their extracellular regions that bind TNF-related ligands that share a common structural homology in their extracellular domain. TNFRSF14 was initially identified as the Herpesvirus entry mediator and upon binding to the herpes simplex virus (HSV) envelope glycoprotein D or either of its natural ligands LIGHT and lymphotoxin alpha (LT), activates the transcription factors NF-KB and AP-1. Activation of this signal transduction pathway in T cells stimulates T cell proliferation and cytokine production, leading to inflammation and enhanced CTL-mediated tumor immunity, suggesting that these proteins may be useful as potential targets for controlling cellular immune responses.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.