

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human HVEM/TNFRSF14 in direct ELISAs and Western blots. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) CD30 and no cross-reactivity with rh4-1BB, rhCD27, rhCD40, rhDR3, rhDR6, rhFas, rhGITR, rhNGF-R, rhOPG, rhRANK, recombinant mouse (rm) RANK, rhTAJ, rhTNF RI, rhTNF RII, or rmTNF RI is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 94801
Purification	Protein A or G purified from ascites
Immunogen	Mouse myeloma cell line NS0-derived recombinant human HVEM/TNFRSF14 Pro37-Val202 (Ser108Thr and Ala140Arg) Accession # AAB58354
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood lymphocytes

PREPARATION AND STORAGE

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

BACKGROUND

Herpesvirus entry mediator (HVEM), also referred to as TR2 (TNF receptor-like molecule) and ATAR (another TRAF-associated receptor), is a type I membrane protein belonging to the TNF/NGF receptor superfamily. In the TNF superfamily nomenclature, HVEM is referred to as TNFRSF14. Human HVEM cDNA encodes a 283 amino acid (aa) protein with a probable 36 aa signal peptide, a 166 aa extracellular domain, a 23 aa transmembrane region and a 58 aa cytoplasmic region. The extracellular domain of HVEM contains several cysteine-rich repeats characteristic of TNF receptor superfamily members. The short cytoplasmic region lacks a death domain present in some TNF receptor family members, but contains a TRAF (TNF receptor-associated factor) interaction domain. HVEM expression has been detected in peripheral blood T cells, B cells, monocytes and in various tissues enriched in lymphoid cells. The extracellular domain of HVEM has been shown to interact directly with the herpes simplex virus envelope glycoprotein D. Two TNF superfamily ligands, including the secreted TNF-β (lymphotoxin α) and the membrane protein LIGHT (lymphotoxins, exhibits inducible expression, and competes with HSV glycoprotein D for HVEM, a receptor expressed by T lymphocytes), have been shown to be the cellular ligands for HVEM. Besides HVEM, LIGHT can also interact with LTβR, the receptor for lymphotoxin αβ heterotrimer.

References:

- Hsu, H. *et al.* (1997) J. Biol. Chem. **272**:13471.
- Mauri, D.N. *et al.* (1998) Immunity **8**:21.
- Montgomery, R.I. *et al.* (1996) Cell **87**:427.

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