

## Anti-HVEM [HMHV-1B18] VivopureX 1 mg Ab01026-2.3-VXS

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric mouse antibody was made using the variable domain sequences of the original Hamster IgG format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse IgG2a, [Fc Silent™](#), Kappa

**Clone Number:** HMHV-1B18

**Alternative Name(s) of Target:** CD270; TNF Receptor-like 2; ATAR; Herpes virus Entry Mediator A; HVEA; Herpes virus Entry Mediator; LIGHTR; Tumor Necrosis Factor Receptor-Like Gene2; Tumor Necrosis Factor Receptor-Like 2; TR2; Tumor Necrosis Factor Receptor Superfamily Member 14; TNFRSF14; CD40-Like Protein

**UniProt Accession Number of Target Protein:** Q71F55

**Published Application(s):** Blocking, functional assays, IP, WB, FC

**Published Species Reactivity:** Mouse

**Immunogen:** This antibody was raised by immunising Armenian hamsters with mouse HVEM:Fc fusion protein.

**Specificity:** This antibody is specific for Herpes Virus Entry Mediator (HVEM, TR2), a type I transmembrane protein of TNF-receptor superfamily. This receptor, which is expressed on most cell types, including T cells, B cells, monocytes, neutrophils, and dendritic cells. Binding of HSV viral envelope glycoprotein D (gD) to this receptor protein has been shown to be part of the viral entry mechanism. The cytoplasmic region of HVEM was found to bind to several TRAF family members, which may mediate the signal transduction pathways that activate the immune response. HVEM has also been demonstrated to be a unique ligand for BTLA (B and T lymphocyte attenuator). The conservation of the BTLA-HVEM interaction between mouse and human suggests that this system is an important pathway regulating lymphocyte activation and/or homeostasis in the immune response.

**Application Notes:** This antibody has been used in FACS to demonstrate that lymphatic endothelial cells mediate deletion only via programmed cell death-1 (PD-1) ligand 1 (Tewalt et al 2012) and in Western Blot to study the role of LIGHT in the pathogenesis of hepatitis (Anand et al 2006). This antibody has been also been used in vivo experiments to study the mechanisms by which TNFSF14 functions to promote airway remodelling in asthma (Sibilano et al 2016), to confirm that costimulatory role through HVEM is not necessary for LIGHT-mediated liver inflammation (Anand et al 2006), and to investigate the role that

herpesvirus entry mediator plays in the development of experimental conjunctivitis (Ishida et al, 2012). Treatment with this antibody has been observed to diminish plasma levels of antigen-specific IgG1 and IgE antibodies in mouse asthma models (Sibilano et al 2016), to interfere with the LIGHT-HVEM interaction but not interaction between B and T lymphocyte attenuator (BTLA) and HVEM in mouse hepatitis models (Anand et al 2006), and NOT to affect the development of experimental conjunctivitis in either the induction or the effector phase (Ishida et al, 2012).

**Antibody First Published in:** Waka Ishida et al. B and T lymphocyte attenuator regulates the development of antigen-induced experimental conjunctivitis. Graefes Arch Clin Exp Ophthalmol. 2012 Feb;250(2):289-95. [PMID:21779950](#)

**Note on publication:** Describe the use of this antibody, together with the anti-BTLA antibody, to investigate the roles that B and T lymphocyte attenuator (BTLA) and herpesvirus entry mediator (HVEM) play in the development of antigen-induced experimental conjunctivitis (EC).

## Product Form

**Size:** 1 mg VivopureX products are produced at high purity (>98%), low endotoxin (<0.5 EU/mg) and are formulated without preservatives. These antibodies are chimerized to have an Fc domain matching their target species to reduce immunogenicity and give you the optimal effector function for your experiment. As a result VivopureX products are the ideal choice for in vivo research applications.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** All VivopureX products are formulated in PBS only without addition of preservatives. To ensure optimal storage and prevent microbial contamination, only open and dispense under sterile conditions. Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

**Concentration:** ≥1mg (see vial label for exact conc)

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.