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ProductInformation

ANTI-HVEM
Developed in Goat
Affinity Isolated Antibody

Product Number **H 0646**

Product Description

Anti-HVEM is developed in goat using purified recombinant human HVEM extracellular domain[1], expressed in NSO cells, as immunogen. HVEM specific IgG is purified from goat serum using human HVEM affinity chromatography.

Anti-HVEM recognizes recombinant human HVEM by immunoblotting and ELISA. In immunoblotting and ELISA, this antibody demonstrates no cross-reactivity with recombinant human TNF sRI, TNF sRII and NGF receptor.

The reduced human HVEM/Fc monomer has a calculated molecular mass of approximately 45 kDa. Due to glycosylation, the recombinant protein migrates as an approximately 60 kDa protein in SDS-PAGE.

HVEM (herpes virus entry mediator), 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 receptor superfamily. This receptor mediates herpes virus entry into cells during infection.[2] HVEM is able to inhibit the proliferation, activation, and cytokine production of T cells. It has an extracellular domain containing several cysteine-rich repeats and a short cytoplasmic region containing a TRAF (TNF receptor-associated factor) interaction domain.[3] The extracellular domain of HVEM interacts with the herpes simplex virus envelope glycoprotein D.[1]

HVEM binds two cellular ligands: lymphotoxin α and LIGHT (HVEM-L).[4] LIGHT is an acronym, which stands for “is homologous to **l**ymphotoxins, exhibits **i**nducible expression, and competes with HSV **g**lycoprotein D for **H**VEM, a receptor expressed by **T** lymphocytes”. The LIGHT:HVEM interaction controls immune response functions by cell death induction as well as cell activation. HVEM is expressed by peripheral blood T cells, B cells, monocytes and in various tissues enriched in lymphoid cells.

Reagent

Anti-HVEM is supplied as 100 µg of antibody lyophilized from a 0.2 µm filtered solution in phosphate buffered saline.

Preparation Instructions

To one vial of lyophilized powder, add 1 ml of 0.2 µm-filtered solution of phosphate-buffered saline (PBS) to produce a 0.1 mg/ml stock solution of antibody. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at –20° C. The re-constituted product may be stored at 2-8° C for at least one month. For prolonged storage, freeze in working aliquots at –20° C. Avoid repeated freezing and thawing.

Product Profile

For ELISAs, a working concentration of 0.5-1.0 µg/ml detects approximately 0.03 ng/well of human HVEM. .

For immunoblotting, a working concentration of 0.1-0.2 µg/ml detects human HVEM at approximately 5 ng/lane under non-reducing and reducing conditions.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilutions by titration test.

Endotoxin: <30 ng/mg antibody determined by the LAL method.

References

1. Montgomery, R.I. et al., Herpes simplex virus-1 entry into cells mediated by a novel member of the TNF/NGF receptor family. Cell, **87**, 427-436 (1996).
2. Harrop, J.A., et al., Herpesvirus entry mediator ligand (HVEM-L), a novel ligand for HVEM/TR2, stimulates proliferation of T cells and inhibits HT29 cell growth. J. Biol. Chem., **273**, 27548-27556 (1998).
3. Hsu, H., et al., ATAR, a novel tumor necrosis factor receptor family member, signals through TRAF2 and TRAF5. **272**, 13471-13474 (1997).
4. Mauri, D.N., et al., LIGHT, a new member of the TNF superfamily, and lymphotoxin alpha are ligands for herpesvirus entry mediator. Immunity, **8**, 21-30 (1998).

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