

HVEM (CW10): sc-21718

BACKGROUND

HVEM (herpes virus entry mediator A), also known as TR2, ATAR, HVEA, LIGHTR or TNFRSF14 (tumor necrosis factor receptor superfamily, member 14), is a 283 amino acid single-pass type I membrane protein that is widely expressed, with highest expression in lung, spleen and thymus. A member of the TNF receptor superfamily, HVEM mediates the entry of herpes simplex virus (HSV) 1 and 2 into T lymphocytes by serving as an attachment site for the HSV envelope glycoprotein D (gD). HVEM acts as a receptor for two cellular ligands, secreted lymphotoxin and LIGHT. A member of the TNF superfamily produced by activated T-cell, LIGHT is suggested to induce apoptosis and suppress tumor formation. Consisting of three TNFR-Cys repeats, HVEM plays a critical role in HSV pathogenesis. HVEM is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF14 (human) mapping to 1p36.32.

SOURCE

HVEM (CW10) is a mouse monoclonal antibody mapping to amino acids 120-200 of human HVEM.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HVEM (CW10) is available conjugated to agarose (sc-21718 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21718 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21718 PE), Alexa Fluor[®] 488 (sc-21718 AF488), Alexa Fluor[®] 546 (sc-21718 AF546), Alexa Fluor[®] 594 (sc-21718 AF594) or Alexa Fluor[®] 647 (sc-21718 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-21718 AF680) or Alexa Fluor[®] 790 (sc-21718 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

HVEM (CW10) is recommended for detection of HVEM of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for HVEM siRNA (h): sc-43855, HVEM shRNA Plasmid (h): sc-43855-SH and HVEM shRNA (h) Lentiviral Particles: sc-43855-V.

Molecular Weight of HVEM: 30 kDa.

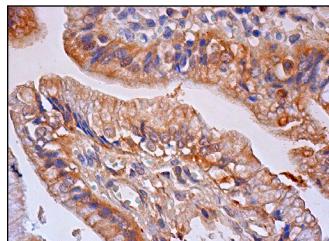
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

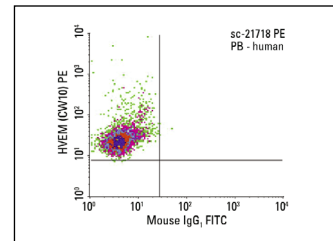
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



HVEM (CW10): sc-21718. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.



HVEM (CW10) PE: sc-21718 PE. FCM analysis of human peripheral blood leukocytes. Quadrant markers were set based on the isotype control, normal mouse IgG₁-PE: sc-2866.

SELECT PRODUCT CITATIONS

- Pierer, M., et al. 2007. The TNF superfamily member LIGHT contributes to survival and activation of synovial fibroblasts in rheumatoid arthritis. *Rheumatology* 46: 1063-1070.
- Yu, Z., et al. 2007. Nectin-1 expression by squamous cell carcinoma is a predictor of herpes oncolytic sensitivity. *J. Biol. Chem.* 15: 103-113.
- Huang, Y.Y., et al. 2007. Nectin-1 is a marker of thyroid cancer sensitivity to herpes oncolytic therapy. *J. Clin. Endocrinol. Metab.* 92: 1965-1970.
- Uchida, H., et al. 2009. Generation of herpesvirus entry mediator (HVEM)-restricted herpes simplex virus type 1 mutant viruses: resistance of HVEM-expressing cells and identification of mutations that rescue nectin-1 recognition. *J. Virol.* 83: 2951-2961.
- Bolyard, C., et al. 2014. Doxorubicin synergizes with 34.5ENVE to enhance antitumor efficacy against metastatic ovarian cancer. *Clin. Cancer Res.* 20: 6479-6494.
- Leddon, J.L., et al. 2015. Oncolytic HSV virotherapy in murine sarcomas differentially triggers an antitumor T-cell response in the absence of virus permissivity. *Mol. Ther. Oncolytics* 1: 14010.
- Wang, P.Y., et al. 2016. Neuroblastomas vary widely in their sensitivities to herpes simplex virotherapy unrelated to virus receptors and susceptibility. *Gene Ther.* 23: 135-143.
- Schwertner, B., et al. 2021. Nectin-1 expression correlates with the susceptibility of malignant melanoma to oncolytic herpes simplex virus *in vitro* and *in vivo*. *Cancers* 13: 3058.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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