SANTA CRUZ BIOTECHNOLOGY, INC.

LIGHT (E-13): sc-34117

BACKGROUND

Herpes virus entry mediator (HVEM), a type I transmembrane protein, is 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 also binds two cellular ligands, secreted lymphotoxin α and LIGHT. LIGHT is a member of the TNF superfamily produced by activated T cells. This 29 kDa type II transmembrane protein competes with HSV glycoprotein D for binding to HVEM. LIGHT is closely related in sequence to lymphotoxin β (LTβ) and can also bind to the LTβ receptor. LIGHT is also known to induce apoptosis and suppress tumor formation.The gene encoding LIGHT maps to human chromosome 19p13.3.

REFERENCES

1. Montgomery, R.I., et al. 1996. Herpes simplex virus-1 entry into cells mediated by a novel member of the TNF/NGF receptor family. Cell 87: 427-436.
2. Marsters, S.A., et al. 1997. Herpes virus entry mediator, a member of the tumor necrosis factor receptor (TNFR) family, interacts with members of the TNFR-associated factor family and activates the transcription factors NFκB and AP-1. J. Biol. Chem. 30: 14029-14032.
3. Whitbeck, J.C., et al. 1997. Glycoprotein D of herpes simplex virus (HSV) binds directly to HVEM, a member of the tumor necrosis factor receptor superfamily and a mediator of HSV entry. J. Virol. 71: 6083-6093.
4. Mauri, D.N., et al. 1998. LIGHT, a new member of the TNF superfamily, and lymphotoxin α are ligands for herpesvirus entry mediator. Immunity 8: 21-30.
5. Zhai, Y., et al. 1998. LIGHT, a novel ligand for lymphotoxin beta receptor and TR2/HVEM induces apoptosis and suppresses *in vivo* tumor formation via gene transfer. J. Clin. Invest. 15: 1142-1151.
6. Granger, S.W., et al. 2001. Genomic characterization of LIGHT reveals linkage to an immune response locus on chromosome 19p13.3 and distinct isoforms generated by alternate splicing or proteolysis. J. Immunol. 167: 5122-5128.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF14 (human) mapping to 19p13.3; Tnfsf14 (mouse) mapping to 17 D-E1.

SOURCE

LIGHT (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of LIGHT of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34117 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LIGHT (E-13) is recommended for detection of LIGHT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LIGHT siRNA (h): sc-39674 and LIGHT siRNA (m): sc-39677.

Molecular Weight of LIGHT: 29 kDa.

Positive Controls: mouse liver.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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