

LIGHT (N-19): sc-7768

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 type II transmembrane protein competes with HSV glycoprotein D for binding to HVEM. LIGHT is closely related in sequence to lymphotoxin β (LT β) and can also bind to the LT β 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 NF κ B 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 β receptor and TR2/HVEM induces apoptosis and suppresses *in vivo* tumor formation via gene transfer. *J. Clin. Invest.* 15: 1142-1151.

CHROMOSOMAL LOCATION

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

SOURCE

LIGHT (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of LIGHT of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7768 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

LIGHT (N-19) is recommended for detection of membrane and soluble forms 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LIGHT (N-19) is also recommended for detection of membrane and soluble forms of LIGHT in additional species, including equine, canine, bovine and porcine.

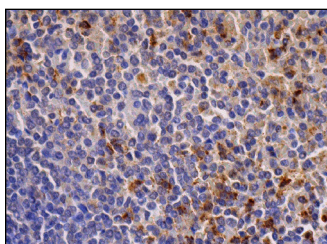
Suitable for use as control antibody for LIGHT siRNA (h): sc-39674, LIGHT siRNA (m): sc-39677, LIGHT shRNA Plasmid (h): sc-39674-SH, LIGHT shRNA Plasmid (m): sc-39677-SH, LIGHT shRNA (h) Lentiviral Particles: sc-39674-V and LIGHT shRNA (m) Lentiviral Particles: sc-39677-V.

Molecular Weight of LIGHT: 29 kDa.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



LIGHT (N-19): sc-7768. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of subset of cells in red pulp.

RESEARCH USE

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

MONOS
Satisfaction
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Try **LIGHT (4E3): sc-293480**, our highly recommended monoclonal alternative to LIGHT (N-19).