

LIGHT
Catalog # PVGS1603**Specification**

LIGHT - Product Information

Primary Accession [O43557](#)
Species
Human

Sequence
Asp74 - Val240

Purity
> 95% as analyzed by SDS-PAGE

Endotoxin Level
< 1 EU/ µg of protein by gel clotting method

Biological Activity
Immobilized LIGHT, Human at 2.0 µg/ml (100 µl/well) can bind HVEM-Fc, Human with EC₅₀=0.738 µg/ml when detected by Mouse Anti-Human IgG FC-HRP.

Expression System
HEK 293

Formulation **Lyophilized from a 0.2 µm filtered solution in PBS.**

Reconstitution
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH₂O or PBS up to 100 µg/ml.

Storage & Stability
Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

LIGHT - Additional Information

Gene ID 8740

Other Names
Tumor necrosis factor ligand superfamily member 14, Herpes virus entry mediator ligand, HVEM-L, Herpesvirus entry mediator ligand, CD258, Tumor necrosis factor ligand superfamily member 14, membrane form, Tumor necrosis factor ligand superfamily member 14, soluble form, TNFSF14, HVEML, LIGHT

Target Background
LIGHT, also known as tumor-necrosis factor (TNF) superfamily member 14 (TNFSF14), is

predominantly expressed on activated immune cells and some tumor cells. LIGHT (homologous to lymphotoxin, exhibits inducible expression and competes with Herpes Simplex Virus glycoprotein D for Herpes Virus Entry Mediator, a receptor expressed by T cells), is a protein primarily expressed on activated T cells, activated Natural Killer (NK) cells, and immature dendritic cells (DC). LIGHT can function as both a soluble and cell surface-bound type II membrane protein and must be in its homotrimeric form to interact with its two primary functional receptors: Herpes Virus Entry Mediator (HVEM) and Lymphotoxin- β Receptor (LT β R). LIGHT signaling through these receptors have distinct functions that are cell-type dependent, but interactions with both types of receptors have immune-related implications in tumor biology.

LIGHT - Protein Information

Name TNFSF14

Synonyms HVEML, LIGHT

Function

Cytokine that binds to TNFRSF3/LTBR. Binding to the decoy receptor TNFRSF6B modulates its effects. Acts as a ligand for TNFRSF14/HVEM (PubMed:10754304, PubMed:9462508). Upon binding to TNFRSF14/HVEM, delivers costimulatory signals to T cells, leading to T cell proliferation and IFNG production (PubMed:10754304).

Cellular Location

[Tumor necrosis factor ligand superfamily member 14, membrane form]: Cell membrane; Single-pass type II membrane protein [Isoform 2]: Cytoplasm.

Tissue Location

Predominantly expressed in the spleen but also found in the brain. Weakly expressed in peripheral lymphoid tissues and in heart, placenta, liver, lung, appendix, and kidney, and no expression seen in fetal tissues, endocrine glands, or nonhematopoietic tumor lines.

LIGHT - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

LIGHT - Images