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LIGHT

Catalog # PVGS1603

Product Information

Primary Accession	O43557
Species	Human
Sequence	Asp74 - Val240
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	Immobilized LIGHT, Human at 2.0 μg/ml (100 μl/well) can bind HVEM-Fc, Human with EC_{50}=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 ddH_2O 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.

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 (LTβR). 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.

Protein Information

Name	TNFSF14
Synonyms	HVEML, LIGHT
Function	Cytokine that binds to TNFRSF3/LTB and TNFRSF14/HVEM and plays major roles in immune system regulation (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). Binds to the decoy receptor TNFRSF6B thereby disrupts the activation signal initiated by TNFSF14, resulting in reduced T-cell activation (PubMed:25087510).
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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.