Data Sheet (Cat.No.TMPS-00098)

TargetMol

LIGHT/TNFSF14 Protein, Human, Recombinant

General Information

Synonyms:	HVEM-L, LTg, TNFSF14, TR2, HVEML;CD258;CD258 antigen
Protein Construction:	Asp74 - Val240
Species:	Human
Expression Host:	HEK293 Cells
Accession:	O43557
Molecular Weight:	~15.6 kDa (Reducing conditions)

QC Testing

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.
Purity:	> 95% as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a 0.2 μm filtered solution in PBS.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

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.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein 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.

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