

## Recombinant Human LIGHT/TNFSF14 Protein(Fc Tag)

**Catalog Number:** PDMH100322

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

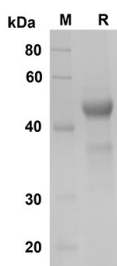
### Description

<b>Species</b>	Human
<b>Source</b>	Mammalian-derived Human LIGHT/TNFSF14 proteins Ile84-Val240,with an C-terminal Fc
<b>Calculated MW</b>	42.2 kDa
<b>Observed MW</b>	45 kDa
<b>Accession</b>	O43557
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Human LIGHT/TNFSF14 proteins ,  
2µg/lane of Recombinant Human LIGHT/TNFSF14 proteins  
was resolved with SDS-PAGE under reducing conditions ,  
showing bands at 45 KD

### Background

### For Research Use Only

LIGHT, also known as TNFSF14 or CD258, is a newly identified member of the TNF superfamily (TNFSF14) that is expressed by activated T lymphocytes, monocytes, granulocytes, spleen cells, and immature dendritic cells. TNFSF14 / LIGHT / CD258 is a type II transmembrane protein that is known to bind 2 membrane-bound TNFSF signaling receptors: HVEM, which is predominantly expressed by T cells, and lymphotoxin  $\beta$  receptor (LT $\beta$ R), which is expressed by stromal cells and nonlymphoid hematopoietic cells. TNFSF14 / LIGHT / CD258 also binds to a soluble non-signaling receptor, decoy receptor 3 (DcR3), which can modulate the function of LIGHT in vivo. TNFSF14 / LIGHT / CD258 can also costimulate T cell responses via HVEM, which is constitutively expressed in most lymphocyte subpopulations, including CD4<sup>+</sup> and CD8<sup>+</sup> T cells. In addition, TNFSF14 / LIGHT / CD258 has been shown to suppress tumor formation in vivo and to induce tumor cell apoptosis via the up-regulation of intercellular adhesion molecule 1 and an increased lymphocyte adhesion to cancer cells. Thus, TNFSF14 / LIGHT / CD258 is being actively investigated as a possible basis for cancer treatment.