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Recombinant Mouse LIGHT/TNFSF14 Protein(Fc Tag)

Catalog Number: PDMM100132

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

Description	
Species	Mouse
Source	Mammalian-derived Mouse LIGHT/TNFSF14 proteins Asp72-Val239, with an C-
	terminal Fc
Calculated MW	43.37 kDa
Observed MW	50 kDa
Accession	Q9QYH9
Bio-activity	Not validated for activity
Properties	
Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU/mg of the protein as determined by the LAL method
Storage	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 $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with 5% Trehalose and 5%
	Mannitol.
Reconstitution	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



 $SDS\text{-}PAGE \ analysis of Mouse \ LIGHT/TNFSF14 \ proteins \ , \\ 2\mu g/lane \ of Recombinant Mouse \ LIGHT/TNFSF14 \ proteins \\ was resolved \ with \ SDS\text{-}PAGE \ under \ reducing \ conditions \ , \\ showing \ bands \ at \ 50 \ KD$

Background

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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 receptor s: HVEM , which is predominantly expressed by T cells , and lymphotoxin β receptor (LT β 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+ and CD8+ 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.