## **Elabscience**®

### Recombinant Mouse Tnfrsf9 Protein(His Tag)

#### Catalog Number: PDMM100092

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

Description		
Species	Mouse	
Source	Mammalian-derived Mouse Tnfrsf9 protein Val24-Leu187, with an C-terminal His	
Calculated MW	17.9 kDa	
Observed MW	30-35 kDa	
Accession	P20334	
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 complex are stable at $< 20$ °C for 2 months	
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Shipping	This product is provided as lyophilized powder which is shipped with ice packs.	
Formulation	Lyophilized from a 0.2 $\mu$ 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

kDa	м	R
80 60	-	
40	-	
30	_	1
20		

SDS-PAGE analysis of Mouse Tnfrsf9 proteins, 2 µg/lane of Recombinant Mouse Tnfrsf9 proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 17.9KD

#### Background

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CD137 (also known as 4-1BB) is a surface co-stimulatory glycoprotein originally described as present on activated T lymphocytes, which belongs to the tumor necrosis factor (TNF) receptor superfamily. It is expressed mainly on activated CD4+ and CD8+ T cells, and binds to a high-affinity ligand (4-1BBL) expressed on several antigen-presenting cells such as macrophages and activated B cells. Upon ligand binding, 4-1BB is associated with an the tumor necrosis factor receptor–associated factors (TRAFs), the adaptor protein which mediates downstream signaling events including the activation of NF-kappaB and cytokine production. 4-1BB signaling either by binding to 4-1BBL or by antibody ligation delivers signals for T-cell activation and growth, as well as monocyte proliferation and B-cell survival, and plays an important role in the amplification of T cell-mediated immune responses. In addition, CD137 and CD137L are expressed in different human primary tumor tissues, suggesting that they may influence the progression of tumors. Crosslinking of CD137 on activated T cells has shown promise in enhancing anti-tumor immune responses in murine models, and agonistic anti-CD137 antibodies are currently being tested in phase I clinical trials. Soluble forms of CD137 (sCD137) are generated by differential splicing. sCD137 can bind to CD137 ligand to antagonize the costimulatory activities of the membrane-bound CD137 and reduce T cell proliferation and IL-2 secretion.