

# Recombinant Mouse TNFRSF9 Protein (Met1-Leu211), RIgG Fc-tagged

**Cat. No.** TNFRSF9-844M    **Lot. No.** (See product label)

## SPECIFICATION

**Product Overview**      Recombinant Mouse TNFRSF9 Protein (Met1-Leu211) was produced by HEK293 Cells expression system. This protein was expressed with the Fc region of rabbit IgG at the C-terminus.

**Species**      Mouse

**Source**      HEK293

**ProteinLength**      Met1-Leu211

**Description**      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 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

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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.

**Predicted N Terminal** VAL 24

**Form** Lyophilized from sterile 50 mM Tris, 100 mM NaCl, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Molecular Mass** The recombinant mouse Tnfrsf9 consists of 419 amino acids and predicts a molecular mass of 46.1 kDa.

**Endotoxin** < 1.0 EU per µg protein as determined by the LAL method.

**Purity** > 90 % as determined by SDS-PAGE.

**Stability** Samples are stable for up to twelve months from date of receipt at -70 centigrade.

**Storage** Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Reconstitution** It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 mg/ml. Centrifuge the vial at 4°C before opening to recover the entire contents.

**Shipping** In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.  
Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

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## GENE INFORMATION

**Gene Name** [Tnfrsf9 tumor necrosis factor receptor superfamily, member 9 \[ Mus musculus \]](#)

**Official Symbol** [TNFRSF9](#)

**Synonyms** [TNFRSF9](#); [CD137 antigen](#); [ILA](#); [Ly63](#); [4-1BB](#); [Cd137](#); [CDw137](#); [AA408498](#); [AI325004](#); [A930040I11Rik](#);

**Gene ID** [21942](#)

**mRNA Refseq** [NM\\_001077508](#)

**Protein Refseq** [NP\\_001070976](#)

**UniProt ID** [P20334](#)

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