

Active Recombinant Rhesus TNFRSF9 Protein, Fc-tagged

Cat. No. TNFRSF9-551R Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Rhesus TNFRSF9 (NP_001253057.1) (Met1-Gln186) was expressed with the Fc region of human IgG1 at the C-terminus.

Species Rhesus macaque

Source HEK293

ProteinLength Met1-Gln186

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- κ B 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-

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

CD137 antibodies are currently being tested in phase I clinical trials.

Predicted N Terminal Leu 24

Form Lyophilized from sterile PBS, pH 7.4. Normally 5 %- 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Bio-activity Measured by its binding ability in a functional ELISA. Immobilized rhesus TNFRSF9-Fc at 10µg/mL (100µL/well) can bind biotinylated human TNFSF9, the EC50 of biotinylated human TNFSF9 is 20-100ng/mL.

Molecular Mass The recombinant rhesus TNFRSF9 consists of 401 amino acids and predicts a molecular mass of 44 kDa.

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

Purity > 95 % as determined by SDS-PAGE.

Storage Samples are stable for up to twelve months from date of receipt at -70 centigrade. 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 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Official Symbol TNFRSF9

Synonyms TNFRSF4;TNF receptor superfamily member 4;tumor necrosis factor receptor superfamily member 4;tumor necrosis factor receptor superfamily, member 4

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