Recombinant Rat 4-1BB/TNFRSF9/CD137 Protein(Fc Tag)

Catalog Number: PDMR100066

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

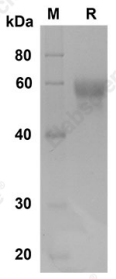
Description

Species	Rat
Source	Mammalian-derived Rat 4-1BB/TNFRSF9/CD137 proteins Thr24-Val188,with an C-terminal Fc
Calculated MW	43.0 kDa
Observed MW	55-60 kDa
Accession	Q4V895
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°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm 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-PAGE analysis of Rat 4-1BB/TNFRSF9/CD137 proteins , 2 μg/lane of Recombinant Rat 4-1BB/TNFRSF9/CD137 proteins was resolved with SDS-PAGE under reducing conditions , showing bands at 55-60 kDa.

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 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.

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