InnoCyto Inc.
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Technical Data Sheet

Biotinylated Human CD137/4-1BB/TNFRSF9 (C-His-Avi)

Catalog Number: 808403, 808404
Size: 25 ug, 100 ug
Target Name: TNFRSF9, 4-1BB, CD137
Regulatory Status: RUO

Product Details

Application: ELISA, BLI
Format: Liquid, Biotinylated
Expression Host: CHO
Species: Human
Sources: Recombinant Human CD137/4-1BB Protein (Leu24-Gln186) with C-terminus His-Avi-tag is expressed in CHO cell. This protein was site-specifically labeled with Biotin by BirA ligase.
Accession Number: Q07011
Molecular Weight: The protein has a predicted molecular weight of 20.9 kDa. Under DTT-reducing conditions, it migrates at approximately 30 kDa on SDS-PAGE.
Affinity Tag: C-His-Avi
Purity: >95% based on SDS-PAGE under reducing condition
Formulation: 1xPBS buffer, pH7.4, 0.22 μm filtered
Endotoxin level: Less than 0.1 EU/μg protein as determined by the LAL method
Protein Concentration: 25μg size is bottled at 0.2mg/mL concentration. 100 μg size is supplied at a lot-specific concentration.
Storage and Handling: Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 μm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at <= –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

Background Information

CD137 (4-1BB) is a co-stimulatory glycoprotein from the tumor necrosis factor (TNF) receptor superfamily, expressed on activated CD4+ and CD8+ T cells. It binds to its ligand, 4-1BBL, found on antigen-presenting cells like macrophages and activated B cells. The interaction between CD137 and 4-1BBL triggers signaling through tumor necrosis factor receptor-associated factors (TRAFs), activating pathways like NF-kappaB and cytokine production. This process promotes T cell activation, proliferation, and immune responses, as well as monocyte and B-cell activation. CD137 and 4-1BBL are present in various human tumors, suggesting they may influence tumor progression. Crosslinking CD137 has shown promise in enhancing anti-tumor immunity in preclinical models, and agonistic anti-CD137 antibodies are currently being tested in phase I clinical trials. Additionally, soluble CD137 (sCD137) can antagonize the membrane-bound form's function, reducing T cell

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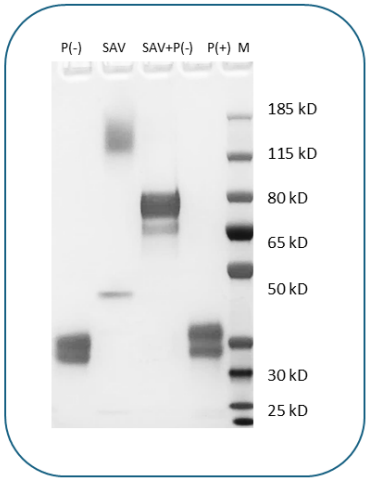
proliferation and IL-2 secretion.

Product Data



Human CD137/4-1BB Protein (C-His-Avi) was biotinylated in vitro using BirA ligase. SDS-PAGE analysis under non-reducing (P–) conditions shows the protein has a purity greater than 95%. A gel shift assay using co-incubation with streptavidin indicates that the biotinylation efficiency of the CD137 protein exceeds 95%.