InnoCyto Inc.
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

Technical Data Sheet

Human 4-1BBL/TNFSF9 Protein (N-His)

Catalog Number: 606401, 606402
Size: 25 ug, 100 ug
Target Name: TNFSF9, 4-1BB Ligand, CD137L
Regulatory Status: RUO

Product Details

Application: ELISA, BLI
Format: Liquid, Purified
Expression Host: CHO
Target Name: TNFSF9, 4-1BB Ligand, CD137L
Species: Human
Accession Number: P41273
Sources: Recombinant Human TNFSF15 (Leu72-Leu251) with N-terminus His tag is expressed in CHO cells.
Molecular Weight: This protein has a predicted molecular weight of 21.6 kDa. Under DTT-reducing conditions, the protein migrates at approximately 23 kDa on SDS-PAGE.
Affinity Tag: N-His
Purity: >95% based on SDS-PAGE under reducing condition
Regulatory Status: RUO
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.

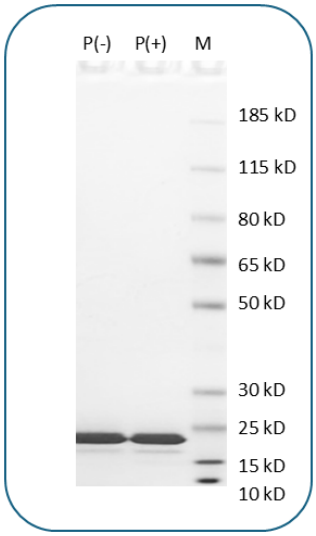
Background Information

4-1BB Ligand (4-1BBL), also known as CD137L, is a 38 kDa type II transmembrane protein in the TNF superfamily, composed of a cytoplasmic domain, a transmembrane segment, and a large extracellular domain. It is expressed on activated immune cells including B cells, monocytes, macrophages, dendritic cells, T cells, as well as lymphoma/myeloma cells, hematopoietic progenitors, neurons, and astrocytes. A soluble 26 kDa form is also bioactive. 4-1BBL binds to the receptor 4-1BB (CD137/TNFRSF9) on activated CD4+ and CD8+ T cells, NK cells, and various myeloid cells, delivering co-stimulatory signals that promote T cell proliferation, activation, and survival, particularly during later stages of immune responses and memory T cell maintenance.

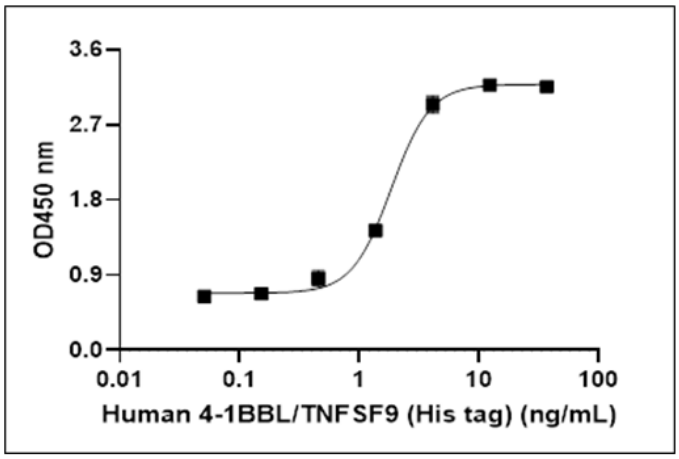
InnoCyto Inc.
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

Reverse signaling through 4-1BBL on monocytes and macrophages induces inflammatory cytokine production and modulates immune cell development.

Product Data



Purified Human 4-1BBL/TNFSF9 Protein (N-His)on SDS-PAGE under reducing (P+) and non-reducing (P-) conditions. The purity of the purified protein appears to be greater than 95% based on reducing condition.



Human CD137/4-IBB (C-Fc) is coated at 2 ug/mL (200 ng/well). Human 4-1BBL/TNFSF9 Protein (N-His) can bind Human CD137/4-IBB (C-Fc) in a dose-dependent manner with the ED50 of 1.5-5 ng/mL