

Human TNFSF9(4-1BBL) Protein; hFc Tag

Product Information

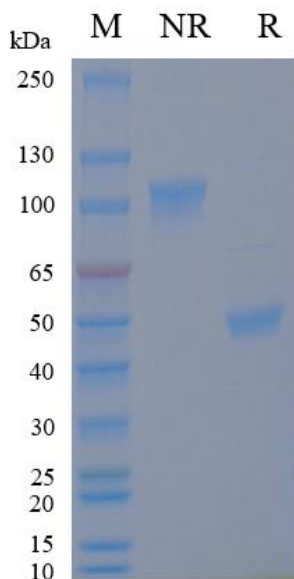
Product Name	Human TNFSF9(4-1BBL) Protein; hFc Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88104RP-100 / 100 μg GM-88104RP-1000 / 1 mg

Protein Information

Alternative Names	4-1BB Ligand, TNFSF9, CD137L
Source	Human TNFSF9(4-1BBL) Protein; hFc Tag (GM-88104RP) is expressed from human 293 cells (HEK-293). It contains AA Arg 71 - Glu 254 (Accession # P41273-1). This protein carries a hFc tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	45.7 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	4-1BBL (CD137L), encoded by TNFSF9, is the ligand for the 4-1BB receptor. It is a type II transmembrane protein predominantly expressed on antigen-presenting cells such as dendritic cells, macrophages, and B cells, and can be found in certain activated T cells. Upon engagement with its receptor 4-1BB, 4-1BBL supports bidirectional signaling, contributing to co-stimulation of T cells and modulation of antigen-presenting cell function, with implications for anti-tumor immunity and immune regulation. 4-1BBL-4-1BB interactions trigger signaling cascades in both the T cell and the APC, including NF- κ B and MAPK pathways, and can influence PI3K-AKT signaling in a context-dependent manner. This co-stimulatory axis enhances T cell proliferation, survival, and cytokine production (e.g., IFN- γ), while also shaping APC maturation and costimulatory molecule expression. Therapeutically, targeting the 4-1BB/4-1BBL axis aims to boost anti-tumor responses but requires balancing to avoid immunopathology.

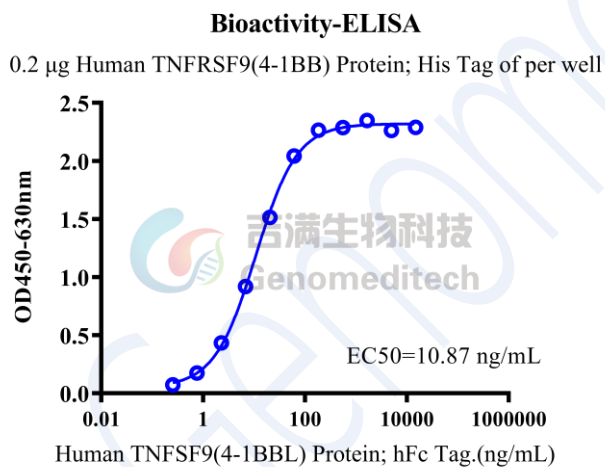
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SDS-PAGE

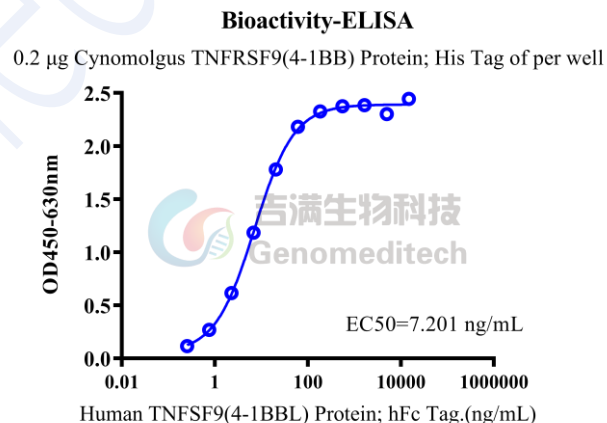


On SDS-PAGE under non-reducing (NR) condition and reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Human TNFRSF9(4-1BB) Protein; His Tag (Catalog # GM-88100RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Human TNFSF9(4-1BBL) Protein; hFc Tag (Catalog # GM-88104RP) were added.



Cynomolgus TNFRSF9(4-1BB) Protein; His Tag (Catalog # GM-88102RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Human TNFSF9(4-1BBL) Protein; hFc Tag (Catalog # GM-88104RP) were added.