
Product Data Sheet

Product Name: 4 1BBL Human
 Cat. No.: GP20962
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	CD137L; CD137-L; 4-1BBL; 4-1BB Ligand; TNFSF9; Tumor Necrosis Factor (ligand) Superfamily Member 9.		
Amino Acid Sequence	REGPELSPDD PAGLLDLRQG MFAQLV AQNV LLIDGPLSWY SDPGLAGVSL TGGLSYKEDT KELVAKAGV YYVFFQLELR RVVAGEGSGS VSLALHLQPL RSAAGAAALA LTVDLPPASS EARNSAFGFQ GRLLHLSAGQ RLGVHLHTEA RARHAWQLTQ GATVLGLFRV TPEIPAGLPS PRSE		
Solubility	It is recommended to reconstitute the lyophilized 4 1BBL in sterile 18M-cm H ₂ O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.		

Introduction

4-1BBL is a transmembrane cytokine that is part of the tumor necrosis factor (TNF) ligand family. 4-1BBL is a bidirectional signal transducer that performs as a ligand for TNFRSF9, which is a costimulatory receptor molecule in T lymphocytes. TNFSF9 and its TNFRSF9 take part in the antigen presentation development and in the generation of cytotoxic T cells. 4-1BBR is absent from resting T lymphocytes but rapidly expressed upon antigenic stimulation. TNFSF9 reactivates anergic T lymphocytes as well as promoting T lymphocyte proliferation. 4-1BB Ligand is needed for the optimal CD8 responses in CD8 T cells. 4-1BBL is expressed in carcinoma cell lines, and is thought to be involved in T cell-tumor cell interaction. 4-1BBL is expressed by activated B cells, macrophages, dendritic cells, activated T cells, neurons and astrocytes. The interaction of 4-1BB with TNFRSF9 strongly regulates immunity and has been proposed to preferentially control T cell responses based on studies in various murin.

Caution: Product has not been fully validated for medical applications. For research use only.

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Biological Activity

Fully biologically active when compared to standard. Determined by the dose-dependent stimulation of IL-8 production by human PBMC. The ED50 for this effect is 5-10ng/ml corresponding to a Specific Activity of 100,000-200,000IU/mg.

Stability

Lyophilized 4 1BBL although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution 4 1BBL should be stored at 4°C between 2-7 days and for future use below -18°C .Please prevent freeze-thaw cycles.

Background

4 1BBL Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 184 amino acids and having a molecular mass of 19.5kDa.The 4 1BBL is purified by proprietary chromatographic techniques.

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