4-1BB Ligand, human recombinant

Catalog No: 97251
Lot No: XXXXX
Source: *E. coli*
Synonyms: CD137L, CD137-L, 4-1BBL, 4-1BB Ligand, TNFSF9, Tumor Necrosis Factor (ligand) Superfamily Member 9

Background

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 murine models of cancer, infectious disease and autoimmune disease.

Description

TNFSF9 human recombinant fused to 37 amino acids His Tag at N-terminus produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 222 amino acids (71-254) and having a molecular mass of 23.8 kDa. The TNFSF9 37 aa His Tag fusion protein is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Formulation

The recombinant 4-1BBL solution (1 mg/ml) contains 20 mM Tris-HCl buffer pH 8, 100 mM NaCl and 20% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

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MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHMRE GPELSPDDPA GLLDLRQGMF AQLVAQNVLL IDGPLSWYSD
PGLAGVSLTG GLSYKEDTKE LVVAKAGVYY VFFQLELRRV VAGEGSGSVS LALHLQPLRS AAGAAALALT VDLPPASSEA
RNSAFGFQGR LLHLSAGQRL GVHLHTEARA RHAWQLTQGA TVLGLFRVTP EIPAGLPSPR SE
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Usage

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