

Recombinant Human 4-1BB Ligand (rh 4-1BBL / CD137L)

Synonyms: CD137L, TNFSF9, Tumor necrosis factor ligand superfamily member 9

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. 4-1BBL 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.

Description: 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.

Source: Escherichia Coli

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2?m filtered concentrated solution in PBS, pH 7.4.

Solubility: It is recommended to reconstitute the lyophilized rh 4-1BBL in sterile 8MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh 4-1BBL although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh 4-1BBL should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE

Amino Acid Sequence: REGPELSPDD PAGLLDLRQG MFAQLVQNV LLIDGPLSWY SDPGLAGVSL TGGLSYKEDT KELVAKAGV YYVFFQLELR RVVAGEGSGS VSLALHLQPL RSAAGAAALA LTVDLPPASS EARNSAFGFQ GRLLHLSAGQ RLGVLHTEA RARHAWQLTQ GATVLGLFRV TPEIPAGLPS PRSE

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 5-10 ng/ml corresponding to a Specific Activity of 100,000-200,000IU/mg.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	11345180
<i>medium</i>	20 µg	Cat.N°	11345184

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