TNFSF9
Recombinant Human 4-1BB Ligand

Catalog No.	CRB200A	**Quantity:**	5 µg
	CRB200B		20 µg
	CRB200C		1 mg

Alternate Names: 4-1BB-L, CD137L, tumor necrosis factor ligand superfamily member 9, 4-1BBL, 4-1BB ligand, receptor 4-1BB ligand, homolog of mouse 4-1BB-L

Description: 4-1BBL is a member of the tumor necrosis factor (TNF) receptor family. This receptor contributes to the clonal expansion, survival, and development of T cells. In addition, 4 -1BBL expression is found on dendritic cells, follicular dendritic cells, natural killer cells, granulocytes and cells of blood vessel walls at sites of inflammation. CD137 has been shown to interact with TRAF2.
The human 4-1BBL gene codes for a 254 amino acid type II transmembrane containing a 28 amino acid cytoplasmic domain, a 21 amino acid transmembrane domain, and a 205 amino acid extracellular domain (ECD). The human 41BBL ECD shares 32% and 35 % a.a. identity with mouse and rat ECD.

Gene ID: 8744

Source: *E. coli*

Molecular Weight: 19.4 kDa

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

Purity: Greater than 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/µg of rHu4-1BBL as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The ED_{50} determined by stimulation of IL-8 production using human PBMC is less than 10 ng/ml.

Specific Activity: > 1.0×10^5 IU/mg.

Amino Acid Sequence: REGPELSPDD PAGLLDLRQG MFAQLVAQNV LLIDGPLSWY SDPGLAGVSL TGGLSYKEDT KELVVAKAGV YYVFFQLELR RVVAGEGSGS VSLALHLQPL RSAAGAAALA LTVDLPPASS EARNSAFGFQ GRLLHLSAGQ RLGVHLHTEA RARHAWQLTQ GATVLGLFRV TPEIPAGLPS PRSE

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.

Storage & Stability: This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. **Avoid repeated freeze/thaw cycles.**

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Cell Sciences®
480 Neponset Street
Bldg 12A
Canton, MA 02021

Toll Free: 888-769-1246
Phone: 781-828-0610
Fax: 781-828-0542

E-mail: info@cellsciences.com
Website: www.cellsciences.com