

## Product datasheet for **TP728142L**

### Recombinant 4-1BBL (4-1BB ligand), Human

#### Product data:

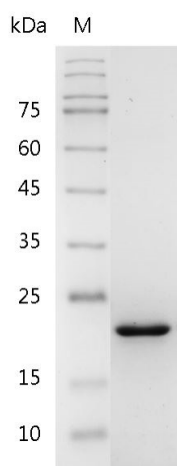
Product Type:	Recombinant Proteins
Description:	Recombinant 4-1BBL (4-1BB ligand), Human
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	MREGPELSPDDPAGLLDLRQGMFAQLVAQNVLLIDGPLSWYSDPGLAGVSLTGGLSYKEDTKELVAKAG VYYVFFQLELRRVVAGEGSGSVSLALHLQPLRSAAGAAALALTVDLPPASSEARNSAFGFQGRLLHLSAGQ RLGVLHTEARARHAWQLTQGATVLGLFRVTPEIPAGLPSRSE with polyhistidine tag at the C-terminus.
Tag:	His Tag (C-term)
Predicted MW:	The protein has a calculated MW of 20.4 kDa. The protein migrates as 20 kDa under reducing condition (SDS-PAGE analysis).
Purity:	>95% as determined by SDS-PAGE.
Buffer:	The protein was lyophilized from a 0.2 µm filtered solution containing 1X PBS, pH 7.4.
Bioactivity:	Measure by its ability to induce IL-8 secretion in human PBMCs. The ED <sub>50</sub> for this effect is 1-5 ng/mL.
Endotoxin:	<0.1 EU per 1 µg of the protein by the LAL method.
Reconstitution Method:	Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 100 µg/mL and incubate the stock solution at room temperature for at least 20 mins to ensure sufficient re-dissolved. Do Not Vortex! Vigorous shaking may impair the biological activity of the protein.
Applications:	Cell culture
Storage:	Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.
UniProt ID:	<u><a href="#">P41273</a></u>
Synonyms:	CD137L, TNLG5A, TNFSF9, Tumor necrosis factor ligand superfamily member 9



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**Summary:**

4-1BB ligand (4-1BBL) is a type II transmembrane protein that is part of the tumor necrosis factor (TNF) ligand family. As an inducible co-stimulatory molecule, it presents on several antigen presenting cell (APC) types, including B cells, macrophages and DCs. The interactions between 4-1BB and 4-1BBL trigger pleiotropic effects on the immune response including antigen presenting process, proliferation of CD4 and CD8 positive T-cells, as well as cytokine secretion from T-cells through NFκB, c-Jun, and p38 downstream signal pathways activation. Therefore, 4-1BB and 4-1BBL are recently used for the immunotherapy of cancer.

**Product images:**

SDS- PAGE analysis of recombinant human 4-1BBL