

# Product information

## 4-1BB ligand , 71-254aa

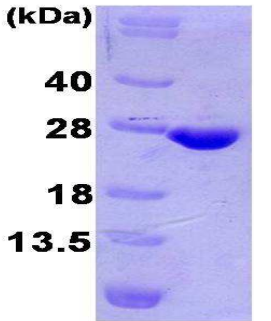
Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0308

**Synonyms:** Tumor necrosis factor ligand superfamily member 9(TNFSF9), 4-1BBL, CD137L

**NCBI Accession No.:** NP\_003802

**Description:** 4-1BB ligand is a type 2 transmembrane glycoprotein belonging to the TNF superfamily. 4-1BBL is expressed by activated B cells, macrophages, dendritic cells, activated T cells, neurons and astrocytes. The interaction of 4-1BB with 4-1BBL 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. Recombinant human 4-1BB ligand, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography.

<p><b>Form:</b> Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 100mM NaCl, 20% glycerol</p> <p><b>Molecular Weight:</b> 23.8 kDa (222aa), confirmed by MALDI-TOF</p> <p><b>Purity:</b> &gt; 95% by SDS - PAGE</p> <p><b>Concentration:</b> 1 mg/ml (determined by Bradford assay)</p> <p><b>Endotoxin Level:</b> &lt; 1.0 EU per 1 µg of protein (determined by LAL method)</p>	 <p>(kDa)</p> <p>40</p> <p>28</p> <p>18</p> <p>13.5</p> <p>15% SDS-PAGE (3ug)</p>
<p><b>Sequences of amino acids:</b></p> <p>MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSHMRE GPQLSPDDPA GLLDLRQGMF AQLVAQNVLL IDGPLSWYSD PGLAGVSLTG          GLSYKEDTKE LVVAKAGVYY VFFQLELRRV VAGEGSGSVS LALHLQPLRS AAGAAALALT VDLPPASSEA RNSAFGFQGR LLHLSAGQRL          GVHLHTEARA RHAWQLTQGA TVLGLFRVTP EIPAGLPSPR SE</p>	

### General references:

Lee SW., *et al.* (2008). *Nat Immunol.* **9**(8):917-26

Sharma RK., *et al.* (2009). *Cancer Res.* **69**(10):4319-26

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.