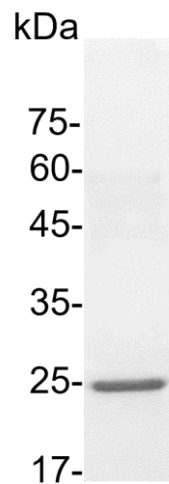


<b>Catalog number</b>	C01084-GMP-100 / C01084-GMP-1000
<b>Package</b>	100 µg / 1 mg
<b>Description</b>	4-1BBL is a transmembrane cytokine that is part of the tumor necrosis factor (TNF) ligand family. Recombinant human 4-1BBL is intended for use in cell culture applications. 4-1BBL and its interaction with 4-1BB is involved in the antigen presenting process, proliferation of CD4 and CD8 positive T-cells, as well as cytokine secretion from T-cells.
<b>Expression System</b>	<i>Escherichia coli</i>
<b>Species of Origin</b>	Human
<b>Affinity Tag</b>	His Tag (C-term)
<b>Sequence</b>	Arg71-Glu254
<b>Endotoxin level</b>	<0.05 EU per 1 µg of the protein by the LAL method.
<b>Activity</b>	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.
<b>Purity</b>	>95% as determined by SDS-PAGE analysis.
<b>Mycoplasma</b>	Not detected
<b>Form</b>	Lyophilized
<b>Storage Buffer</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Reconstitution</b>	It is recommended to reconstitute the lyophilized protein in sterile H <sub>2</sub> O to a concentration not less than 0.5 mg/mL and incubate the stock solution for at least 20 min to ensure sufficient re-dissolved.
<b>Stability &amp; Storage</b>	<p>This product is stable after storage at:</p> <ul style="list-style-type: none"> <li>-20°C for 12 months in lyophilized state from date of receipt.</li> <li>-20°C or -80°C for 1 month under sterile conditions after reconstitution.</li> </ul> <p>Avoid repeated freeze/thaw cycles.</p>
<b>Specification</b>	<p>Croyez GMP® recombinant proteins are manufactured in ISO 13485:2016 and GMP-certified facility. The processes include:</p> <ul style="list-style-type: none"> <li>Animal-free reagent and laboratory</li> </ul>

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- Manufactured and tested under GMP guideline
  - Testing and traceability of raw material
  - Records of the maintenance and equipment calibration
  - Personnel training records
  - Batch-to-batch consistency
  - Documentation of QA control and process changes
  - Manufactured and tested under an ISO 13485:2016 certified quality management system
  - Stability monitor of product shelf-life
- 

**Reference**

1. Wen, Tao et al. (2002) J Immunol. 168,10: 4897-906.
  2. Vinay DS, Kwon BS. (1998) Semin Immunol. 10,6:481-9.
  3. Martinez-Perez A. G et al. (2021) Int. J. Mol. Sci., 22(12), 6210
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SDS-PAGE analysis of Croyez GMP® 4-1BBL, Human

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*For Research Use Only. Not for use in diagnostic or therapeutic procedures.*