

## 4-1BBR/TNFRSF9 Protein, Human (HEK 293, Fc)

<b>Cat. No.:</b>	HY-P70681
<b>Synonyms:</b>	CD137; ILA; TNFRSF9; 4-1BB ligand receptor; CDw137; T-cell antigen 4-1BB homolog; T-cell antigen ILA
<b>Species:</b>	Human
<b>Source:</b>	HEK 293
<b>Accession:</b>	Q07011 (L24-Q186)
<b>Gene ID:</b>	3604
<b>Molecular Weight:</b>	Approximately 58.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> L Q D P C S N C P A   G T F C D N N R N Q   I C S P C P P N S F   S S A G G Q R T C D I C R Q C K G V F R   T R K E C S S T S N   A E C D C T P G F H   C L G A G C S M C E Q D C K Q G Q E L T   K K G C K D C C F G   T F N D Q K R G I C   R P W T N C S L D G K S V L V N G T K E   R D V V C G P S P A   D L S P G A S S V T   P P A P A R E P G H S P Q           </pre>
<b>Biological Activity</b>	0.03 µg/mL (100 µL/well) of immobilized Human 4-1BBL-His can bind Human 4-1BB-Fc with an ED50 value of 6.86 µg/mL.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer. It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>Recombinant Human 4-1BBRTNFRSF9 (CD137) is an inducible T cell molecule belonging to the TNF receptor superfamily. It has been shown that signaling through CD137 by either its natural ligand, 4-1BBL, or by agonistic Ab's costimulates activation of CD4<sup>+</sup> and CD8<sup>+</sup> T cells in a CD28-independent fashion, leading to activation of the NF-κB, c-Jun NH2-terminal kinase/stress-activated protein kinase (JNK/SAPK), and p38 signaling pathways. In addition to its role in promoting the expansion of antigen-specific T cells, CD137 signaling may also prevent activation-induced death of CD8<sup>+</sup> T cells<sup>[1]</sup>.</p>
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## REFERENCES

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[1]. Wilcox RA, et al. Provision of antigen and CD137 signaling breaks immunological ignorance, promoting regression of poorly immunogenic tumors. J Clin Invest. 2002 Mar;109(5):651-9.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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