

## Recombinant Human 4-1BB/CD137 protein (His Tag)

Catalog Number: PDMH100421

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human 4-1BB protein Met1-Gln186, with an C-terminal His
<b>Calculated MW</b>	20.4 kDa
<b>Observed MW</b>	30 kDa
<b>Accession</b>	Q07011
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Background

Tumor necrosis factor receptor superfamily member 9 (TNFRSF9), also known as CD137 and 4-1BB, is an inducible T cell surface protein belonging to the tumor necrosis factor receptor superfamily. It is a single-pass type I membrane protein which contains 4 TNFR-Cys repeats. The human and mouse proteins share 60% amino acid sequence identity. CD137 is expressed by mesenchymal cells, including endothelial cells, chondrocytes, and cells of the central nervous system. CD137 is also broadly expressed by cells of the human immune system, is broadly expressed by cells of the human immune system, including activated CD8+ and CD4+ T cells, activated natural killer (NK) cells, follicular dendritic cells (FDCs) and monocytes. CD137 has diverse roles in the immune response, the one key function is to promote the survival of both T cells and dendritic cells by binding the cognate ligand CD137L (4-1BBL).