

Human CellExp™ 4-1BB / TNFRSF9, Human recombinant
TNFRSF9,4-1BB,CD137,CDw137,ILA
Catalog # PBV11471r**Specification**

Human CellExp™ 4-1BB / TNFRSF9, Human recombinant - Product infoPrimary Accession
Calculated MW[NP_001552.2](#)**This protein is fused with a 6× His tag at C-terminus and has a calculated MW of 18.1 kDa. The protein migrates as 28-35 kDa in SDS-PAGE due to glycosylation. KDa****Human CellExp™ 4-1BB / TNFRSF9, Human recombinant - Additional Info****Other Names**

TNFRSF9, 4-1BB, CD137, CDw137, ILA

Gene Source
Source
Assay&Purity
Assay2&Purity2
Recombinant
Target/Specificity
CD137**Human**
HEK 293 cells
SDS-PAGE;≥92%
N/A;≥92%
Yes**Application Notes**

Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml

Format

Lyophilized

Storage

-20°C;Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally Mannitol or Trehalose is added as protectants before lyophilization.

Human CellExp™ 4-1BB / TNFRSF9, Human recombinant - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Human CellExp™ 4-1BB / TNFRSF9, Human recombinant - Images

Human CellExp™ 4-1BB / TNFRSF9, Human recombinant - Background

4-1BB is also known as CD137, tumor necrosis factor receptor superfamily member 9 (TNFRSF9), induced by lymphocyte activation (ILA), is a co-stimulatory molecule of the tumor necrosis factor (TNF) receptor superfamily. CD137 can be expressed by activated T cells, but to a larger extent on CD8 than on CD4 T cells. In addition, CD137 expression is found on dendritic cells, follicular dendritic cells, natural killer cells, granulocytes and cells of blood vessel walls at sites of inflammation. The best characterized activity of CD137 is its costimulatory activity for activated T cells. Crosslinking of CD137 enhances T cell proliferation, IL-2 secretion survival and cytolytic activity. Further, it can enhance immune activity to eliminate tumors in mice. CD137 can enhance activation-induced T cell apoptosis when triggered by engagement of the TCR/CD3 complex. In addition, 4-1BB/4-1BBL co-stimulatory pathway has been shown to augment secondary CTL responses to several viruses, and meanwhile augment anti-tumor immunity. 4-1BB thus is a promising candidate for immunotherapy of human cancer. CD137 has been shown to interact with TRAF.

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