

Datasheet

Human 4-1BB / TNFRSF9 Protein, Fc Tag

Catalog # AMS.41B-H5258-100g

For Research Use Only

Description

Source Human 4-1BB, Fc Tag (41B-H5258) is expressed from human 293 cells (HEK293). It contains AA Gln 25 - Gln 186 (Accession # NP_001552.2). Predicted N-terminus: Gln 25

Predicted N-terminus Gln 25

Protein Structure

4-1BB(Gln 25 - Gln 186) NP_001552.2	Fc(Pro 100 - Lys 330) P01857
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Molecular Characterization This protein carries a human IgG1 Fc tag at the C-terminus. The protein has a calculated MW of 43.3 kDa. The protein migrates as 50-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin Less than 1.0 EU per µg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Formulation and Storage

Formulation Lyophilized from 0.22 µm filtered solution in 50 mM tris, 100 mM glycine, pH7.5. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution Please see Certificate of Analysis for specific instructions. For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage For long term storage, the product should be stored at lyophilized state at -20°C or lower. Please avoid repeated freeze-thaw cycles.

No activity loss was observed after storage at:

- 4-8°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Background

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 TRAF2.

References

- (1) Cooper D, et al., 2002, Eur. J. Immunol. 32 (2): 521-9.
- (2) Jang, I K., et al., 1998, Biochem. Biophys. Res. Commun. (UNITED STATES) 242 (3): 613-20.
- (3) Arch, R H., Thompson C B., 1998, Mol. Cell. Biol. (UNITED STATES) 18 (1): 558-65.

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Datasheet

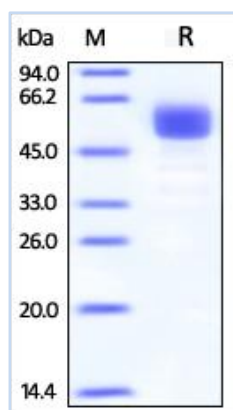
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Assay Data

SDS-PAGE Data



Human 4-1BB, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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