

Synonym

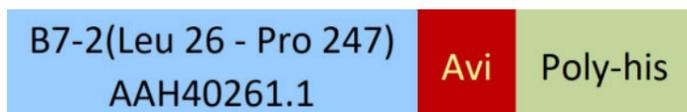
CD86,B7-2,B70,CD28LG2,LAB72,MGC34413

Source

Biotinylated Human B7-2, Avitag,His Tag (CD6-H82E2) is expressed from human 293 cells (HEK293). It contains AA Leu 26 - Pro 247 (Accession # AAH40261.1).

Predicted N-terminus: Leu 26

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 28.0 kDa. The protein migrates as 45-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Biotinylation

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Biotin:Protein Ratio

The biotin to protein ratio is 0.5-1 as determined by the HABA assay.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. 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

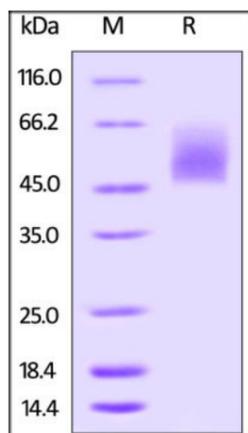
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

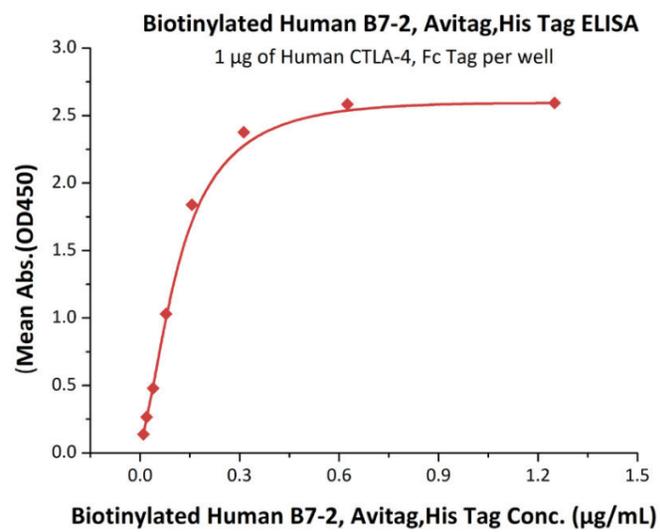
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human B7-2, Avitag,His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Human CTLA-4, Fc Tag (Cat. No. [CT4-H5255](#)) at 10 µg/mL (100 µL/well) can bind Biotinylated Human B7-2, Avitag, His Tag (Cat. No. [CD6-H82E2](#)) with a linear range of 0.01-0.15 µg/mL (QC tested).

Background

Cluster of Differentiation 86 (CD86) is also known as B-lymphocyte activation antigen B7-2, is a type I membrane protein that is a member of the immunoglobulin superfamily, and is constitutively expressed on interdigitating dendritic cells, Langerhans cells, peripheral blood dendritic cells, memory B cells, and germinal center B cells. Additionally, B72 is expressed at low levels on monocytes and can be upregulated through interferon γ . CD86 is the ligand for two different proteins on the T cell surface: CD28 (for autoregulation and intercellular association) and CTLA-4 (for attenuation of regulation and cellular disassociation). CD86 works in tandem with CD80 to prime T cells. Recent study has revealed that B7-2 promotes the generation of a mature APC repertoire and promotes APC function and survival. Furthermore, the B7 proteins are also involved in innate immune responses by activating NF- κ B-signaling pathway in macrophages. CD86 thus is regarded as a promising candidate for immune therapy. CD86+ macrophages in Hodgkin lymphoma patients are an independent marker for potential nonresponse to firstline-therapy.

References

- (1) [Chen C, et al., 1994, J. Immunol. 152 \(10\): 4929-36.](#)
- (2) [Yadav, D. et al., 2007, J. Immunol. 178: 6236-6241.](#)
- (3) [Steidl C, et al., 2010, N. Engl. J. Med. 362 \(10\): 875-85.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.