

For Research Use Only

Recombinant Human B7-1/CD80 protein (hFc Tag)



Catalog Number: Eg0967

Basic Information

ED50:
1-4 ng/mL

GenelD:
941

Species:
Human

Accession:
P33681-1

Purity:
>95 %, SDS-PAGE

Technical Specifications

Purity:
>95 %, SDS-PAGE

Endotoxin Level:
<1.0 EU/ μ g protein, LAL method

Source:
HEK293-derived Human B7-1 protein Val35-Asn242 (Accession# P33681-1) with a human IgG1 Fc tag at the C-terminus.

Predicted Molecular Mass:
49.9 kDa

SDS-PAGE:
66-80 kDa, reducing (R) conditions

Formulation:
Lyophilized from sterile PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Immobilized Human CTLA-4 (Myc tag, His tag) at 2 μ g/mL (100 μ L/well) can bind Human B7-1 (hFc tag) with a linear range of 1-4 ng/mL.

Storage and Shipping

Storage:
It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- 12 months from the date of receipt, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:
The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

CD80 (also known as B7-1) is a type I membrane protein that is a member of the immunoglobulin superfamily, with an extracellular immunoglobulin constant-like domain and a variable-like domain required for receptor binding. It is expressed on antigen-presenting cells (APCs), including B cells, dendritic cells, monocytes, and macrophages. CD80 is the receptor for the proteins CD28 and CTLA-4 found on the surface of T-cells. It is involved in the costimulatory signal essential for T-lymphocyte activation. T-cell proliferation and cytokine production is induced by the binding of CD28, binding to CTLA-4 has opposite effects and inhibits T-cell activation. CD80 also acts as a cellular attachment receptor for adenovirus subgroup B.

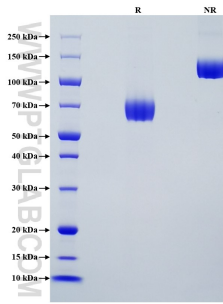
References

1. Peach RJ. et al. (1995). J Biol Chem. 36: 21181-21187.
2. Vasilevko V. et al. (2002). DNA Cell Biol. 3: 137-149.
3. Short JJ. et al. (2006). Virus Res. 122:144-153.

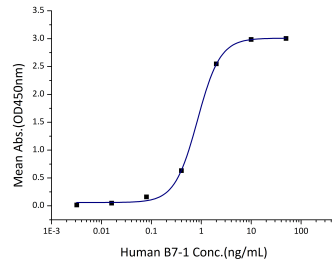
Synonyms

B7, B7-1, BB1, CD28LG, CD28LG1, CD80, LAB7

Selected Validation Data



Purity of Recombinant Human B7-1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.



Immobilized Human CTLA-4 (Myc tag, His tag) at $2 \mu\text{g/mL}$ ($100 \mu\text{L/well}$) can bind Human B7-1 (hFc tag) with a linear range of 1-4 ng/mL.

For technical support and original validation data for this product please contact

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