

Human CD80 / B7-1 Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10698-H08H

General Information

Gene Name Synonym:

B7; B7-1; B7.1; BB1; CD28LG; CD28LG1; LAB7

Protein Construction:

A DNA sequence encoding the extracellular domain (Met 1-Asn 242) of human B7-1 (NP_005182.1) precursor was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized B7-1 Protein, Human, Recombinant (His Tag) (Cat: 10698-H08H) at 2 µg/ml (100 µl/well) can bind CTLA-4 Protein, Human, Recombinant (His & hFc Tag) (Cat: 11159-H03H). The EC₅₀ of CTLA-4 (His & hFc Tag) (Cat: 11159-H03H) is 35-80 ng/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Predicted N terminal: Val 35

Molecular Mass:

The recombinant human B7-1 consists of 219 amino acids and has a predicted molecular mass of 25.4 kDa. By reduced SDS-PAGE, the apparent molecular mass of rh B7-1 is approximately 45-48 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

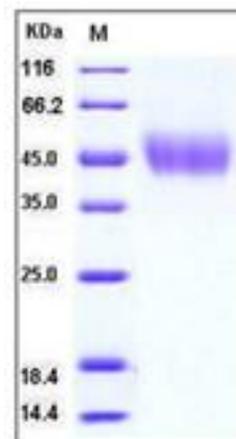
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The B-lymphocyte activation antigen B7-1 (referred to as B7), also known as CD80, is a member of cell surface immunoglobulin superfamily and is expressed on the surface of antigen-presenting cells including activated B cells, macrophages and dendritic cells. As costimulatory ligands, B7-1 which exists predominantly as dimer and the related protein B7-2, interact with the costimulatory receptors CD28 and cytotoxic T lymphocyte-associated antigen 4 (CTLA-4) expressed on T cells, and thus constitute one of the dominant pathways that regulate T cell activation and tolerance, cytokine production, and the generation of CTL. The B7/CD28/CTLA4 pathway has the ability to both positively and negatively regulate immune responses. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.

References

- 1.Greenfield EA, et al. (1998) CD28/B7 costimulation: a review. Crit Rev Immunol. 18(5): 389-418.
- 2.Zang X, et al. (2007) The B7 family and cancer therapy: costimulation and coinhibition. Clin Cancer Res. 13(18 Pt 1): 5271-9.
- 3.Mir MA, et al. (2008) Signaling through CD80: an approach for treating lymphomas. Expert Opin Ther Targets. 12(8): 969-79.