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21-1002-B: Human CD80 Recombinant Fc fusion Protein (Active) Biotin Conjugated

Application : Functional Assay

Alternative Name : T-lymphocyte activation antigen CD80, Activation B7-1 antigen, BB1, CTLA-4 counter-receptor B7.1, B7, CD28LG, CD28LG1, LAB7

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. Cancer Immunotherapy Co- inhibitory Immune Checkpoint Targets Immune Checkpoint Immune Checkpoint Detection

Human extracellular domain CD80 (B7-1) Fc fusion protein. This protein is expressed in CHO-K1 cells and purified using protein G colomn. Protein MW 53 kDa but SDS it runs arround 65 kDa due to glycosylation.

Product Info

Amount : 100 µg

Purification : 95% Purity SDS-PAGE and HPLC

Content : Lyophilized from sterile PBS, 5% trehalose and 0.01% tween 80 are added as protectant before lyophilization. Reconstitutes sterile water.

Storage condition : Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Amino Acid : Human CD80 (ECD): MGHTRRQGTSPSKCPYLNFFQLLVLAGLSHFCSGVIHVTKEVKE
VATLSCGHNVSVEELAQTRIYWQKEKKMVLTMMSGDMNIWPEYK
NRTIFDITNNLSIVILALRPSDEGTYECVVLKYEKDAFKREHLA
EVTLSVKADFPTPSISDFEIPTSNIRRIICSTSGGFPEPHLSWL
ENGEELNAINTTVSQDPETELYAVSSKLDFNMTTNHSFMCLIKY GHLRVNQTFNWNTTKQEHFPDN

Application Note

Measured by its binding ability in a functional FLOW assay. Binding assay was tested using CHO-K1/CTLA4 cell line (cat no. 14-506ACL).

Endotoxin: <1.0EU per ug of the protein as determin by the LAL method.

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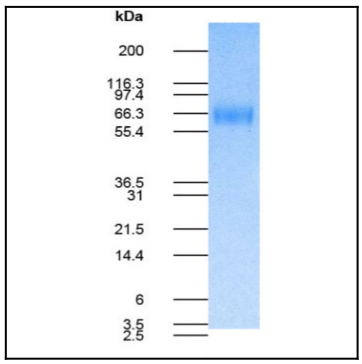

Figure-1: Human CD80/hFc recombinant protein. 0.5 ug protein was run on a 4-20% SDS-PAGE gel followed by Coomassie blue staining.

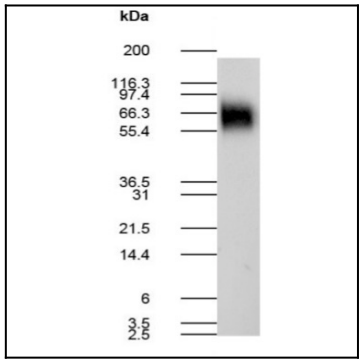

Figure-2: Western blot analysis of CD80/hFc recombinant protein (0.5ug) using anti-human CD80 antibody (Cat. No. 10-4108).

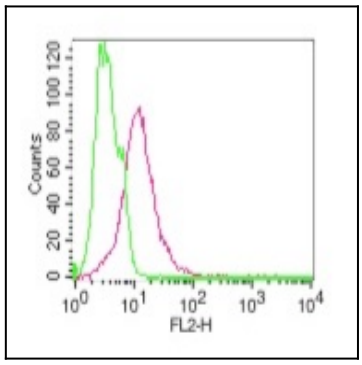

Figure-3: Binding activity of CD80/hFc recombinant protein to CTLA4 was analyzed by flow cytometry. 0.2 ug of CD80/hFc recombinant protein was incubated with CTLA4/CHO-K1 stable cells (Cat. No. 14-506ACL) or with parental CHO-K1 cells at 1 x 10^6 cells/reaction on ice for 1 h. Cells were washed once and then further incubated with PE-conjugated Streptavidin antibody on ice for 30 min. Cells were washed and then analyzed by flow cytometry. CTLA4/CHO-K1 stable cells (Red); Parental CHO-K1 cells (Green).

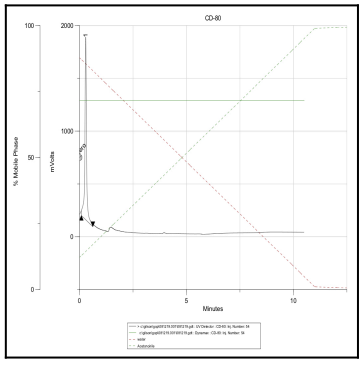

Figure-4: HPLC analysis of CD80-Fc recombinant protein.