

**Human CellExp CD80, human recombinant protein**  
**CD80, B7, B7-1, B7.1, BB1, CD28LG, CD28LG1, LAB7**  
**Catalog # PBV11006r****Specification**

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**Human CellExp CD80, human recombinant protein - Product info**Primary Accession  
Calculated MW[P33681](#)

This protein is fused with 6×His tag at the C-terminus, has a calculated MW of 24.7 kDa. The predicted N-terminus is Val 35. DTT-reduced Protein migrates as 45-75 kDa due to different glycosylation. KDa

**Human CellExp CD80, human recombinant protein - Additional Info**Gene ID **941**  
Gene Symbol **CD80****Other Names**

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

Gene Source **Human**  
Source **HEK293 cells**  
Assay&Purity **SDS-PAGE; ≥95%**  
Assay2&Purity2 **N/A;**  
Recombinant **Yes**  
Results

**Measured by its ability to induce IL2 secretion by Jurkat human acute T cell leukemia cells. The ED50 for this effect is typically 0.01 - 0.1 µg/mL in the presence of phytohaemagglutinin.**

**Target/Specificity**  
CD80**Application Notes**

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

**Format**  
Lyophilized**Storage**

-20°C; Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

**Human CellExp CD80, human recombinant protein - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **Human CellExp CD80, human recombinant protein - Images**

#### **Human CellExp CD80, human recombinant protein - Background**

B7-1 and B7-2, together with their receptors CD28 and CTLA4, constitute one of the dominant co-stimulatory pathways that regulate T and B cell responses. Although both CTLA4 and CD28 can bind to the same ligands, CTLA4 binds to B7-1 and B7-2 with a 20-100 fold higher affinity than CD28 and is involved in the downregulation of the immune response. B-lymphocyte activation antigen B7-1 (referred to as B7) also known as cluster of Differentiation 80 (CD80), is a member of cell surface immunoglobulin superfamily and is expressed on activated B cells, activated T cells, macrophages and dendritic cells. It 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). CD80 works in tandem with CD86 to prime T cells. CD80 plays a role in induction of innate immune responses by activating NF- $\kappa$ B-signaling pathway in macrophages. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.

#### **Human CellExp CD80, human recombinant protein - References**

Freeman G.J., et al. J. Immunol. 143:2714-2722(1989).  
Selvakumar A., et al. Immunogenetics 36:175-181(1992).  
Kakoulidou M., et al. Scand. J. Immunol. 66:529-537(2007).  
Muzny D.M., et al. Nature 440:1194-1198(2006).  
Freeman G.J., et al. J. Exp. Med. 174:625-631(1991).