

Mouse Monoclonal Antibody to Human CD80 / B7-1



Sino Biological Inc.
Biological Solution Specialist

Catalog Number: 10698-MM01

General Information	
Immunogen:	Recombinant Human CD80 / B7-1 Protein (Catalog #10698-H08H)
Clone ID:	01
Ig Type:	Mouse IgG1
Applications:	ELISA, FCM
Specificity:	Human CD80 / B7-1
Formulation:	0.2 µm filtered solution in PBS with 5% trehalose
Storage:	< -20° C

Preparation

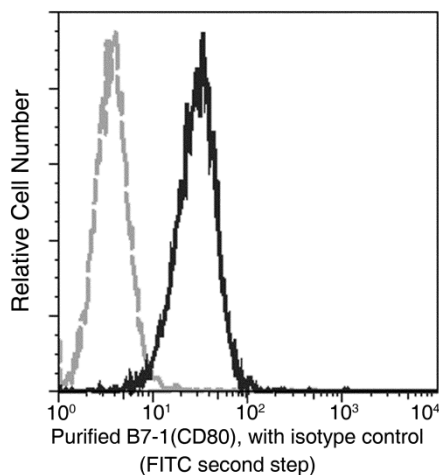
This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, human cell-derived, recombinant Human CD80 / B7-1 (rh CD80 / B7-1; [Catalog #10698-H08H](#); Met 1- Asn 242; NP_005182.1). The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography.

Applications

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Flow Cytometry –

FCM: 0.5-2 µg/Test



Flow cytometric analysis of Human B7-1(CD80) expression on Daudi cells. Cells were stained with purified anti-Human B7-1(CD80), then a FITC-conjugated second step antibody. The histogram were derived from gated events with the forward and side light-scatter characteristics of intact cells.

Flow cytometry was performed on a BD FACSCalibur flow cytometry system.

Please refer to www.sinobiological.com/Flow-Cytometry-FACS-Protocols-a-750.html for technical protocols.

Direct ELISA – This antibody can be used at 0.5-1 µg/ml with the appropriate secondary reagents to detect Human CD80 / B7-1.

Specificity

Human CD80 / B7-1

No cross-reactivity in ELISA with

Human CD28

Human B7-H1

Human PDL2

Human B7-2

Mouse B7-H2

Human cell lysate (293 cell line)

Storage

This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. **Preservative-Free.**

Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. **Avoid repeated freeze-thaw cycles.**

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

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Background

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. Binding of this protein with CTLA-4 is involved in down-regulation of immune response. Recent study has revealed that contacts between B and T helper cells mediated by CD80 provide negative signal for the proliferation and IgG secretion of normal B cells and B cell lymphomas. In addition, B7-1 also plays a role in induction of innate immune responses by activating NF- κ B-signaling pathway in macrophages. CD80 is thus regarded as promising therapeutic targets for autoimmune diseases and various carcinomas.

Reference

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4. Bhatia, S. et al., 2005, Proc. Natl. Acad. Sci. 102: 15569-15574.
5. Sigal, L.J. et al., 1998, J. Immunol. 161: 2740-2745.
6. Khan, N. et al., 2007, Int. Immunol. 19:477-486.