

Datasheet: MCA2071F

BATCH NUMBER 152306

Description:	MOUSE ANTI HUMAN CD80:FITC
Specificity:	CD80
Other names:	B7-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MEM-233
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Human		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		

External Database Links	UniProt: P33681 Related reagents Entrez Gene: 941 CD80 Related reagents
Synonyms	CD28LG, CD28LG1, LAB7
RRID	AB_324403
Specificity	<p>Mouse anti Human CD80 antibody, clone MEM-233 recognizes human CD80, also known as B7-1, a ~60 kDa type 1 trans-membrane protein expressed of macrophages, dendritic cells (Munro <i>et al.</i> 1994) and activated B-cells (Ranheim <i>et al.</i> 1993)</p> <p>CD80 is a member of the immunoglobulin superfamily having an extracellular domain bearing both a single Ig-v-like domain, a single Ig-c-like domain, a transmembrane sequence and a short cytoplasmic domain. Although the predicted molecular weight for human CD80 is ~33 kDa, the presence of multiple (8) potential N-glycosylation sites (Chen <i>et al.</i> 1998) results in a migration corresponding to ~60 kDa.</p> <p>Human CD80 along with CD86 act as co-stimulatory molecules and are both ligands for CD28 and CTLA-4 (Azuma <i>et al.</i> 1993) involved in T cell activation and proliferation (Vasu <i>et al.</i> 2003). Although CD80 binds to the same receptors as CD86 it displays quite different characteristics in its avidity and binding kinetics (van der Merwe <i>et al.</i> 1997).</p> <p>Site mutagenesis studies indicate residues in both the Ig-v-like and Ig-c-like domains of CD80 are crucial for the interaction with it's receptors CTLA-4 and CD28 (Peach <i>et al.</i> 1995).</p> <p>Mouse anti human CD80 antibody, clone MEM-233 binds to residues within the Ig-v-like domain of human CD80 as shown by domain switching studies (Vasu <i>et al.</i> 2003).</p> <p>Functional studies using Mouse anti Human CD80, clone MEM-233 in combination with Mouse anti Human CD86, clone Bu63 (MCA1118) suggest that clone MEM-233 is able to block binding of human CD80 with it's cognate ligands CD28 and CTLA-4 (Morbach <i>et al.</i> 2011).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood.
References	<ol style="list-style-type: none"> Zhan, H. <i>et al.</i> (2003) The immunomodulatory role of human conjunctival epithelial cells. Invest Ophthalmol Vis Sci. 44 (9): 3906-10. Angel, C.E. <i>et al.</i> (2006) Cutting edge: CD1a+ antigen-presenting cells in human dermis respond rapidly to CCR7 ligands. J Immunol. 176 (10): 5730-4. Daubenberger, C.A. <i>et al.</i> (2007) Flow cytometric analysis on cross-reactivity of human-specific CD monoclonal antibodies with splenocytes of <i>Aotus nancymaae</i>, a non-human primate model for biomedical research. Vet Immunol Immunopathol. 119 (1-2): 14-20.

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Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2071F>
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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