

Datasheet: MCA2071GA

BATCH NUMBER 149998

Description:	MOUSE ANTI HUMAN CD80
Specificity:	CD80
Other names:	B7-1
Format:	Purified
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	▪			
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting	▪			Non-reducing conditions

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 - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
External Database Links	<p>UniProt: P33681 Related reagents</p> <p>Entrez Gene: 941 CD80 Related reagents</p>
Synonyms	CD28LG, CD28LG1, LAB7
RRID	AB_323726
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 et al. 1994) and activated B-cells (Ranheim et al. 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 et al. 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 et al. 1993) involved in T cell activation and proliferation (Vasu et al. 2003). Although CD80 binds to the same receptors as CD86 it displays quite different characteristics in its avidity and binding kinetics (van der Merwe et al. 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 et al. 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 et al. 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 et al. 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"> 1. Zhan, H. <i>et al.</i> (2003) The immunomodulatory role of human conjunctival epithelial cells. Invest Ophthalmol Vis Sci. 44 (9): 3906-10. 2. 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. 3. Daubenberger, C.A. <i>et al.</i> (2007) Flow cytometric analysis on cross-reactivity of human-

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 13. Scott-Taylor, T.H. *et al.* (2017) Enhanced formation of giant cells in common variable immunodeficiency: Relation to granulomatous disease. [Clin Immunol. 175: 1-9.](#)
 14. Demmers, M.W. *et al.* (2013) Differential effects of activated human renal epithelial cells on T-cell migration. [PLoS One. 8 \(5\): e64916.](#)

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. Avoid repeated freezing and thawing as this may denature the protein. 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 #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2071GA>
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Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-rad.com		Email: antibody_sales_uk@bio-rad.com		Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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