Datasheet: MCA2071 BATCH NUMBER 149536

Description:	MOUSE ANTI HUMAN CD80
Specificity:	CD80
Other names:	B7-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-233
Isotype:	lgG1
Quantity:	0.2 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 <u>www.bio-rad-antibodies.com/protocols</u>.

		Yes	No	Not Det	ermined	Suggested Dilution
	Flow Cytometry					
	Immunohistology - Frozen					
	Immunohistology - Paraffin					
	ELISA					
	Immunoprecipitation	•				
	Western Blotting					Non-reducing conditions
	Where this antibody has	not been te	ested for u	ise in a pa	articular tech	nnique this does not
	necessarily exclude its us a guide only. It is recomm system using appropriate	de its use in such procedures. Suggested working dilutions are given as recommended that the user titrates the antibody for use in their own propriate negative/positive controls.				
Target Species	Human					
Product Form	Purified IgG - liquid					
Preparation	Purified IgG prepared by	affinity chr	omatogra	ohy on Pr	otein A	
Buffer Solution	Phosphate buffered saline	e				

Preservative	0.00% Sadium Azida
Stabilisers	0.09% Sodium Azide

Approx. Protein	InG concentration 1.0 mg/ml
Concentrations	igo concentration 1.0 mg/m

External Database Links	UniProt: P33681 Related reagents Entrez Gene: 941 CD80 Related reagents
Synonyms	CD28LG, CD28LG1, LAB7
RRID	AB_323471
Specificity	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) CD80 is a member of the immunoglobulin superfamily having an extracellular domain bearing both a single <u>Ig-v-like</u> domain, a single <u>Ig-c-like</u> 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. 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). 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).
	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 (<u>Vasu <i>et al.</i> 2003</u>).
	Mouse anti Human CD86, clone Bu63 (<u>MCA1118</u>) suggest that clone MEM-233 is able to block binding of human CD80 with it's cognate ligands CD28 and CTLA-4 (<u>Morbach <i>et al.</i></u> 2011).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood.
References	 Zhan, H. <i>et al.</i> (2003) The immunomodulatory role of human conjunctival epithelial cells. <u>Invest Ophthalmol Vis Sci. 44 (9): 3906-10.</u> Angel, C.E. <i>et al.</i> (2006) Cutting edge: CD1a+ antigen-presenting cells in human dermis respond rapidly to CCR7 ligands. <u>J Immunol. 176 (10): 5730-4.</u> Daubenberger, C.A. <i>et al.</i> (2007) Flow cytometric analysis on cross-reactivity of human-

	specific CD monoclonal antibodies with splenocytes of
	Aotus nancymaae, a non-human primate model for biomedical research. <u>Vet Immunol</u>
	 Immunopathol. 119 (1-2): 14-20. 4. Hovden, A.O. <i>et al.</i> (2011) Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. <u>BMC Immunol. 12: 2.</u> 5. John, J. <i>et al.</i> (2010) Differential effects of Paclitaxel on dendritic cell function. <u>BMC Immunol. 11: 14.</u>
	 6. Silk, K.M. <i>et al.</i> (2012) Cross-presentation of tumour antigens by human induced pluripotent stem cell-derived CD141+XCR1+ dendritic cells <u>Gene Ther. 19: 1035-40.</u> 7. Piconi, S. <i>et al.</i> (2010) Immunological effects of sublingual immunotherapy: clinical efficacy is associated with modulation of programmed cell death ligand 1, IL-10, and IgG4 <u>J Immunol. 185: 7723-30.</u> 8. Tan, P.H. <i>et al.</i> (2004) Phenotypic and functional differences between human saphenous vein (HSVEC) and umbilical vein (HIV/EC) endothelial cells. Atherosclerosis
	<u>173: 171-83.</u>
	 9. Tan, P.H. <i>et al.</i> (2005) Modulation of human dendritic-cell function following transduction with viral vectors: implications for gene therapy. <u>Blood. 105: 3824-32.</u> 40. Traine L. <i>et al.</i> (2010) Antisenee anti-ICE Leally lead to service a function of the service of th
	immune response in cancer patients. <u>Biomed Pharmacother. 64: 576-8.</u>
	11. Huxley, P. <i>et al.</i> (2004) High-affinity small molecule inhibitors of T cell costimulation: compounds for immunotherapy. <u>Chem Biol. 11: 1651-8.</u>
	12. Silk, K.M. <i>et al.</i> (2012) Rapamycin conditioning of dendritic cells differentiated from
	 13. Scott-Taylor, T.H. <i>et al.</i> (2017) Enhanced formation of giant cells in common variable immunodeficiency: Relation to granulomatous disease. <u>Clin Immunol. 175: 1-9.</u> 14. Demmers, M.W. <i>et al.</i> (2013) Differential effects of activated human renal epithelial cells on T-cell migration. <u>PLoS One. 8 (5): e64916.</u>
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. 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/MCA2071 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Ant	i Mouse IgG IgA IgM (STAI	R87) <u>HRF</u>	-		
Goat Ant	i Mouse IgG (STAR76)	RPE			
Rabbit Ar	nti Mouse IgG (STAR13)	HRF	-		
Goat Ant	i Mouse IgG (STAR70)	<u>FIT</u>	2		
Goat Ant	i Mouse IgG (H/L) (STAR1 ⁻	17) <u>Alk.</u>	Phos., DyLight®488, Dy	<u>yLight®550,</u>	
		DyL	ight®650, DyLight®680,	DyLight®800	<u>)</u> ,
		FITC	<u>C, HRP</u>		
Rabbit Ar	nti Mouse IgG (STAR9)	<u>FIT</u>	<u>2</u>		
Goat Ant	i Mouse IgG (STAR77)	HRF	-		
Goat Ant	i Mouse IgG (Fc) (STAR12	0) <u>FITC</u>	<u>, HRP</u>		
Recomn	nended Negative Contr	ols			
MOUSE Ic	G1 NEGATIVE CONTROL (N	<u>//CA928)</u>			
North & South	Tel: +1 800 265 7376	Vorldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751	om	Fax: +44 (0)1865 852 739	ad com	Fax: +49 (0) 89 8090 95 50
		om	Email: anabody_sales_uk@bio-re		Email: anisody_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 'M366136:200529'

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