PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD50

PURE	RUO	REF	IQP-640P	100 test
R-PE	RUO	REF	IQP-640R	100 test

RUO ***For Research Use Only***

Description

Clone MEM-171

Isotype Murine IgG1

Specificity The antibody MEM-171 recognizes an epitope in the D2 domain of CD50 (ICAM-3), a 120-130 kDa type I membrane protein (immunoglobulin supergene family) expressed on leukocytes, endothelial

Species Human

Immunogen Human granulocytes.

Summary CD50 (intracellular adhesion molecule 3, ICAM-3) is a transmembrane glycoprotein expressed by leukocytes, that serves as a counter-receptor for the lymphocyte function-associated antigen (LFA)-1 integrin. Besides functioning as an adhesive molecule that mediates e.g. the contact between T cells and antigen presenting cells, ICAM-3 regulates affinity of LFA-1 for ICAM-1 and induces T cell activation and proliferation. ICAM-3 plays an essential role in the initiation of the immune response both on T cells and antigen presenting cells and interacts also with CD209 (dendritic cell-specific ICAM-3-grabbing nonintegrin, DC-SIGN), a C-type lectin of dendritic cells and macrophages; this process is involved in dialogue between dendritic cells and granulocytes.

Applications FC, IP. Determining optimal working dilutions by titration test.

Limitations

1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
4. Reagent performance can be affected by the use of anticoagulants.

Handling and Storage

Antibodies are supplied in phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4. Store the vials at 2-8°C. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. Reagents are stable for the period shown on the vial label when stored properly.

Warranty Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent.

Warning All products contain sodiumazide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

References

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3. Arroyo AG, Campanero MR, Sánchez-Mateos P, Zapata JM, Ursa MA, del Pozo MA, Sánchez-Madrid F: Induction of tyrosine phosphorylation during ICAM-3 and LFA-1-mediated intercellular adhesion, and its regulation by the CD45 tyrosine phosphatase. J Cell Biol. 1994 Sep;126(5):1277-86.
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5. Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
6. Linnebacher M, Wienck A, Boeck I, Klar E: Identification of an MSI-H tumor-specific cytotoxic T cell epitope generated by the (-1) frame of U79260(FTO). J Biomed Biotechnol. 2010;2010:841451.
7. Filatov AV, Krotov GI, Zgoda VG, Volkov Y: Fluorescent immunoprecipitation analysis of cell surface proteins: a methodology compatible with mass-spectrometry. J Immunol Methods. 2007 Jan 30;319(1-2):21-33.
8. Cermák L, Símová S, Pintzas A, Horejsí V, Andera L: Molecular mechanisms involved in CD43-mediated apoptosis of TF-1 cells. Roles of transcription Daxx expression, and adhesion molecules. J Biol Chem. 2002 Mar 8;277(10):7955-61.

Explanation of used symbols

	Consult instructions for use
REF	Catalogue number
	Sufficient for
	Caution, consult accompanying document
	Keep away from (sun)light
	Biological risks
	Temperature limitation (°C)
RUO	For Research Use Only
LOT	Batch code
	Use by yyyy-mm-dd
	Manufacturer

		Label - tandem	Ex -max (nm)	Em -max (nm)
P	PURE	purified material	-	-
F	FITC	FITC	488	519
R	R-PE	PE	488, 532	578
C	CyQ	PE-Cy5.18	488, 532	667
A	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695

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