PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD158d

PURE	RUO	REF	IQP-645P	100 test
R-PE	RUO	REF	IQP-645R	100 test
APC	RUO	REF	IQP-645A	100 test

RUO ***For Research Use Only***

Description

Clone mAb#33

Isotype Murine IgG1

Specificity The mouse monoclonal antibody mAb#33 (also known as mAb 33 or 33) ecognizes extracellular portion of CD158d / KIR2DL4, a 45 kDa NK cell marker. Cell surface expression and function of CD158d / KIR2DL4 depends on genotype of particular individuals.

Species Human

Immunogen NK3.3 cells and KIR2DL4-Ig fusion protein

Summary CD158d (KIR2DL4) is a KIR family member that shares structural features with both activating and inhibitory receptors and may mediate different functions under different circumstances. It contains cytoplasmic ITIM, suggesting inhibitory function, but also transmembrane domain similar to those of activating KIRs. It has been reported that CD158d serves as an inhibitory receptor for peripheral and uterine NK cells, but its ligation with soluble mAbs (unlinke immobilized mAbs) results in IFN-γ secretion. CD158d also binds both membrane form and soluble form of its ligand HLA-G.

Applications FC, IP, WB, ICC, FUNC. 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

1. Rajagopalan S, Fu J, Long EO: Cutting edge: induction of IFN-gamma production but not cytotoxicity by the killer cell Ig-like receptor KIR2DL4 (CD158d) in resting NK cells. J Immunol. 2001 Aug 15;167(4):1877-81.
2. Goodridge JP, Witt CS, Christiansen FT, Warren HS: KIR2DL4 (CD158d) genotype influences expression and function in NK cells. J Immunol. 2003 Aug 15;171(4):1768-74.
3. Rajagopalan S, Bryceson YT, Kuppusamy SP, Geraghty DE, van der Meer A, Joosten I, Long EO. Activation of NK cells by an endocytosed receptor for soluble HLA-G. PLoS Biol. 2006 Jan;4(1):e9.
4. Yan WH, Fan LA: Residues Met76 and Gln79 in HLA-G alpha1 domain involve in KIR2DL4 recognition. Cell Res. 2005 Mar;15(3):176-82.
5. LeMaoult J, Zafaranloo K, Le Danff C, Carosella ED: HLA-G up-regulates ILT2, ILT3, ILT4, and KIR2DL4 in antigen presenting cells, NK cells, and T cells. FASEB J. 2005 Apr;19(6):662-4.

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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