

PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD28

PURE	RUO	REF	IQP-639P	▽ 100 test
FITC	RUO	REF	IQP-639F	▽ 100 test
R-PE	RUO	REF	IQP-639R	▽ 100 test
APC	RUO	REF	IQP-639A	▽ 100 test
PerCP	RUO	REF	IQP-639PC	▽ 100 test

RUO **For Research Use Only**



Description

Clone CD28.2

Isotype Murine IgG1

Specificity The antibody CD28.2 reacts with CD28, a disulfide-linked homodimeric type I glycoprotein (monomer of Mw 44 kDa) which is a critical costimulatory receptor of T cells.

Species Human, Non-Human Primates

Immunogen DC28.1.3.3 murine T cell hybridoma transfected with human CD28 cDNA

Summary CD28 is the critical T cell costimulatory receptor which provides to the cell the important second activation signal by binding CD80 and CD86 that are expressed by antigen presenting cells. Besides its costimulation role CD28 functions in preventing T cells from anergic hyporesponsive state or from undergoing premature apoptotic cell death. CD28 is also expressed on human fetal NK cells and some NK cell lines, whereas on murine NK cells the CD28 expression is much broader.

Applications FC, IP, WB, IHC(F), 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. M, Olive D: CD28 mAbs with distinct binding properties differ in their ability to induce T cell activation: analysis of early and late activation events. *Int Immunol.* 1993 Mar;5(3):311-5.
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3. Schlossman, S., et al., Eds. 1995. *Leucocyte Typing V.* Oxford University Press. New York.
4. Galea-Lauri J, Darling D, Gan SU, Krivochtchapov L, Kuiper M, Gäken J, Souberbielle B, Farzaneh F: Expression of a variant of CD28 on a subpopulation of human NK cells: implications for B7-mediated stimulation of NK cells. *J Immunol.* 1999 Jul 1;163(1):62-70.
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6. Marti F, Krause A, Post NH, Lyddane C, Dupont B, Sadelain M, King PD: Negative-feedback regulation of CD28 costimulation by a novel mitogen-activated protein kinase phosphatase, MKP6. *J Immunol.* 2001 Jan 1;166(1):197-206.
7. Scharschmidt E, Wegener E, Heissmeyer V, Rao A, Krappmann D: Degradation of Bcl10 induced by T-cell activation negatively regulates NF-kappa B signaling. *Mol Cell Biol.* 2004 May;24(9):3860-73.
8. Jeong SH, Qiao M, Nascimbeni M, Hu Z, Rehermann B, Murthy K, Liang TJ: Immunization with hepatitis C virus-like particles induces humoral and cellular immune responses in nonhuman primates. *J Virol.* 2004 Jul;78(13):6995-7003.

Explanation of used symbols



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

Products
bright fluorescence

		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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