

TECHNICAL DATA SHEET

CyFlow™ CD28 PerCP-Cy5.5 Anti-Hu; Clone CD28.2

REF BH644355



Sysmex Partec GmbH
Arndtstraße 11 a-b
02826 Görlitz
Germany
Tel.: +49 3581 8746 0
E-mail: info@sysmex-partec.com
www.sysmex-partec.com

Distributed in the U.S.A. and Canada by:
Sysmex America, Inc.
577 Aptakissic Road
Lincolnshire, IL 60069, U.S.A.
Tel.: 1-888-879-7639 or 1-847-367-3503
E-mail: cytometry@sysmex.com
<https://us.sysmex-flowcytometry.com/>

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD28
Alternative Names	Tp44
Clone	CD28.2
Clonality	monoclonal
Format	PerCP-Cy5.5
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Non-Human Primates
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	DC28.1.3.3 murine T cell hybridoma transfected with human CD28 cDNA

Specificity

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

Application

The reagent is designed for flow cytometry analysis of human blood cells. Recommended usage is 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.09% (w/v) sodium azide and 0.2% (w/v) BSA.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

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.

Warnings











Non-Hazardous Statement: This is not considered hazardous by the criteria in 29 CFR 1910.1200 or the General Classification guideline for preparations of the EU.

Safety Data Sheet Statement: Important information regarding the safe handling, transport, and disposal of this product is contained in the Safety Data Sheet (SDS). SDS are available at <http://www.sysmex-partec.com/services>, or at <https://us.sysmex-flowcytometry.com/> (U.S. customers only).

References

- Nunès J, Klasen S, Ragueneau M, Pavon C, Couez D, Mawas C, Bagnasco 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. < PMID: 8385476 >
- Doussis IA, Gatter KC, Mason DY: CD68 reactivity of non-macrophage derived tumours in cytological specimens. *J Clin Pathol.* 1993 Apr; 46(4):334-6. < PMID: 7684403 >
- Nunes J, Klasen S, Franco MD, Lipcey C, Mawas C, Bagnasco M, Olive D: Signalling through CD28 T-cell activation pathway involves an inositol phospholipid-specific phospholipase C activity. *Biochem J.* 1993 Aug 1; 293 (3):835-42. < PMID: 8394695 >
- 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):62-7. < PMID: 10384130 >
- Tazi A, Moreau J, Bergeron A, Dominique S, Hance AJ, Soler P: Evidence that Langerhans cells in adult pulmonary Langerhans cell histiocytosis are mature dendritic cells: importance of the cytokine microenvironment. *J Immunol.* 1999 Sep 15; 163(6):3511-5. < PMID: 10477625 >
- 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. < PMID: 11123293 >
- 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. < PMID: 15082780 >
- Jeong SH, Qiao M, Nascimbeni M, Hu Z, Rehmann 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. < PMID: 15194776 >

Symbols

 REF	Reference number		Contains sufficient for <n> tests
 RUO	For research use only		Temperature limit
 LOT	Batch code		Keep away from sunlight
	Manufacturer		Consult accompanying documents
	Use-by date		Unique device identifier

Cy and CyDye are trademarks of GE Healthcare.