

Monoclonal Antibody to CD28 - PE

Alternate names:	T-cell-specific surface glycoprotein CD28, TP44
Catalog No.:	SM1087R
Quantity:	100 Tests
Background:	<p>Human CD28 antigen is a 44 kDa disulfide linked homodimeric T cell specific surface glycoprotein. It is a cell adhesion molecule of the immunoglobulin superfamily which is constitutively expressed on most peripheral blood T lymphocytes (approximately 95% of CD4+ cells and 50% of CD8+ cells). Mature thymocytes exhibit higher levels of CD28 than the immature cells. Activation of T cells results in enhanced CD28 expression. T cell activation requires two combined signals provided by antigen presenting cells. The first is mediated via the T cell receptor following its interaction with antigenic peptide MHC complexes, and the second is delivered by accessory or costimulating molecules through their counter receptors on T lymphocytes. CD28 bears structural homology to CTLA 4 which is expressed at very low levels on the surface of CD4+ and CD8+ peripheral blood cells only following activation. CD28 is the natural receptor for the B7/BB 1 ligand (CD80) a 55-60 kDa glycoprotein which is expressed on activated B lymphocytes, on dendritic cells and on interferon gamma treated monocytes. The binding of B7 1/BB 1 molecules to CD28 is involved in T lymphocyte activation and in the initiation and maintenance of chronic inflammation.</p>
Uniprot ID:	P10747
NCBI:	NP_006130.1
GeneID:	940
Host / Isotype:	Rat / IgG2b
Clone:	YTH913.12
Immunogen:	Human peripheral blood T-cells. Spleen cells from an immunised DA rat were fused with cells of the Y3/Ag 1.2.3 rat myeloma cell line.
Format:	<p>State: Lyophilized purified IgG fraction. Purification: Affinity chromatography on Protein G. Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: PE – R. Phycoerythrin (RPE) Reconstitution: Restore with distilled water</p>
Applications:	<p>Flow Cytometry. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

Antibody Hotline - Technical Questions - Antibody Location Service
Free Call: 0800-2274746 (Germany only) - www.acris-antibodies.com

Specificity:

This antibody recognises the human CD28 cell surface antigen, a 44kD glycoprotein expressed by a subset of T lymphocytes.
It has been reported that this clone also recognises an epitope of CD28 expressed by NK cells, which is not recognised by clones of 9.3 or CD28.2.

Species: Human.

Other species not tested.

Storage:

Prior to and following reconstitution store the antibody undiluted at 2-8°C.

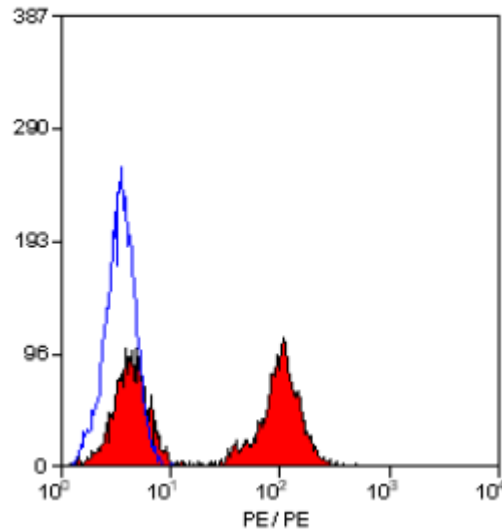
DO NOT FREEZE!

This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

General References:

1. Reiter, C. (1989) Cluster Report: CD28 in Leucocyte Typing IV: White Cell Differentiation Antigens. Edited by Knapp, W., Dorken, B., Gilks, W.R., Rieber, E.P., Schmidt, R.E., Stein, H. and von dem Borne, A.E.G.Kr. Oxford University Press. pp 352-353.
2. Galea-Lauri, J. et al. (1999) Expression of a variant of CD28 on a subpopulation of human NK cells: Implications for B7-mediated stimulation of NK cells. J. Immunol. 163: 62-70.

Pictures:

Staining of human peripheral blood lymphocytes with RAT ANTI HUMAN CD28:RPE (SM1087R).

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