

Monoclonal Antibody to CD28 - FITC

Alternate names:	T-cell-specific surface glycoprotein CD28, TP44
Catalog No.:	SM2266F
Quantity:	0.1 mg
Concentration:	0.1 mg/ml
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:	P31041
NCBI:	10090
Host / Isotype:	Mouse / IgG2b
Clone:	E18
Immunogen:	Alternate immunisation with A20 cells expressing mCD28 and recombinant mCD28lg. Spleen cells from immunised CD28-/-knockout mice were fused with cells of the X63Ag8.653 myeloma cell line.
Format:	State: Liquid purified IgG Purification: Affinity chromatography on Protein G Buffer System: PBS, pH7.4 containing 0.09% Sodium Azide and 1% Bovine Serum Albumin Label: FITC – Fluorescein Isothiocyanate Isomer 1
Applications:	Flow Cytometry: neat - 1/5; use 10 µl of the suggested working dilution to label 106 cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

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- Specificity:** This antibody recognises CD28, a co-stimulatory cell surface molecule expressed by T cell subsets. Clone E18 has been shown to be able to stimulate murine T lymphocytes in combination with anti-mouse CD3.
Species: Mouse.
Other species not tested.
- Storage:** Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.
- General References:** 1. Dennehy, K.M. et al. (2006) Cutting Edge: Monovalency of CD28 maintains the antigen dependence of T cell costimulatory responses. J. Immunol. 176: 5725-5729.

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