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AM12006AF-N Monoclonal Antibody to CD28 - Azide Free

Alternate names: T-cell-specific surface glycoprotein CD28, TP44

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: 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.

Uniprot ID: P10747

NCBI: NP_006130

GeneID: 940

Host / Isotype: Mouse / IgG1

Clone: CD28.2

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

Format:
State: Liquid purified Ig fraction (› 95% pure by SDS-PAGE)
Purification: Affinity Chromatography on Protein A
Buffer System: Azide free phosphate buffered saline (PBS), approx. pH 7.4; 0.2 µm filter sterilized
Preservatives: None
Endotoxin Level: Less than 0.01 EU/µg of the protein, as determined by the LAL test

Applications:
Western blot.
Immunoprecipitation.
Flow Cytometry.
Immunocytochemistry.
Functional Application: T cell costimulation.
Immunohistochemistry on Frozen Sections.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: The antibody 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 Reactivity: **Tested:** Human, Non-Human Primates

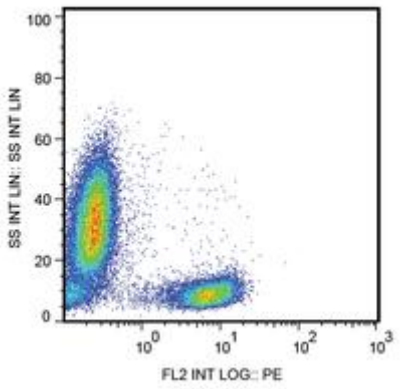
Storage: Store undiluted at 2-8°C.
DO NOT FREEZE!
Shelf life: one year from despatch.

General Readings:
1. Nunès J, Klasen S, Ragueneau M, Pavon C, Couez D, Mawas C, et al. 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. PubMed

PMID: 8385476.
2. Nunes J, Klasen S, Franco MD, Lipcey C, Mawas C, Bagnasco M, et al. Signalling through CD28 T-cell activation pathway involves an inositol phospholipid-specific phospholipase C activity. Biochem J. 1993 Aug 1;293 (Pt 3):835-42. PubMed PMID: 8394695.
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, et al. 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. PubMed PMID: 10384100.
5. 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. PubMed PMID: 10477625.
6. Marti F, Krause A, Post NH, Lyddane C, Dupont B, Sadelain M, et al. Negative-feedback regulation of CD28 costimulation by a novel mitogen-activated protein kinase phosphatase, MKP6. J Immunol. 2001 Jan 1;166(1):197-206. PubMed PMID: 11123293.
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. PubMed PMID: 15082780.
8. Jeong SH, Qiao M, Nascimbeni M, Hu Z, Rehermann B, Murthy K, et al. Immunization with hepatitis C virus-like particles induces humoral and cellular immune responses in nonhuman primates. J Virol. 2004 Jul;78(13):6995-7003. PubMed PMID: 15194776.

Pictures:

Surface staining of human peripheral blood leukocytes with anti-human CD28 (CD28.2) purified



Surface staining of human peripheral blood leukocytes with anti-human CD28 (CD28.2) PE.