

CD28 FITC Monoclonal Antibody (Clone CD28.2) Mouse Monoclonal Antibody Catalog # ABV11473

Specification

CD28 FITC Monoclonal Antibody (Clone CD28.2) - Product Information

Application Primary Accession Reactivity Host Clonality Isotype Calculated MW FC <u>P10747</u> Human Mouse Monoclonal Mouse IgG1, Kappa 25066

CD28 FITC Monoclonal Antibody (Clone CD28.2) - Additional Information

Gene ID 940

Positive Control

Application & Usage

FACS: Human peripheral blood lymphocytes Flow (Cell Surface): 5 μl/1x10⁶ cells, Volume per test: 5 μl (0.5 μg).

Other Names CD28

Target/Specificity CD28

Antibody Form Liquid

Appearance Colorless liquid

Formulation Phosphate-buffered aqueous solution pH 7.2, $\leq 0.09\%$ Sodium azide, may contain carrier protein/stabilizer.

Handling The antibody solution should be gently mixed before use.

Reconstitution & Storage 4°C

Background Descriptions

Precautions

CD28 FITC Monoclonal Antibody (Clone CD28.2) is for research use only and not for use in diagnostic or therapeutic procedures.



CD28 FITC Monoclonal Antibody (Clone CD28.2) - Protein Information

Name CD28

Function

Involved in T-cell activation, the induction of cell proliferation and cytokine production and promotion of T-cell survival. Enhances the production of IL4 and IL10 in T-cells in conjunction with TCR/CD3 ligation and CD40L costimulation (PubMed:8617933). Isoform 3

enhances CD40L-mediated activation of NF-kappa-B and kinases MAPK8 and PAK2 in T-cells (PubMed:15067037).

Cellular Location Membrane; Single-pass type I membrane protein.

Tissue Location Expressed in T-cells and plasma cells, but not in less mature B-cells

CD28 FITC Monoclonal Antibody (Clone CD28.2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CD28 FITC Monoclonal Antibody (Clone CD28.2) - Images

CD28 FITC Monoclonal Antibody (Clone CD28.2) - Background

CD28 (Cluster of Differentiation 28) is one of the molecules expressed on T cells that provide co-stimulatory signals, which are required for T cell activation. CD28 is the receptor for CD80 (B7.1) and CD86 (B7.2). When activated by Toll-like receptor ligands, the CD80 expression is upregulated in antigen presenting cells (APCs). The CD86 expression on antigen presenting cells is constitutive. CD28 is the only B7 receptor constitutively expressed on naive T cells. The CD28.2 monoclonal antibody specifically binds with the human 44 kDa homodimeric trans-membrane glycoprotein CD28, expressed on the surface of most mature T lymphocytes, plasma cells, and thymocytes. CD28 is a ligand for B7-1 (CD80) and B7-2 (CD86), a co-stimulator of T lymphocytes, and enhances the interaction between T and B lymphocytes. It has been reported that the T lymphocytes stimulation to produce IL-2 depends on the monoclonal antibody involved, which suggests that the CD28 molecule presents some sub regions with distinct functions. The CD28.2 antibody induces Ca2+ influx in Jurkat T lymphocytes. Other studies have shown that CD28 is involved in the signal transduction.