

Anti- CD28 Monoclonal Antibody

Catalog # ABO15029

Product Information

Application	IHC-P
Primary Accession	P31041
Host	Mouse
Isotype	Mouse IgG1, κ
Reactivity	Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti- CD28 Monoclonal Antibody . Tested in IHC-P applications. This antibody reacts with Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500 μ g/ml.

Additional Information

Gene ID	12487
Other Names	T-cell-specific surface glycoprotein CD28, CD28, Cd28
Calculated MW	25243
Application Details	Immunohistochemistry (Paraffin-embedded Section), 2-5 μ g/ml, Mouse
Source	Eukaryota
Protein Name	T-cell-specific surface glycoprotein CD28
Contents	PBS, pH 7.0. Contains no stabilizers or preservatives
Clone Names	Clone: AGOA-3
Immunogen	A20 cells expressing mouse CD28 and a recombinant mouse CD28-Ig fusion protein
Purification	Immunogen affinity purified.
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	Cd28
Function	Receptor that plays a role in T-cell activation, proliferation, survival and the maintenance of immune homeostasis (PubMed: 7688139). Functions not only

as an amplifier of TCR signals but delivers unique signals that control intracellular biochemical events that alter the gene expression program of T-cells. Stimulation upon engagement of its cognate ligands CD80 or CD86 increases proliferation and expression of various cytokines in particular IL2 production in both CD4(+) and CD8(+) T-cell subsets. Mechanistically, ligation induces recruitment of protein kinase C-theta/PRKCQ and GRB2 leading to NF-kappa-B activation via both PI3K/Akt-dependent and -independent pathways. In conjunction with TCR/CD3 ligation and CD40L costimulation, enhances the production of IL4 and IL10 in T-cells.

Cellular Location

Cell membrane; Single-pass type I membrane protein
{ECO:0000250|UniProtKB:P10747}

Background

CD28 (Cluster of Differentiation 28) is one of the proteins expressed on T cells that provide co- stimulatory signals required for T cell activation and survival. T cell stimulation through CD28 in addition to the T-cell receptor (TCR) can provide a potent signal for the production of various interleukins (IL-6 in particular). The CD28 gene is mapped to 2q33-q34. CD28 and CTLA-4, together with their ligands, B7-1 and B7-2, constitute one of the dominant costimulatory pathways that regulate T and B cell responses. CD28 and CTLA-4 are structurally homologous molecules that are members of the immunoglobulin (Ig) gene superfamily.

Images

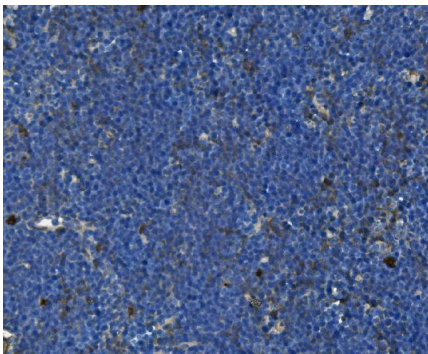


Figure 1. IHC analysis of CD28 using anti-CD28 antibody (M00065-1).

CD28 was detected in paraffin-embedded section of mouse thymus tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 µg/ml mouse anti-CD28 Antibody (M00065-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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