

# Anti-CD28 Antibody

Mouse Monoclonal Antibody  
Catalog # AH13618

## Product Information

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<b>Application</b>	IF, FC
<b>Primary Accession</b>	<a href="#">P10747</a>
<b>Other Accession</b>	<a href="#">591629</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1
<b>Clone Names</b>	C28/1636
<b>Calculated MW</b>	25066

## Additional Information

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<b>Gene ID</b>	940
<b>Other Names</b>	T-cell-specific surface glycoprotein CD28; Tp44
<b>Application Note</b>	Flow Cytometry (0.5-1ug/million cells); ,Immunofluorescence (0.5-1ug/ml) ,Optimal dilution for a specific application should be determined.
<b>Format</b>	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage</b>	Store at 2 to 8°C.Antibody is stable for 24 months.
<b>Precautions</b>	Anti-CD28 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CD28
<b>Function</b>	Receptor that plays a role in T-cell activation, proliferation, survival and the maintenance of immune homeostasis (PubMed: <a href="#">1650475</a> , PubMed: <a href="#">7568038</a> ). 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 (PubMed: <a href="#">24665965</a> ). 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 (PubMed: <a href="#">12196291</a> , PubMed: <a href="#">1650475</a> , PubMed: <a href="#">35397202</a> ). 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 (PubMed:[21964608](#), PubMed:[24665965](#), PubMed:[7568038](#)). In conjunction with TCR/CD3 ligation and CD40L costimulation, enhances the production of IL4 and IL10 in T- cells (PubMed:[8617933](#)).

**Cellular Location**

Cell membrane; Single-pass type I membrane protein

**Tissue Location**

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

**Background**

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Recognizes a glycoprotein of 44-88kDa, which is identified as CD28. It is the critical T-cell co-stimulatory 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 co-stimulation 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.