

# **Human CD28 Antibody**

Recombinant Monoclonal Human IgG<sub>1</sub> Clone # 29704-1 Catalog Number: MAB11412

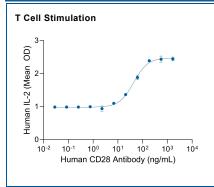
DESCRIPTION		
Species Reactivity	Human	
Specificity	Detects human CD28 in direct ELISAs.	
Source	Recombinant Monoclonal Human IgG <sub>1</sub> Clone # 29704-1	
Purification	Protein G purified from cell culture supernatant	
Immunogen	Human T lymphocytes	
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.	

### **APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
T Cell Stimulation	3 μg/mL	Human PBMCs

### DATA



Recombinant Human CD28
Antibody Enhances IL-2
Secretion in Jurkat Cells.
Human CD28 recombinant
antibody enhances IL-2 secretion
in Jurkat cells (immortalized
human T cell line) treated with 5
ng/mL phorbol myristate acetate
(PMA) and 0.9 µM calcium
ionomycin. Antibody-mediated
stimulation occurred in a dosedependent manner, as measured
using the Quantikine Human IL-2
ELISA kit. The ED<sub>50</sub> for this effect
is 5-50 ng/mL.

# PREPARATION AND STORAGE

Reconstitution	Reconstitute lyophilized material at 0.2mg/mi in sterile PBS. For liquid material, refer to CoA for concentration.	
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store	
	immediately at the temperature recommended below.	

# Stability & Storage

# Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

## BACKGROUND

The Bio-Techne CD28 GMP antibody is derived from the 15e8 clone. CD28 is a critical protein expressed on the surface of T cells that provides a costimulatory signal necessary for T cell activation and proliferation. CD28 is structurally similar to CTLA-4, with both molecules exhibiting structural homology to the immunoglobulin (Ig) gene superfamily. CD28 and CTLA-4, together with their ligands, B7-1 and B7-2, constitute one of the dominant co-stimulatory pathways that regulate T and B cell responses. Both CD28 and CTLA-4 are composed of a single Ig V-like extracellular domain, a transmembrane domain, and an intracellular domain. CD28 and CTLA-4 are both expressed on the cell surface as disulfide-linked homodimers or as monomers. The genes encoding these two molecules are closely linked on human chromosome 2.

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