



Product Data Sheet

CD28 Protein, Human/Cynomolgus (Biotinylated, HEK293, His-Avi)

Cat. No.: HY-P78096

CD28 antigen (Tp44); CD28 molecule; CD28; MGC138290 Synonyms:

Species: Cynomolgus;Human

HEK293 Source:

Accession: P10747 (N19-P152)

Gene ID: 940

Molecular Weight: 38-50 kDa

PROPERTIES

Biological Activity	 Immobilized Biotinylated Human/Cynomolgus/Rhesus macaque CD28 at 0.5 μg/mL (100 μL/Well) on the plate. Dose response curve for Anti-CD28 Antibody hFc with the EC₅₀ ≤ 20.2 ng/mL determined by ELISA. Immobilized Anti-CD28 Antibody, hFc Tag at 2 μg/mL (100 μl/well) on the plate. Dose response curve for Biotinylated Human/Cynomolgus/Rhesus macaque CD28, His Tag with the EC₅₀ ≤ 24.4 ng/mL determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

CD28 protein plays a pivotal role in T-cell activation, promoting cell proliferation, cytokine production, and T-cell survival. Upon ligation with TCR/CD3 and CD40L costimulation, CD28 enhances the production of IL4 and IL10 in T-cells, contributing to immune response modulation. Additionally, isoform 3 of CD28 facilitates CD40L-mediated activation of NF-kappa-B and kinases MAPK8 and PAK2 in T-cells. The protein forms homodimers through disulfide linkages and interacts with various molecules, including DUSP14, CD80/B7-1, CD86/B7-2/B70, and GRB2. Isoform 3 specifically interacts with CD40LG, highlighting its multifaceted role in mediating immune responses and cellular signaling pathways.

Page 1 of 2 www.MedChemExpress.com $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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Page 2 of 2 www.MedChemExpress.com