

CD28 Protein, Human (HEK293)

Cat. No.:	HY-P74313
Synonyms:	CD28; T-cell-specific surface glycoprotein CD28; Tp44
Species:	Human
Source:	HEK293
Accession:	P10747-1 (N19-P152)
Gene ID:	940
Molecular Weight:	34-44 kDa

PROPERTIES

AA Sequence	N K I L V K Q S P M L V A Y D N A V N L S C K Y S Y N L F S R E F R A S L H K G L D S A V E V C V V Y G N Y S Q Q L Q V Y S K T G F N C D G K L G N E S V T F Y L Q N L Y V N Q T D I Y F C K I E V M Y P P P Y L D N E K S N G T I I H V K G K H L C P S P L F P G P S K P
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized Human CD28 at 1 µg/mL (100 µL/well) can bind Biotinylated Human B7-1 protein. The ED ₅₀ for this effect is 521.3 ng/mL.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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,
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highlighting its multifaceted role in mediating immune responses and cellular signaling pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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