

## Product Data Sheet

## CD28 Protein, Cynomolgus/Rhesus Macaque (HEK293, His)

Cat. No.:	HY-P75424
Synonyms:	CD28; T-cell-specific surface glycoprotein CD28; Tp44
Species:	Rhesus Macaque;Cynomolgus
Source:	HEK293
Accession:	Q0PDN3 (M1-P152)
Gene ID:	102146670
Molecular Weight:	Approximately 16.6 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
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, contributin 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.

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

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