## Human CD28, C-His Tag Protein HA210920



Product name:	Human CD28, C-His Tag
Species reactivity:	Human
Bio-Activity:	Testing in progress.
Protein construction description:	A DNA sequence encoding the human CD28 protein (P10747-1) (Asn 19-Pro 152) was expressed with a His tag at the C-terminus.
Background:	CD28 (Cluster of Differentiation 28) is one of the proteins expressed on T cells that provide co-stimulatory signals required for T cell activation and survival. T cell stimulation through CD28 in addition to the T-cell receptor (TCR) can provide a potent signal for the production of various interleukins (IL-6 in particular). CD28 is the receptor for CD80 (B7.1) and CD86 (B7.2) proteins. When activated by Toll-like receptor ligands, the CD80 expression is upregulated in antigen-presenting cells (APCs). The CD86 expression on antigen-presenting cells is constitutive (expression is independent of environmental factors). CD28 is the only B7 receptor constitutively expressed on naive T cells. Association of the TCR of a naive T cell with MHC:antigen complex without CD28:B7 interaction results in a T cell that is anergic. Furthermore, CD28 was also identified on bone marrow stromal cells, plasma cells, neutrophils and eosinophils, but the functional importance of CD28 on these cells is not completely understood. It is generally reported, that CD28 is expressed on 50% of CD8+ T cells and more than 80% CD4+ T cells in human, but during the course of activation some T cells lose this molecule. Some antigen-experienced T cells lose CD28 and subsequently can be re-activated without CD28 engagement. These CD28- T cells have generally been characterized as antigen specific and terminally differentiated, and are often described as being memory T cells (TMs). In addition, the level of positive CD28 decreases with age.
Purity:	>95% as determined by SDS-PAGE.
Endotoxin:	Less than 1.0 EU per $\mu$ g by the LAL method.
Fragment region:	CD28 (19-152)
Source:	HEK293
Accession:	P10747-1
Predicted molecular mass:	16.5 kD
Formulation:	Lyophilized from a 0.2 $\mu m$ filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution:	Reconstitute at 250 µg/ml in sterile water.
Storage:	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at - $20^{\circ}$ C to - $80^{\circ}$ C It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

## Hangzhou Huaan Biotechnology Co., Ltd.

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

## Images



Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

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