

# Monoclonal Anti-Human CD28 Antibody

## humanized IgG4 (HPLC verified)

- **Ultra-low endotoxin**
- **Ultra-high purity**
- **Ultra-high bioactivity**

Catalog# / Size	AC67563/500ug
Clone	TGN1412
Isotype	Humanized IgG4
Endotoxin	Less than 0.001 EU per $\mu$ g determined by LAL gel clotting assay.
Purity	>99% as determined by SDS-PAGE >99% as determined by SEC-HPLC
Antibody Type	Monoclonal
Expressed Host	Stable CHO cell line
Application	T-cell activation

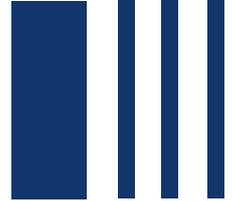
### Product Details

Reactivity	Human
Concentration	1.0 mg/mL
Form	Liquid
Antibody Type	Monoclonal
Formulation	Supplied as 0.2 $\mu$ m filtered solution in PBS, pH7.4.
Storage instructions	Shipped at 4°C. Stored at 4°C for 12 months.
Other Names	TP44, Tp44

### Description

T-cell-specific surface glycoprotein CD28 is a 44kD disulfide-linked homodimeric type I glycoprotein. It is a member of the immunoglobulin superfamily and is also known as T44 or Tp44. CD28 is expressed on most T lineage cells, NK cell subsets, and plasma cells. The binding of CD28 to its ligands CD80 and CD86 transfers a costimulatory signal to the T cell. Activation and proliferation of T cells can be induced by interaction of the T cell receptor (TCR) with peptide-MHC complexes expressed on the surface of antigen presenting cells (APC). T cell activation can also be achieved by agonistic stimulation with the CD3 antibody binding to the TCR complex and can be enhanced by costimulation with CD28 antibody.

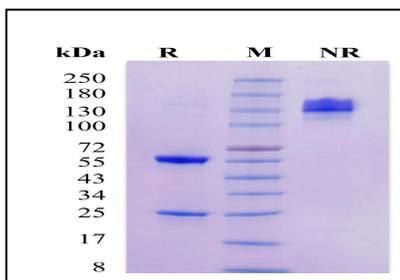
Please feel free to contact us via support@acnovia.com if you need any further



## Application References

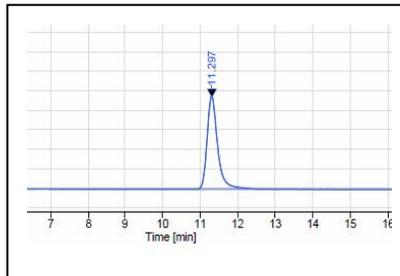
- 1、 Magatti M, et al. 2008. Stem Cells 26:182.
- 2、 Calea-Lauri J, et al. 1999. J. Immunol. 163:62.
- 3、 Schlossman S, et al. Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- 4、 Nunes J, et al. 1993. Biochem. J. 293:835.

## Product Data



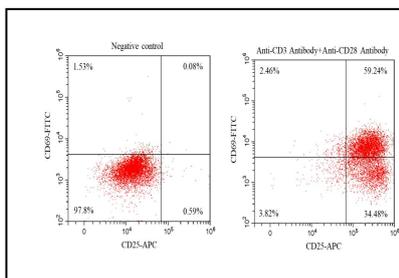
### SDS-PAGE

Monoclonal anti-human CD28 antibody on SDS-PAGE under reducing (R) and non-reducing(NR) conditions. The gel was stained with Coomassie Blue. The purity of the protein is greater than 99%.



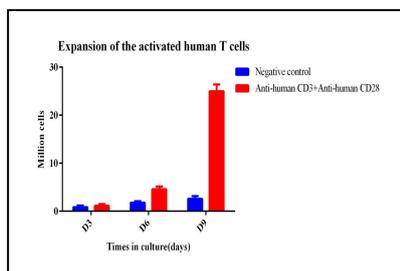
### SEC-HPLC

The purity of monoclonal anti-human CD28 antibody was greater than 99% as determined by SEC-HPLC.



### Bioactivity-FACS

The purified human T cells were activated using monoclonal anti-human CD3 antibody and monoclonal anti-human CD28 antibody. Cells were fluorescently stained using APC labeled anti-human CD25 antibody and labeled FITC anti-human CD69 antibody and analyzed by flow cytometry.



### Bioactivity-Cell based assay

PBMC derived T cells were activated in the monoclonal anti-human CD3 antibody and anti-human CD28 antibody for a period of 3 days. Activation was done by coated with monoclonal anti-human CD3 antibody, with 1  $\mu\text{g}/\text{mL}$  of each antibody. Cells were cultured for a total of 9 days, and viable cell number was determined.