

# CD28 Monoclonal Antibody (CD28.2), Functional Grade, eBioscience™

Product Details	
Size	500 µg
Species Reactivity	Human
Published Species	Fruit fly, Mouse, Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	CD28.2
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_468927

Applications	Tested Dilution	Publications
Western Blot (WB)	-	4 Publications
Flow Cytometry (Flow)	1 µg/test	42 Publications
ELISA (ELISA)	-	2 Publications
Functional Assay (FN)	Assay-Dependent	32 Publications
T-Cell Activation (TCA)	-	3 Publications
In vitro Assay (IV)	-	6 Publications
Miscellaneous PubMed (Misc)	-	7 Publications

## Product Specific Information

**Description:** The CD28.2 monoclonal antibody reacts with the human CD28 molecule, a 44 kDa homodimer expressed by thymocytes, mature T cells and plasma cells. CD28 is a ligand for CD80 (B7-1) and CD86 (B7-2) and is a potent co-stimulator of T cells. Signaling through CD28 augments IL-2 and IL-2 receptor expression as well as cytotoxicity of CD3-activated T cells.

**Applications Reported:** The CD28.2 antibody has been reported for use in flow cytometric analysis. CD28.2 has also been reported in costimulation of T cells in in vitro functional assays.

**Applications Tested:** The CD28.2 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Storage and handling: Use in a sterile environment.

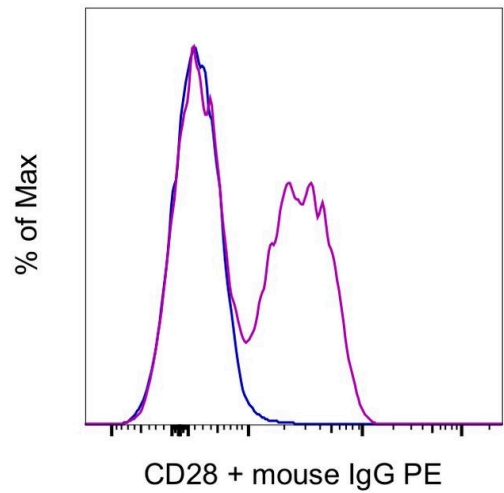
Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

**Product Images For CD28 Monoclonal Antibody (CD28.2), Functional Grade, eBioscience™**



**CD28 Antibody (16-0289-85) in Flow**  
Normal human peripheral blood cells were stained with 0.5 µg of Mouse IgG1 kappa Isotype Control (Product # 14-4714-82) (blue histogram) or 0.5 µg of CD28 Monoclonal Antibody, Functional Grade (purple histogram) followed by IgG Polyclonal Antibody, PE (Product # 12-4010-87). Cells in the lymphocyte gate were used for analysis.

## Western Blot (4)

<p><b>Frontiers in immunology</b></p> <p><b>Oxidation of HMGB1 Is a Dynamically Regulated Process in Physiological and Pathological Conditions.</b></p> <p>"16-0289 was used in Western Blotting to analyze the expression of HMGB1 redox isoforms in different inflammatory conditions in skeletal muscle."</p> <p>Authors: Ferrara M,Chialli G,Ferreira LM,Ruggieri E,Careccia G,Preti A,Piccirillo R,Bianchi ME,Sitia G,Venereau E</p>	<p><b>Year</b> 2021</p> <p><b>Species</b> Human</p>
<p><b>The Journal of cell biology</b></p> <p><b>PD-1 and BTLA regulate T cell signaling differentially and only partially through SHP1 and SHP2.</b></p> <p>"16-0289-81 was used in Western Blot, Flow Cytometry to compare the abilities of BTLA and PD-1 to recruit effector molecules and to regulate T cell signalling."</p> <p>Authors: Xu X,Hou B,Fulzele A,Masubuchi T,Zhao Y,Wu Z,Hu Y,Jiang Y,Ma Y,Wang H,Bennett EJ,Fu G,Hui E</p>	<p><b>Year</b> 2020</p> <p><b>Species</b> Human</p>

[View more WB references on thermofisher.com](#)

## Flow Cytometry (42)

<p><b>Frontiers in immunology</b></p> <p><b>IL411 binds to TMRSS13 and competes with SARS-CoV-2 spike.</b></p> <p>"16-0289-81 was used in Flow cytometry/Cell sorting to identify regions of homology between IL411 and spike and demonstrate competition between the two proteins for TMRSS13 binding."</p> <p>Authors: Gatineau J,Nidercorne C,Dupont A,Puiffe ML,Cohen JL,Molinier-Frenkel V,Niedergang F,Castellano F</p>	<p><b>Year</b> 2022</p> <p><b>Species</b> Human</p>
<p><b>JCI insight</b></p> <p><b>A reengineered common chain cytokine augments CD8+ T cell-dependent immunotherapy.</b></p> <p>"16-0289-81 was used in Flow cytometry/Cell sorting to describe the signaling properties of a potentially unique cytokine by design, where T cell surface binding and signaling are separated between 2 different families of receptors."</p> <p>Authors: Banerjee A,Li D,Guo Y,Mei Z,Lau C,Chen K,Westwick J,Klauda JB,Schrum A,Lazear ER,Krupnick AS</p>	<p><b>Year</b> 2022</p> <p><b>Species</b> Human</p>

[View more Flow references on thermofisher.com](#)

## More applications with references on thermofisher.com

- ELISA (2)
- FN (32)
- TCA (3)
- IV (6)
- Misc (7)

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