

PE anti-human CD28 Recombinant Antibody

Catalog# / Size	377205 / 25 tests 377206 / 100 tests
Clone	QA17A12
Regulatory Status	RUO
Workshop	V-CD28.05
Other Names	T44, Tp44
Isotype	Human IgG1, κ
Description	CD28 is a 44 kD 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. CD28 binds both CD80 and CD86 using a highly conserved motif MYPPY in the CDR3-like loop. CD28 is considered a major co-stimulatory molecule, inducing T lymphocyte activation and IL-2 synthesis, and preventing cell death. <i>In vitro</i> studies indicate that ligation of CD28 on T cells by CD80 and CD86 on antigen presenting cells provides a costimulatory signal required for T cell activation and proliferation.

Product Details

Verified Reactivity	Human
Antibody Type	Recombinant
Host Species	Human
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ L per million cells in 100 μ L staining volume or 5 μ L per 100 μ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Clone QA17A12 completely blocks binding of parental clone. Clone QA17A12 activates human T cells in co-stimulation assay with CD3 as efficiently as parental clone.

Application References

(PubMed link indicates
BioLegend citation)

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. Nunes J, *et al.* 1993. *Biochem J.* 293:835-42.
3. Galea-Lauri J, *et al.* 1999. *J Immunol.* 163:62-70.
4. Tazi A, *et al.* 1999. *J Immunol.* 163:3511-5. (IHC)
5. Marti F, *et al.* 2001. *J Immunol.* 166:197-206. (Costim)
6. Jeong SH, *et al.* 2004. *J Virol.* 78:6995-7003. (Costim)
7. Rivollier A, *et al.* 2004. *Blood.* 104:4029-37. (Costim)
8. Scharschmidt E, *et al.* 2004. *Mol Cell Biol.* 24:3860-73. (Costim)
9. Sheng W, *et al.* 2006. *FEBS Lett.* 580:6819-24. [PubMed](#)
10. Mitsuhashi M. 2007. *Clin Chem.* 53:148-9. [PubMed](#)
11. Ye Z, *et al.* 2008. *Infect Immun.* 76:2541-50. [PubMed](#)
12. Magatti M, *et al.* 2008. *Stem Cells.* 26:182-92. (FA) [PubMed](#)

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Antigen Details

Structure	Ig superfamily, type I transmembrane glycoprotein, homodimer, 44 kD
Distribution	Mature T cells, thymocytes, NK cell subsets, plasma cells, EBV-positive B cells
Function	T cell costimulation
Interaction	B cells, NK cells, Plasma cells, T cells, Thymocytes, Tregs
Ligand/Receptor	CD80, CD86
Cell Type	T cells, Thymocytes
Biology Area	Costimulatory Molecules, Immunology
Molecular Family	CD Molecules

Antigen References

1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
2. June CH, *et al.* 1994. *Immunol Today.* 15:321-31.
3. Linskey PS, *et al.* 1993. *Annu Rev Immunol.* 11:191-212.

Gene ID

[940](#)

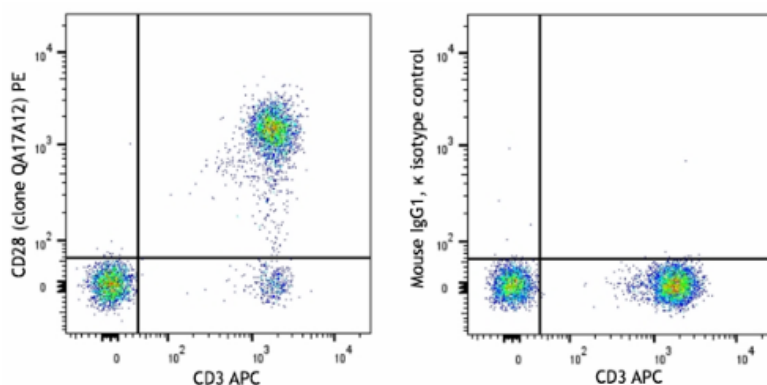
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Ultra-LEAF™ Purified anti-human CD28 Recombinant Antibody, PE anti-human CD28 Recombinant Antibody

Product Data



Human peripheral blood lymphocytes were stained with anti-human CD3 (clone SK7) APC and anti-human CD28 recombinant (clone QA17A12) PE (left) or mouse IgG1, κ PE isotype control (right).

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587