

Product Data Sheet

PE/Cy7 anti-human CD28

Catalog # / Size: 302925 / 25 tests
302926 / 100 tests

Clone: CD28.2

Isotype: Mouse IgG1, κ

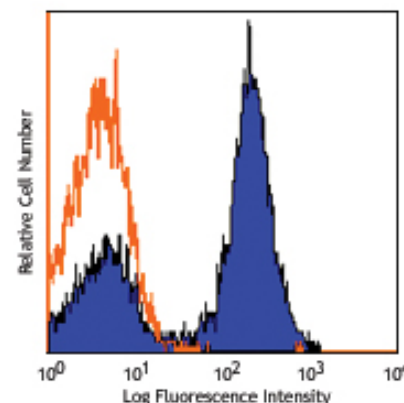
Workshop Number: V-CD28.05

Reactivity: Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Squirrel Monkey, Capuchin Monkey, Sooty Mangabey

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Cy7 under optimal conditions. The solution is free of unconjugated PE/Cy7 and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with CD28.2 PE/Cy7

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 μ l to 5 μ l per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 μ l staining volume or per 100 μ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. Read more at www.biolegend.com/testsize regarding the test size change.

Application Notes: Additional reported applications (for the relevant formats) include: immunoprecipitation, immunohistochemical staining of acetone-fixed frozen tissue sections⁴, and *in vitro* T cell costimulation⁵⁻⁸. The CD28.2 antibody co-stimulates T cell proliferation and cytokine production in the presence of suboptimal amounts of anti-CD3 antibody. The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for functional assays (Cat. No. 302914). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 302934) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/ μ g).

Cy3, Cy5, Cy5.5 and Cy7 are subject to proprietary rights of GE Healthcare Bio-Sciences Corp. and Carnegie Mellon University and made and sold under license from GE Healthcare Bio-Sciences Corp. Sale of this product is licensed for research use only.

Application References: 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.
3. Calea-Lauri J, et al. 1999. *J. Immunol.* 163:62.
4. Tazi A, et al. 1999. *J. Immunol.* 163:3511. (IHC)
5. Marti F, et al. 2001. *J. Immunol.* 166:197. (Costim)
6. Jeong SH, et al. 2004. *J. Virol.* 78:6995. (Costim)
7. Rivollier A, et al. 2004. *Blood* 104:4029. (Costim)
8. Scharschmidt E, et al. 2004. *Mol. Cell Biol.* 24:3860. (Costim)
9. Sheng W, et al. 2007. *Elsevier* 580:6819. PubMed
10. Mitsuhashi M. 2007. *Clin Chem.* 53:148. PubMed
11. Ye Z, et al. 2008. *Infect. Immun.* 76:2541. PubMed
12. Magatti M, et al. 2008. *Stem Cells* 26:182. (FA) PubMed
13. Yoshino N, et al. 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
14. Rout N, et al. 2010. *PLoS One* 5:e9787. (FC)
15. Leonard JA, et al. 2011. *J. Virol.* 85:6867. PubMed

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. *In vitro* 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.

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.
3. Linskey PS, et al. 1993. *Annu. Rev. Immunol.* 11:191.

Related Products:Product

Clone

Application



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PE/Cy7 Mouse IgG1, κ Isotype Ctrl
Cell Staining Buffer
RBC Lysis Buffer (10X)
Human TruStain FcX™ (Fc Receptor Blocking Solution)

MOPC-21

FC, ICFC
FC, ICC, ICFC
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FC, ICC, ICFC



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BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587