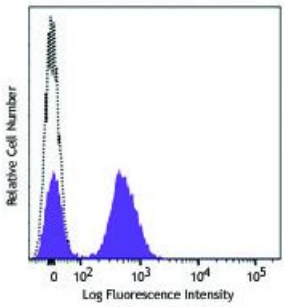
SONY

Product Data Sheet

APC/Fire™ 750 anti-human CD28

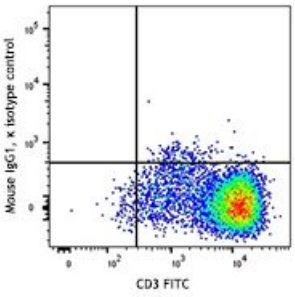
Catalog # / Size:	2114760 / 100 tests 2114755 / 25 tests
Clone:	CD28.2
Isotype:	Mouse IgG1, κ
Immunogen:	Human tonsillar B cells
Reactivity:	Human, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with APC/Fire&trade
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Workshop Number:	750 under optimal conditions.
Concentration:	Lot-specific



Human peripheral blood lymphocytes were stained with CD28 (clone CD28.2) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ APC/Fire™ 750 isotype control (open histogram).

Applications:

Applications:	Flow Cytometry
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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.
Application Notes:	Additional reported applications (for the relevant formats) include: immunoprecipitation, immunohistochemical staining of acetone-fixed frozen tissue sections[4], and *in vitro* T cell costimulation[5-8]. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue. The CD28.2 antibody co-stimulates T cell proliferation and cytokine production in the presence of suboptimal amounts of anti-CD3 antibody.



Application References:

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2. Nunes J, *et al.* 1993. *Biochem. J.* 293:835.
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4. Tazi A, *et al.* 1999. *J. Immunol.* 163:3511. (IHC)
5. Marti F, *et al.* 2001. *J. Immunol.* 166:197. (Costim)
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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
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14. Berg M, *et al.* 2008. *J Leukoc Biol.* 83:853. (IP) PubMed
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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.