

Alexa Fluor® 700 anti-human CD28

Catalog # / Size: 302919 / 25 µg
302920 / 100 µg

Clone: CD28.2

Isotype: Mouse IgG1, κ

Workshop Number: V-CD28.05

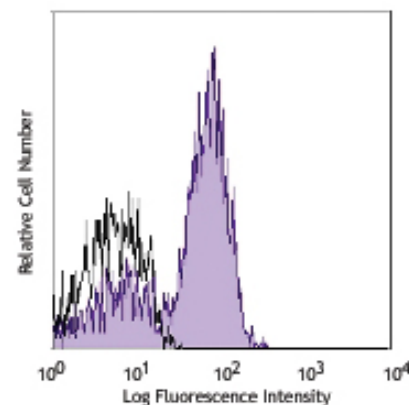
Reactivity: Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Squirrel Monkey, Capuchin Monkey, Sooty Mangabey

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 700 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 700.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

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 Alexa Fluor® 700

Applications:

Applications: FC - Quality tested

Recommended Usage: This reagent is developed for immunofluorescent staining for flow cytometric analysis; the suggested use of this reagent is ≤2.0 µg per million cells in 100 µl volume. It is highly recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Alexa Fluor® 700 is a registered trademark of Molecular Probes, Inc. Alexa Fluor® 700 dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

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/µg, Azide-Free, 0.2 µm 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/µg).

- Application References:**
- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
 - Nunes J, *et al.* 1993. *Biochem. J.* 293:835.
 - Calea-Lauri J, *et al.* 1999. *J. Immunol.* 163:62.
 - Tazi A, *et al.* 1999. *J. Immunol.* 163:3511. (IHC)
 - Marti F, *et al.* 2001. *J. Immunol.* 166:197. (Costim)
 - Jeong SH, *et al.* 2004. *J. Virol.* 78:6995. (Costim)
 - Rivollier A, *et al.* 2004. *Blood* 104:4029. (Costim)
 - Scharschmidt E, *et al.* 2004. *Mol. Cell Biol.* 24:3860. (Costim)
 - Sheng W, *et al.* 2007. *Elsevier* 580:6819. PubMed
 - Mitsuhashi M. 2007. *Clin Chem.* 53:148. PubMed
 - Ye Z, *et al.* 2008. *Infect. Immun.* 76:2541. PubMed
 - Magatti M, *et al.* 2008. *Stem Cells* 26:182. (FA) PubMed
 - Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
 - Rout N, *et al.* 2010. *PLoS One* 5:e9787. (FC)
 - 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:**
- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
 - June CH, *et al.* 1994. *Immunol. Today* 15:321.



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

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	Alexa Fluor® 700 Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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