PE/Dazzle™ 594 anti-mouse CD28 Antibody

Catalog# / Size	102123 / 25 µg 102124 / 100 µg
Clone	37.51
Regulatory Status	RUO
Other Names	Tp44, T44
Isotype	Syrian Hamster IgG
Description	CD28 is a 44 kD glycoprotein, also known as Tp44 or T44. It is a member of the Ig superfamily, expressed on thymocytes, most peripheral T cells, and NK cells. In association with CD80 (B7-1) and CD86 (B7-2), CD28 acts as the second signal for T and NK cell activation and proliferation. The 37.51 antibody has been reported to augment *in vitro* T cell proliferation and cytokine production, and promote CTL development.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Syrian Hamster
Immunogen	C57BL/6 mouse T-cell lymphoma EL-4
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions.
Concentration	0.2 mg/ml
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 ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation[1], *in vitro* costimulation of T and NK cells[1], *in vitro* blocking of allogeneic mixed leukocyte response and inhibition of MHC-unrestricted CTL cytotoxicity[3,4], *in vitro* induction of thymocyte differentiation[2,5-9,11], and immunohistochemical staining of acetone-fixed frozen sections. For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) (Cat. No. 102116).

Application References

(PubMed link indicates BioLegend citation)

1. Gross JA, *et al.* 1992. *J. Immunol.* 149:380. (IP, Costim)
2. Cibotti R, *et al.* 1997. *Immunity* 6:245. (Costim)
3. Masten BJ, *et al.* 1997. *Am. J. Respir. Cell Mol. Biol.* 16:335. (Block)
4. Nishio M, *et al.* 1996. *J. Immunol.* 157:4347. (Block)
5. Zhang N and He Y-W, 2005. *J. Exp. Med.* 202:395. (Costim)
6. Terrazas LI, *et al.* 2005. *Intl. J. Parasitology.* 35:1349. (Costim)
7. Perchonock CE, *et al.* 2006. *Mol Cell Biol.* 26(16):6005. (Costim)
8. Wang W, *et al.* 2007. *J. Immunol.* 178:4885. (Costim)
9. Pua HH, *et al.* 2007. *J. Exp. Med.* 204:25. (Costim)

10. Perchonock CE, *et al.* 2007. *J. Immunol.* 179:1768.
11. Barbi J, *et al.* 2007. *Blood* 110:2215.
12. Milpied P, *et al.* 2011. *Blood* 118:2993. PubMed
13. Cunningham NR, *et al.* 2011. *Int Immunol.* 23:693. PubMed
14. Crispin JC, *et al.* 2012. *J. Immunol.* 188:3567. PubMed
15. Li CR, *et al.* 2014. *J Immunol.* 192:1425. PubMed
16. Blankenhaus B, *et al.* 2014. *PLoS Pathog.* 10:1003913. PubMed

Product Citations

1. Kelsey E Sivick *et al.* 2018. Cell reports. 25(11):3074-3085 . PubMed

RRID

AB_2629549 (BioLegend Cat. No. 102123)
AB_2629550 (BioLegend Cat. No. 102124)

Disclaimer

Antigen Details

Structure Ig superfamily, 44 kD

Distribution Thymocytes, $CD4^+$, $CD8^+$ peripheral T cells, NK cells

Function Costimulates T and NK cells

Ligand/Receptor CD80 (B7-1), CD86 (B7-2)

Cell Type NK cells, T cells, Thymocytes, Tregs

Biology Area Costimulatory Molecules, Immunology

Molecular Family CD Molecules

Antigen References

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Lenschow DJ, *et al.* 1996. *Annu. Rev. Immunol.* 14:233.
3. Gross JA, *et al.* 1992. *J. Immunol.* 149:380.

Gene ID 12487

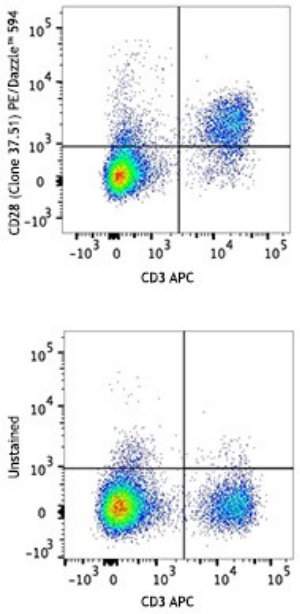
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

APC anti-mouse CD28, Biotin anti-mouse CD28, PE anti-mouse CD28, PE/Cyanine5 anti-mouse CD28, Purified anti-mouse CD28, PerCP/Cyanine5.5 anti-mouse CD28, Ultra-LEAF™ Purified anti-mouse CD28, Purified anti-mouse CD28 (Maxpar® Ready), PE/Cyanine7 anti-mouse CD28, PE/Dazzle™ 594 anti-mouse CD28, Brilliant Violet 421™ anti-mouse CD28, TotalSeq™-C0204 anti-mouse CD28, KIRAVIA Blue 520™ anti-mouse CD28

Product Data



C57BL/6 mouse splenocytes were stained with CD3 (clone 145-2C11) APC and CD28 (clone 37.51) PE/Dazzle™ 594 (top) or C57BL/6 mouse splenocytes with CD3 (clone 145-2C11) APC (bottom).

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