

Spark Violet™ 423 anti-human CD28 Antibody

Catalog# / Size 302975 / 25 tests

Clone CD28.2 **Regulatory Status** RUO

Workshop V-CD28.05 Other Names T44, Tp44 Isotype Mouse IgG1, κ

CD28 is a 44 kD disulfide-linked homodimeric type I glycoprotein. It is a member of the Description

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 costimulatory 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.

Product Details

Verified Reactivity Human, Cynomolgus, Rhesus

Reported Reactivity Baboon, Capuchin Monkey, Chimpanzee, Pigtailed Macaque, Sooty Mangabey, Squirrel Monkey

Antibody Type Monoclonal **Host Species** Mouse

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 Spark Violet™ 423

under optimal conditions.

Concentration Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration

and Expiration Lookup or Certificate of Analysis online tools.)

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 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be

titrated for optimal performance for each application.

* Spark Violet™ 423 has a maximum excitation of 400 nm and a maximum emission of 415 nm.

Excitation Laser Violet Laser (405 nm)

The Ultra-LEAF™ Purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is Application Notes

recommended for highly sensitive assays.

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

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5. Marti F, et al. 2001. J. Immunol. 166:197. (Costim)

6. Jeong SH, et al. 2004. J. Virol. 78:6995. (Costim) 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. 2008. Exp. Anim. (Tokyo) 49:97. (FC)
- 14. Berg M, et al. 2008. J Leukoc Biol. 83:853. (IP) PubMed
- 15. Rout N, et al. 2010. PLoS One 5:e9787. (FC)
- 16. Leonard JA, et al. 2011. J. Virol. 85:6867. PubMed
- 17. Nomura T, et al. 2012. J. Virol. 86:6481. PubMed

RRID AB_2922534 (BioLegend Cat. No. 302975)

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

Ligand/Receptor CD80, CD86

Cell Type B cells, NK cells, Plasma cells, T cells, Thymocytes, Tregs

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.

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

Gene ID 940

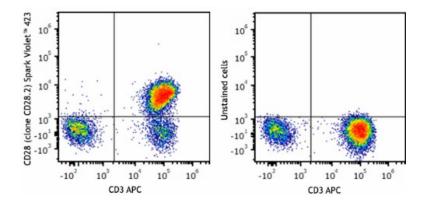
Related Protocols

Cell Surface Flow Cytometry Staining Protocol

Other Formats

APC anti-human CD28, Biotin anti-human CD28, FITC anti-human CD28, PE anti-human CD28, PE/Cyanine5 anti-human CD28, Purified anti-human CD28, Alexa Fluor® 488 anti-human CD28, Alexa Fluor® 700 anti-human CD28, PerCP/Cyanine5.5 anti-human CD28, Pacific Blue™ anti-human CD28, PE/Cyanine7 anti-human CD28, Ultra-LEAF™ Purified anti-human CD28, Brilliant Violet 421™ anti-human CD28, Brilliant Violet 510™ anti-human CD28, Purified anti-human CD28 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD28, Brilliant Violet 785™ anti-human CD28, Brilliant Violet 650™ anti-human CD28, Brilliant Violet 711™ anti-human CD28, APC/Fire™ 750 anti-human CD28, Alexa Fluor® 647 anti-human CD28, TotalSeq™-B0386 anti-human CD28, TotalSeq™-C0386 anti-human CD28, Brilliant Violet 605™ anti-human CD28, APC/Cyanine7 anti-human CD28, Brilliant Violet 750™ anti-human CD28, PE/Fire™ 810 anti-human CD28, GMP PE anti-human CD28, TotalSeq™-D0386 anti-human CD28, Spark Violet™ 423 anti-human CD28

Product Data



Human peripheral blood lymphocytes were stained with anti-human CD3 APC and anti-human CD28 (clone CD28.2) Spark Violet™ 423 (left) or stained with anti-human CD3 APC only (right).

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