SONY

Product Data Sheet

Brilliant Violet 421™ anti-mouse CD279 (PD-1)

Catalog # / Size: 1276090 / 500 µl
1276085 / 125 µl
1276105 / 50 µg

Clone: 29F.1A12

Isotype: Rat IgG2a, κ

Immunogen: PD-1 cDNA followed by PD-1-Ig fusion protein

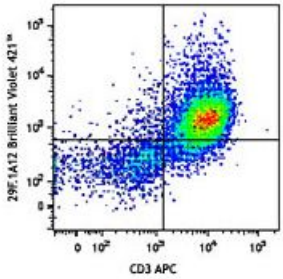
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.

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

Workshop Number: 750 under optimal conditions.

Concentration: Lot-specific



Con-A stimulated C57BL/6 splenocytes (3 days) were stained with CD3 APC and CD279 (clone 29F.1A12) Brilliant Violet 421™ (top), or rat IgG2a, κBrilliant Violet 421™ isotype control (bottom).

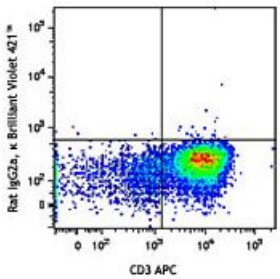
Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining using the µg size, the suggested use of this reagent is ≤0.125 µg per million cells in 100 µl volume. For immunofluorescent staining using µl sizes, the suggested use of this reagent is ≤5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue3 and *in vivo* blocking of PD-1 binding to its ligands[2,3].



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Application References:

1. Good-Jacobson KL, *et al.* 2010. *Nat. Immunol.* 11:535. (FC) PubMed
2. Lazar-Molnar E, *et al.* 2008. *Proc. Natl. Acad. Sci. USA* 105:2658. (Block)
3. Liang SC, *et al.* 2003. *Eur. J. Immunol.* 33:2706. (FC, IHC, Block)

Description: CD279, also known as programmed death-1 (PD-1), is a 50-55 kD glycoprotein belonging to the CD28 family of the Ig superfamily. PD-1 is expressed on activated splenic T and B cells and thymocytes. It is induced on activated myeloid cells as well. PD-1 is involved in lymphocyte clonal selection and peripheral tolerance through binding its ligands, B7-H1 (PD-L1) and B7-DC (PD-L2). It has been reported that PD-1 and PD-L1 interactions are critical to positive selection and play a role in shaping the T cell repertoire. PD-L1 negative costimulation is essential for prolonged survival of intratesticular islet allografts.

Antigen References:

1. Nishimura H, *et al.* 2001. *Science* 291:319
2. Agata Y, *et al.* 1996. *Int. Immunol.* 8:765
3. Liang SC, *et al.* 2003. *Eur. J. Immunol.* 33:2706
4. Barber DL, *et al.* 2006. *Nature* 439:682
5. Keir ME, *et al.* 2005. *J. Immunol.* 175:7372
6. Koehn BH. et al. 2008. J Immunol. 181:5313

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