SONY

Product Data Sheet

Brilliant Violet 421™ anti-mouse LAP (TGF-β1)

Catalog # / Size: 1307040 / 50 µg
1307035 / 125 µl

Clone: TW7-16B4

Isotype: Mouse IgG1, κ

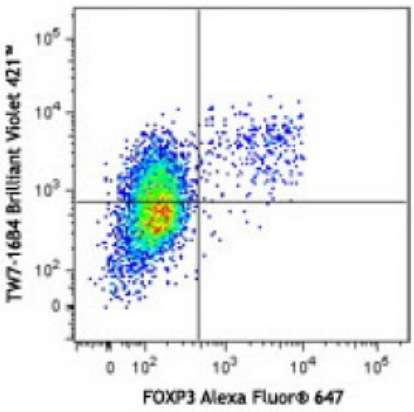
Immunogen: Mouse *Tgfb1*-transduced P3U1 cells

Reactivity: Mouse

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

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

Concentration: Lot-specific



C57BL/6 mouse splenocytes were stimulated with CD3, CD28, and recombinant mouse IL-2 for 48 hours, then surface stained with CD4 FITC and LAP (TGF-β1) (clone TW7-16B4) Brilliant Violet 421™ (top) or mouse IgG1, κ Brilliant Violet 421&trad

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 microL per million cells or 5 microL per 100 microL 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.

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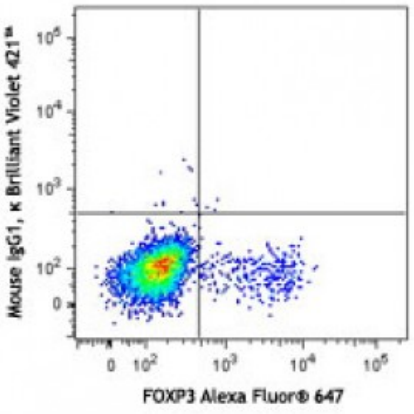

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U.S. Patent(s), pending patent applications and foreign equivalents.

Application Notes: Clone TW7-16B4 has been reported to not cross-react with bovine LAP.2 Several anti-LAP antibody clones have been compared and characterized for their LAP reactivity.2 TW7-16B4 recognizes recombinant LAP, latent TGF-β, and pro-TGF-β.

Additional reported applications (for relevant formats) include: Western blotting1 and immunoprecipitation1.

Application References:
1. Oida T, *et al.* 2010. *PLoS One* 5:e15523. (FC, IP, WB)
2. Oida T, *et al.* 2011. *PLoS One* 6:e18365. (Neut)

Description: Transforming growth factor β (TGF-β) is a cytokine that has critical functions in the immune response by regulating Treg and Th17 cells. TGF-β is first synthesized as pro-TGF-β and then it is cleaved by furin proprotein convertase in the Golgi apparatus to produce the dimeric propeptides called latency-associate peptide (LAP) that non-covalently associates with the dimeric mature TGF-β to prevent its activity. This complex can further associate with latent-TGF-β-binding protein (LTBP) to produce a large latent form for deposition onto the extracellular matrix. The latent-TGF-β can be expressed on the membrane of activated Treg cells, immature dendritic cells, megakaryocytes, and platelets.

Antigen References:
1. Oida T, *et al.* 2010. *PLoS One* 5:e15523.
2. Tran D, *et al.* 2009. *P. Natl. Acad. Sci. USA* 106:13445.
3. Ochi H, *et al.* 2006. *Nat. Med.* 12:627.
4. Oida T, *et al.* 2003.

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