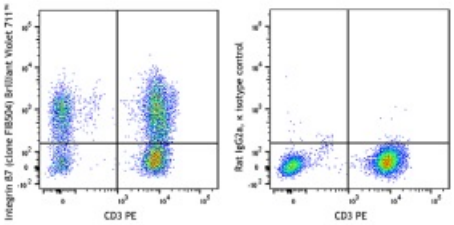
SONY

Product Data Sheet

Brilliant Violet 711™ anti-human/mouse integrin β7

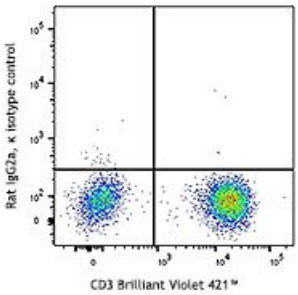
Catalog # / Size:	2206200 / 100 tests 2206195 / 25 tests
Clone:	FIB504
Isotype:	Rat IgG2a, κ
Immunogen:	TK1 cells
Reactivity:	Human, Mouse, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Workshop Number:	VI 6T-101, VI A024
Concentration:	Lot-specific



Human peripheral blood lymphocytes were stained with CD3 PE and integrin β7 (clone FIB504) Brilliant Violet 711™ (left) or rat IgG2a, κ Brilliant Violet 711™ isotype control (right).

Applications:

Applications: Flow Cytometry



Human peripheral blood lymphocytes were stained with anti-human CD3 FITC and anti-human CD279 (PD-1) PE/Fire™ 640 (clone EH12.2H7) (left), or mouse IgG1, κ PE/Fire™ 640 (right).

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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.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.

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Application Notes:

The FIB504 antibody has been reported to react with mouse and human β7 integrin and to block β7 integrin-mediated cell adhesion in *in vitro* and *in vivo* studies. Additional reported applications (for the relevant formats) include: blocking of cell adhesion[1,3,4]. The Ultra-LEAF™ purified FIB504 antibody (Endotoxin <0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 321233-321238).

Application References:

1. Andrew DP, *et al.* 1994. *J. Immunol.* 153:3847. (Block)
2. Berlin C, *et al.* 1993. *Cell* 74:185.
3. Rott LS, *et al.* 1996. *J. Immunol.* 156:3727. (Block)
4. Rivera-Nieves J, *et al.* 2005. *J. Immunol.* 174:2343. (Block)
5. Ohmori K, *et al.* 2009. *J. Immunol.* 182:2835. PubMed
6. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)

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Description: Integrin β7 is a 130 kD glycoprotein also known as integin βp. It is a member of the Ig superfamily. In association with integrin α4 or αE chain, β7 forms α4/β7 or αE/β7 heterodimer. α4/β7 (CD49d/β7, LPAM-1) is expressed on the majority of peripheral lymphocytes, on small subsets of thymocytes, and bone marrow progenitors. LPAM-1 binds to several ligands, VCAM-1, MAdCAM-1 and fibronectin, and is involved in lymphocyte adhesion and some hematopoietic progenitor cells migration. αE/β7 (CD103/β7,α_{IEL}/β7) is expressed on intestinal intraepithelial lymphocytes (IEL), dendritic epidermal T cells, T regulatory cells, a subset of CD8+ T cells in lymph nodes and lamina propria. CD103/β7 complex is thought to play a role in lymphocyte retention via interaction with its ligand E-Cadherin.

Antigen References:

1. Andrew DP, *et al.* 1994. *J. Immunol.* 153:3847.
2. Picarella D, *et al.* 1997. *J. Immunol.* 158:2099.
3. Lefrancois L, *et al.* 1994. *Eur. J. Immunol.* 24:635
4. Cepek KL, *et al.* 1994. *Nautre* 372:190.

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