SONY

Product Data Sheet

Alexa Fluor® 647 anti-human/mouse integrin β7

Catalog # / Size: 2206110 / 100 tests
2206105 / 25 tests

Clone: FIB504

Isotype: Rat IgG2a, κ

Immunogen: TK1 cells

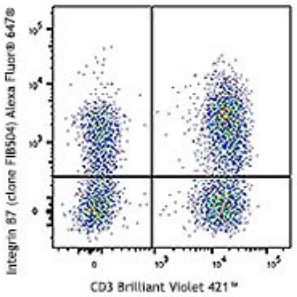
Reactivity: Human, Mouse, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 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 Brilliant Violet 421™ and Integrin β7 (clone FIB504) Alexa Fluor® 647 (top) or rat IgG2a, κ Alexa Fluor® 647 isotype control (bottom).

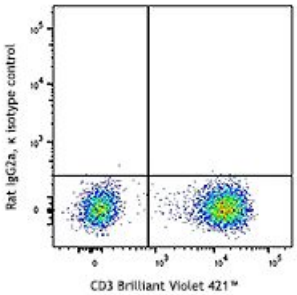
Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, 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.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.

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 LEAF™ purified FIB504 antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 321218).



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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)

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. a4/β7 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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