

**Alexa Fluor® 647 anti-human/mouse integrin  $\beta$ 7**

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

**Clone:** FIB504

**Isotype:** Rat IgG2a,  $\kappa$

**Reactivity:** Other

**Concentration:** Lot-specific

**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  $\mu$ L per million cells or 5  $\mu$ L per 100  $\mu$ L 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  $\beta$ 7 integrin and to block  $\beta$ 7 integrin-mediated cell adhesion in *in vitro* and *in vivo* studies. Additional reported applications (for the relevant formats) include: blocking of cell adhesion<sup>1,3,4</sup>. The LEAF™ purified FIB504 antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for functional assays (Cat. No. 321218).

**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  $\beta$ 7 is a 130 kD glycoprotein also known as integrin  $\beta$ p. It is a member of the Ig superfamily. In association with integrin  $\alpha$ 4 or  $\alpha$ E chain,  $\beta$ 7 forms  $\alpha$ 4/ $\beta$ 7 or  $\alpha$ E/ $\beta$ 7 heterodimer.  $\alpha$ 4/ $\beta$ 7 (CD49d/ $\beta$ 7, LPAM-1) is expressed on the majority of peripheral lymphocytes, on small subsets of thymocytes, and bone marrow progenitors.  $\alpha$ 4/ $\beta$ 7 binds to several ligands, VCAM-1, MAdCAM-1 and fibronectin, and is involved in lymphocyte adhesion and some hematopoietic progenitor cells migration.  $\alpha$ E/ $\beta$ 7 (CD103/ $\beta$ 7, $\alpha$ <sub>IEL</sub>/ $\beta$ 7) is expressed on intestinal intraepithelial lymphocytes (IEL), dendritic epidermal T cells, T regulatory cells, a subset of CD8<sup>+</sup> T cells in lymph nodes and lamina propria. CD103/ $\beta$ 7 complex is thought to play a role in lymphocyte retention via interaction with its ligand E-Cadherin.