

Product Data Sheet

LEAF™ Purified anti-human/mouse Integrin $\beta 7$

Catalog # / Size: 321217 / 50 μ g
 321218 / 500 μ g

Clone: FIB504

Isotype: Rat IgG2a, κ

Workshop Number: VI 6T-101, VI A024

Immunogen: TK1 cells

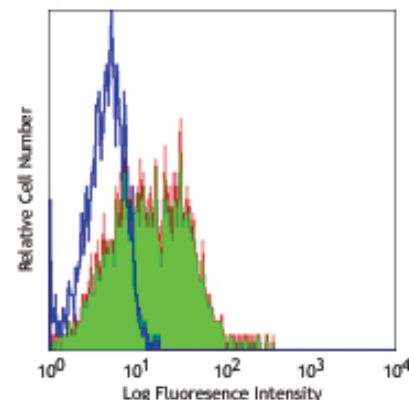
Reactivity: Human, Mouse, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus

Preparation: The LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.

Formulation: 0.2 μ m filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is <0.1 EU/ μ g of the protein (<0.01 ng/ μ g of the protein) as determined by the LAL test.

Concentration: 1.0 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C. This LEAF™ solution contains no preservative; handle under aseptic conditions.



Human peripheral blood lymphocytes stained with LEAF™ purified FIB504, followed by anti-rat IgG FITC

Applications:

Applications: FC - *Quality tested*
 Block - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.5 μ g per million cells in 100 μ l volume or 100 μ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

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^{1,3,4}. The LEAF™ purified FIB504 antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ 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)

Description: Integrin $\beta 7$ is a 130 kD glycoprotein also known as integrin βp . It is a member of the Ig superfamily. In association with integrin $\alpha 4$ or αE 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. LPAM-1 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/ $\beta 7$, $\alpha IEL/\beta 7$) 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/ $\beta 7$ 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. *Nature* 372:190.

Related Products:

Product
 APC Goat anti-rat IgG (minimal x-reactivity)
 PE Goat anti-rat IgG (minimal x-reactivity)
 Cell Staining Buffer
 LEAF™ Purified Rat IgG2a, κ Isotype Ctrl

Clone
 Poly4054
 Poly4054
 RTK2758

Application

FC
 FC
 FC, ICC, ICFC
 FC, ICFC, WB, IP, ICC, IF,
 IHC, FA



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