

DESCRIPTION

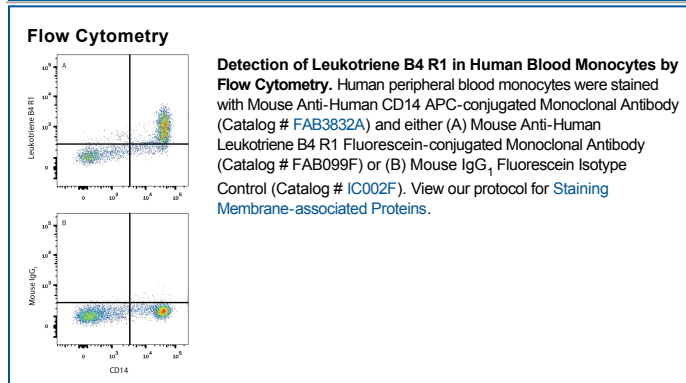
Species Reactivity	Human
Specificity	Recognizes human Leukotriene B4 R1 (5).
Source	Monoclonal Mouse IgG ₁ Clone # 203/14F11
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	HeLa cervical epithelial carcinoma cell line transfected with human Leukotriene B4 R1
Conjugate	Fluorescein Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm (FITC)
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	10 µL/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Polymorphonuclear granulocytes secrete the lipid chemotactic mediator Leukotriene B4 (LTB₄) in response to inflammatory stimuli (1). Neutrophils, monocytes and lymphocytes respond to LTB₄ via specific receptors localized on the cell surface (2-4). The high affinity LTB₄ Receptor known as BLT1 is only expressed on leukocytes (5-7) while a second low affinity receptor BLT2 is expressed more ubiquitously (8, 9). The BLT1 and BLT2 are G-protein linked seven-transmembrane spanning receptors that share about 37-45% amino acid identity (8, 9). Enhanced LTB₄ production and engagement of the BLT receptors can be important in allergic and inflammatory diseases such as asthma (10), allergic encephalomyelitis (11), endotoxic shock (12), ischemia (12), psoriasis (13), rheumatoid arthritis (14) and inflammatory bowel disease (15). In addition, it has been reported that BLT1 can function as an additional co-receptor for HIV infection of CD4⁺ T cells (16, 17). Investigations into the mechanisms and potential inhibitors of LTB₄ binding to its' receptors may provide insight into possible treatment modalities for a number of inflammatory disorders.

References:

1. Samuelsson, B. *et al.* (1987) *Science* **237**:1171.
2. Brom, J. and W. Konig (1989) *Immunology* **68**:479.
3. Patry, C. *et al.* (1996) *Prostaglandins, Leukotrienes and Essential Fatty Acids* **54**:361.
4. Dasari, V.R. *et al.* (2000) *Immunopharm.* **48**:157.
5. Pettersson, A. *et al.* (2000) *Biochem. Biophys. Res. Comm.* **279**:520.
6. Yokomizo, T. *et al.* (1997) *Nature* **387**:620.
7. Kato, K. *et al.* (2000) *J. Exp. Med.* **192**:413.
8. Yokomizo, T. *et al.* (2000) *J. Exp. Med.* **192**:421.
9. Kamohara, M. *et al.* (2000) *J. Biol. Chem.* **275**:27000.
10. Turner, C.R. *et al.* (1996) *J. Clin. Invest.* **97**:381.
11. Gladue, R.P. *et al.* (1996) *J. Exp. Med.* **183**:1893.
12. Lefer, A.M. (1986) *Biochem. Pharmacol.* **35**:123.
13. Iverson, L. *et al.* (1997) *Skin Pharmacol.* **10**:169.
14. Griffiths, R.J. *et al.* (1995) *Proc. Natl. Acad. Sci. USA* **92**:517.
15. Sharon, P. and W.F. Stenson (1984) *Gastroenterology* **86**:453.
16. Owman, C. *et al.* (1996) *Proc. Natl. Acad. Sci. USA* **95**:9530.
17. Martin, V. *et al.* (1999) *J. Biol. Chem.* **274**:8597.