

## DESCRIPTION

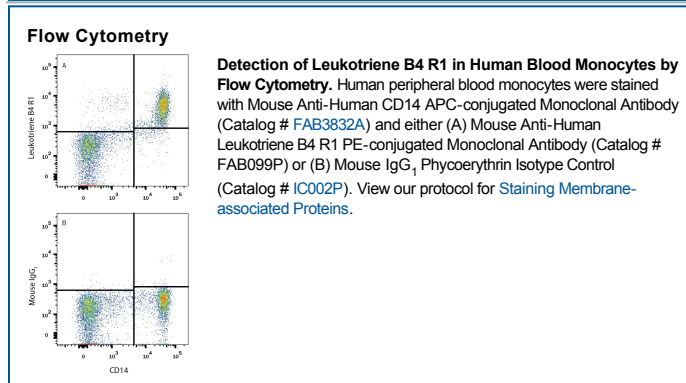
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Recognizes human Leukotriene B4 R1 (5).
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 203/14F11
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	HeLa cervical epithelial carcinoma cell line transfected with human Leukotriene B4 R1
<b>Conjugate</b>	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
<b>Formulation</b>	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
<b>Flow Cytometry</b>	10 µL/10 <sup>6</sup> cells	See Below

## DATA



## PREPARATION AND STORAGE

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

**BACKGROUND**

Polymorphonuclear granulocytes secrete the lipid chemotactic mediator Leukotriene B4 (LTB<sub>4</sub>) in response to inflammatory stimuli (1). Neutrophils, monocytes and lymphocytes respond to LTB<sub>4</sub> via specific receptors localized on the cell surface (2-4). The high affinity LTB<sub>4</sub> 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 LTB<sub>4</sub> 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<sup>+</sup> T cells (16, 17). Investigations into the mechanisms and potential inhibitors of LTB<sub>4</sub> 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.