

**MULTISCREEN™ STABLE CELL LINE  
MOUSE RECOMBINANT BLT<sub>2</sub> RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** Cm1272

**Lot Number:** Cm1272-101613

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

**Freeze Medium:** Sigma Freezing Medium (C-6164)

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length mouse BLT<sub>2</sub> cDNA (GenBank Accession Number NM\_020490.2) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

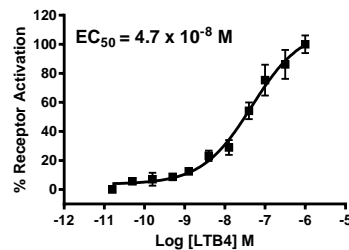
**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin

**Stability:** Stable in culture for minimum of two months

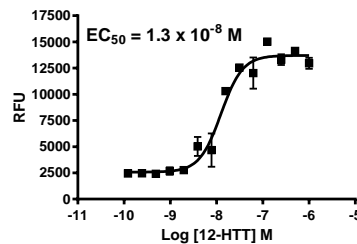
**Background:** Leukotriene B<sub>4</sub> (LTB<sub>4</sub>) is a potent lipid mediator of allergic and inflammatory reactions, as well as a modulator of immune responses. In mice, BLT<sub>2</sub> receptor has been shown to be expressed in the small intestine and skin and functional BLT<sub>2</sub> in primary keratinocytes, compared to the ubiquitous expression in humans. Cells expressing BLT<sub>2</sub> exhibited LTB<sub>4</sub>-induced chemotaxis, calcium mobilization, and inhibition of adenylyl cyclase. In an autoantibody-induced inflammatory arthritis model, BLT<sub>2</sub>-knockout mice showed decreased incidence and severity of disease. Thus, BLT<sub>2</sub> provides a novel target for anti-inflammatory therapy and promises to expand our knowledge of LTB<sub>4</sub> function.

**Application:** Functional assays

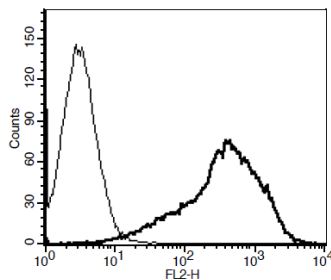
**Figure 1**



**Figure 2**



**Figure 3**



**Figure 1.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

**References:**

- Iizuka *et al.* (2005) Characterization of a mouse second leukotriene receptor, mBLT<sub>2</sub>: BLT<sub>2</sub>-dependent ERK activation and cell migration of primary mouse keratinocytes. *J Biol Chem* 280(26):24816-23.
- Mathis *et al.* (2010) Nonredundant roles for leukotriene B<sub>4</sub> receptors BLT<sub>1</sub> and BLT<sub>2</sub> in inflammatory arthritis. *J Immunol.* 185(5):3049-56.
- Yokomizo *et al.* (2000) A second leukotriene B<sub>4</sub> receptor, BLT<sub>2</sub>. A new therapeutic target in inflammation and immunological disorders. *J Exp Med* 192:421-432.

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