

## MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT BLT<sub>2</sub> RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** C1272c

**Lot Number:** C1272c-061916

**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 human BLT<sub>2</sub> cDNA (GenBank Accession Number NM\_019839.1) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

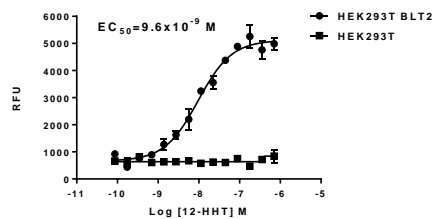
**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin

**Stability:** Stable in culture for minimum of one month

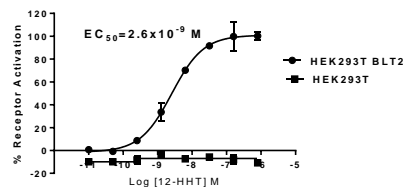
**Background:** Leukotriene B<sub>4</sub> (LTB<sub>4</sub>) is a potent lipid mediator of allergic and inflammatory reactions, as well as a modulator of immune responses. Two receptors for LTB<sub>4</sub> have been described on human neutrophils. The high-affinity human leukocyte LTB<sub>4</sub> receptor, BLT<sub>1</sub> mediates aggregation, chemotaxis, chemokinesis, and increased adherence to surfaces, whereas the low-affinity receptor, BLT<sub>2</sub> (or LTB<sub>4</sub>R2) mediates degranulation and increased oxidative metabolism. BLT<sub>2</sub> is expressed ubiquitously with the highest expression in spleen and has a broader ligand specificity for various eicosanoids. Cells expressing BLT<sub>2</sub> exhibited LTB<sub>4</sub>-induced chemotaxis, calcium mobilization, and inhibition of adenylyl cyclase. 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

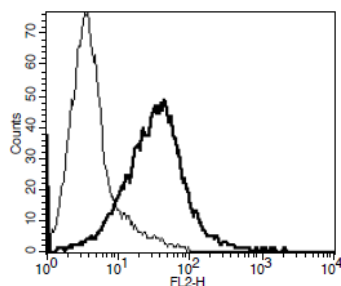
**Figure 1**



**Figure 2**



**Figure 3**



**Figure 1.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** 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 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:

- Kamohara *et al.* (2000) Molecular cloning and characterization of another leukotriene B<sub>4</sub> receptor. *J Biol Chem* 275:27000-27004.
- Yokomizo *et al.* (2000) A second leukotriene B(4) receptor, BLT2. A new therapeutic target in inflammation and immunological disorders. *J Exp Med* 192:421-432.
- Yoo *et al.* (2004) Role of the BLT2, a leukotriene B<sub>4</sub> receptor, in Ras transformation. *Oncogene* 23:9259-9268.

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