

**MULTISCREEN™ STABLE CELL LINE
MOUSE RECOMBINANT BLT₂ RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: Cm1272a

Lot Number: Cm1272a-102213

Quantity: 1 vial (2×10^6) frozen cells

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length mouse BLT₂ 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 a minimum of 2 months

Background: Leukotriene B₄ (LTB₄) is a potent lipid mediator of allergic and inflammatory reactions, as well as a modulator of immune responses. In mice, BLT₂ receptor has been shown to be expressed in the small intestine and skin and functional BLT₂ in primary keratinocytes, compared to the ubiquitous expression in humans. Cells expressing BLT₂ exhibited LTB₄-induced chemotaxis, calcium mobilization, and inhibition of adenylyl cyclase. In an autoantibody-induced inflammatory arthritis model, BLT₂-knockout mice showed decreased incidence and severity of disease. Thus, BLT₂ provides a novel target for anti-inflammatory therapy and promises to expand our knowledge of LTB₄ function.

Application: Functional assays

Figure 1

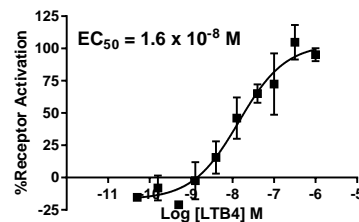


Figure 2

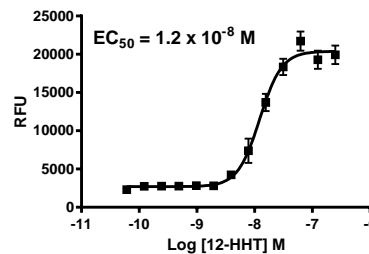


Figure 3

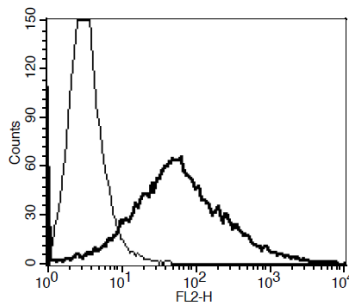


Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ 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, mBLT₂: BLT₂-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 B₄ receptors BLT₁ and BLT₂ in inflammatory arthritis. *J Immunol.* 185(5):3049-56.

Yokomizo *et al.* (2000) A second leukotriene B₄ receptor, BLT₂. A new therapeutic target in inflammation and immunological disorders. *J Exp Med* 192:421-432.

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