MULTISPAN
One-Stop Shop for GPCR Research

MULTISCREEN^{TM} STABLE CELL LINE MOUSE RECOMBINANT BLT_2 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: Cm1272a

Lot Number: Cm1272a-102213

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length mouse BLT_2 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 (LTB_4) is a potent lipid mediator of allergic and inflammatory reactions, as well as a modulator of immune responses. In mice, BLT_2 receptor has been shown to be expressed in the small intestine and skin and functional BLT_2 in primary keratinocytes, compared to the ubiquitous expression in humans. Cells expressing BLT_2 exhibited LTB_4-induced chemotaxis, calcium mobilization, and inhibition of adenylyl cyclase. In an autoantibody-induced inflammatory arthritis model, BLT_2-knockout mice showed decreased incidence and severity of disease. Thus, BLT_2 provides a novel target for anti-inflammatory therapy and promises to expand our knowledge of LTB_4 function.

Application: Functional assays

Figure 1

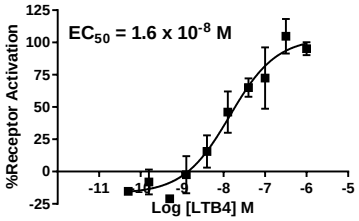


Figure 2

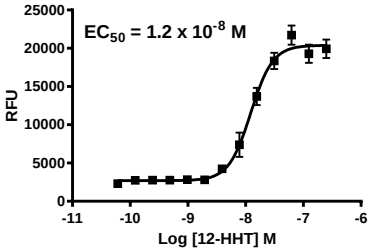
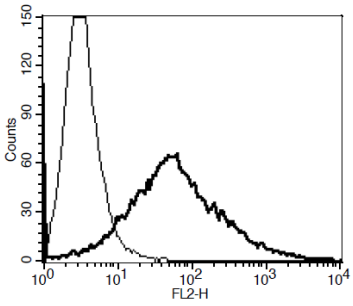


Figure 1. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 2**. Dose-dependent stimulation of calcium flux upon treatment with ligand, monitored with FLIPR. **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

Figure 3



References:

Iizuka *et al.* (2005) Characterization of a mouse second leukotriene receptor, mBLT2: BLT2-dependent ERK activation and cell migration of prim,ary 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 B(4) receptor, BLT2. A new therapeutic target in inflammation and immunological disorders. *J Exp Med* 192:421-432.

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