

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT CB1 MUTANT B RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1513-1

**Lot Number:** C1513-1- 090717

**Quantity:** 1 vial ( $2 \times 10^6$ ) frozen cells

**Freeze Medium:** Cell Banker 2  
(Amsbio 11891)

**Host cell:** CHO-K1

**Transfection:** Expression vector containing full-length human CB1B cDNA (GenBank Accession Number: NM\_033181.3) with FLAG tag sequence at N-terminus.

**Recommended Storage:** Liquid nitrogen upon receiving

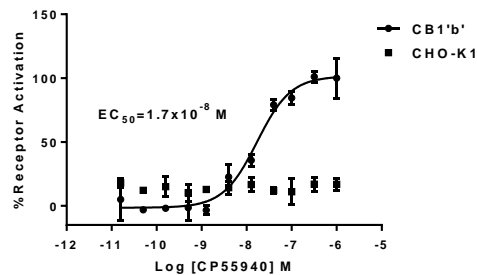
**Propagation Medium:** DMEM/F12, 10% FBS, 10 µg/mL puromycin

**Stability:** In progress

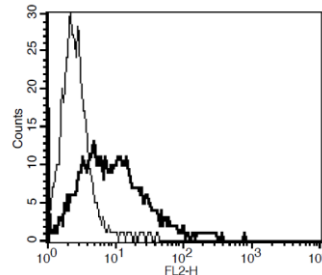
**Background:** Cannabinoid Receptor 1, CNR1 also known as CB1, is primarily involved in cannabinoid induced CNS effects. It acts by inhibiting intracellular adenylate cyclase activity and could be a receptor for anandamide. CB1 receptor is found in both central and peripheral tissues and recently, this receptor is also emerging as a potential therapeutic target for obesity-related diseases. It has two isoforms CB1a and CB1b, CB1b is formed by internal deletion of 33 amino acids and preferentially expressed in B cells and Hepatocyte of Liver and is a more powerful modulator of adenylyl cyclase activity.

**Application:** Functional assays

**Figure 1**



**Figure 2**



**Figure 1.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** 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:**

González-Mariscal, I. *et al.* (2016) Human CB1 Receptor Isoforms, present in Hepatocytes and β-cells, are Involved in Regulating Metabolism. *Sci. Rep.* 6, 33302; doi: 10.1038/srep33302

Mendizabal, V. E. and E. Adler-Graschinsky (2003). "Cannabinoid system as a potential target for drug development in the treatment of cardiovascular disease." *Curr Vasc Pharmacol* 1 (3): 301-13

Rinaldi-Carmona *et al.* (1995) "Characterization of Two Cloned Human CB1 Cannabinoid Receptor Isoforms" *JPET*(278): 871-875

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