

MULTISCREEN™ β -ARRESTIN2 STABLE CELL LINE HUMAN RECOMBINANT CB1 MUTANT B RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CA1513BA2-1

Lot Number: CA1513BA2-1-081821

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

Freeze Medium: CellBanker 2 (Amsbio 11891)

Host cell: CHO-K1 β -Arrestin2

Transfection: Expression vector containing full-length human CB1b cDNA (GenBank Accession Number: NM_033181.3) with FLAG tag sequence at N-terminus and ARRB2 cDNA (GenBank Accession Number NM_004313.3)

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM/F12, 10% FBS, 10 μ g/mL puromycin, 800 μ g/mL G418

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. 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 adenyl cyclase activity.

Application: Functional assays

Figure 1

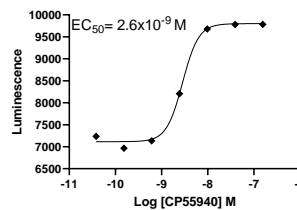


Figure 2

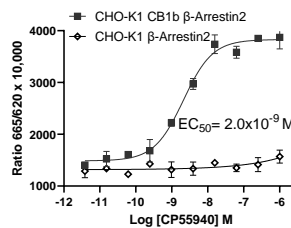


Figure 3

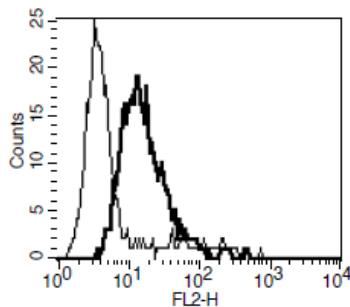


Figure 1. Dose-dependent stimulation from arrestin recruitment upon treatment with ligand, measured with MultiScreen™ β -Arrestin Assay Kit (Multispan MSBA01).

Figure 2. 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 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:

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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