

MULTISCREEN™ β -ARRESTIN2 STABLE CELL LINE HUMAN RECOMBINANT MRGX2 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: CA1257aBA2

Lot Number: CA1257aBA2-082021

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

Freeze Medium: CellBanker2
(Amsbio 11891)

Host cell: HEK293T β -Arrestin2

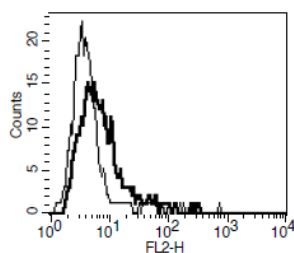
Transfection: Full-length human MRGX2 cDNA (GenBank Accession Number NM_054030) with FLAG tag sequence at N-terminus and ARRB2 cDNA (GenBank Accession Number NM_004313.3)

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS, 1 μ g/mL puromycin, 50 μ g/mL hygromycin

Stability: In progress

Figure 4



Background: MRGX2 (MAS-related GPR member X2) is widely known as a receptor for cortistatin. It is probably involved in the function of nociceptive neurons and regulation of nociceptor function and/or development, including the sensation or modulation of pain. Cortistatin-14, a high potency agonist at the receptor, has biological functions including sleep regulation, locomotor activity and cortical function. Recent studies have found that MrgX2 is also a potential human PAMP-12 receptor that acts by inhibiting of the forskolin-elevated cAMP accumulation and regulates catecholamine secretion from adrenal glands.

Application: Functional assays

Figure 1.

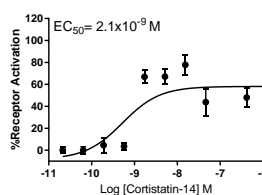


Figure 2.

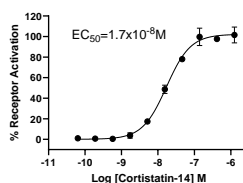


Figure 3.

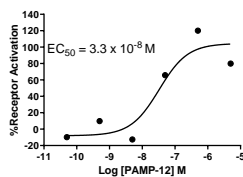


Figure 1. Dose-dependent stimulation from arrestin recruitment upon treatment with ligand, measured with MULTISCREEN™ β -Arrestin Assay Kit (Multispan MSBA01).

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

Figure 3. 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 4.** 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:

Robas et al. (2003) MrgX2 is a high potency cortistatin receptor expressed in dorsal root ganglion. *J Biol Chem* 278:44400-44404.

Kamohara et al. (2005) Identification of MrgX2 as a human G-protein-coupled receptor for proadrenomedullin N-terminal peptides. *Biochem Biophys Res Commun* 330:1146-1152.

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