

## MULTISCREEN™ $\beta$ -ARRESTIN2 STABLE CELL LINE HUMAN RECOMBINANT MRGX2 RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** CA1257bBA2

**Lot Number:** CA1257bBA2-081723

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

**Freeze Medium:** CellBanker2  
(Amsbio 11891)

**Host cell:** HEK293T  $\beta$ -Arrestin2

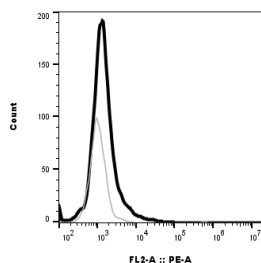
**Transfection:** Full-length human MRGX2 cDNA (GenBank Accession Number NM\_054030) with FLAG tag sequence at N-terminus and ARRB2 cDNA (GenBank Accession Number NM\_004313.3)

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS, 1  $\mu$ g/mL puromycin, 50  $\mu$ g/mL hygromycin

**Stability:** In progress

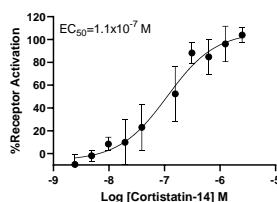
**Figure 4**



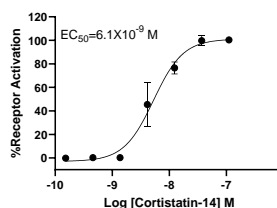
**Background:** MRGX2 (MAS-related GPR member X2) is widely known as a receptor for cortistatin. It is probably involved in the function of nociceptive neurons and regulation of nociceptor function and/or development, including the sensation or modulation of pain. Cortistatin-14, a high potency agonist 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

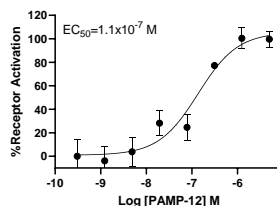
**Figure 1.**



**Figure 2.**



**Figure 3.**



**Figure 1.** Dose-dependent stimulation from arrestin recruitment upon treatment with ligand, measured with MULTISCREEN™  $\beta$ -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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