

**MULTISCREEN™ STABLE CELL LINE
HUMAN RECOMBINANT MAS1 RECEPTOR**

Data sheet

PRODUCT INFORMATION

Catalog Number: C1225

Lot Number: C1225-070918

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

Freeze Medium: Cell Banker 2
(Amsbio 11891)

Host cell: HEK293T

Transfection: Full-length Human
MAS1 cDNA (GenBank Accession
Number NM_002377) with FLAG-tag
sequence at the N-terminus

Recommended Storage: Liquid
nitrogen upon receiving

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

Stability: Stability in progress

Background: MAS1 belongs to the family of MAS-related orphan G protein coupled receptors, which are primarily expressed in primary sensory neurons and mast cells. The MAS-related GPCRs may be implicated in nociception, pruritus, sleep, cell proliferation, circulation, and mast cell degranulation. The MAS1 receptor when activated by binding angiotensin-(1-7) opposes many of the effects of angiotensin-II activated angiotensin receptor. Receptor agonists have similar therapeutic effects as angiotensin-II receptor antagonists including lowering blood pressure. Angiotensin peptide metabolites including angiotensin-III have also been reported to activate MAS1.

Application: Functional assays

Figure 1

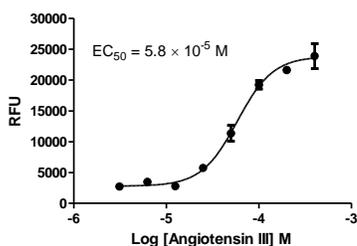


Figure 2

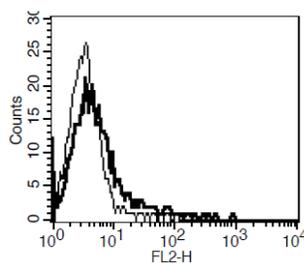


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

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:

Kalyan C. Tirupula¹, Russell Desnoyer¹, Robert C. Speth², Sadashiva S. Karnik (2014). Atypical Signaling and Functional Desensitization Response of MAS Receptor to Peptide Ligands. *PLOS ONE*. V9 (7) e103520.

Solinski HJ, Gudermann T, Breit A (2014) Pharmacology and signaling of MAS-related G protein-coupled receptors. *Pharmacol. Rev.* Jul;66(3):570-97.

Young D, Waitches G, Birchmeier C, Fasano O, Wigler M (1986). "Isolation and characterization of a new cellular oncogene encoding a protein with multiple potential transmembrane domains". *Cell*. **45** (5): 711–9.

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