

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT AMY3 (CALCITONIN+RAMP3) RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1511-1a

Lot Number: C1511-1a-092817

Quantity: 1 vial (2 x 10⁶) frozen cells

Freeze Medium: Cell Banker 2
(Amsbio 11891)

Host cell: CHO-K1

Transfection: Full-length Human CT cDNA (GenBank Accession Number NM_001742) with FLAG-tag sequence at the N-terminus and Full-length Human receptor activity modifying protein 3 (RAMP3) cDNA (GenBank Accession Number BC053852) with myc-tag at the C-terminus.

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DME/F12, 10% FBS, 10 µg/mL puromycin, 250 µg/mL hygromycin

Stability: In Progress

Background: Amylin receptors are multimeric complexes and have been closely associated with Calcitonin receptor (CT). CT, in the presence of the receptor activity modifying proteins (RAMP1, RAMP2 and RAMP3), forms pharmacologically distinct Amylin subtypes (AMY1, AMY2 and AMY3) which acts as a high affinity receptor for amylin, a hormone secreted by B cells of pancreas that has a major role in glucose regulation. The Calcitonin/RAMP3 complex has been known as the Amylin subtype AMY3 receptor.

Application: Functional assays

Figure 1

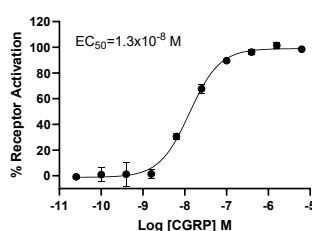


Figure 2

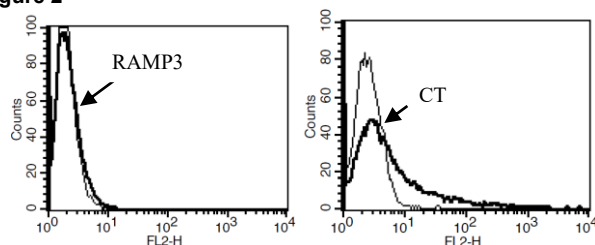


Figure 1. Dose-dependent increase of intracellular cAMP level upon treatment with ligand, measured with MULTISCREEN™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

Morfis *et al.* (2008) Receptor Activity-Modifying Proteins Differentially Modulate the G Protein-coupling Efficiency of Amylin Receptors. *Endocrinology*: 149(11):5423–5431.

Hay *et al.* (2005) Pharmacological Discrimination of Calcitonin Receptor: Receptor Activity-Modifying Protein Complexes. *Mol Pharmacol* 67:1655–1665.

Gorn *et al.* (1992) Cloning, characterization, and expression of a human calcitonin receptor from an ovarian carcinoma cell line. *J Clin Invest* 90:1726–1735.

RJ Bailey *et al.* (2011). Pharmacological characterization of rat amylin receptors: implications for the identification of amylin receptor subtypes. *BJP* 166:151–167

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