

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

PRODUCT INFORMATION

Catalog Number: C1196-1

Lot Number: C1196-1-110910

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Expression vector containing full-length human APLNR cDNA (GenBank Accession Number NM_005161) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable after minimum of two months continuous growth

Data sheet

Background: APJ (also called AGTRL1, angiotensin II receptor-like 1) is a G-protein-coupled receptor that mediates diverse physiological effects of the neuropeptide apelin. It plays a role in the central and peripheral regulation of the cardiovascular system, in water and food intake, and possibly in immune function. APJ is highly expressed in the cardiovascular system and exerts the hypotensive effect *in vivo* and plays a counter-regulatory role against the repressor action of angiotensin II. APJ is also found to be a coreceptor for the entry of several HIV-1 and SIV strains, and apelin blocks the entry of HIV-1 and HIV-2.

Application: Functional assays

Figure 1

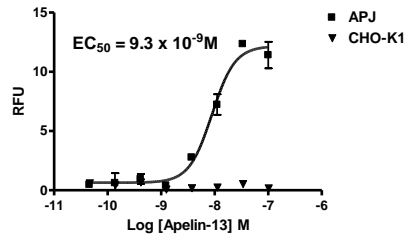


Figure 2

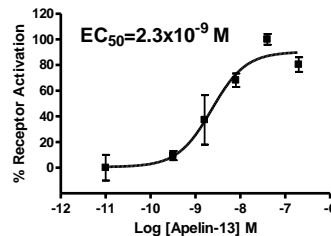


Figure 1. Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

Figure 2. Dose-dependent inhibition of forskolin-stimulated intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01).

References:

Cayabyab *et al.* (2000) Apelin, the natural ligand of the orphan seven-transmembrane receptor APJ, inhibits human immunodeficiency virus type 1 entry. *J Virol* 74:11972-11976.

Katugampola *et al.* (2002) Discovery of recently adopted orphan receptors for apelin, urotensin II, and ghrelin identified using novel radioligands and functional role in the human cardiovascular system. *Can J Physiol Pharmacol* 80:369-374.

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