

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT VPAC1 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1292-1

Lot Number: C1292-1-111710

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: CHO-K1

Transfection: Full-length Human VIPR1 cDNA (GenBank Accession Number NM_004624.2) with FLAG-tag sequence at the N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable after minimum of two months continuous growth

Background: VIPR1 (Vasoactive intestinal polypeptide receptor 1) is also known as PACAP type II receptor (pituitary adenylate cyclase activating polypeptide type II receptor). It is a receptor for both vasoactive intestinal polypeptide and pituitary adenylate cyclase activating polypeptide, and therefore more popularly known as VPAC1. VIP is a neuromodulator and growth regulator in the developing nervous system. Both VIPR1 and VIPR2 are highly expressed in central primitive neuroectodermal tumors and mediate the growth modulation of VIP in these tumors. VIPR1 gene is mapped to human 3p22-p21 where loss-of-heterozygosity is observed in small-cell lung carcinoma (SCLC) cell lines and primary tumors..

Application: Functional assays

Figure 1

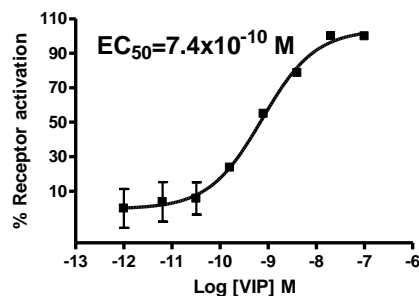


Figure 2

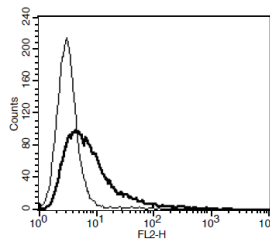


Figure 1. Dose-dependent stimulation of intracellular cAMP accumulation upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: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

References:

Karacay *et al.* (2001) Expression and fine mapping of murine vasoactive intestinal peptide receptor 1. *J Mol Neurosci* 17:311-324.

Fruhwald *et al.* (1999) Vasoactive intestinal peptide (VIP) and VIP receptors: gene expression and growth modulation in medulloblastoma and other central primitive neuroectodermal tumors of childhood. *Int J Cancer* 81:165-173.

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