

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT P2Y4 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: C1162-3

Lot Number: C1162-3-031506

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: 1321N1

Transfection: Expression vector containing full-length human P2Y4 cDNA (GenBank Accession Number NM_002565) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

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

Stability: Stable after minimum of two months continuous growth

Background: P2Y4 is a 365-amino acid 7 transmembrane protein. It has been shown that, when expressed in a mammalian cell line, the receptor protein was activated specifically by UTP and UDP, but not by ATP and ADP. Activation of P2RY4 resulted in increased inositol phosphate formation and calcium mobilization. Adrian et al, analyzed the expression of several purinergic receptors during differentiation in a promyelocytic leukemia cell line. Granulocytic differentiation was induced by dimethylsulfoxide, and a monocytic/macrophage phenotype was induced by phorbol esters. P2RY4 was highly expressed in uninduced promyelocytes, and its expression decreased slightly following both granulocytic and monocytic differentiation.

Application: Functional assays

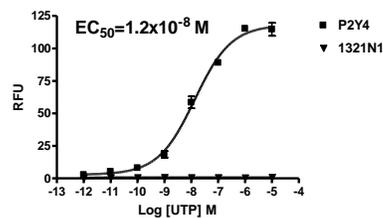


Figure legend: Dose-dependent calcium flux upon treatment with ligand, with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

References:

Adrian *et al.* (2000) Expression of purinergic receptors (ionotropic P2X1-7 and metabotropic P2Y1-11) during myeloid differentiation of HL60 cells. *Biochim Biophys Res Acta* 1492: 127-138.

Nguyen *et al.* (1995) Cloning, expression and chromosomal localization of the human uridine nucleotide receptor gene. *J Biol Chem* 270:30845-30848.

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