

MULTISCREEN™ DIVISION ARRESTED CELL LINE HUMAN RECOMBINANT P₂Y₁ RECEPTOR

PRODUCT INFORMATION

Catalog Number: DC1160-3

Lot Number: C1160-3-050521

Quantity: 1 vial (4 x 10⁶) frozen cells

Freeze Medium: Cellbanker 2
(Amsbio)

Host cell: 1321N1

Transfection: Full-length human P2Y1
cDNA (GenBank Accession Number
NM_002563)

Recommended Storage: Liquid
nitrogen upon receiving

Propagation Medium: DMEM, 10%
FBS

Data sheet

Background: P2Y1 is a receptor for ATP and ADP. P2Y1 contributes to platelet shape change. A number of P2Y1 receptor-specific antagonists, such as, MRS-2179, A3P5P, A3P5P and A2P5P have been discovered. They inhibit calcium ion mobilization and shape change in platelets. P2Y1-deficient mice and mice treated with the P2Y1 antagonist MRS2179 displayed significantly less arterial thrombosis than their respective controls. Combination of P2Y1 deficiency with P2Y12 inhibition led to a significant additive effect.

Application: Functional assays

Figure 1

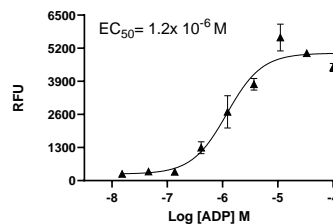


Figure 1: Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01).

References:

Baurand and Gachet (2003) The P2Y₁(1) receptor as a target for new antithrombotic drugs: a review of the P2Y₁(1) antagonist MRS-2179. *Cardiovasc Drug Rev* 21:67-76.

Jin *et al.* (1998) Molecular basis for ADP-induced platelet activation. II. The P2Y₁ receptor mediates ADP-induced intracellular calcium mobilization and shape change in platelets. *J Biol Chem* 273:2030-2034.

Lenain *et al.* (2003) Inhibition of localized thrombosis in P2Y₁-deficient mice and rodents treated with MRS2179, a P2Y₁ receptor antagonist. *J Thromb Haemost* 1:1144-1149.

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