PRODUCT INFORMATION

Catalog Number: Cr1161-3
Lot Number: Cr1161-3-110613
Quantity: 1 vial (2 x 10^6) frozen cells
Freeze Medium: Sigma Freezing Medium (C-6164)
Host cell: 1321N1
Transfection: Expression vector containing full-length rat P2Y2 cDNA (GenBank Accession Number NM_017255.1) with FLAG tag sequence at N-terminus
Recommended Storage: Liquid nitrogen upon receiving
Propagation Medium: DMEM, 10% FBS, 1 µg/mL puromycin
Stability: In progress

Data sheet

Background: The P2Y2 receptor was the first of this family of receptors that can be fully activated by both ATP and UTP. P2Y2 receptors are present on all of the body's mucosal surfaces, including the lungs, eyes, upper airways, mouth, vaginal tract and gastrointestinal tract. P2Y2 receptors have also been found on non-mucosal surfaces, such as the retinal pigment epithelium. Activation of P2Y2 has been shown to stimulate mucosal hydration and mucociliary clearance in the lungs and upper airways and induce secretion of therapeutically significant amounts of fluid and tear components to the ocular surface. Thus, P2Y2 receptors are therapeutic targets for treating serious disorders including cystic fibrosis, a fatal genetic disease, retinal detachment as well as dry eye disease.

Application: Functional assays

Figure 1

Figure 2

Figure 1. Dose-dependent stimulation of intracellular cAMP level upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). 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:

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