

MULTISCREEN™ STABLE CELL LINE HUMAN RECOMBINANT EP2 RECEPTOR

PRODUCT INFORMATION

Catalog Number: C1202

Lot Number: C1202-021109

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

Freeze Medium: Sigma Freezing Medium (C-6164)

Host cell: HEK293T

Transfection: Expression vector containing full-length human EP2 cDNA (GenBank Accession Number NM_000956.3) 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 two months continuous growth

Data sheet

Background: The human prostaglandin E2 (PGE2) receptor EP2 (PTGER2) is abundantly expressed in various tissues including the corneal epithelium of the eye, spinal cord, forebrain, articular cartilage, and kidney. EP2 plays important roles in bronchodilation, dilation of arterioles and venules, blood pressure regulation, smooth muscle relaxation, and bone formation. Modification of PGE2-EP2 receptor signaling may provide a new therapeutic strategy for renal regulation and blood pressure illnesses, as well as bone disease such as osteoarthritis.

Application: Functional assays

Figure 1

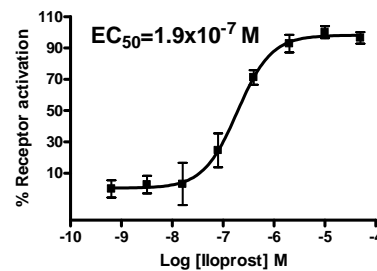


Figure 2

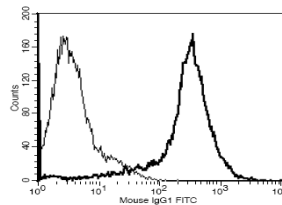


Figure 1. Dose-dependent accumulation of intracellular cAMP upon treatment with ligand, measured with cAMP HiRange kit (Cisbio 62AM6PEC). **Figure 3.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental cells; thick line: receptor-expressing cells.

References:

- Morath *et al.* (1999) Immunolocalization of the four prostaglandin E2 receptor proteins EP1, EP2, EP3, and EP4 in human kidney. *J Am Soc Nephrol* 10:1851-1860.
- Zhang *et al.* (2000) Characterization of murine vasopressor and vasodepressor prostaglandin E(2) receptors. *Hypertension* 35:1129-1134.
- Li X *et al.* (2009) Prostaglandin E(2) and its cognate EP receptors control human adult articular cartilage homeostasis and are linked to the pathophysiology of osteoarthritis. *Arthritis Rheum* 60:513-523.

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