# MULTISCREEN™ STABLE CELL LINE
# RAT RECOMBINANT EP2 RECEPTOR

## Data sheet

**PRODUCT INFORMATION**

**Catalog Number**: Cr1202-134

**Lot Number**: Cr1202-134-082817

**Quantity**: 1 vial (2 x $10^6$) frozen cells

**Freeze Medium**: Cell Banker 2 (Amsbio 11891)

**Host cell**: HEK293T

**Transfection** Expression vector containing full-length rat EP2 cDNA (GenBank Accession Number NM_031088.1) 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

**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.

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**Application:** Functional assays

**Figure 1**

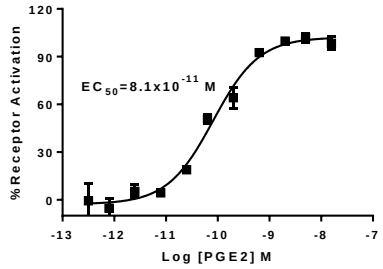


**Figure 2**

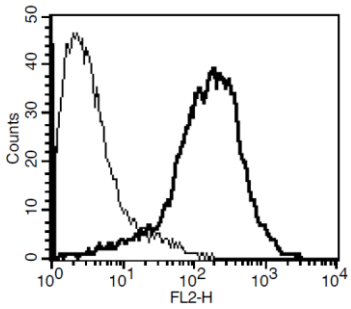


**Figure 1**. Dose-dependent accumulation of intracellular cAMP upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **Figure 2.** Receptor expression on cell surface measured by flow cytometry (FACS) using an anti-FLAG antibody. Thin line: parental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

**References:**


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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