MULTISPAN
One-Stop Shop for GPCR Research

# MULTISCREEN$^{TM}$ STABLE CELL LINE HUMAN RECOMBINANT DP1 RECEPTOR

## Data sheet

**PRODUCT INFORMATION**

**Catalog Number**: C1200

**Lot Number**: C1200-061006

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

**Freeze Medium**: Sigma Freezing Medium (C-6164)

**Host cell**: HEK293T

**Transfection**: Expression vector containing full-length human DP cDNA (GenBank Accession Number NM_000953) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS, 1 μg/mL puromycin

**Stability:** Stable after minimum of 2 months continuous growth

**Background:** The prostaglandin D2 receptor DP1 (DP or PTGDR) is a G protein-coupled receptor for the prostaglandin D2 (PGD2). PGD2 signals through DP2 (CRTH2) to induce TH2, eosinophil, and basophil chemotaxis in a Gαi-dependent manner. In contrast, signaling through DP1 is coupled to Gαs and does not induce chemotaxis.

**Application:** Functional assays

**Figure 1**

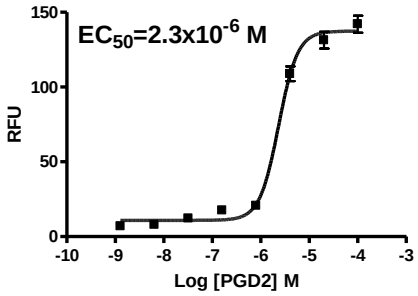


**Figure 2**

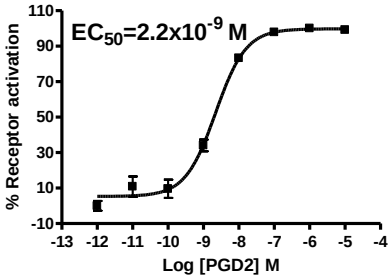


**Figure 3**

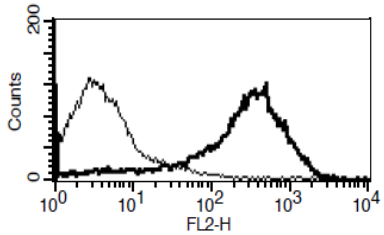


**Figure 1.** Dose-dependent stimulation of calcium flux upon treatment with ligand, measured with Multiscreen™ Calcium 1.0 No Wash Assay Kit (Multispan MSCA01). **Figure 2.** Dose-dependent increase of intracellular cAMP level upon treatment with ligand, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01). **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:**


Boie *et al.* (1995) Molecular cloning and characterization of the human prostanoid DP receptor. *J Biol Chem* 270:18910-18916.

Hirai *et al.* (2001) Prostaglandin D2 selectively induces chemotaxis in T helper type 2 cells, eosinophils, and basophils via seven-transmembrane receptor CRTH2. *J Exp Med* 193:255-261.


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