

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT DP2 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** H1105a

**Lot Number:** H1105a-063011

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

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

**Host cell:** HEK293T

**Transfection:** Expression vector containing full-length human DP2 cDNA (GenBank Accession Number NM\_004778) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

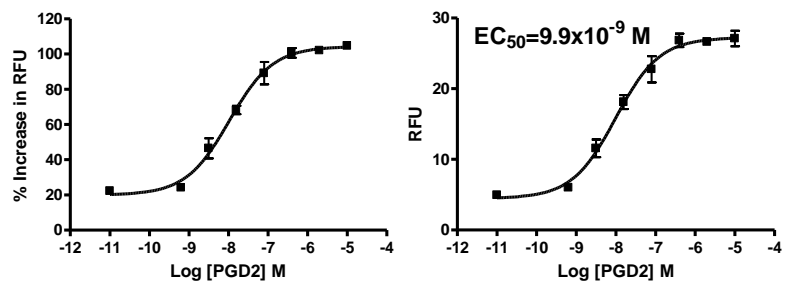
**Propagation Medium:** DMEM, 10% FBS, 1  $\mu$ g/mL puromycin

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

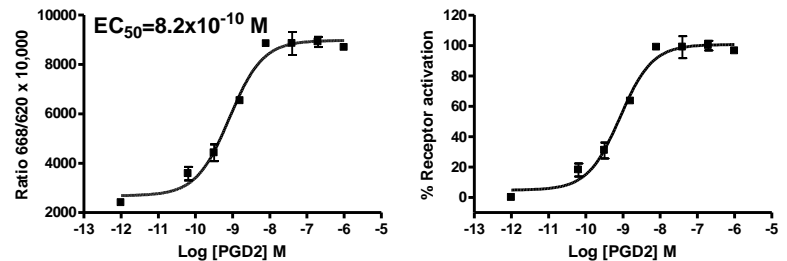
**Background:** The chemoattractant-homologous receptor expressed on TH2 cells (CRTH2, also known as DP2 and GPR44) serves as a receptor for prostaglandin D2 (PGD2) and has been reported to mediate PGD2-dependent migration of eosinophils. DP2 mediates the pro-inflammatory effects of PGD2 generated in allergic inflammation. 11-Dehydro-thromboxane B2 (11-dehydro-TXB2) was found to be a full agonist of the DP2 receptor and hence might cause the receptor activation in cellular contexts where PGD-synthase is not present. Antagonism of the 11-dehydro-TXB2/DP2 axis may be of therapeutic relevance.

**Application:** Functional assays

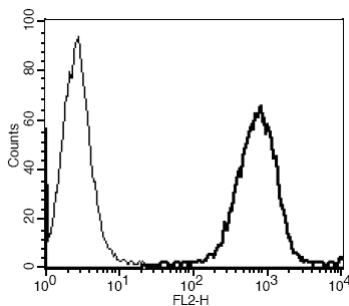
**Figure 1**



**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). Cells were transiently transfected with Gα16. **Figure 2.** Dose-dependent inhibition of forskolin-stimulated intracellular cAMP accumulation 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:**

Nagata *et al.* (1999) CRTH2, an orphan receptor of T-helper-2-cells, is expressed on basophils and eosinophils and responds to mast cell-derived factor(s). *FEBS Lett* 459:195-199.

Bohm *et al.* (2004) 11-Dehydro-thromboxane B2, a stable thromboxane metabolite, is a full agonist of chemoattractant receptor-homologous molecule expressed on TH2 cells (CRTH2) in human eosinophils and basophils. *J Biol Chem* 279:7663-7670.

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