

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT H4 RECEPTOR**

**Data sheet**

**PRODUCT INFORMATION**

**Catalog Number:** C1030

**Lot Number:** C1030-112009

**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 HRH4 cDNA (GenBank accession number NM\_021624.2) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

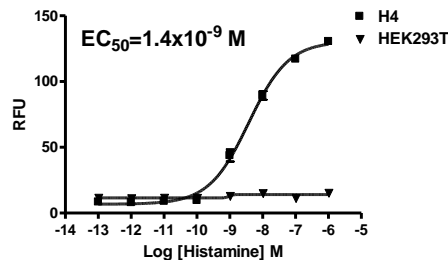
**Propagation Medium:** DMEM, 10% FBS, 1  $\mu$ g/mL puromycin

**Stability:** Stable in culture for minimum of two months

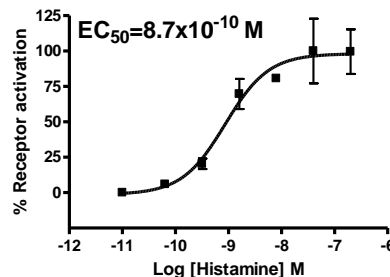
**Background:** Histamine is one of the most studied biomolecules in medicine and is most notably known for its effects on smooth muscle contraction, vascular permeability and regulation of stomach acid. The histamine receptor H4 has been shown to have a role in chemotaxis and mediator release in a variety of immune cells, such as mast cells, eosinophils, dendritic cells, and T cells. The development of potent H4 receptor antagonists has great potential to open up the pathway for new therapeutic treatments in chronic inflammatory diseases, such as bronchial asthma, allergic gastrointestinal disease, and atopic dermatitis.

**Application:** Functional assays

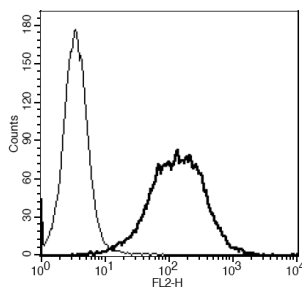
**Figure 1**



**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 inhibition of forskolin-stimulated 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:**

- Daugherty (2004) Histamine H<sub>4</sub> antagonism: a therapy for chronic allergy?. *Br J Pharmacol* 142:5-7.
- Nguyen *et al.* (2001) Discovery of a novel member of the histamine receptor family. *Mol Pharmacol* 59:427-433.

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