

**MULTISCREEN™ STABLE CELL LINE  
HUMAN RECOMBINANT GPR17 (SHORT FORM) RECEPTOR**

**PRODUCT INFORMATION**

**Catalog Number:** C1526-3

**Lot Number:** C1526-3-042919

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

**Freeze Medium:** Cellbanker 2

**Host cell:** 1321N1

**Transfection:** Expression vector containing full-length human GPR17 cDNA (GenBank Accession Number NM\_001161416.1) with FLAG tag sequence at N-terminus

**Recommended Storage:** Liquid nitrogen upon receiving

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

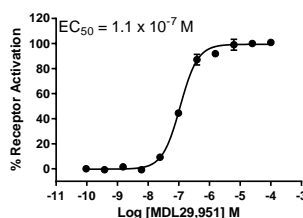
**Stability:** In progress

**Data sheet**

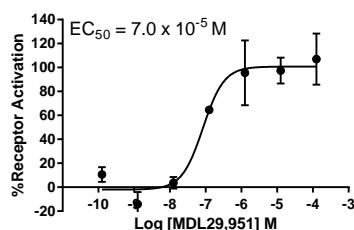
**Background:** G-protein coupled receptor 17 (GPR17) is closely related to the purinergic and cysteinyl-leukotriene receptor families. It is present on both neurons and a subset of oligodendrocyte precursor cells. Recent studies have shown that GPR17 plays an important role in both sensing and repairing brain damage. Thus, GPR17 represents a potential new target for the treatment of traumatic brain injuries as well as neurodegenerative diseases like Alzheimer's and multiple sclerosis.

**Application:** Functional assays

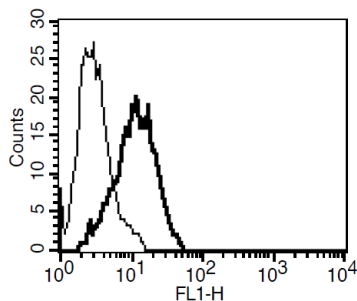
**Figure 1**



**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:**

Franke, Heike et al. "Changes of the GPR17 Receptor, a New Target for Neurorepair, in Neurons and Glial Cells in Patients with Traumatic Brain Injury." *Purinergic Signalling* 9.3 (2013): 451–462. *PMC*. Web. 18 Feb. 2015.

Hennen, S et al. "Decoding Signaling and Function of the Orphan G Protein-Coupled Receptor GPR17 with a Small-Molecule Agonist." *Sci Signal* 2013 Oct 22;6(298)

Lecca, Davide et al. "The Recently Identified P2Y-Like Receptor GPR17 Is a Sensor of Brain Damage and a New Target for Brain Repair." Ed. Kenji Hashimoto. *PLoS ONE* 3.10 (2008): e3579. *PMC*. Web. 18 Feb. 2015.

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