

## MULTISCREEN™ BETA-ARRESTIN STABLE CELL LINE HUMAN RECOMBINANT GPR65 RECEPTOR

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** CA1121

**Lot Number:** CA1121-090619

**Quantity:** 1 vial (2 x 10<sup>6</sup>) frozen cells

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

**Host cell:** HEK293T

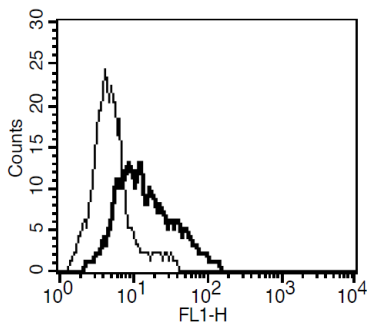
**Transfection:** Expression vector containing full-length human GPR65 cDNA (GenBank Accession Number NM\_003608) with FLAG tag sequence at N-terminus and ARRB2 cDNA (GenBank Accession Number NM\_004313.3)

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS, 1 µg/mL puromycin, 250 µg/mL hygromycin

**Stability:** In progress

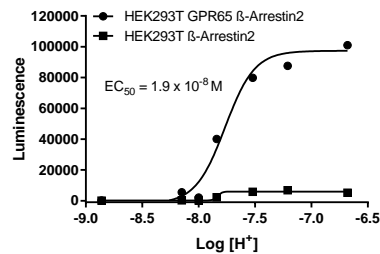
#### Figure 3



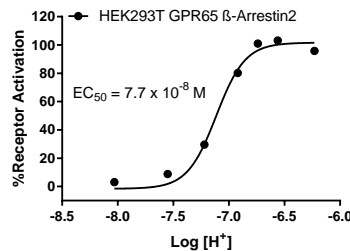
**Background:** GPR65 also known as T cell death-associated gene 8 (TDAG8) is a proton-sensing GPCR and plays a major role in pH homeostasis. This receptor is primarily expressed in lymphoid tissues (spleen, thymus, leukocytes and lymph nodes) and cancer tissues. The major function of this receptor is to reduce immune-mediated inflammation by regulating cytokine production from T cells and macrophages.

**Application:** Functional assays

#### Figure 1



#### Figure 2



**Figure 1.** Dose-dependent stimulation from arrestin recruitment upon treatment with pH, measured with MultiScreen™ β-Arrestin Assay Kit (Multispan MSBAK01). **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:

Ludwig, M.-G., Vanek, M., Guerini, D., Gasser, J. A., Jones, C. E., Junker, U., Hofstetter, H., Wolf, R. M., Seuwen, K. Proton-sensing G-protein-coupled receptors. *Nature* 425: 93-98, 2003.

Saxena, H., Deshpande, D., Tiegs, B., Yan, H., Battafarano, R., Burrows, W., Penn, R. (2012). The GPCR OGR1 (GPR68) mediates diverse signalling and contraction of airway smooth muscle in response to small reductions in extracellular pH. *British Journal of Pharmacology*, 166(3), 981–990.

Satoshi Ishii, Yasuyuki Kihara and Takao Shimizu (2005) Identification of T Cell Death-associated Gene 8 (TDAG8) as a Novel Acid Sensing G-protein-coupled Receptor. *J Biol Chem* 280: 9083-9087

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