

MULTISCREEN™ DIVISION ARRESTED CELL LINE HUMAN RECOMBINANT GPR65 RECEPTOR

Data sheet

PRODUCT INFORMATION

Catalog Number: DC1121a

Lot Number: DC1121a-072319

Quantity: 1 vial (4 x 10⁶) frozen cells

Freeze Medium: Cell Banker 2

Host cell: HEK293T

Transfection: Expression vector containing full-length human GPR65 cDNA (GenBank Accession Number NM_003608) with FLAG tag sequence at N-terminus

Recommended Storage: Liquid nitrogen upon receiving

Propagation Medium: DMEM, 10% FBS

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

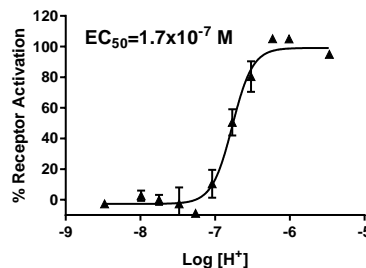


Figure 1. Dose-dependent increase of intracellular cAMP level upon treatment with pH, measured with Multiscreen™ TR-FRET cAMP 1.0 No Wash Assay Kit (Multispan MSCM01).

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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