

## MULTISCREEN™ HOMOZYGOUS STABLE CELL LINE HUMAN RECOMBINANT GPR65 RECEPTOR CRISPR KNOCK OUT

### Data sheet

#### PRODUCT INFORMATION

**Catalog Number:** C1121-CSP30

**Lot Number:** C1121-CSP30-051623

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

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

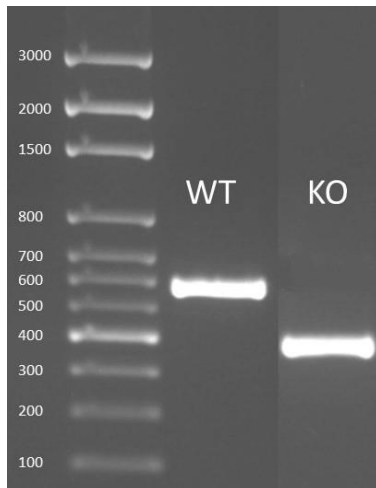
**Host cell:** Mia-Pa-Ca-2

**Recommended Storage:** Liquid nitrogen upon receiving

**Propagation Medium:** DMEM, 10% FBS

**Stability:** Stable for a minimum of 2 months in continuous culture

**Figure 3: PCR confirmation of GPR65 knock-out clone by agarose gel electrophoresis**



**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.

**Figure 1: Verified GPR65 coding sequence with deletion highlighted in grey.**

```
ATGAACAGCACATGTATTGAAGAACAGCATGACCTGGATCACTATTTGTTTCCCATTGT
TTACATCTTTGTGATATAGTCAGCATTCCAGCCAATATTGGATCTCTGTGTGTGCTT
TCCTGCAAGCAAAGAAGGAAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT
GATTTACTCTATGCATTAAGTCTCCCTTTATGGATTGATTATACCTGGAATAAAGACAA
CTGGACTTTCTCTCCCTGGCTTGTGCAAAAGGGAGTGCCTTTTCTCATGTACATGAATTTT
ACAGCAGCACAGCATTCCTCACCTGCATTGCCGTTGATCGGTATTTGGCTGTTGTCTAC
CCTTTGAAGTTTTTTTTTCTAAGGACAAGAAGATTGCACTCATGGTCAGCCTGTCCAT
CTGGATATTGGAACCATCTTCAATGCTGTCATGTTGTGGGAAGATGAAACAGTTGTTG
AATATGCGATGCCGAAAAGTCTAATTTTACTTTATGCTATGACAAATACCCTTTAGAG
AAATGGCAAATCAACCTCAACTTGTTCAGGACGTGTACAGGCTATGCAATACCTTTGGT
CACCATCCTGATCTGCAACCGGAAAGTCTACCAAGCTGTGCGGCACAATAAAGCCACGG
AAAACAAGGAAAAGAAGAGAATCATAAAAGTACTTGTGAGCATCACAGTTACTTTTGTCT
TTATGCTTTACTCCCTTTTCAATGTTGATGTTGCTGATTTCGCTGCATTTTAGAGCATGCTGT
GAACCTCGAAGACCACAGCAATTTGGGAAGCGAAGTACACAATGTATAGAATCACGG
TTGCATTAACAAGTTAAATTGTTGTTGCTGATCCAATTCTGTACTGTTTTGTAACCGAA
ACAGGAAGATATGATATGTGGAATATATAAAATTCTGCACTGGGAGGTGTAATACATC
ACAAAGACAAAGAAAACGCATACTTTCTGTGTCTACAAAAGATACTATGGAATTAGAGG
TCCTTGAGTAG
```

**Figure 2: Verified GPR65 knock out protein sequence product**

```
MNSTCIEEQHDLHDHYLFPIVYIFVIIVSIPANIGSLCVSFLQAKKESELGIYLFSLSL
DLLYALTLPLWIDYTNKDNWTFSPALCKGSAFLMYMNFYSSTAFITCIQAMQYLWSPS
*
```

#### 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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