

# Datasheet for U87-MG/Cas9-AAVS1 Cell Line

Catalog number: SL584

Product: U87-MG cell line stably expressing CRISPR Cas9 nuclease

**Description:** This product is a cell line stably expressing the CRISPR Cas9 nuclease. Cas9 is integrated at the human AAVS1 Safe Harbor locus (also known as PPP1R2C). This cell line also expresses copGFP and the hygromycin resistance gene. In combination with transfected or transduced single guide RNAs (sgRNAs), this cell line will generate double-strand DNA breaks (DSBs) at targeted genome sites. This cell line can be used *in vitro* for gene knockout, transgene knockin, mutagenesis, transgene integration, library screening or other genome editing-related applications

**Quantity:** 1 vial of 2 x 10<sup>6</sup> cells; frozen

Shipping conditions: Dry ice

**Storage conditions:** Liquid nitrogen vapor phase. Remove the item from the dry ice packaging and check all items for damage and leakage. Place immediately into storage at or below -140 <sup>o</sup>C, preferably into the liquid nitrogen vapor phase, until use.

Transgene integration:



# Source of parental line:

U87-MG Organism: *Homo sapiens*, human Tissue: brain Disease: likely glioblastoma Cell type: epithelial



- Safety instructions: To ensure safety, protective gloves, clothing, and a face mask should be worn when handling frozen vials. Some leakage may occur in the vial during storage. The liquid nitrogen will be converted to gas upon thawing. Due to the nature of nitrogen gas, pressure may build within the vial and possibly result in the vial exploding or losing its cap. This may cause flying debris.
- **Thawing procedure:** The vial of cells should be thawed in a 37 °C water bath with gentle agitation. For optimal performance, the vial should be thawed in under two minutes. Ensure that the cap of the vial did not become loose upon thawing. Spray the vial with 70% EtOH and add the contents of the vial to 9 ml of complete growth medium (without selection). Centrifuge for 5 min. at 1000rpm. Aspirate the medium, being careful not to disturb the pellet. Resuspend in 10 mL of complete growth medium, and plate in a culture vessel of your choice. Only add selection to the medium after 24 hours in culture.

# **Culture conditions:**

# **Complete Growth Medium**

The base medium for this cell line is Dulbecco's Modified Eagle's Medium (DMEM). For optimal growth and maintenance of selection, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

### Selection

Hygromycin to a final concentration of 50  $\mu$ g/mL

### **Culture temperature**

37 °C with 5% CO<sub>2</sub>

### Subculture

Rinse the cells with PBS without cations, digest cells with 0.25% (w/v) Trypsin-EDTA (0.53 mM) solution and split at 1:2 to 1:5 ratio.

**Cryopreservation:** Freeze slowly in complete growth medium supplemented with 5% (v/v) DMSO.

Quality control: The cell line has been tested by Junctional PCR to confirm the insertion of Cas9 into safe harbor site, and tested by T7 Endonuclease I test to confirm the nuclease activity. All cells were tested and found to be free of mycoplasma, bacterial and fungal contamination. Please refer the COA for details.



**Citation of product:** If use of this item results in a publication, please use this information: CRISPR Cas9 stable U87-MG cell line (SL584; GeneCopoeia, Inc., Rockville, MD).

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