

## Product Description

Product Name: EMT6-Fluc-Puro  
Catalog Number: CL154  
Lot Number: CL-IM175

Species: Mouse (*Mus musculus*)  
Strain: BALB/c  
Tissue: Breast  
Cell type: Mammary carcinoma  
Parental cells: EMT6 (ATCC® CRL-2755™)\*  
Morphology: Epithelial  
Growth mode: Adherent  
Reporter gene: Firefly luciferase (Fluc)  
Selection gene: Puromycin (Puro)

This is a polyclonal population derived from the EMT6 mammary carcinoma cell line (ATCC® CRL-2755™). Parental EMT6 cells were transduced with LV-Fluc-P2A-Puro (Imanis #LV012) encoding the firefly luciferase (Fluc) cDNA under the SFFV promoter and linked to the puromycin resistance gene (Puro) via a P2A cleavage peptide. A high Fluc expressing population was generated by selection using puromycin. The lentiviral vectors are self-inactivating (SIN) vectors in which the viral enhancers and promoters have been deleted. Transcription inactivation of the LTR in the SIN provirus increases biosafety by preventing mobilization by replication competent viruses and enables regulated expression of the genes from the internal promoters without *cis*-acting effects of the LTR<sup>1</sup>.

\*The ATCC trademark and any and all ATCC catalog numbers are trademarks of the American Type Culture Collection.

## Mycoplasma Testing

This cell line has tested negative for mycoplasma contamination.

## Cell Line Authentication

Authentication of the parental EMT6 cell line was confirmed by short tandem repeat (STR) profiling.

## Recommended Uses

These cells are suitable for *in vitro* and *in vivo* experimentation.

The Fluc transgene facilitates *in vivo* noninvasive bioluminescent imaging of implanted cells.

Fluc is immunogenic and may cause tumor rejection in immunocompetent mice. For the most consistent results, immunocompromised mice are recommended for studies.

## References

<sup>1</sup>Miyoshi et al. J Virol. 1998. 72:8150-8157.

## Storage Instructions

Remove cells from the dry ice packaging and immediately store in the vapor phase above liquid nitrogen (below -130°C).

## Complete Growth Medium

Dulbecco's Modified Eagles Media (DMEM)  
10% fetal bovine serum (FBS)  
1% Penicillin/Streptomycin  
1 µg/mL puromycin

Caution! Typical commercial puromycin stocks are provided at a concentration of 10 mg/mL or 10,000X.

Puromycin should **NOT** be added to the medium until a culture has been well established from the thawed cells (about 1 week). It is also recommended that a backup frozen cell stock be generated (see below) before adding puromycin to the growth medium.

## Thawing Instructions

1. Thaw cells by gently swirling in a 37°C water bath. To limit contamination, do not submerge the O-ring and cap.
2. When cells are ~70% thawed (~1 min), remove the vial and wipe down with 70% ethanol. Allow tube to dry completely.
3. In a biosafety cabinet, transfer the cells into a 15 mL conical tube containing 5 mL of pre-warmed complete growth medium. Centrifuge cells at ~250 x g for 3-5 min.
4. Remove supernatant and resuspend cells in 1 mL complete growth medium. Transfer cells to a T75 flask containing 10 mL pre-warmed complete growth medium.
5. Incubate the culture at 37°C with 5% CO<sub>2</sub>. Cells should reach full confluency 1-2 days after thawing.

## Subculturing Instructions

Volumes are given for a T75 flask. Increase or decrease as needed.

1. Remove culture medium from cells.
2. Carefully wash the cell monolayer with 5-10 mL of phosphate buffered saline.
3. Add 2 mL of 0.25% Trypsin-EDTA solution to the flask and incubate at room temperature until cells have dissociated (approx. 2-5 min).
4. Neutralize the trypsin by adding 8 mL complete growth medium, and mix by gently pipetting up and down.
5. Transfer desired portion of the cells to a fresh T75 flask. Add fresh complete growth medium to a total volume of 10 mL and return cells to 37°C/5% CO<sub>2</sub> incubator.

For maintenance, a subcultivation ratio of 1:10 is recommended. At this ratio cells will be ready for passage approximately every 3-4 days.

## Freezing Medium

These cells can be amplified and used to generate additional frozen stocks. Cryopreservation of low passage stocks is recommended. Frozen stocks should be preserved in a designated cryopreservation medium or in complete growth medium without puromycin supplemented with 5-10% DMSO.

## Certificate of Analysis

Testing performed by Imanis Life Sciences

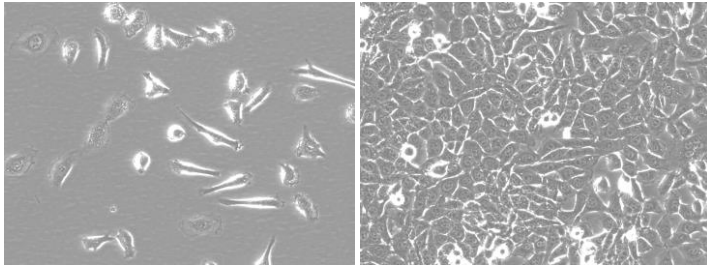
Test description	Result
Post thaw viable cell recovery	99% viability
Sterility	No contamination detected
Mycoplasma	No contamination detected
Puromycin selection	Pass QC
Fluc expression	Pass QC
Average doubling time	10.9h*

\*Doubling time represents the average doubling time during logarithmic growth. This value should be used for general estimation only.

## Morphology:

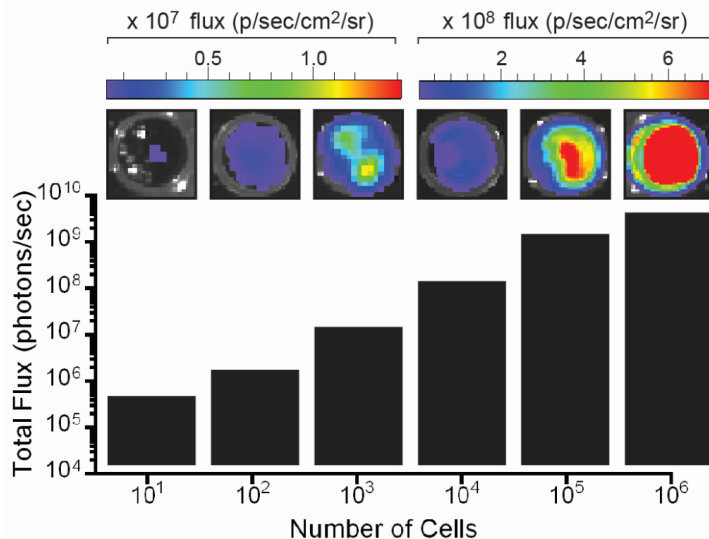
Low density, 200X

High density, 200X



Low and high-density photos taken 24h and 72h after thawing, respectively.

## Luciferase Expression:



The indicated number of cells were placed in wells of a 96-well plate. After the addition of 3 mg/mL d-luciferin, the plate was immediately imaged using an IVIS Spectrum. The total flux (photons/sec) was plotted as a function of cell number.

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Effective Date: 04-Oct-2018