EBC-1 Luciferase Cell Line Datasheet

Catalog No. RG-521

Product Name: EBC-1 Luciferase Cell Line

Product Description:

EBC-1 Luciferase Cell Line was constructed using Luciferase expressing lentivirus. Luciferase is stably expressed, and the luciferase activity is validated. Excellent signal/background ratio and stable Luciferase expression make this cell line ideal for in vivo bioluminescence imaging of xenograft animal model to study cancer and monitor activity of anti-cancer drug. Our Luciferase Stable Cell Lines with high specificity, activity and sensitivity enables high imaging quality, and its luminescence intensity can be accurately quantified.

Product Testing:

Cells are negative for bacteria, yeast, fungi and mycoplasma.

Laboratory Applications:

EBC-1 Luciferase cell lines can be used in New Drug/Treatment Discovery and In vivo imaging

Biosafety Level:

BSL 2. Runtogen determines the biosafety level of a material based on our risk assessment as guided by the current edition of Biosafety in Microbiological and Biomedical Laboratories (BMBL), U.S. Department of Health and Human Services.

Storage:

Runtogen ships frozen cells on dry ice. Upon arrival, Check all containers for leakage or breakage. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Authorized Uses of *Runtogen*' Products:

EBC-1 Luciferase cell lines from *Runtogen* are distributed for internal laboratory research purposes only. Our products are not authorized for human use, not for in vitro diagnostic procedures or for therapeutic procedures. Transfer or resale of any Runtogen's cells or products from the purchaser to other markets, organizations or individuals is prohibited by *Runtogen,* without the company's written consent. Runtogen*'* Terms and Conditions must be accepted before submitting an order.

Disclaimer:

This cell line is intended for laboratory research use only. It is not intended for any human or animal therapeutic use, any animal or human consumption, or any diagnostic use. Any proposed commercial use is prohibited without a license from Runtogen.

Warranty and Liability:

EBC-1 Luciferase is warranted for 30 days from the date of shipment, provided that the customer has stored and handled the product according to the information included on the product datasheet, website, and COA.

Cell Culture Protocol

All cell culture procedures must be conducted in a bio-safety cabinet.
Any and all media, supplements, and reagents must be sterilized by filtration through a 0.2 µm filter.
Use aseptic technique to prevent microbial contamination.
Cryo-preserved cells must be stored in liquid nitrogen or seeded immediately upon arrival.

Medium

Review the information provided on the Runtogen's website about appropriate culture media (e.g. serum and other supplements). Use pre-warmed (37°C) cell culture media to recover cryo-preserved cells and when changing media or splitting cells.

Complete culture media: MEM +10% FBS+1% Non Essential Amino Acids (NEAA) +1mM Sodium Pyruvate (NaP) + 2ug/ml puromycin

Freezing media: 90% FBS+10% DMSO

Special note:

Please thaw the cells in T25. Please do not thaw the cells directly to a T75 flask or 10 cm culture dish.

Cell recovery from cryovial

- Quickly thaw cells in cryo-vial by incubating them in a 37°C water bath for <1 min until there is just a small bit of ice left in the vial.
- Promptly remove the vial and wipe it down with 70% ethanol.
- Transfer cells from the vial to a sterile centrifuge tube. Add 5-6 ml of pre-warmed Cell Culture Medium.
- Flush the vial with an additional 0.5-1 ml of medium to ensure complete transfer of cells to the centrifuge tube.
- And spin at 1100 rpm for 4 mins at room temp to collect the cells.
- Resuspend cell pellet with 1ml recommended complete medium.
  (Note: It is suggested that, prior to the addition of the vial contents, the culture vessel containing
- the complete growth medium be placed into the incubator for at least 15 minutes.

- Place the T25 flask in a humidified, 5% CO_2 incubator at 37°C.
- Change culture media the following day to remove non-adherent cells and replenish nutrients.
- Change cell culture medium every day when cells are >80% confluent.
- Cells should be checked daily under a microscope to verify appropriate cell morphology.

Subculturing procedure

- Remove and discard the cell culture media from the flask.
- Flush the adherent layer 1-2 times using a 5 ml sterile pipette with sterile PBS (1X) without calcium and magnesium to dislodge loosely attached cells and remove fraction.
- Remove and discard the wash solution from the flask.
- Add 1 mL of Trypsin-EDTA solution to T25 flask (increase or decrease the amount needed proportionally for culture vessels of other sizes) allow trypsin completely cover the cells, then place the flask into the incubator and incubate for 1-2 mins (if cells are hard to detach, allow appropriate extension of incubation), and observe cells under an inverted microscope until cell layer is dispersed. (Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach.)

- Add 2 times of trypsin vloume of complete growth medium to stop digestion, and aspirate cells by gently pipetting.
- Transfer the cell suspension with a 10 mL pipette into a 50 mL centrifuge tube, rinse the residual
- cells from the flask with PBS, then collect to the centrifuge tube.
- Centrifuge at 1,000 rpm for 5 mins at room temp. Then remove and discard the supernatant and resuspend the cells with 2 mL of complete medium.
- Dispense the cells into a suitable culture vessel containing corresponding amount of complete medium.

We recommend splitting cells at the follow ratio

- A subcultivation ratio of 1:2 is recommended Medium

- Renewal: Twice per week

Procedure for Freezing Cells

- Materials:
- 1X Phosphate Buffered Saline (PBS-1X)
- Trypsin-EDTA (1X) solution
- Tissue Culture Media
- Cold Freezing Media (10% DMSO, 90% FBS).

- Labeled Cryovials
- Confluent cells
- ----------
- Remove and discard the cell culture media from the flask.
- Flush the adherent layer with a 5 ml sterile pipette 2 times with sterile PBS (1X) without calcium and magnesium to dislodge loosely attached cells and remove fraction.
- Remove and discard the wash solution from the flask.
- Incubate cells with warm (37°C) Trypsin-EDTA solution for 2-5 minutes. Use 3.0 ml of Trypsin-EDTA solution when collecting cells from a T75 flask, and 2 ml when using a T25 flask. As soon as cells have detached (the flask may require a few firm gentle taps), add 10 ml of Cell Culture Medium supplemented with 5-10 % FBS to the flask (the FBS will neutralize the trypsin).

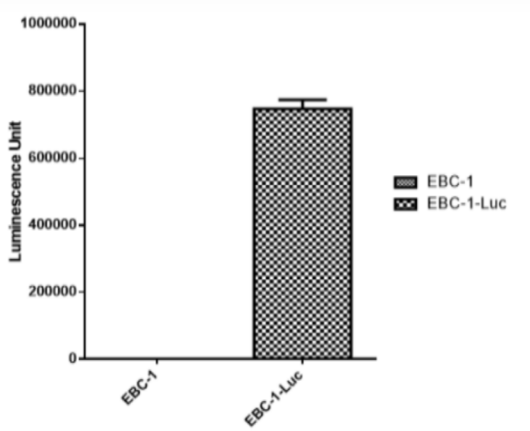
- Centrifuge the cell suspension at 1100 rpm for 4 mins at room temp.
- Remove supernatant with sterile Pasteur pipette.
- Quickly re-suspend pellet by adding 1 ml freezing media per vial to be frozen.
- Place vials in Nalgene "Mr. Frosty" freezing container containing100% isopropyl alcohol at -70-80 °C for 24 h.
- Transfer vials to liquid N_2 tank for indefinite storage.

We recommend freezing primary cells at the follow ratio

- A confluent cell grown in a T75 flask may be frozen in 2-3 cryovials.
- A confluent cell grown in a T25 flask may be frozen in 2 cryovials.

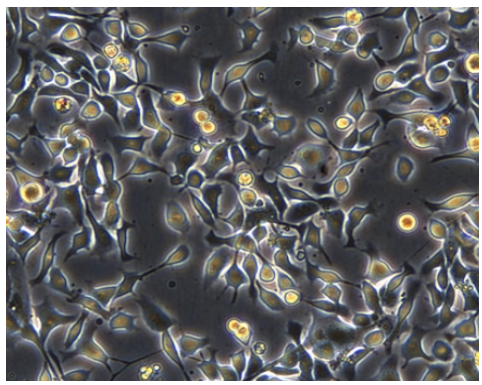
Please send us the cell images (>90% confluence) if you have any questions or problems with cultured cells.
Per request, a Certificate of Analysis will be provided for each cell lot purchased.

Representative Data



Detect Luciferase assay by Promega Bright-Glo Luciferase Assay System. The number of Luminescence signal is 433±14(Mean±SD) on EBC-1 cells while 749585±26874(Mean±SD) on EBC-1-Luc cells.

Cell Image



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Revision

This information on this document was last updated on 2024-10-29

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