Product description

Adherent keratinocyte cell line derived from a squamous cell carcinoma of the tongue of a Caucasian female. Keratin and involucrin markers present. Known mutations: p53 and p16. Cells are tumourigenic in athymic mice. Epidermal Growth Factor Receptor (EGFR) present.

Name: BICR 56 Cell Line

Organism: Human

Gender: Female

Tissue: Tongue

Disease: Cancer

Cancer Type: Head and neck cancer

Cancers detailed: Tongue squamous cell carcinoma

Growth properties: Adherent

Model: Tumourigenic line

CRISPR: No

Conditional: No

Biosafety level: 1

Additional notes: STR-PCR Data: Amelogenin: X CSF1PO: 12 D13S317: 12 D16S539: 11 D5S818: 11,12 D7S820: 8,12 THO1: 9,9.3 TPOX: 8,9 vWA: 15,16

Cellosaurus id: CVCL_2313

Mycoplasma free: Yes

Contributor(s)

Inventor: Eric Kenneth Parkinson
Institute: Cancer Research UK, Glasgow: The Beatson Institute

Properties

Product format: Frozen

Unpacking and storage:

1. Check all containers for leakage or breakage.
2. 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.

Recommended growth medium: DMEM + 2mM Glutamine + 10% Foetal Bovine Serum (FBS) + 0.4 micrograms/ml Hydrocortisone.

Cryopreservation medium: Growth medium +10% DMSO

Subculture: Split sub-confluent cultures (70-80%) 1:2 - 1:4 using 0.05% trypsin/EDTA; 8% CO_2; 37°C. Suggested seeding density 4 x 10,000 cells/cm². A feeder layer of lethally-irradiated or mitomycin C-treated 3T3 feeder cells can be used to culture this cell line, however, this is not essential. Use of conditioned medium at a ratio of 1:1 with fresh medium can improve cell condition.

Culture conditions: 37.0°C ± 1.0°C incubator with 5.0% ± 1.0% CO_2

Handling instructions

1. Please ensure that vials are frozen when received, and store at **<-130 °C long term**. When removing frozen cells from storage, it is important to minimise exposure to room temperature (15 - 25°C). If not proceeding directly to thawing, place the cells on dry ice or in a liquid nitrogen container.
2. **Do not thaw at room temperature.** To thaw, swirl the vial quickly in a 37 °C water bath with O-ring and cap above the water to avoid contamination. Remove from the water bath with a small ice pellet remaining (this should not take more than 2 minutes) and wipe the exterior with 70% ethanol or isopropanol before transferring to a biosafety cabinet. **Do not vortex.** Further steps should be conducted under aseptic conditions.
3. We strongly recommend that the volume of cell suspension is measured at this point, and a 20 uL aliquot be removed for a **viable cell count** using trypan blue or similar dye. This ensures that provided cells are viable, and the cell count can be used to determine volume of growth medium to be added to the cell suspension.
4. Transfer the remaining cell suspension to a sterile 15 mL conical tube using a pipette. Be careful not to introduce bubbles.
5. Rinse the vial with 1 mL of medium and add it dropwise to the cells, while gently swirling the 50 mL tube.
6. Wash by adding 9 mL of medium **dropwise**, while gently swirling the tube.
7. Centrifuge the cell suspension at **300 x g for 2-3 minutes** at room temperature.
8. Carefully remove the supernatant with a pipette, leaving a small amount of medium to ensure the cell pellet is not disturbed. Resuspend the cell pellet by gently flicking the tube.
9. Gently add 10-15 mL culture medium and transfer to T75 tissue culture flask and incubate.
10. Exchange with 10-15 mL of fresh medium after 24 hours.
11. When cells are approximately 70-80% confluent, they can be passaged or frozen following recommendations in the previous section.

References

- Celentano et al. 2019. J Cell Physiol. 234(3):2013-2020. PMID: 30240006.
- Edington et al. 1995. Mol Carcinog. 13(4):254-265. PMID: 7646764.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: BICR 56 Cell Line, was invented by Eric Kenneth Parkinson at Cancer Research UK, Glasgow: The Beatson Institute (CancerTools.org #152847).