
Product description

BICR6 is an adherent keratinocyte cell line derived from a squamous cell carcinoma of the hypopharynx of a Caucasian male. The tumor stage (TNM) of the culture is T4 N1 M0. Keratin and involucrin markers are present. Epidermal Growth Factor Receptor (EGFR) is also present. Known mutations: p53, p16 and p14ARF. These cells are tumorigenic in athymic mice.

Name: BICR6 cell line

Alternate name: bicr6; BICR-6; BICR6; Beatson Institute for Cancer Research 6; HNSCC; SCC-HN

Organism: Human

Disease: Cancer

Cancer Type: Head and Neck cancer

Cancers detailed: Hypopharynx squamous cell carcinoma

Tissue: Hypopharynx

Growth properties: Adherent

Model: Tumorigenic cell line

Conditional: Yes

Additional notes: STR-PCR Data: Amelogenin: X, Y CSF1PO: 10 D13S317: 14 D16S539: 11 D5S818: 12 D7S820: 10 THO1: 6 TPOX: 9,11 vWA: 16,17

Cellosaurus id: CVCL_2314

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 medium: DMEM + 2mM Glutamine + 10% Fetal Bovine Serum (FBS) + 0.4 µg/ml Hydrocortisone.

Seeding density: 20,000 cells/cm².

Split ratio: split sub-confluent cultures (70-80%) 1:10 - 1:50

Culture conditions: 37.0°C ± 1.0°C incubator with 5.0% ± 1.0% CO₂

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 minimize 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. 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 50 mL conical tube using a pipette.
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 15 - 20 mL of medium **dropwise**, while gently swirling the tube.
7. Centrifuge the cell suspension at **250 x g for 5 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 required volume of culture medium and transfer to a suitable cell culture flask.
10. Subculture routine: Split sub-confluent cultures (70-80%) 1:10 - 1:50 using 0.05% trypsin/EDTA; 8% CO₂; 37°C. Suggested seeding density of 20,000 cells/cm². Culture cells on a feeder layer of lethally-irradiated or mitomycin C-treated 3T3 Swiss Albino cells. **Feeder layers are prepared in the flasks at least 24 hours in advance of being required.** Where frozen stocks of treated 3T3 Swiss Albino cells have been prepared, an ampoule is thawed in a 37°C water bath and the contents quickly transferred to a 15ml centrifuge tube. DMEM medium is added drop wise to 5ml. Cells are centrifuged at 150 x g for 5 minutes at room temperature. Cells are resuspended in 5ml of medium, counted and added to flasks containing the correct BICR growth medium at 1-3 x 10⁴ cells/cm².

References

- Oh et al. 2021. Nat Commun. 12(1). PMID: 34389714.
- Leonard et al. 2019. Oral Oncol. 95:35-42. PMID: 31345392.
- Agochiya et al. 1999. Oncogene. 18(41):5646-5653. PMID: 10523844.
- 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: BICR6 cell line, was invented by Eric Kenneth Parkinson (CancerTools.org #152848).

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