DOK cell line
Catalog #153251
1 x 10^6 cells/vial

CancerTools.org
Global Research Tools Collaborative

Product description

DOK (dysplastic oral keratinocyte) cell line was isolated from a piece of dorsal tongue from a 57-year-old man (who was a heavy smoker). The degree of dysplasia in the patient was described as mild to moderate. The cells show some stratification in confluent cultures and contain a keratin profile similar to the original dysplasia. Growth is stimulated by hydrocortisone and inhibited by cholera toxin. Expression of p53 is increased and a 12 bp in-frame deletion of the p53 gene (codon 188-191) could be identified. DOK cells are non-tumorigenic in athymic nude mice. This cell line can be used to study carcinogens associated with tobacco and their implications in malignant transformation.

Name: DOK cell line

Alternate name: Dysplastic Oral Keratinocyte

Organism: Human

Tissue: Tongue

Disease: Cancer

Cancer Type: Head and Neck Cancer

Growth properties: Adherent

Model: Tumour line

Conditional: Yes

Production details: The dysplastic oral keratinocyte cell line DOK was isolated from a piece of dorsal tongue from a 57-year-old man. After a squamous-cell carcinoma was removed from the patient, who had been a heavy smoker, the remaining dysplasia was removed subsequently and used to initiate primary cultures leading to the establishment of DOK.

Additional notes: STR-PCR Data: Amelogenin: X,Y CSF1PO: 12 D13S317: 11,13 D16S539: 9,12 D5S818: 12 D7S820: 11,13 THO1: 6,8 TPOX: 10 v WA: 14,18

Cellosaurus id: CVCL_1180

Contributor(s)

Inventor: Sidney Chang
Institute: Cancer Research UK, London Research Institute: Lincoln's Inn Fields

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 + 5ug/ml Hydrocortisone + 10% Fetal Bovine Serum (FBS).

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 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. Examine the cultures after 24 hours and subculture as required.
11. Subculture conditions: Split sub-confluent cultures (70-80%) 1:10 i.e. seeding at 2-4x10,000 cells/cm² using 0.05% trypsin or trypsin/EDTA; 5% CO_2; 37°C.

References

- Burns et al. 1994. Br J Cancer. 70(4):591-595. PMID: 7917902.
- Chang et al. 1992. Int J Cancer. 52(6):896-902. PMID: 1459732.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: DOK cell line, was invented by Sidney Chang (CancerTools.org #153251).

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

While CancerTools.org has made all reasonable efforts to ensure that the information provided by CancerTools.org and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.