Product description

LNCaP cells are androgen-sensitive human prostate adenocarcinoma cells derived from the left supraclavicular lymph node metastasis from a 50-year-old Caucasian male in 1977. The androgen receptor (AR) in LNCaP cells harbors a T877A mutation which enables the anti-androgen flutamide to act as an agonist. This cell line is the most used for prostate cancer research. The cell line is a clonal population of LNCaP cells grown in steroid-depleted conditions for ~4 months. Cells adapted to growth conditions and are now routinely grown in medium lacking testosterone.

Name: LNCaP androgen-independent cell line

Organism: Human

Disease: Cancer

Cancer detailed: Prostate cancer

Tissue: Lymph node metastasis

Growth properties: Adherent

Model: Tumour line

Donor: Male, Caucasian, 50Y

Production details: LNCaP cells grown in steroid-depleted conditions for ~4 months.

Biosafety level: 1

Contributor(s)

Institute: Northern Institute for Cancer Research, Newcastle University

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: RPMI 1640 + 10% charcoal-stripped FBS

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

Cryopreservation medium: 10% DMSO in FBS

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, and a 20 uL aliquot be set aside at this point for a viable cell count using trypan blue or similar dye.
9. Add the cell suspension **dropwise** to 10 ml fresh complete medium and centrifuge at **300g for 5 minutes**. Cells are then resuspended in an appropriate volume of complete medium and seeded onto a T75 flask.
10. Subculture routine: Cells have a doubling time of ~30 hours. Split at around 50% confluency using Trypsin-EDTA (5 min at 37.0°C) to maintain growth rate. Recommended seeding density is 28-30,000/cm^2.

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: LNCaP androgen-independent cell line, was invented at the Northern Institute for Cancer Research, Newcastle University (CancerTools.org #154164).