Androgen Repressed Metastatic Human Prostate Cancer Cell Line

(ARCaP)
Catalog Number: 3421

Cell Specification
Prostate cancer is one of the most common cancers affecting older men and its metastasis to bone is a significant cause of morbidity and death. ARCaP cells provide unique opportunities to study many important features of prostate cancer metastasis to bone.

These are the parental ARCaP cells. They were derived from the ascites fluid of an 83-year-old Caucasian man diagnosed with metastatic carcinoma of the prostate. The patient had undergone bilateral orchiectomy and the disease progressed rapidly with death occurred at 12 months after surgery. These cells are a mixed population of prostate cancer metastatic cells that vary in their in vivo metastatic abilities and characteristics.

ARCaP cells are capable of forming soft agar colonies in vitro. They express low levels of androgen receptor and prostate-specific antigen (PSA). Also, the growth of these cells and their PSA expression were found to be suppressed by both androgen and estrogen in vivo and in vitro. When intracardially injected in animals, these cells metastasize to many organs including bone, adrenal glands and skin. ARCaP parent cells will be of particular interest and value to researchers focusing on the general metastatic capabilities of prostate cancer.

ARCaP cells are cryopreserved at passage two cultures and delivered frozen. Each vial contains >5 x 10^5 cells in 1 ml volume. ARCaP cells are tested negative for HIV1, HIV2, Hepatitis A, Hepatitis B, Hepatitis C, Hantaan, Mycoplasma sp., Seoul, Sin Nombre, bacteria, and fungi.

ARCaP cells are guaranteed to further culture at the conditions provided by Novicure. Please note that it is not recommended to passage ARCaP cells more than 12 passages in vitro.

Recommended Medium
It is recommended to use Prostate Epithelial Cell Medium (MCaP, Cat. No. 3300) for expanding and culturing ARCaP cells in vitro.

Product Use
ARCaP cells are for research use only. It is not approved for human use, or for application in in vitro diagnostic procedures.

Storage
Immediately transfer cells from dry ice to liquid nitrogen upon receiving or keep the cells in liquid nitrogen until needed for experiments.

Shipping
Dry ice.
Instruction for culturing ARCaP cells

Caution: Cryopreserved cells are very delicate. Thaw the vial in a 37°C waterbath and return them to culture as quickly as possible with minimal handling!

Set up culture after receiving the ordering:

1. Prepare complete growth medium: MCaP growth medium (Cat. No. 3300) and 5% fetal bovine serum. The use of Penicillin/streptomycin is optional.

2. Place the vial in a 37°C waterbath, hold and rotate the vial gently until the contents are completely thawed. Remove the vial from the waterbath immediately, wipe it dry, rinse the vial with 70% ethanol and transfer it to a sterile field. Remove the cap, being careful not to touch the interior threads with fingers. Using a 1 ml eppendorf pipette gently resuspend the contents of the vial.

3. Dispense the contents of the vial into the equilibrated, tissue-culture treated 100 mm plate and add 10 ml of complete growth medium.
   
   Note: Dilution and centrifugation of cells after thawing are not recommended since these actions are more harmful to the cells than the effect of DMSO residue in the culture.

4. Replace the cover, and gently rock the vessel to distribute the cells evenly.

5. Place the culture vessel in the incubator with an atmosphere: air, 95%; carbon dioxide (CO2), 5% and temperature: 37.0°C.

6. The cells should be allowed to incubate undisturbed for the first 48 hours after plating.

7. Change the medium to fresh complete growth medium every 48 hours.

Maintenance of Culture:

Subculture:

1. Subculture the cells when they are over 90% confluent.

2. Remove and discard culture medium.

3. Briefly rinse the cell layer with 1x PBS to remove all traces of medium and serum.

4. Add 1.0 to 2.0 ml of Trypsin-EDTA solution to vessel and observe cells under an inverted microscope until cell layer is completely dispersed.
   
   Note: To avoid clumping do not agitate the cells by hitting or shaking the flask while waiting for the cells to detach. Cells that are difficult to detach may be placed at 37°C to facilitate dispersal.

5. Add 6.0 to 8.0 ml of complete growth medium and aspirate cells by gently pipetting.

6. Add appropriate aliquots of the cell suspension to new culture vessels. A subcultivation ratio of 1:2 or 1:3 is recommended.

7. Incubate cultures at 37°C.
8. Change the medium to fresh complete growth medium every 48 hours.

Freezing:

1. Prepare freezing medium: MCaP medium supplemented with 20% FBS and 7% (v/v) fresh DMSO.
2. Store in liquid nitrogen vapor phase.

Caution: Handling human derived products is potentially biohazardous. Although this cell strain was tested negative for many viruses including HIV, HBV, diagnostic tests are not necessarily 100% accurate. Therefore, proper precautions must be taken to avoid inadvertent exposure. Always wear gloves and safety glasses when working with these materials. Never mouth pipette. We recommend following the universal procedures for handling products of human origin as the minimum precaution against contamination.