Public Health England

ECACC European Collection of Authenticated Cell Cultures
Operated by Public Health England

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ECACC news - September 2016

ECACC top tips : resuscitation

Q: Before I start working with my chosen cell line, what information will I need in order to carry out the resuscitation of the frozen cells.

Scroll down for the answer...

Start of the new term - cell line project check list

- sign up for our free of charge lab handbook with detailed protocols on all techniques needed to get started in cell culture
- start your project with new authenticated cell lines in order to enable you to publish papers or obtain grant funding
- send your cells to ECACC for a health check using our mycoplasma testing and STR profiling services
- search our extensive range of over 440 iPSC lines representing both disease and normal donor patients
- watch our 'good cell culture' videos on YouTube

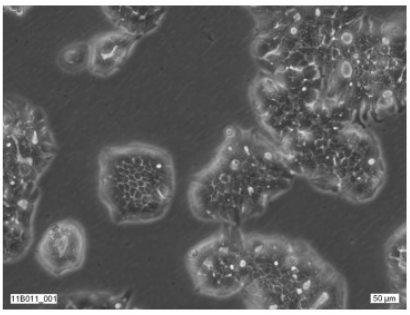
Find out more

Cell line profile - PANC-1

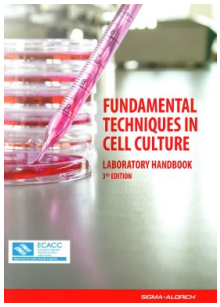
PANC-1 is an epithelioid carcinoma attached cell line that is currently used as an *in vitro* model to study pancreatic ductal adenocarcinoma carcinogenesis and tumour therapies. Specifically, the presence of the SSTR2 receptors and the occurrence of neuroendocrine differentiation make this cell line suitable for pancreatic cancer neuroendocrine chemotherapy and peptide receptor radionuclide therapy (Gradiz et al. 2016).

Find out more

Find more cell line profiles here



A new edition of the ECACC lab handbook is now available including expert tips from ECACC and a new section on iPSC culture provided by EBiSC



Order your free copy now

Fundamentals of cell culture training October 2016

The ECACC Fundamentals of Cell Culture is a four day course that aims to deliver a balance of theory, essential techniques and best practices covering the entire cell culture workflow. The course will cover:

- culture initiation from frozen vials
- the maintenance, cryopreservation, quality control and validation of cell banks
- the biology, characterisation and selection of cell lines
- stem cell biology
- novel 3D cell culture strategies...

...and much more. Still a few more spaces available!

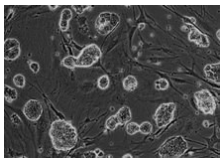
Find out more

Advances in stem cell research have led to the development of regenerative strategies to treat previously incurable human diseases. Induced pluripotent stem cells (iPSCs) are capable of differentiating into any adult cell type, including those with therapeutic potential. They can therefore be used asfunctional replacements for diseased tissues in research to study disease development and for disease specific drug/treatment testing.

The European Bank for induced pluripotent Stem Cells (EBiSC) is a comprehensive stem cell collection for researchers which has a number of advantages:

- wide range of disease backgrounds
- control cell lines available for sex and age matching
- quality assured cell lines
- available for both academic and commercial researchers

Find out more



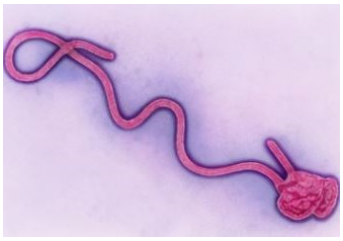
Mycoplasma testing

We can test your cell lines, cell culture media and reagents to determine if mycoplasma is present. Many researchers choose to use our service to ensure they are working with mycoplasma free cell cultures. The effects of mycoplasma contamination on cell lines can be wide ranging and are often underestimated. These include:

- alteration of growth rate
- chromosomal aberrations
- induction of morphological changes
- decreased viability upon resuscitation of frozen ampoule
- altered cell metabolism

Find out more

PHE-MOS Ebola biobank



The PHE-MOHS Ebola biobank is an open access resource, which is available to bona fide scientists, undertaking health-related research that is in the public good. Approved scientists from the UK and overseas and from academia, government, charity and commercial companies can apply to the biobank which holds approximately 10,000 samples of which 1,440 are positive for Ebola from the outbreak in Sierra Leone in 2014-15.

Find out more

Evolving a national culture collection to meet current challenges in microbiology

Julie Russell, Head of Public Health England's Culture Collections explains how our colleagues over at the National Collection of Type Cultures (NCTC) stay current and how historic strains are shedding light on mechanisms of antimicrobial resistance.

Read the article

ECACC top tips : resuscitation

A: ECACC recommends that you read the information contained in our website catalogue entry for the cell line you received. Before you thaw the frozen cells:

- check you have all the cell culture plastic ware you'll be needing
- ensure you have the recommended growth media and associated reagents ready

When you thaw the frozen cells it is important to follow the **recommended protocol**. After thawing the frozen cells, carry out a **cell count** so you know how many viable cells have been recovered from the vial.

Seed the viable cells into the cell culture flask at the recommended seeding density (this will be as cells/cm^2 for attached cell lines and cells/ml for suspension cell lines). As a guide to the optimal resuscitation seeding density, use the upper limit of the subculture seeding density range given in the cell line catalogue entry for adherent cell lines and between 300,000 - 500,000 cells/ml for suspension cell lines.

Incubate the cells at the required incubation temperature and atmospheric conditions and observe the culture daily for signs of growth. If you experience any problems, or need additional assistance, please contact **Culture Collections Technical Support**

Download the ECACC brochure

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