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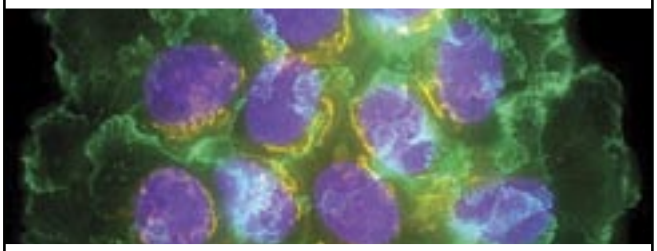
Cell Culture Tip #3



Passage number counts!

Every cell line has a limit — yours does too. It's up to you to find it. Cells that are subcultured too often and are not periodically tested for genotypic stability may no longer be reliable models of the original source material.

Experimental success corresponds to the quality and condition of cell lines used. If you start to experience sudden and inexplicable variations in your experiments, it may be that the cells have lost their key functions due to over-culturing and need replacing.

REMEDY Pull a fresh vial of cells from your established cell bank or call ATCC to get a new stock. Monitor your cells routinely with morphology checks, identify markers for genes of interest and/or establish experimental criteria such as growth rates, expression levels and transfection efficiencies as baselines.

RESULTS More reliable and reproducible experiments; better data.

To learn more, contact ATCC today to order and/or download the document *Maintaining High Standards in Cell Culture*.

www.atcc.org/passagenumber.cfm
800-638-6597

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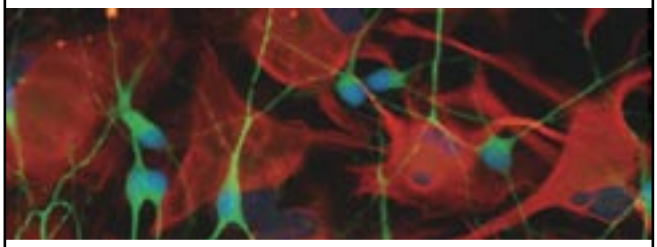
Cell Culture Tip #2



Verification is critical!

Imagine after months of experiments you discover (or worse someone else discovers) that your human cell line is, in fact, a mouse line or is overrun by HeLa cells? Several studies suggest you wouldn't be alone.*

Only with DNA fingerprinting techniques such as Short Tandem Repeat (STR) analysis can identity profiles be established for your human cell lines. Generating STR profiles serves to verify the identity of the line and provides a baseline for comparison with future testing.

REMEDY Avoid obtaining lines from colleagues if an STR profile does not exist. Create a profile for the lines you derive, and whenever possible, order cell lines from reputable cell banks such as ATCC. ATCC performs identity testing, mycoplasma detection and other tests routinely so that you can work and publish with confidence.

RESULTS Assurance that your human cell lines are unique, uncontaminated and verified.

Using verified cell lines is critical to good science. Contact ATCC today to order and/or download the document *Maintaining High Standards in Cell Culture* to learn more.

www.atcc.org/verification.cfm
800-638-6597

* Science, Vol. 315, pp 928-931 (2007).

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For Genuine ATCC Cell Cultures™ contact ATCC or an authorized distributor.

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Cell Culture Tip #5

Media matters!

Media by the same name from different manufacturers may have subtle, but important differences in their compositions. Such differences may alter or disturb cell growth as well as morphology — potentially resulting in downtime with no cells for your experiments.

There are several media suppliers, but only ATCC thoroughly investigates and identifies specific requirements for thousands of individual cell lines to ensure optimal and reproducible cell culturing (ATCC distributes over 3,600 cell lines).

REMEDY Use ATCC High-Performance Media containing specific component concentrations which are based on extensive evaluation of growth and viability of individual cell lines.

RESULTS Robust cell growth with minimal cell loss especially when reviving cells from cryopreservation. Cell cultures grow in a continuous and consistent manner, providing a supply of cells when needed.

To learn more, contact ATCC today to order and/or download the document *High-Performance Media and Sera*.

www.atcc.org/media.cfm
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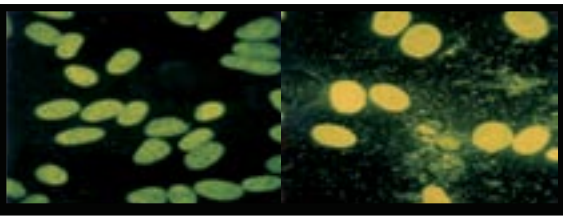
Cell Culture Tip #6



Mycoplasma can hurt!

What you can't see, can hurt. The damaging effects of mycoplasma on cell culture include:

- Interference with growth rates
- Changes in DNA, RNA and protein synthesis
- Induction of chromosomal aberrations
- Depletion of amino acids

The literature contains numerous reports demonstrating the adverse effects of mycoplasma on cells and experiments. Furthermore, mycoplasma is insidious — it cannot be detected with the naked eye or under the microscope. You must perform a detection test to be sure your cells are mycoplasma-free.

REMEDY Get in the habit of routinely checking your cell lines for mycoplasma contamination. Use a sensitive method that detects a wide range of species so you can be sure that a "negative" result really means your cells are free of infection. The convenient, PCR-based **ATCC Mycoplasma Detection Kit** will give you the assurance you need to work, and publish, with confidence. This test is so easy you'll find the habit almost enjoyable.

RESULTS Healthy cells, free of mycoplasma and lots of peace of mind.

Testing for mycoplasma is essential. Contact ATCC today to order your 50-test kit and start testing tomorrow.

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