

Ways to Reduce Contamination Risk



01

STICK TO THE BASICS

It may seem obvious to some, but don't forget to practice good aseptic techniques and to sterile filter liquids after opening or after adding additives.



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SHARING IS CARING

No one likes having issues with their culture, but it's important to track any problems you have and share them with your lab team. It may help uncover the source of the problem or prevent someone else from running into the same issues.



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COVER YOUR CULTURE

To minimize airborne contaminants, use cell cultureware lids, covers, or caps.



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TAKE CHANCE OUT OF YOUR PROCESS

Re-check all solutions sterilized in-house or stored for long periods of time for contaminants prior to use. Use disposable pipets or aseptic tubing to transfer media and other liquids. Or for more control, use an automated pipet controller that has a sterile filter to minimize the chance of non-sterile air entering the pipet.



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THINK TIDY

It seems like a simple thing, but washing your hands before putting on gloves and using clean lab coats to protect against shedding may help reduce contamination risk. Keep your hood clean and uncluttered to maintain airflow and reduce contaminants. Turn off the laminar flow hood only when you'll be away for extended periods.



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SIMPLICITY IS THE ULTIMATE FORM OF SOPHISTICATION

A great way to avoid cross-contamination is by keeping it simple – only work with one cell line and one bottle of media at a time under the hood. To further reduce contamination risk, use small media and buffer volumes and never "double-dip" pipets.



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ANTIBIOTICS AREN'T ALL THAT

Overusing antibiotics leads to an increased chance they will prevent the growth of more easily detected contaminants but will allow mycoplasma or other cryptic contaminants to grow undetected. As a result, the cryptically infected culture remains in use and becomes a potential source of serious contamination for the other cultures in the laboratory. Antibiotics are not a substitute for good aseptic technique; however, they can be used strategically as needed in developing, for example, primary cultures.



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KEEP CALM AND GET ORGANIZED

Stay organized and clearly label everything to reduce errors. Another way to reduce confusion is to color-code your work. The lab can also maintain a cell culture log, to document all relevant information for cell lines housed in the lab.



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TEST YOUR CULTURE

Test all in-house cell lines to ensure they are free from mycoplasma and other biological contaminants and to check their identity. Test all cell lines that are in continuous use at least every 3 to 4 months and any time they behave suspiciously. Better yet: save time, money, and effort by periodically discarding these cultures and replacing them with cultures from your tested cell repository.



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LEARN MORE

Visit www.corning.com/lifesciences to watch our on demand three-part webinar series on how to reduce cell culture contamination risk.



Want more tips to help prevent contamination?

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