

Credible Solutions for Mycoplasma Detection

190+

Mycoplasma species have been discovered

15% to 35%

of cell cultures worldwide are affected by mycoplasma contamination

95%

of all cell culture contamination events are caused by 8 Mycoplasma species

M. arginini · M. fermentans · M. hominis · M. hyorhina · M. orale · M. pirum · M. salivarium · A. laidlawii

Source of Contamination



Personnel

Poor culturing practices
Lab coats
Clothes



Reagents

Media
Sera
Supplements
Buffering solutions



Equipment

Incubators
Water baths
Liquid nitrogen tanks
Laminar flow hood

Prevention Tips and Techniques



Authenticate through routine testing



Use cell culture best practices



Maintain thorough documentation



Quarantine new cell lines



Use antibiotics responsibly

Top 5 reasons to test:

- 1 Loss of cell functionality or cell death
- 2 Erroneous data
- 3 Misinterpretation of results
- 4 Loss of time and money
- 5 Decreased quality of cell-based products

Key Methods of Detection

Test Method	Time	Sensitive	Detects non-culturable strains	Limitations
Agar Culture	Weeks	High	✗	Low throughput
Indirect DNA Stain	Days	Moderate	✓	Likelihood of false positives
PCR Testing	Hours	High	✓	Detection is limited to available primersets

Browse ATCC's mycoplasma quality control solutions at www.atcc.org/MycoplasmaCRMS