

# Comparison of Mycoplasma Testing Methods

[certus QC - mycoplasma Detection Kits](#) [Catalog # MD-250, MD-500](#)



	Isothermal Amplification	Real-Time PCR	PCR & Electrophoresis	Bioluminescence	Broth and Agar Cultivation
<b>Test Equipment</b>	<ul style="list-style-type: none"> <li>- Real-Time PCR Thermal Cycler</li> </ul> <p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>- Isothermal Amplification Instrument</li> </ul>	<ul style="list-style-type: none"> <li>- Real-Time PCR Thermal Cycler</li> </ul>	<ul style="list-style-type: none"> <li>- PCR Thermal Cycler</li> </ul> <p style="text-align: center;"><b>And</b></p> <ul style="list-style-type: none"> <li>- Electrophoresis Power Supply/ Chamber</li> </ul>	<ul style="list-style-type: none"> <li>- Luminometer</li> </ul>	<ul style="list-style-type: none"> <li>- Incubator</li> </ul>
<b>Required Time</b>	~ 30 Minutes	~ 2.5 - 5 Hours	~ 2.5 - 5 Hours	~ 30 Minutes	~ 28 Days
<b>Sensitivity</b>	- High	- High	- High	- Moderate	- High
<b>Consumables</b>	<ul style="list-style-type: none"> <li>- PCR Tubes/ PCR Plates</li> <li>- Microcentrifuge Tubes</li> <li>- Pipette Tips</li> </ul>	<ul style="list-style-type: none"> <li>- PCR Tubes/ PCR Plates</li> <li>- Microcentrifuge Tubes</li> <li>- Pipette Tips</li> </ul>	<ul style="list-style-type: none"> <li>- PCR Tubes</li> <li>- Microcentrifuge Tubes</li> <li>- Pipette Tips</li> </ul>	<ul style="list-style-type: none"> <li>- Microcentrifuge Tubes</li> <li>- Pipette Tips</li> <li>- Multi-well plate</li> </ul>	<ul style="list-style-type: none"> <li>- Stoppered Container</li> <li>- Petri Dish/ Agar Dish</li> <li>- Pipette Tips (Optional)</li> </ul>
<b>Evaluation</b>	<ul style="list-style-type: none"> <li>- Real-time detection</li> <li>- Observation of the melting curve</li> </ul>	<ul style="list-style-type: none"> <li>- Real-time detection</li> <li>- Observation of the amplification curve</li> </ul>	<ul style="list-style-type: none"> <li>- Gel Electrophoresis</li> <li>- Product size determination</li> </ul>	<ul style="list-style-type: none"> <li>- Luminescence Detection</li> </ul>	<ul style="list-style-type: none"> <li>- Visual Inspection</li> <li>- Observation of the presence of colonies</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>- Simple</li> <li>- <b>No DNA extraction step</b></li> <li>- <b>Only 5 minutes hands-on time</b></li> <li>- Specific</li> <li>- Reliable and accurate</li> <li>- High-throughput</li> <li>- Very sensitive</li> </ul>	<ul style="list-style-type: none"> <li>- Simple</li> <li>- Rapid</li> <li>- Specific</li> <li>- Reliable</li> <li>- High-throughput</li> </ul>	<ul style="list-style-type: none"> <li>- Inexpensive</li> <li>- Rapid</li> <li>- Specific</li> </ul>	<ul style="list-style-type: none"> <li>- Inexpensive</li> <li>- Rapid</li> <li>- Specific</li> </ul>	<ul style="list-style-type: none"> <li>- Simple</li> <li>- Inexpensive</li> <li>- Gold standard</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>- False positives possible</li> <li>- Mycoplasma identification is dependent on primer specificity</li> </ul>	<ul style="list-style-type: none"> <li>- False positives possible</li> <li>- Mycoplasma identification is dependent on primer specificity</li> <li>- DNA extraction typically required</li> </ul>	<ul style="list-style-type: none"> <li>- Requires optimization</li> <li>- False positives possible</li> <li>- Mycoplasma identification is dependent on primer specificity</li> <li>- DNA extraction typically required</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to interpret</li> <li>- Can't identify specific <i>Mycoplasma</i> species</li> <li>- False negatives possible</li> </ul>	<ul style="list-style-type: none"> <li>- Laborious</li> <li>- Time-consuming</li> <li>- Needs specific media</li> </ul>