

## MycoDetect - Mycoplasma qPCR Detection Kit

P. Code	Size in 100 Rxn	Component	Description	Lot Number	Expiry
2MMPU-1	1 x 1 mL	2X MegaMix Platinum Probe qPCR MasterMix	Hot Start Taq, dUTPs, UNG in optimised buffer		
MD-MYCO-0.5	1 x 500 µL	Mycoplasma Detection Mix	Primers and Probes for Mycoplasma and Internal Control + Internal Control DNA		
PC-MYCO-0.1	1 x 100 µL	Mycoplasma Positive Control	Synthetic DNA containing sequence of <i>M. orale</i>		
5JWA-1	1 x 1 mL	Just Water (Molecular Grade Water)	Aliquoted, quality controlled, nuclease-free, molecular grade water.		

## Applications

- Detection of mycoplasma contamination.

## Product Description

Mycoplasma contamination is a serious, often undetected threat in cell culture labs, compromising research by altering cellular metabolism, gene expression, and growth. Resistant to antibiotics and capable of rapid spread, mycoplasma requires rigorous screening to ensure experimental reliability.

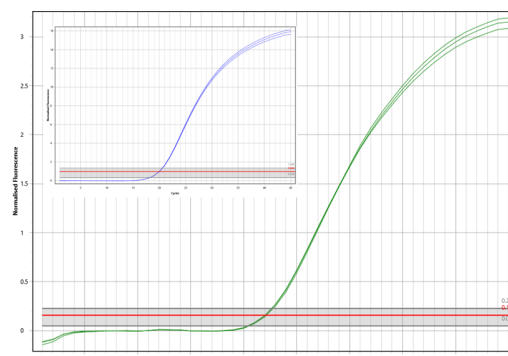
MycoDetect - Mycoplasma qPCR Detection Kit is designed to target a highly conserved mycoplasma 16S-rDNA region and can detect the presence of *Mollicutes* species most commonly associated with cell culture contamination, including, *M. arginini*, *M. fermentans*, *M. hominis*, *M. hyorhinis*, *M. orale*, *M. pneumoniae* and *A. laidlawii*.

The kit contains all of the necessary components for qPCR and requires no additional optimisation. It includes an internal amplification control (IAC) for validation of the qPCR run as well as a positive control DNA. Compatible with any qPCR cyclers detecting FAM and HEX probes, MycoDetect delivers high sensitivity and specificity with mycoplasma-specific

amplification detected at 520 nm (FAM) and IAC detected at 560 nm (HEX). Additionally, MegaMix Platinum qPCR mastermix contains dUTP/UNG which eliminates false positives from amplicon contamination.

## Key Features

- Rapid results—get results in less than an hour.
- Eliminates carryover contamination with dUTP/UNG.
- Excellent sensitivity and specificity.



One million copies of *Metamycoplasma orale* DNA detected with MycoDetect - Mycoplasma qPCR Detection Kit on FAM channel and Internal Amplification Control on HEX channel (inset).

## Protocol

The kit is to be used as follows:

Thaw all reagents completely and mix well before use.

Prepare a meta mastermix as described in the table below.

Components	Per Test
2X MegaMix Platinum qPCR Mastermix	10 µL
Mycoplasma Detection Mix	5 µL
<b>Total Volume</b>	<b>15 µL</b>


Add 5 µL of Sample and 15 µL meta master in the PCR tube.

For Negative Control: 5 µL Just Water

For Positive Control: 5 µL Positive Control

## Thermocycling

Transfer the reactions to the thermal cycler and set as follows:

Step	Cycles	Temperature	Time
Initial Denaturation	1	95°C	2 min
PCR Amplification and Signal Detection	40	95°C 60°C 	3 sec 20 sec

## Channel Setting

Mycoplasma	FAM
Internal Amplification Control (IAC)	HEX

For research use only

## Product Handling

## Storage

To ensure the quality of the product until the expiry date keep at the recommended storage temperature and limit exposure to light.

## Contamination Control

To prevent erroneous results ensure work environment is free of contamination by cleaning your workstation and equipment with a DNA decontaminant daily, wear gloves, use sterile tubes and filter pipette tips.

Simple | Effective | Efficient