Mycolor One-Step Mycoplasma Detector

D201

Version 24.1

Product Description

Mycolor One-Step Mycoplasma Detector is a rapid detection product developed based on isothermal amplification technology for mycoplasma contamination in cell cultures. It has the advantages of easy operation, intuitive results, high sensitivity, strong specificity and anti-contamination. This product premixes enzymes with buffer to achieve one tube detection. After adding 1 μl of the cell culture supernatant to the reaction system and incubated at 65°C for 1 h, the results can be determined by visual observation. If there is mycoplasma contamination in the cell culture, the reaction solution will change from purple red to yellow after amplification and the color contrast will be obvious. Meanwhile, the reagent introduces the anti-contamination system to avoid false positives caused by amplification product aerosols and ensure accurate and reliable results. Mycolor One-Step Mycoplasma Detector can detect various mycoplasma, including 8 strains commonly found in cell culture. This product has a wide range of adherent cell, suspension cell, media and serum compatibility.

Components

Components	D201-01 (25 rxns)	D201-02 (50 rxns)
Mycolor LAMP Mix	500 μl	2 × 500 μl
Positive Control	15 μl	2 × 15 μl
Mineral Oil	500 μl	2 × 500 μl

Storage

Store at -30 ~ -15°C and transport at ≤0°C.

Applications

It is applicable for detecting mycoplasma contamination in cell culture.

Self-prepared Materials

PCR machine or water bath.

Notes

For research use only. Not for use in diagnostic procedures.

Experiment Process

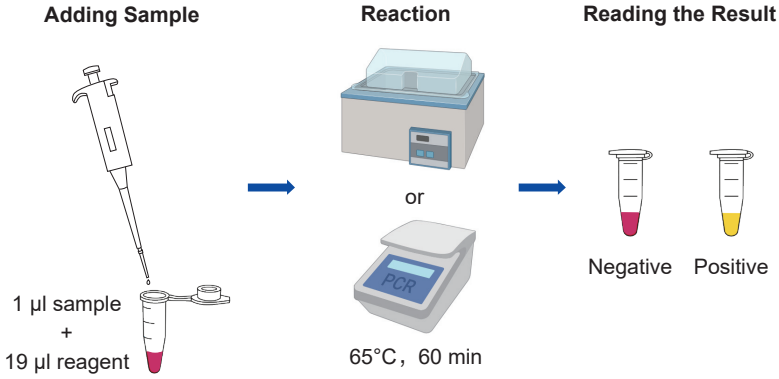

Fig 1. Workflow of Mycolor One-Step Mycoplasma Detector

1. Collect the cell culture supernatant

Adherent cells: directly collect the supernatant. Cells should remain in culture for at least 72 h undisturbed prior to screening and reach 90% confluence. At this moment, mycoplasma content in supernatant is relatively high and can be detected easily.

Suspension cells: collect the supernatant after centrifugation at 2,300 rpm (500 × g) for 5 min. Cells should remain in culture for at least 72 h undisturbed prior to screening. At this moment, mycoplasma content in supernatant is relatively high and can be detected easily.

2. Preparation of reaction system

a. Thaw the Mycolor LAMP Mix from -30 ~ -15°C and mix thoroughly.

b. Prepare the reaction system according to the following table:

Components	Test Sample	Negative Control*	Positive Control
Mycolor LAMP Mix	19 μl	19 μl	19 μl
Test Sample	1 μl	-	-
Nuclease-free ddH_2O	-	1 μl	-
Positive Control	-	-	1 μl
Total	20 μl	20 μl	20 μl

* Negative Control: No sample added or add 1 μl of Nuclease-free ddH_2O.

c. Vortex mix and briefly centrifuge to collect at the bottom of the tube, ensuring no bubbles in the reaction system.

▲ If the reaction is carried out in a water bath, add 20 μl of Mineral Oil to each tube to prevent inaccurate results due to liquid evaporation. If the reaction is carried out in a PCR instrument, Mineral Oil is not required.

3. Reaction

Incubate at 65°C for 60 min in a PCR instrument or water bath.

▲ The actual temperature of the water bath may deviate from the set temperature. It is recommended to calibrate it with a thermometer first.

4. Result

After the reaction is completed, observe the solution color in a bright environment (preferably with a white background). Purple red represents negative and yellow represents positive.

▲ Do not open the lid of detection tubes to prevent false positives due to aerosol contamination.