

Product :

Mycoplasma PCR Detection Kit

Catalog Number: P001

Quantity: 50 Reactions

Expire Date: 12 Months

Pathogen Information

Mycoplasma is common and serious contaminants of cell cultures. Mycoplasma is often not visible and does not respond to antibiotics, and therefore it is a major issue that requires monitoring and early detection. Up to %30 of cell cultures may be contaminated with Mycoplasmas, the main contaminants being the species *M. orale*, *A. laidlawii*, *M. arginini* and *M. hyorhinis*. These organisms produce a variety of effects on the infected cells in culture, including changes in metabolism growth, viability and morphology, thereby altering the phenotypic characteristics of the host cells. Therefore there is an absolute requirement for routine, periodic assays to diagnose possible Mycoplasma contamination of all cell cultures, particularly continuous or established cell lines.

Principle of the Test

Mycoplasma PCR Detection Kit constitutes a ready-to-use system for the isolation and detection of Mycoplasma using end-point PCR. The Mycoplasma DNA is isolated free from inhibitors, and can then be used as the template in a PCR reaction for Mycoplasma detection using the provided Mycoplasma Master Mix. The Mycoplasma Mastermix contains reagents and enzymes for the specific amplification of a narrow size range (500-400 bp) for the majority of relevant mycoplasma.

Kit Components:

Digestion Buffer	5 ml
Mycoplasma PCR Master Mix	625 µl
Control Positive	100 µl
Primer Mix	120 µl
Nuclease free water	500 µl

General Precautions

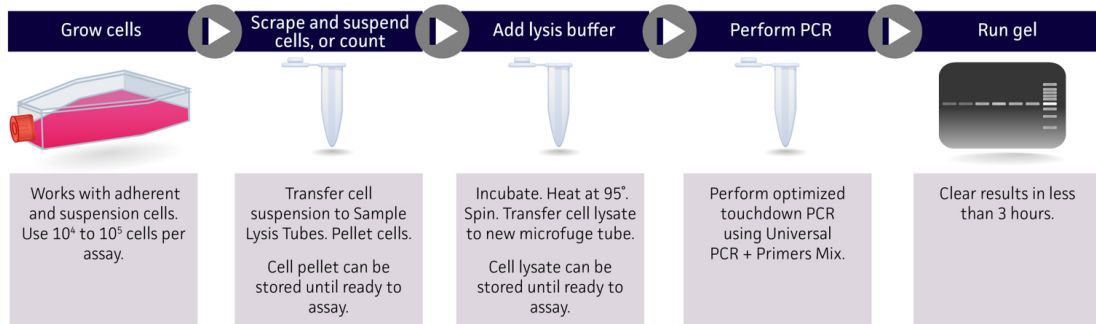
The user should exercise the following precautions when using the kit:

- Use sterile pipette tips with filters.
- Store and extract positive material (specimens, controls and amplicons) separately from all other reagents and add it to the reaction mix in a spatially separated facility.
- Thaw all components thoroughly at room temperature before starting an assay.
- When thawed, mix the components and centrifuge briefly.
- Work quickly on ice.

Quality Control

Each lot of Mycoplasma PCR Detection Kit, including the Mycoplasma PCR Master Mix Control Positive and Primer Mix are tested against predetermined specifications to ensure consistent product quality.

MYCOPLASMA DETECTION KIT FLOWCHART



Quality Control Results

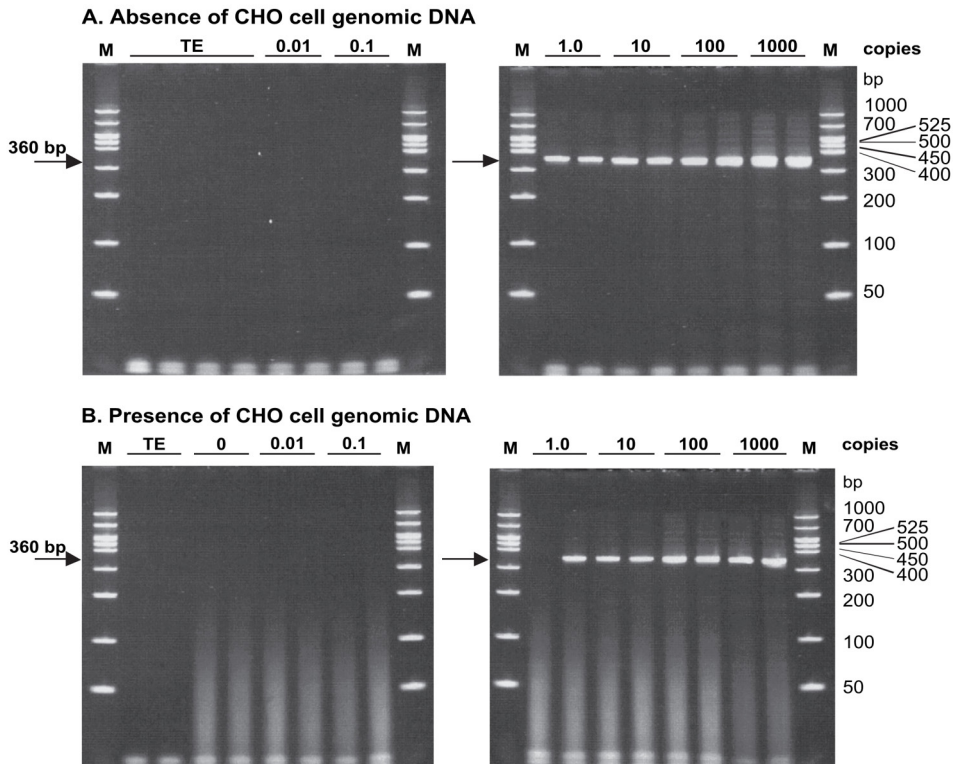
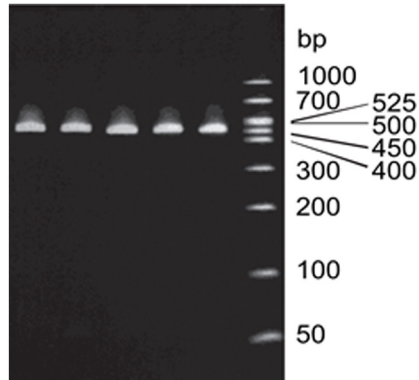


Fig1: Sensitivity of mycoplasma PCR to positive control plasmid, (1000-0.01 copies) in the absence (A) or presence (B) of genomic DNA extracted from preharvest CHO cell cultures expressing product . Each lane represents a separate PCR. M: size marker.

Or Ala Ar Fe Pn M MMM



Species	Amplicon size (bp)
<i>M. orale</i>	462
<i>M. hyorhinis</i>	464
<i>M. laidlawii</i>	438
<i>M. salivarium</i>	466
<i>M. arginini</i>	465
<i>M. fermentans</i>	461
<i>M. hominis</i>	436
<i>M. pneumoniae</i>	470
Control positive	438
Size range	438-470

Fig: Mycoplasma PCR specificity for Mycoplasma and Acholeplasma species: *M. orale*(Or), *A. laidlawii*(Ala), *M. arginini*(Ar), *M. fermentans*(Fe) and *M. pneumoniae*(Pn). M: size marker

Product Use Limitations

Mycoplasma PCR Detection Kit is designed for research purposes only.

Safety Information

Ensure that a suitable lab coat, disposable gloves and protective goggles are worn when working with chemicals.

! CAUTION : DO NOT add bleach or acidic solutions directly to the sample-preparation waste.

Quality Manager
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