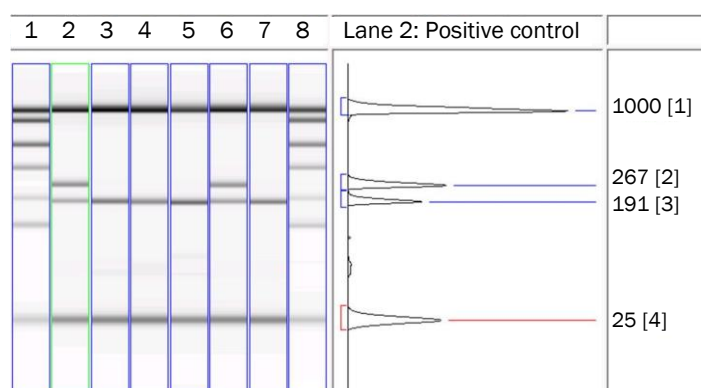


ScreenTape® allows rapid analysis of Mycoplasma PCR reactions for efficient screening of cultured cell lines



Tape Used

ScreenTape D800

Total time to result for 7 samples - 10 minutes

Sample volume per test - 1µl

Analysis Results

GLP standard report and print-out

The ScreenTape system streamlines PCR screening of tissue culture S/N for *Mycoplasma spp.* Lengthy gel electrophoresis analysis is replaced with a 10 minute, automated, hands-free analysis step without any reagent or gel preparation. GLP cell line results are immediately archived thanks to the tailored GeneTools® software.

Introduction

Mycoplasma spp. are microorganisms that commonly infect cells in tissue culture, potentially leading to spurious experimental results, the loss of crucial data and unplanned costs. Laboratories routinely use Mycoplasma specific PCR to screen cultures for these contaminants and the resulting DNA fragments are analysed by gel electrophoresis. The Lab901 ScreenTape system is a novel, automated method for mycoplasma PCR analysis.

Materials and Methods used in PCR

For each cell line, 100µl of tissue culture S/N from transfected Chinese Hamster Ovary cells (CHO cells) was boiled for 10 minutes. Using the instructions from the Minerva Biolabs® Mycoplasma PCR kit, reactions were set up in thin walled 0.2ml tubes.

ScreenTape DNA Analysis Procedure

Samples from the PCR block were mixed 1:4 with Lab901 loading buffer and placed in the TapeStation™ with ScreenTape D800. After clicking "START" on the software driven menu, full analysis of the samples was achieved and archived, with no user intervention, within 10 minutes.

Results

Analysed results are visualised immediately, highlighting band sizes for each of the PCR reactions. Samples in lanes 2 (positive control), and 6 show fragments of 182 and 269bp, that are diagnostic of Mycoplasma infection, whereas samples in lanes 3 (negative control), 4, 5 and 7 that only show a band at 182bp, are free of infection.

Advantages of using ScreenTape for Mycoplasma PCR analysis

The ScreenTape system allows significant time saving for Mycoplasma PCR analysis, by providing a fully automated, walk-away solution. No reagent preparation is needed and the use of Ethidium Bromide is eliminated. Data on the presence or absence of Mycoplasma for each cell line is automatically archived and easily retrieved. GLP-grade reports can be saved and printed following a one-click procedure.