Mycoplasma detection - biochemical test

Purpose of the service

The test is intended to detect mycoplasma in cell culture media.

The presence of mycoplasma in a cell culture is highly undesirable and can conclude in a serious distortion or even failure of *in vitro* experimental results coming from:

- undesirable changes of cell morphology
- inhibition of cell metabolism
- alteration of cell membrane transport
- inhibition of cell growth
- alteration of DNA and chromosomal aberrations

Principle of the test

A selective biochemical test exploits the activity of mycoplasma enzymes present in most of 180 mycoplasma species, but not occurring in eukaryotic cells.
If the tested sample is mycoplasma positive, the supernatant after cell lysis contains mycoplasma enzymes that change ADP to ATP. In a subsequent step, the ATP acts as a substrate for luciferase which results in emitting luminescence. Contamination is excluded / evidenced by measuring the ratio of luminescence prior to and after luciferase addition.

Available products

Cat. No	Product
1830	Mycoplasma detection - biochemical test

Parameters of the test

Test detection limit: 50 cfu/ml

Requirements for the material to be tested

Customer provides us with 1 to 2 ml of cultivation medium, made according to instructions below.

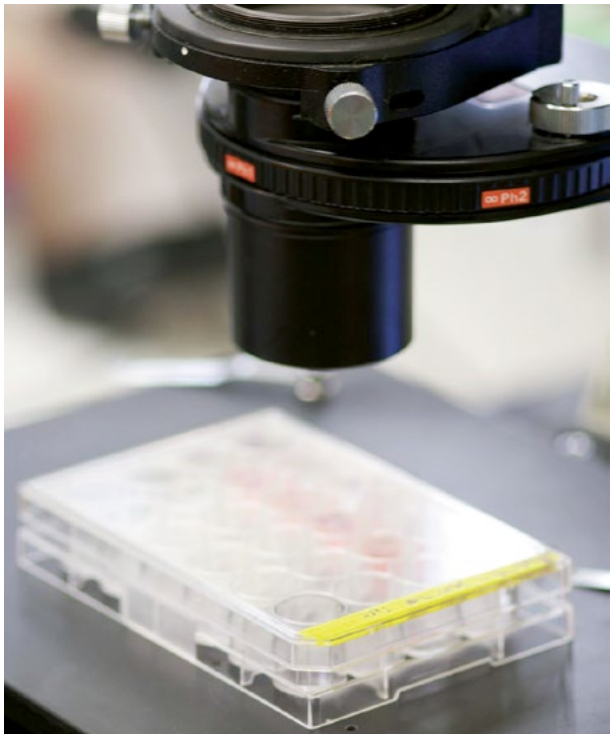
Preparing cells to be tested

To ensure reliable test results, please keep carefully to the recommendations as follows:

- After defrosting the cell stock from liquid nitrogen, cultivate the cell culture in standard cultivation conditions for at least 14 days.
- Cultivate the cells in the amount of medium recommended for a given cultivation container, do not exceed the recommended amount.
- Cell confluency must be at least 80 % at the moment of medium withdrawal.
- Withdrawal of a medium sample to be tested must be performed no sooner than 2 days following the last exchange of medium.
- Centrifuge 1-2 ml of withdrawn cultivation medium (200 x g, 5 minutes, at room temperature) and transfer into a new tube (sufficient volume is 500 µl).
- The medium can be stored up to 6 months at -80 °C.

Sample delivery

If the delivery time does not exceed 24 hours, send samples chilled to 2 to 8 °C (on wet ice), otherwise we recommend delivery on dry ice.



Mycoplasma detection in GENERI BIOTECH has been certified according to standard ISO 9001.

Output of the test

- We provide you with a protocol in English with a statement if the presence of mycoplasma was detected.