

Using the Cell Autofocus Test Chip - Pressure Control and/or System Leakage Test

About the Pressure Control and System Leakage Test

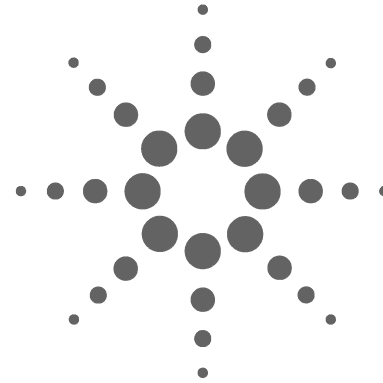
Vacuum driven microfluidics is the basis for all Agilent 2100 bioanalyzer cell assays. The Pressure Control and the System Leakage Test are easy means to check for the capability of the pump to generate and maintain a proper vacuum. The Cell Autofocus test chip contains no channels and therefore is suitable for checking the instrument capability to reach and control a necessary vacuum level.

Running the Pressure Control and/or System Leakage Test

No priming of the Cell Autofocus test chip is necessary.

Start the diagnostics as described in "How to Start the Hardware Diagnostic Tool" on page 2. Select 'Pressure Control' and/or 'System Leakage test'. Put the Cell Autofocus test chip in the receptacle of the instrument when requested by the software.

A 'failed' hardware test indicates a faulty hardware component and an Agilent service representative should be contacted.



Using the Agilent 2100 Bioanalyzer Cell Autofocus Test Chip

Introduction

This note describes the usage of the Cell Autofocus test chip which is part of the Cell Assay Extension (G2944AA).

All Agilent 2100 bioanalyzer systems contain a software supported hardware diagnostic tool.

This tool enables the user to check:

- All individual hardware components of the Agilent 2100 bioanalyzer instrument.
- The instrument - chip interface for molecular assays (electrode cartridge).
- The instrument - chip interface for cell assays (pressure cartridge).

No help from Agilent service personnel is necessary to run the hardware diagnostic tool.

The test results of the hardware diagnostic will be either 'passed' or 'failed'. A 'failed' hardware test indicates a faulty hardware component and an Agilent service representative should be contacted.

The Cell Test Chip Kit (reorder number G2938-68200) contains the Cell Autofocus test chip that is necessary to run the complete hardware diagnostic tool of the cell fluorescence software.

© Copyright Agilent Technologies 2001
LabChip® and the LabChip logo are registered trademarks
of Caliper Technologies Corp. in the US and other countries.



Printed in Germany 10/01
Part Number G2941-90801



G2941-90801



Agilent Technologies

Handling and Maintenance of the Cell Autofocus test chip

To prevent the Cell Autofocus test chip from malfunctioning and thus wrongly indicating an Agilent 2100 hardware problem, the following rules must be observed:

- after having used the Cell Autofocus test chip, place it back into its bag; the Cell Autofocus test chip must not collect dust,
- never scratch the glass surface of the chip,
- never spill liquid over the chip,
- do not use the Cell Autofocus test chip if it is dirty,
- replace the chip with a new one within two years after first usage.

How to Start the Hardware Diagnostic Tool

Go to the menu bar and select 'Tools'. Under Tools go to 'Instrument Diagnostics'.

NOTE

You must select 'Optical Drive Test', 'Pressure Control' and/or 'System Leakage Test' in order to invoke those tests. For these 3 tests you will need the Cell Autofocus test chip.

For further details of the hardware diagnostic tool provided in the cell fluorescence software, please refer to the 'Maintenance and Troubleshooting Guide for Cell Assays' which you can find on the cell fluorescence software CD-ROM.

Using the Cell Autofocus Test Chip - Optical Drive Test

About the Optical Drive Test

The physical position of the cell assay chip in the instrument will vary slightly. This is due to variation in the mechanical components involved. However, even a slight variance of the chips position in the instrument must be compensated for by the detection optics. To guarantee optimal system performance, the optics will be automatically adjusted to each individual chip.

The Cell Autofocus test chip has been developed to aid checking the optics for its ability to adjust to individual chips. It also checks the optical system for its ability to scan over all 7 channels (6 sample and 1 focusing channel).

Running the Optical Drive Test

No priming of the Cell Autofocus test chip is necessary.

Start the diagnostics as described in "How to Start the Hardware Diagnostic Tool" on page 2. Select 'Optical Drive Test'. Put the Cell Autofocus test chip in the receptacle of the instrument when requested by the software.

A 'failed' hardware test indicates a faulty hardware component and an Agilent service representative should be contacted.