

LabChip[®] 3000 Drug Discovery System

The LabChip 3000 system is Caliper's next generation microfluidic system for use in drug screening. Using cutting edge microfluidic technology, the LabChip 3000 Drug Discovery System enables you to perform a broad range of assays on a single integrated platform.

The precision of microfluidics allows researchers to detect subtle interactions between drug candidates and therapeutic targets. The technology is able to detect both strong and weak inhibitors with high accuracy, and routinely identifies drug candidates that conventional techniques miss.

The flexibility of the LabChip 3000 System allows its use throughout the drug discovery process including assay development, primary screening, selectivity screening and generation of structure-activity relations (SARs). Most important therapeutic enzymatic 'targets' such as kinases, proteases and phosphatases can be screened using the LabChip 3000 System. The system also performs miniaturized cell based GPCR screens.

LabChip 3000 MODULAR SYSTEM

The LabChip 3000 System is designed as a modular system available with a choice of fluorescence excitation and detection wavelengths together with optional plate-handling automation. The LabChip 3000 Assay Development System is an economically-priced, basic system that allows first time users the opportunity to discover the benefits of using microfluidics for drug screening. In addition, this system is ideal for selectivity screening, enzyme kinetic optimization and IC50 determinations. The simplicity of assay development reduces the time required to optimize a new assay, and with the extensive range of application notes now available from Caliper, this process is further simplified.

The LabChip 3000 Assay Development System is fully upgradeable for high-throughput screening applications.

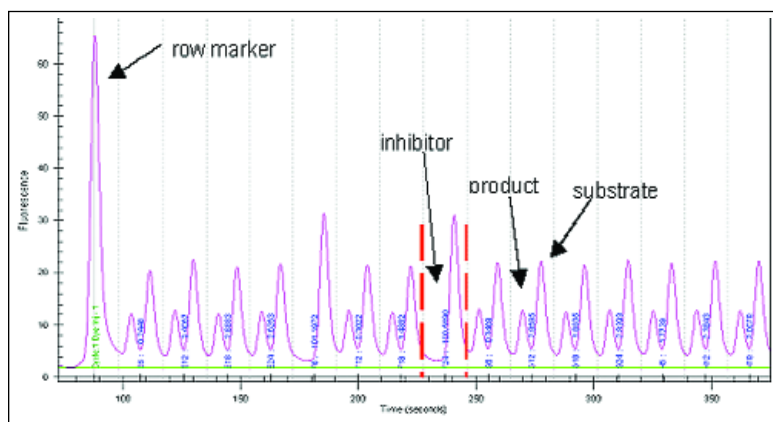


The LabChip 3000 Screening System provides automated plate handling and full environmental temperature and humidity control allowing unattended operation for up to 16 hours.

LabChip 3000 SYSTEM SUPPORTS A BROAD SUITE OF SCREENING ASSAYS

Chip-based enzymatic assay protocols are available for the major target classes including kinases, phosphatases and proteases. Most of these assays are based on mobility shift electrophoresis, in which product and substrate peaks are separated and detected independently. The sensitivity and robustness of chip-based assays lead to exceptional data quality resulting in reliable detection of weak inhibitors, and lower false positive and false negative rates.

Cell based calcium flux assays measure levels of intracellular calcium in individual cells. The ability to miniaturize this assay provides significant savings in cell management since approximately 100 fold fewer cells are required per screen. This allows several hours of screening to be performed using a single flask of cells. The microfluidic format also provides dramatic savings in costly cell agonists.



Separation and detection of product and substrate allows accurate quantification of inhibition.

LabChip 3000 SYSTEM SPECIFICATIONS

Dimensions

83 cm W x 125 cm L x 176 cm H (width does not include extended monitor arm)

Weight

LabChip 3000 Assay Development System 300 kg (660 lbs)

LabChip 3000 Screening System 340 kg (750 lbs)

Power

120 VAC, 50-60 Hz, 1200 VA (assay development system, 3000 VA (screening system))

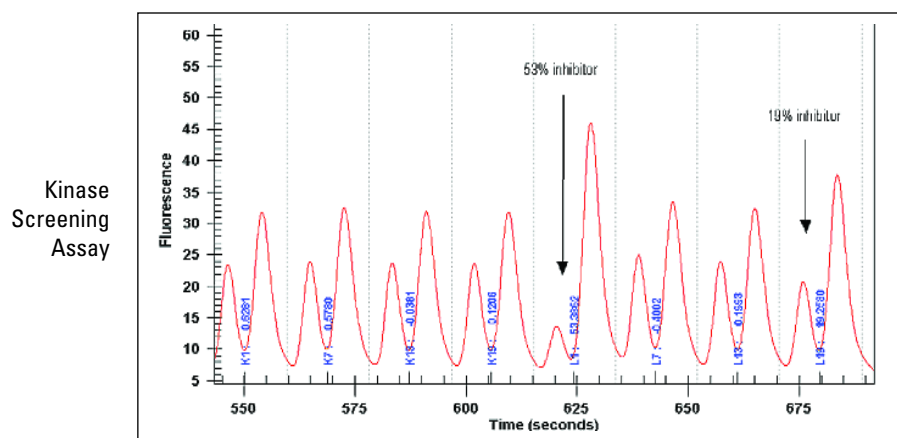
Optical System

Excitation Lasers: Detection Wavelengths:

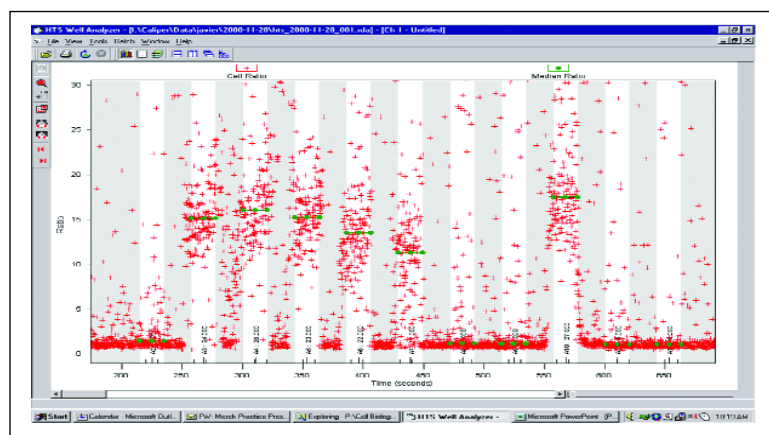
633 nm 685 nm

488 nm 530 nm

355 nm (optional) 440 nm



Both weak (lower than 20%) and strong inhibitors can be detected with high accuracy



Cell based
Calcium
Flux Assay

Fluorescence from individual cells is recorded. The response of ~100 cells for each compound is averaged

Worldwide Offices

Benelux

Caliper Life Sciences N.V.
Klapstraat 13
B-1790 Terafene, Belgium
Telephone: +32-53-66-26-70
Fax: +32-53-66-27-32

France

Caliper Life Sciences S.A.
ZAC PARIS-NORD II
13 rue de la Perdrix
BP 48016 Tremblay en France
95911 Roissy CDG Cedex, France
Telephone: +33-1-48-63-71-35
Fax: +33-1-48-63-71-53

Germany

Caliper Life Sciences GmbH
Eisenstrasse 9c
DE-65428 Rüsselsheim, Germany
Telephone: +49-6142-834-93-0
Fax: +49-6142-162-821

Japan

Caliper Life Sciences Japan
Saito-Bldg. 2F
Yushima 2-17-15, Bunkyo-ku
Tokyo 113-0034, Japan
Telephone: +81-3-5840-6551
Fax: +81-3-5840-6554

Switzerland

Caliper Life Sciences AG
Nordstrasse 17
CH-4665 Oftringen, Switzerland
Telephone: +41-62-788-7000
Fax: +41-62-788-7017

United Kingdom

Caliper Life Sciences Ltd.
1 Wellfield
Preston Brook
Runcorn, Cheshire WA7 3AZ
United Kingdom
Telephone: +44-1928-711448
Fax: +44-1928-791228

Caliper Life Sciences has representative offices worldwide. Please visit www.caliperLS.com for locations and contact information.



Caliper Life Sciences
Corporate Headquarters

68 Elm Street

Hopkinton, MA 01748-1668

1-508-435-9500

www.caliperLS.com

Fax: 1-508-435-3439

Email: cust.support@caliperLS.com

©2005 Caliper Life Sciences, Inc.
All rights reserved.

Caliper and LabChip are registered trademarks, the Caliper Logo is a trademark of Caliper Life Sciences, Inc.

LC3000-DS-01 06/05
(Replaces LC3000-01)