

SYSTEM CHECK KIT

protocol for conducting QC of the **heliX^{cyto}** device

Dynamic Biosensors GmbH
HK-QC-CY-1 v1.0



Key Features

The **heliX^{cyto} System check** kit is designed to **evaluate the hardware components** of the device and conducts the following tests in sequence:

1. System wash
2. Three **Cyto Fluidic Tests (FT)** on the **heliX[®] Maintenance Chip**.
3. Three **scIC Kinetics Simulation (KS)** runs on the **heliX[®] Maintenance Chip**.
4. System wash

Workflow



Load new **heliX[®] Maintenance Chip** and second maintenance chip for cleaning

Load buffer bottles and ready-to-use vials

Run the **heliX^{cyto} System Check** assay in **heliOS**

Export the data with **heliOS** and send to customer support.
support.dbs@bruker.com

Product Description

Order Number: **HK-QC-CY-1**

Table 1. Contents and Storage Information

Product	Format	Volume	Amount	Storage
<i>scIC FT solution for heliX^{cyto}</i>	small glass vial, black cap	1 mL	5	-20°C
<i>FT dye cell simulant</i>	small glass vial, black cap	260 µL	1	-20°C
<i>FT dye High</i>	small glass vial, red cap	1 mL	1	-20°C
<i>FT dye Mid</i>	small glass vial, blue cap	500 µL	1	-20°C
<i>FT dye Low</i>	small glass vial, blue cap	500 µL	1	-20°C
<i>Cleaning solution 1</i>	big glass vial, white cap	10 mL	1	15 - 25°C
<i>Cleaning solution 3</i>	big glass vial, white cap	10 mL	1	15 - 25°C
<i>ddH₂O</i>	big glass vial, white cap	9 mL	1	-20°C
<i>1x Running buffer 1 (RB 1)</i>	PET bottle	500 mL	1	2-8°C

For research use only.

This product has a limited shelf life, please see expiry date on label.

This kit is compatible with any **heliX^{cyto}** device and provides all the samples and buffer needed to conduct the experiment in ready-to-use format. Spare vials of scIC FT solution is included for any following tests, if required.

In addition, two new maintenance chips are required. One chip for measuring and a separate maintenance chip for device cleaning (Order No: **MTC-0**).

NOTE

After thawing samples, vortex the vials thoroughly and loosen caps to prevent pressure buildup during aspiration.

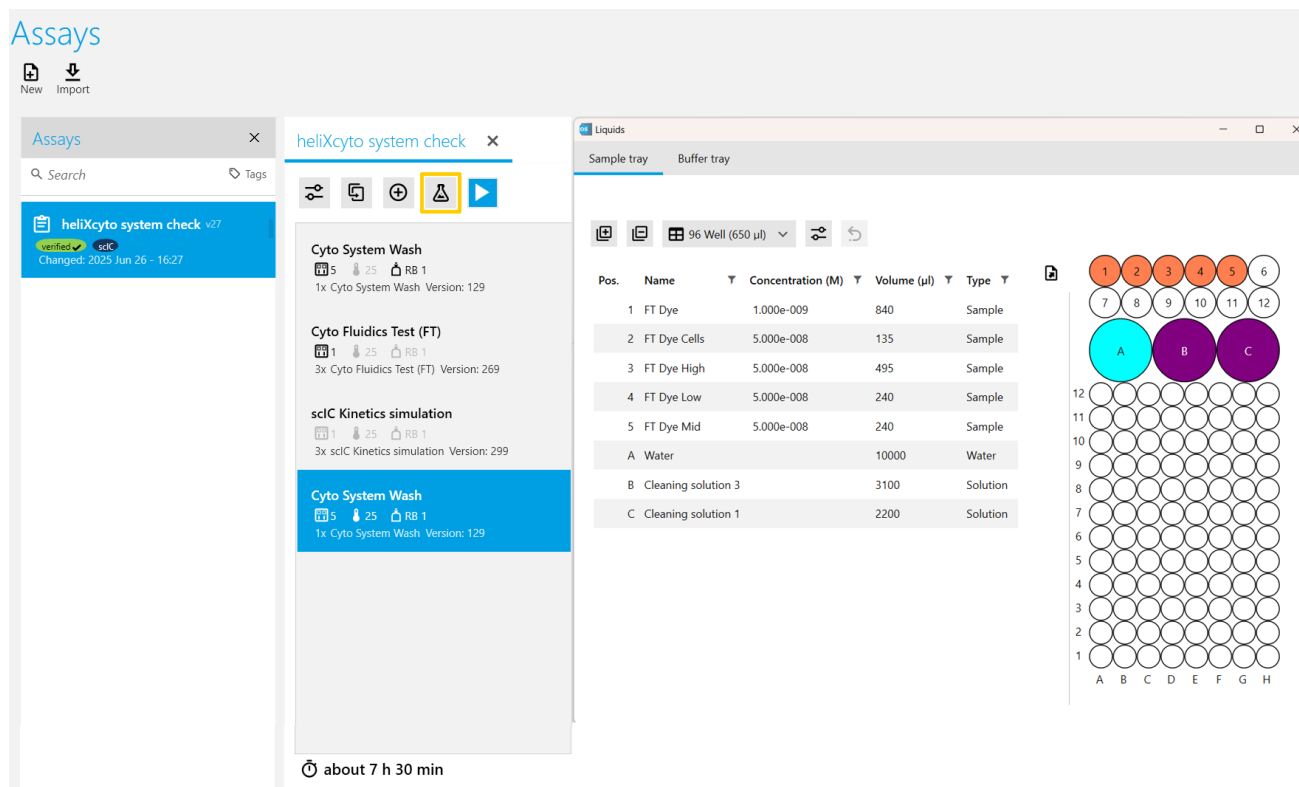
Assay Setup in heliOS

Before starting the assay, power cycle the **heliX®** device and ensure it is in a clean state. If needed, run a **Clean & Sleep** cycle followed by **Wake Up & Prime** with the included fresh buffer.

- Go to **heliOS** > on the Assay page, use the search bar in the list of saved Assays and type **heliXcyto system check** (it is tagged as verified and as **sclC**, and it is not editable) > select it; no modifications are necessary.

NOTE

*If the assay does not appear, it means it has not been downloaded and imported yet. Please do so from the webshop under the description of this specific kit (**HK-QC-CY-1**) before proceeding further.*



The screenshot shows the heliOS software interface. On the left, the 'Assays' panel lists several assays, with 'heliXcyto system check v27' highlighted. The main panel shows the details of this assay, including 'Cyto System Wash', 'Cyto Fluidics Test (FT)', and 'sclC Kinetics simulation'. On the right, the 'Liquids' panel shows a list of liquids to be added to the sample tray, including FT Dye, FT Dye Cells, FT Dye High, FT Dye Low, FT Dye Mid, Water, Cleaning solution 3, and Cleaning solution 1. A well plate diagram is also visible, showing a 12x8 grid with columns labeled A-H and rows labeled 1-12.

Pos.	Name	Concentration (M)	Volume (µl)	Type
1	FT Dye	1.000e-009	840	Sample
2	FT Dye Cells	5.000e-008	135	Sample
3	FT Dye High	5.000e-008	495	Sample
4	FT Dye Low	5.000e-008	240	Sample
5	FT Dye Mid	5.000e-008	240	Sample
A	Water		10000	Water
B	Cleaning solution 3		3100	Solution
C	Cleaning solution 1		2200	Solution

- Put buffer in the buffer tray and insert buffer lines 1 and 3 into the buffer, while leaving the line 2 in air. Click on the sample tray and insert the ready-to-use glass vials, as illustrated by the **heliOS Sample tray layout** (shown below).

IMPORTANT

Remove the cap from supplied large glass vial containing DI water to prevent any potential cross-contamination.

*The new **heliX® Maintenance Chip** must be placed in **position 1** of the chip tray, and **heliX® Maintenance Chip** for cleaning in **position 5**.*

- Click on Start and follow the instructions displayed in **heliOS**. The experiment takes approximately **8 hours** and can be performed over-night. Once completed, please export the experiment and send the resulting zip file to **support.dbs@bruker.com** for final evaluation.

Contact

Dynamic Biosensors GmbH

Perchtinger Str. 8/10
81379 Munich
Germany

Bruker Scientific LLC

40 Manning Road, Manning Park
Billerica, MA 01821
USA

Order Information order.biosensors@bruker.com

Technical Support support.dbs@bruker.com

www.dynamic-biosensors.com

Instruments and chips are engineered and manufactured in Germany.

©2026 Dynamic Biosensors GmbH

For Research Use Only. Not for use in clinical diagnostic procedures.