Contents [hide]

dynamic BIOSENSORS

Dynamic Biosensors helix cyto Normalization Solution

Specifications

- **Product Name:** heliX cyto Normalization Solution (Red Dye)
- **Order Number:** NOR-R2
- For scIC measurements in the red channel
- For research use only
- Limited shelf life – please check expiry date on label

Key Features

- For the normalization of the fluorescent signals on Spot 1 and Spot 2 of a heliXcyto chip
- Enables correct real-time referencing of the red fluorescent signals during scIC measurements
- Compatible with all heliXcyto chips
- The Normalization solution (red dye) contains a hydrophilic red dye with a single negative net charge.

Product Description

- **Order Number:** NOR-R2

Table 1. Contents and Storage Information

Material	Cap	Concentration	Amount	Storage
Normalization solution-R2	Red	10 µM	6x 100 µL	-20°C

- For research use only.
- This product has a limited shelf life; please see the expiry date on the label.
- To avoid many freeze-thaw cycles, please aliquot the solution.

Preparation

- Use this red dye normalization solution for scIC measurements in the red channel (analyte label-dependent).
- Dilute the 10 µM normalization stock solution to a working concentration with running buffer.
- The concentration of the normalization solution should approximately correspond to the fluorophore concentration in the highest analyte concentration to be measured. This can be calculated usingthe following equation:

$$c_n[M] = c_f[M] = c_a \cdot DOL$$

- c_n Concentration of the normalization solution in the desired color :
- c_f Concentration of dye in the labeled analyte solution
- c_a Highest concentration of the analyte that should be measured
- DOL Degree of labeling (ratio of dye to analyte)

Diluted solutions can be stored at 2-8°C for up to 7 days.

Application Note

In the scIC measurement, the fluorescent signal of the normalization solution should be in a similar range to the highest signal coming from the bound analyte (raw data). The absolute fluorescent signal is dependent on normalization solution concentration and the excitation power applied in the measurement. The excitation power has to be selected based on the following parameters:

- **Fluorophore concentration inthe analyte solution**
  The fluorophore concentration depends on the analyte concentration used in the measurement as well as the degree of labeling of the analyte. For high DOL and high analyte concentrations, lowering the excitation power might be required.
- **Expected binding signal**
  Highly expressed targets on a cell can bind more molecules of the labeled analyte. In case of highly overexpressed targets, a strong binding signal can be expected. To avoid the shutter closing, lowering the excitation power might be considered.

- **Chip type**
  Different chip types have varying fluorescent backgrounds. The bigger the traps and the more traps on the chip, the higher the background signal. Therefore, L5 chips might require lower excitation power than applied to M5 chips.

For a starting point of excitation power and normSolution on concentration to be used in an scIC experiment, please refer to Table 2.
Table 2. Relation of fluorophore concentration, normalization solution concentration, and excitation power suitable for an heliXcyto M5 chip

Analyte dye conc. = analyte conc x DOL	Excitation power	Concentration Normalization solution	Dilution Normalization solution
25 nM	0.5	25 nM	1:400
50 nM	0.3	50 nM	1:200
100 nM	0.2	100 nM	1:100
300 nM	0.1	300 nM	1:33
500 nM	0.08	500 nM	1:20
1 µM	0.05	1 µM	1:10
2.5 µM	0.02	2.5 µM	1:4

Note: This table is for your guidance. However, the final signal recorded in the heliXcyto depends on many factors. Thus, some optimization will be required for each system.

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@dynamic-biosensors.com
- Technical Support
  - support@dynamic-biosensors.com

www.dynamic-biosensors.com

FAQs

What is the shelf life of the heliX cyto Normalization Solution?

The product has a limited shelf life. Please check the expiry date on the label for specific information.

How should I store the NOR-R2 v1.0 product?

The product should be stored according to the storage information provided in Table 1 of the user manual.

Can I use this product for clinical purposes?

No, this product is for research use only.

Documents / Resources

	Dynamic Biosensors helix cyto Normalization Solution [pdf] User Manual helix cyto Normalization Solution, helix cyto, Normalization Solution, Solution

References

- User Manual

dynamic BIOSENSORS

dynamic BIOSENSORS, helix cyto, helix cyto Normalization Solution, Normalization Solution, Solution

Leave a comment

Your email address will not be published. Required fields are marked *

Comment *

Name

Email

Website

Save my name, email, and website in this browser for the next time I comment.

Post Comment

Search:

e.g. whirlpool wrf535swhz

Search