

# Data Sheet

## HOT FIREPol® EvaGreen® qPCR Mix Plus (Capillary), 5x

Cat. No.	Pack Size	20 µl rxn
08-26-0000S	0.2 ml	50
08-26-00001	1 ml	250
08-26-00001-5	5 x 1 ml	1250
08-26-00001-10	10 x 1 ml	2500
08-26-00008	8 ml	2000
08-26-00020	20 ml	5000

For *in vitro* use only

### Description:

HOT FIREPol® EvaGreen® qPCR Mix Plus (Capillary) is an optimised ready-to-use solution for real-time quantitative PCR assays, incorporating EvaGreen® dye. It comprises all the components necessary to perform qPCR: HOT FIREPol® DNA Polymerase, ultrapure dNTPs, MgCl<sub>2</sub> and EvaGreen® dye. The user simply needs to add water, template and primers.

HOT FIREPol® DNA Polymerase is activated by a 12 min incubation step at 95°C. This prevents extension of non-specifically annealed primers and primer-dimers formed at low temperatures during qPCR setup.

### Applications:

- Detection and quantification of DNA and cDNA targets
- Profiling gene expression
- Microbial detection
- Viral load determination

### Mix Composition:

- **HOT FIREPol® DNA Polymerase**
- **5x EvaGreen® qPCR buffer**
- **12.5 mM MgCl<sub>2</sub>**  
1x PCR solution – 2.5 mM MgCl<sub>2</sub>
- **dNTPs**
- **EvaGreen® dye**
- **BSA**

### Shipping and Storage conditions:

Routine storage: -18°C to -28°C

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of the product

Manufactured by Solis BioDyne in compliance with the ISO 9001 and ISO 13485 certified Quality Management System.

**FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.**

### Recommendations:

Reaction setup at room temperature.

In order to prevent contamination, we recommend you to setup the reaction under laminar or in PCR box.

### Recommended qPCR reaction mix:

Component	Volume	Final conc.
HOT FIREPol® EvaGreen® qPCR Mix Plus (5x)	4 µl	1x
Forward primer (10 µM)	0.16–0.5 µl	80–250 nM
Reverse primer (10 µM)	0.16–0.5 µl	80–250 nM
DNA template	variable	variable <sup>1</sup>
H <sub>2</sub> O PCR grade	up to 20 µl	
<b>Total</b>	<b>20 µl</b>	

<sup>1</sup> Conc. of cDNA 0.1 pg/µl–10 ng/µl; gDNA 10 pg/µl–4 ng/µl

### Recommended qPCR cycling protocol:

Cycle step	Temp.	Time	Cycles
<b>Initial activation<sup>2</sup></b>	<b>95°C</b>	<b>12 min</b>	<b>1</b>
Denaturation	95°C	15 s	40
Annealing <sup>3</sup>	60°–65°C	20 s <sup>4</sup>	
Extension <sup>4</sup>	72°C	20 s <sup>4</sup>	

<sup>2</sup> To activate the polymerase, include an incubation step **at 95°C for 12 minutes** at the beginning of the qPCR cycle.

<sup>3</sup> The annealing temperature (T<sub>a</sub>) depends on the melting temperature (T<sub>m</sub>) of the primers. A T<sub>a</sub> that is about 2 to 5°C lower than the T<sub>m</sub> of the primers is generally suitable. Performing temperature gradient is recommended.

<sup>4</sup> For templates longer than 150 bp, the annealing and extension time may be increased to 30 sec.

### EvaGreen® Dye:

EvaGreen® is a DNA-binding dye with many features that make it a superior alternative to SYBR® Green I for qPCR. Apart from having similar spectra, EvaGreen® has three important features that set it apart from SYBR® Green I: EvaGreen® has much less PCR inhibition, is an extremely stable dye and has been shown to be non-mutagenic and non-cytotoxic. EvaGreen® is compatible with all common real-time PCR cyclers – simply select the standard settings for SYBR® Green or FAM!

**Safety warnings and precautions:**

This product and its components should be handled only by persons trained in laboratory techniques. It is advisable to wear suitable protective clothing, such as laboratory overalls, gloves and safety glasses. Care should be taken to avoid contact with skin or eyes. In case of contact with skin or eyes, wash immediately with water. Refer to Safety Data Sheet for more information.

**Technical support:**

Contact your sales representative for any questions or send an email to [support@solisbiodyne.com](mailto:support@solisbiodyne.com)

Online chat is available at [www.solisbiodyne.com](http://www.solisbiodyne.com)

DS-08-26 v2  
Revised 18.06.2021

**Permitted Use:** This product is supplied for research use only (the **Permitted Use**). If the customer wishes to use the product for any purpose other than the Permitted Use, including (without limitation) resale or alteration, the customer should obtain the appropriate licence from Solis Biodyne. Some applications of this product may require a license/licenses from one or more third parties which are not provided by the purchase of this product. Users should obtain the licence if required. Covered by the patent EP2501716, made by the methods of US Patent No 9,321,999.

**Trademark information:** FIREPoI® is an EU registered trademark of Solis BioDyne OÜ.

EvaGreen® is a registered trademark of BIOTIUM, INC. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer, where such research does not include testing, analysis or screening services for any third party in return for compensation on a per test basis. The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes.

**Warranty and Disclaimer:** This product shall comply with its relevant specification and be fit for its stated purpose, but Solis BioDyne gives no other warranty and makes no representation as to description or quality. Any such warranty or representation is excluded, to the fullest extent permitted by law. In particular, but without limiting the foregoing, Solis BioDyne shall not be liable for the failure of the product to comply with its relevant specification where such failure arises as a result of: (i) customer negligence or because the customer failed to follow any of the applicable technical data or safety sheets, standard user materials, use guidelines or any other information provided by Solis BioDyne as to the storage, transportation, handling, use or maintenance of the products or other good practice regarding the same, or (ii) the customer altering the products in any way without the prior written consent from Solis BioDyne, or (iii) the products differing from the relevant specification as a result of changes made to ensure their compliance with applicable statutory or regulatory requirements.

Nothing shall limit or exclude Solis BioDyne's liability for death or personal injury caused by its negligence, fraud or fraudulent misrepresentation or any matter in respect of which it would be unlawful for Solis BioDyne to exclude or restrict liability. Without limiting the foregoing, Solis BioDyne shall under no circumstances whatever be liable to the customer, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any loss of profit, or any indirect or consequential loss arising under or in connection with the products and Solis BioDyne's total liability to the customer in respect of all other losses arising under or in connection with the product, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, shall in no circumstances exceed the price of the products supplied in respect of which the liability has arisen.

Solis BioDyne

Teaduspargi 9, 50411 Tartu, Estonia, tel: +372 740 9960, fax: +372 740 2079, e-mail: [info@solisbiodyne.com](mailto:info@solisbiodyne.com), [www.solisbiodyne.com](http://www.solisbiodyne.com)