



## 5x HOT FIREPol® Probe qPCR Mix Plus (ROX)

Cat. No.	Pack Size	Conc. (MgCl <sub>2</sub> )
08-14-0000S	0.2 ml SAMPLE (50 reactions)	15 mM
08-14-00001	1 ml (250 reactions)	15 mM
08-14-00008	8 ml (2000 reactions)	15 mM
08-14-00020	20 ml (5000 reactions)	15 mM

For *in vitro* use only

### Description:

HOT FIREPol® Probe qPCR Mix Plus (ROX) is optimized for real-time quantitative PCR assays and contains all the components necessary to perform qPCR, with the exception of template, primers, and probe. The qPCR Mix contains optimized components and HOT FIREPol® DNA Polymerase supplied in a proprietary reaction buffer that enables detection of low copy number targets. HOT FIREPol® Probe qPCR Mix Plus (ROX) is optimized for DNA hydrolysis probes based on the 5' flap endonuclease activity.

HOT FIREPol® DNA Polymerase is activated by a 15 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 Probe qPCR buffer**
- **15 mM MgCl<sub>2</sub>**  
*1x PCR solution – 3 mM MgCl<sub>2</sub>*
- **dNTPs**
- **ROX dye**

### ROX Dye:

ROX is an internal passive reference dye used to normalize the fluorescent reporter signal generated in qPCR.

### Recommended qPCR reaction mix:

Component	Volume	Final conc.
5x HOT FIREPol® Probe qPCR Mix Plus	4 µl	1x
Primer Forward (10 pmol/µl)	0.4-0.8 µl	200-400 nM
Primer Reverse (10 pmol/µl)	0.4-0.8 µl	200-400 nM
Probe	x µl	100-250 nM
DNA template <sup>1</sup>	variable <sup>1</sup>	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 cycles:

Cycle step	Temp.	Time	Cycles
<b>Initial activation<sup>2</sup></b>	<b>95°C</b>	<b>15 min</b>	1
Denaturation	95°C	15-20 s	40
Annealing/Elongation	60°C	60 s	

<sup>2</sup> To activate the polymerase, include an incubation step at **95°C for 15 minutes** at the beginning of the qPCR cycle.

### Recommendations:

Reaction setup at room temperature is highly recommended for HOT FIREPol® Probe qPCR Mix Plus.

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

### Shipping and Storage conditions:

Routine storage: -20°C

Shipping and temporary storage for up to 1 month at room temperature has no detrimental effects on the quality of HOT FIREPol® Probe qPCR Mix Plus (ROX).

### 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.

**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. Patent Notice - EP2501716 and other patents pending.

**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.