



# Quick Protocol

## SuperPhi DNA Amplification Kit

Cat#: Phi100 or Phi1000

### FOR RESEARCH USE ONLY

SuperPhi DNA Amplification Kit is intended for molecular biology use and *in vitro* use only. This product is not intended for diagnosis, prevention or treatment of a disease in human beings or animals.

Store Kit at -80°C on Receipt



## Protocol Review

SuperPhi DNA Amplification Kit has capacity to detect as low as 1 pictogram of template DNA under optimal condition. 0.2~0.5  $\mu\text{l}$  of saturated overnight culture or 1/10 to 1/100 of the colony (approximately  $10^2 - 10^4$  cells) would be enough. Please keep in mind that excess culture or colony will inhibit SuperPhi DNA Amplification reaction! Yields and kinetics may vary if crude or un-quantified samples are amplified. We recommend to consider a starting point for adapting your specific reaction.

## Quick Protocol

### 1. Preparation of Sample Mix for Bacterial Colonies:

Transfer 4  $\mu\text{l}$  of Sample Buffer into a 0.2 ml PCR tube.

Pick 1/10 to 1/100 of the colony (approximately  $10^2-10^4$  cells) and add to the above PCR Tube.

Heat to 95 °C for 3 minutes and then quickly cool to 4 °C. Keep the samples on ice until use.

*Note: Heating at higher temperature or longer time may increase the probability of releasing host genomic DNA into cell lysis to the reaction, where the host genomic DNA will compete with the desired template DNA during amplification.*

### 2. DNA Amplification:

Mix 5  $\mu\text{l}$  of Reaction Buffer and 1  $\mu\text{l}$  of SuperPhi Enzyme and add to the above PCR tube contains 4  $\mu\text{l}$  of Sample Mix as showed below:

Component	Volume/reaction
Sample Mix	4 $\mu\text{l}$
Reaction Buffer	5 $\mu\text{l}$
SuperPhi Enzyme	1 $\mu\text{l}$

One can prepare the master mix of Reaction Buffer and SuperPhi Enzyme for multiple reactions. The final volume is 10  $\mu\text{l}$ . Mix well and incubate at 30 °C for 3~18 h.

3. Inactivate SuperPhi: Inactivate the enzyme by incubating at 65 °C for 10 min, and then cool to 4 °C.

4. Perform Downstream Application: The sample can be examined by agarose gel or applied for cloning and cycle sequencing. An aliquot of the amplified DNA can be directly added into the cycle sequencing reaction without further purification. Specially, the amplified RCA products as concatemers can be used to transform *Bacillus* directly.

5. FAQ and Troubleshooting: Please contact us at [info@evomicsscience.com](mailto:info@evomicsscience.com).

**Limited Use Label License: Research Use Only, Not for use in diagnostic procedures**

**Limited Use License and Warranty**

Use of this Product is subject to the following terms and conditions. Evomic Science LLC ("We") warrant that the Product meets the specifications described in this manual. If the terms and conditions are not acceptable, please return all components of Products with original receipt by the original buyer to Evomic Science LLC within 10 business days. This product is for internal research purposes only and is not for use in commercial applications of any kind, including, without limitation, quality control and commercial services such as reporting the results of purchaser's activities for a fee or other form of consideration. No right or license to resell this product or any of its components is conveyed expressly, by implication, or by estoppel. This Product should be used in accordance with the NIH guidelines developed for recombinant DNA and genetic research. Evomic Science LLC disclaims any and all responsibility for injury or damage which may be caused by the failure of the buyer or any other person to use the Product in accordance with the terms and conditions outlined herein. If you should have any questions or concerns about any of our products, please contact us at [info@evomicsscience.com](mailto:info@evomicsscience.com).