

## PCR-Sure™ Kit

(Cat. No: G065)

### Description

It has been well established that many variables affect a particular PCR reaction: template structures, primer design, annealing temperature, concentration of Mg<sub>2</sub>, etc. The PCR-Sure™ Kit was developed to simplify the PCR optimization process. The system consists of multiple thermo-stable DNA polymerases pre-mixed with 12 optimized buffers in a 2X MasterMix format, saving a great amount of time in PCR set-up compared to the non-MasterMix PCR optimization format. To find the optimal conditions for your difficult PCR, all you need to do is to mix templates, primers, and H<sub>2</sub>O with the PCR-Sure™ 2X MasterMix.

### Quality Control

Free of endonucleases, exonucleases, and nicking activity. Every lot is tested for performance consistency.

### Storage

Store at -20°C.

### Experimental Procedures

There are 12 different PCR reaction buffers and thus a reaction mix of 14 is generally needed.

	<b><u>1X</u></b>	<b><u>14X</u></b>
Template (DNA)	1 µl (50-100 ng)	14 µl
Forward primer (10 µM)	1 µl	14 µl
Reverse primer (10 µM)	1 µl	14 µl
H <sub>2</sub> O	23 µl	322 µl

Mix the components well and aliquot 25 µl to each of 12 PCR reaction tube, then add 25 µl PCR-Sure™ 2X MasterMix to the 12 PCR tubes.

### PCR Cycle Profile

As is often the case, this kit is used only when you have a difficult PCR reaction, we recommend that you use a touch-down PCR cycle profile to optimize your primer annealing temperature.

For example, if your primer annealing temperature is around 55°C, use the following PCR cycle program. Adjust accordingly if your primer annealing temperature is higher or lower than 55°C.

Initial DNA denaturation: 94°C for 4'

- Denature at 94°C for 30"
  - Anneal at 60°C for 30"
  - Extension at 72°C for 1min/kb
- } 3 Cycles
- 
- Denature at 94°C for 30"
  - Anneal at 55°C for 30"
  - Extension at 72°C for 1min/kb
- } 3 Cycles
- 
- Denature at 94°C for 30"
  - Anneal at 50°C for 30"
  - Extension at 72°C for 1min/kb
- } 25 Cycles

Final extension at 72°C for 5 min.

<b>Product</b>	<b>Qty</b>	<b>Cat. No</b>
PCR-Sure™ Kit	12 x 5 rxns	G065
Individual Reaction Mix	200 rxns	G065-X*

\*There are a total of 12 Individual Reaction Mixes. After the optimal reaction condition is identified, the Individual Reaction Mixes may be ordered separately. For the catalog number G065-X, the "X" indicates a number from 1 to 12. When ordering, please specify a unique catalog number.

This product is distributed for laboratory research only. Caution: Not for diagnostic use.