Product Information

PCR-HF-Sure™ Kit

(Cat. No: G066)

Description

It has been well established that many variables affect a particular PCR reaction: template structures, primer design, annealing temperature, concentration of Mg_2, etc. Similar to our popular PCR-Sure™ kit, our PCR-HF-Sure™ was developed with high fidelity DNA polymerase mixed with different kinds of Taq DNA polymerases. The kit not only allows simplification of PCR optimization, but also significant decrease of errors in the amplified PCR products. In addition, the kit has the advantage of amplifying longer PCR templates up to 10kb, similar to the function of Taq plus enzyme function. To find the optimal conditions for your difficult PCR, all you need to do is to mix templates, primers, and H_2O with the PCR-HF-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.

	1X	**14X**
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_2O	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 difficult PCR templates, 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 1 min/kb

} 3 Cycles

- Denature at 94°C for 30''
- Anneal at 55°C for 30''
  Extension at 72°C for 1 min/kb

} 3 Cycles

- Denature at 94°C for 30''
- Anneal at 50°C for 30''
  Extension at 72°C for 1 min/kb

} 30 Cycles

Final extension at 72°C for 5 mins.

Product	**Qty**	**Cat. No**
PCR-Sure™ Kit	12 x 5 rxns	G066
Individual Reaction Mix	200 rxns	G066-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 G066-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.*