

Ver. 1902-00

HelixAmp™ Ready-2x-Go [*Premium-Pfu*] (8-Strip type)

Kit Contents

| HelixAmp [™] Ready-2x-Go [<i>Premium-Pfu</i>] (8-Strip type) | | | |
|---|--------------------|--|--|
| Cat. No. | PMT009-96 | | |
| Ready-2x-Go [Premium-Pfu] (without Dye) | 8-strip x 12/plate | | |
| Blue Box | - | | |
| Instruction for Use | 1ea | | |

Description

HelixAmp™ Ready-2x-Go [*Premium-Pfu*] are optimized mixtures of HelixAmp™ *Premium-Pfu* polymerase with reaction buffer and dNTPs as 2-fold concentration. This pre-mixed formulation is designed to save time and reduce the error and contamination opportunities. Ready-2x-Go [*Premium-Pfu*] mixture contains NanoHelix's *Premium-Pfu* polymerase, which most suitable to faithful amplification of relatively long-ranged target for cloning etc. Due to its high speed, fast PCR with this enzyme could be completed in 30 min for the reliable amplification of less than 1 kb size target DNA. Ready-2x-Go [*Premium-Pfu*] provides the most suitable condition for efficient and reproducible PCR.

Contents

HelixAmp[™] Ready-2x-Go [*Premium-Pfu*] are the mixtures of HelixAmp[™] *Premium-Pfu* polymerase, PCR buffer, dNTPs and stabilizing agents. For the optimization of difficult PCR, N-Solution[™] is separately provided.

Store

-20°C

Quality Control Assay

Functional Assay

HelixAmp™ Ready-2x-Go [*Premium-Pfu*] is evaluated by amplification compare with mixture of each component required in PCR for various targets.

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By



Protocol

1. Recommended amount of template DNA.

Human genomic DNA: 10 ~ 100 ng Bacterial genomic DNA: 5 ~ 50 ng Purified plasmid or phage DNA: 1 ~ 5 ng

- 2. Prepare the PCR Pre-Mix tubes according to the number of test sample.
- 3. Add following components to each tube containing 15 μl of HelixAmp™ Ready-2x-Go [*Premium-Pfu*] Premix.

| Components | Volumes (μl) | |
|-------------------------------|--------------|--|
| Template | ΧμΙ | |
| Forward Primer (10 pmoles/μl) | 1 µl | |
| Reverse Primer (10 pmoles/µl) | 1 μΙ | |
| N-Solution™ [optional] ※ | 0 ~ 3 µl | |

※ N-Solution™ is an additive altering the binding behavior of primer and template and can help the amplification that do not work well under standard PCR condition. Especially, **N-Solution™** can be used for the amplification of problematic template, such as high G+C content and repeat sequence regions. The optimal concentrations of **N-Solution™** are vary upon the primer-template sets and should be set by adding into the PCR reaction mixture from 2 to 10% volume. Most of the PCR reactions are not required the **N-Solution™** and we recommend to use the **N-Solution™** only in case of the PCR amplification is not works well or too much non-specific products are observed.

- 4. Adjust reaction volume to final 30 µl with RNase-free water and mix well.
- 5. Perform the PCR with following condition.

| Temperature & time | Cycles |
|--|------------|
| 95°C, 2 min | x 1 |
| 95°C, 20 sec | |
| Annealing Temp., 40 sec | x 25 ~ 40 |
| 72°C, 30 sec/kb (Expected size of product) | |
| 72°C, 5 min | x 1 |
| Annealing Temp. = $T_m - (4 \sim 6^{\circ}C)$ T_m (Melting Temp.) = $[4^{\circ}C \times (G + C)] + [2^{\circ}C$ | x (A + T)] |



Products

| Cat. No. | Products | Size |
|-----------|---|----------|
| PMT009-96 | HelixAmp™ Ready-2x-Go [<i>Premium-Pfu</i>] (8-Strip tube type, without dye) | 96 tests |