

HelixAmp™ Ready-2x-Go [*Premium-Pfu*]

Kit Contents

HelixAmp™ Ready-2x-Go [<i>Premium-Pfu</i>]	
Cat. No.	PM009L
Ready-2x-Go [<i>Premium-Pfu</i>]	1 ml x 5ea
N-Solution™	1 ml
Instruction for Use	1ea

※ For the optimization of difficult PCR, N-Solution™ is separately provided.

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 is 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.

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.

Quality authorized by Yountaek Go



NanoHelix Co., Ltd.

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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. Mix following components in a PCR tube.

Components	Volumes (μ l)
Template	X μ l
Forward Primer (10 pmoles/ μ l)	2 μ l
Reverse Primer (10 pmoles/ μ l)	2 μ l
N-Solution™ [optional] ※	0 ~ 5 μ l
Ready-2x-Go [<i>Premium-Pfu</i>]	25 μ l
RNase-free water	to 50 μ l

※ **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.

3. PCR condition.

Temperature & time	Cycles
95°C, 2 min	x 1
95°C, 20 sec	} x 25 ~ 40
Annealing Temp., 40 sec	
72°C, 30 sec/kb (Expected size of product)	
72°C, 5 min	x 1

Annealing Temp. = $T_m - (4 \sim 6^\circ\text{C})$

T_m (Melting Temp.) = $[4^\circ\text{C} \times (\text{G} + \text{C})] + [2^\circ\text{C} \times (\text{A} + \text{T})]$

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Products

Cat. No.	Products	Size
PM009L	HelixAmp™ Ready-2x-Go [<i>Premium-Pfu</i>] (without dye), N-Solution™	1 ml x 5ea

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