

## HelixAmp™ Ready-2x-Go Series

### Kit Contents

HelixAmp™ Ready-2x-Go	
Ready-2x-Go	1ml x 5ea
5x TuneUp™ Solution	0.5ml
Instructions for Use	1ea

**HelixAmp™ Ready-2x-Go Series** are the mixtures of one of thermostable DNA polymerase, PCR buffer, dNTPs and stabilizing agents. For the optimization of PCR, 5x TuneUp™ Solution is separately provided.

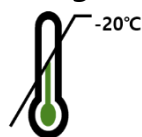
### Description

**HelixAmp™ Ready-2x-Go Series** are optimized mixtures of a PCR enzyme 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. Depending on the purpose of PCR, HelixAmp™ Ready-2x-Go mixture is selectable from routine PCR to high fidelity and long PCR. HelixAmp™ Ready-2x-Go Series provides the most suitable condition for efficient and reproducible PCR. The addition of TuneUp™ Solution in the reaction mixture is a simple way to optimize the long-range PCR.

### Store

Store the products containing dye below -20°C and keep away from light during storage.

#### Storage



Store below -20°C

#### Shelf life



12 months

### Quality Control

By NanoHelix's ISO 13485-certified Quality Management System, each lot of **HelixAmp™ Ready-2x-Go Series** was tested against predetermined specifications to ensure consistent product quality.

## Protocol

### 1. Recommended amount of template DNA

Human genomic DNA : 10 ~ 100ng

Bacterial genomic DNA : 5 ~ 50ng

Purified plasmid or phage DNA : 1 ~ 5ng

### 2. Mix following components in a PCR tube.

Components	Volumes ( $\mu$ l)
Template	X $\mu$ l
Forward Primer (10 $\mu$ M)	2 $\mu$ l
Reverse Primer (10 $\mu$ M)	2 $\mu$ l
5x TuneUp™ Solution [optional]	0 ~ 20 $\mu$ l
Ready-2x-Go	25 $\mu$ l
RNase-free Water	to 50 $\mu$ l

※ **TuneUp™ 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, TuneUp™ Solution can be used for the amplification of problematic template, such as high G+C content and repeat sequence regions. TuneUp™ Solution uses as adding into PCR reaction mixture from 0.5x to 2x.

### 3. PCR condition

Temperature & time	Cycles
95°C, 2 min or 15 min <sup>(a)</sup>	x 1
95°C, 20 sec	} x 25 ~ 40
Annealing Temp., 40 sec	
Extension (72°C) <sup>(b)</sup>	
72°C, 5 min	x 1

<sup>(a)</sup> In case of HelixAmp™ Ready-2x-Go [*Hot-Taq*]

<sup>(b)</sup> Extension time according to expected size of product

- *Taq*, *Hot-Taq* Polymerase : 1 min/kb
- *Power-Pfu* Polymerase : 2 min/kb
- *Taq-Plus*, *Xtender-Taq* Polymerase : 1 min/kb

*Hot-Taq* : Annealing Temp. =  $T_m - (6 \sim 8^\circ\text{C})$

*Taq*, *Power-Pfu* : Annealing Temp. =  $T_m - (4 \sim 6^\circ\text{C})$

*Taq-Plus*, *Xtender-Taq* : Annealing Temp. =  $T_m - (4 \sim 6^\circ\text{C})$

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

## Precautions

Store the products containing dye in a place protected from light, as prolonged exposure to light may degrade its performance.

## Products

Cat. No.	Products	Size
PM001L	HelixAmp™ Ready-2x-Go [ <i>Taq</i> ], 5x TuneUp™ Solution	1ml x 5ea
PM002L	HelixAmp™ Ready-2x-Go [ <i>Hot-Taq</i> ], 5x TuneUp™ Solution	1ml x 5ea
PM004L	HelixAmp™ Ready-2x-Go [ <i>Xtender-Taq</i> ], 5x TuneUp™ Solution	1ml x 5ea
PM006L	HelixAmp™ Ready-2x-Go [ <i>Power-Pfu</i> ], 5x TuneUp™ Solution	1ml x 5ea
PM008L	HelixAmp™ Ready-2x-Go [ <i>Taq-Plus</i> ], 5x TuneUp™ Solution	1ml x 5ea
PMD001L	HelixAmp™ Ready-2x-Go [ <i>Taq</i> ] ( <b>with dye</b> ), 5x TuneUp™ Solution	1ml x 5ea
PMD002L	HelixAmp™ Ready-2x-Go [ <i>Hot-Taq</i> ] ( <b>with dye</b> ), 5x TuneUp™ Solution	1ml x 5ea
PMD006L	HelixAmp™ Ready-2x-Go [ <i>Power-Pfu</i> ] ( <b>with dye</b> ), 5x TuneUp™ Solution	1ml x 5ea
PMD008L	HelixAmp™ Ready-2x-Go [ <i>Taq-Plus</i> ] ( <b>with dye</b> ), 5x TuneUp™ Solution	1ml x 5ea