# Multi HS Prime Taq Premix
## with UDG (2X, for Multiplex PCR)

| Product Name | Cat. No. | Size |
|---|---|---|
| Multi HS Prime Taq Premix **with UDG** (2X) | UMH-7100 | 1.0 ml X 1 |

### Package information

| | |
|---|---|
| UMH-7100 | 2X Multi HS Prime Taq Premix with UDG (1.0 ml X 1)<br>- with HS Prime Taq DNA Polymerase, UDG (Uracil-DNA Glycosylase), dNTPs mix., reaction buffer, enzyme stabilizer and loading dye |

### Description

The Multi HS Prime Taq Premix with UDG contains uracil-DNA glycosylase, dATP, dCTP, dGTP, dTTP and dUTP.
The UDG efficiently remove uracil from single-stranded or double-stranded DNA. Also this product contains a master mix whose composition and elements were specifically developed for multiplex PCR applications.
And this product contains optimized concentrations of Hot-start Taq DNA Polymerase (HS Prime Taq DNA Polymerase, G-7000), dNTPs mixture, $MgCl_2$ and reaction buffer.
Multiplex PCR is a powerful technique that enables amplification of two or more products in parallel in a single reaction tube.
It is widely used in genotyping applications and different areas of DNA testing in research, forensic, and diagnostic laboratories.

### Applications

▣ Genotyping applications (e.g., STR, VNTP analysis)
▣ Detection of pathogens/diagnostics
▣ Qualitative and semi-quantitative gene expression analysis

### Protocol

The following 20㎕ reaction volume can be used for PCR.

1. Prepare the following components to a PCR tube.

| Components | Volume |
|---|---|
| DW | add up to 20㎕ |
| Multi HS Prime Taq Premix with UDG (2X) | 10㎕ |
| Upstream Primer (10 pmole/㎕) | 0.5~2.0㎕ |
| Downstream Primer (10 pmole/㎕) | 0.5~2.0㎕ |
| Template DNA* | x㎕ |

* Amount of template DNA: 10 ng ~ 250 ng

2. PCR cycling

| Step | 3-step PCR | | Cycles |
|---|---|---|---|
| | Temp. | Time | |
| UDG activation | **50℃** | **3 min** | 1 |
| Initial denaturation | **95℃** | **10 min** | 1 |
| Denaturation<br>Annealing<br>Extension | 95℃<br>x℃<br>72℃ | 30 sec<br>30~60 sec<br>1 min | 30~40 |
| Final Extension | 72℃ | 5 min | 1 |

3. Separate the PCR products by agarose gel electrophoresis and visualize with EtBr or any other means.

**▶A DNA fragment which is amplified by Multi HS Prime Taq Premix has A overhang, and it enables you to do cloning by using T-vector.**

**◉ Research Use Only**
**◉ Store at -20℃**

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