

## DNA free-DuoTaq Master Mix

From *Thermus aquaticus*, recombinant (*E. coli*)

Cat. No. DFDM-5

Storage Temperature - 20°C

### 1. 제품 정보(Description)

2X DNA free-DuoTaq PCR Master Mix는 DNA free-DuoTaq DNA Polymerase을 사용하여 사용자가 간편하게 PCR 반응을 수행 할 수 있도록 고안된 master mix 제품입니다.

### 2. 제품 특징

- Source : *Thermus aquaticus*
- 5'→3' exonuclease activity : Yes
- 3'→5' exonuclease activity : Yes
- Amplification size : > 30 kb
- A-tailing : Yes

### 3. 제품 적용(Application)

- Routine PCR, multiplex PCR and qPCR
- Allele specific PCR
- 16S and 23S rRNA gene amplification
- Detection of bacteria in samples(e.g. blood)
- DNA labeling reactions & TA-cloning
- Sequencing / cycle sequencing

### 4. 제품 구성(Kit component)

제품 구성	DFDM-5
2X DNA free-DuoTaq Master Mix	5 ml

### 5. 실험방법(Reaction protocol)

#### 1) Reaction mixture(for 20 µl or 50 µl reaction)

Reaction component	Volume	
	10 µl	25 µl
2X DNA free-DuoTaq Master Mix	10 µl	25 µl
Template*	0.1ng ~ 1 µg	
Forward primers	1~10 pmole/ µl	
Reverse primers	1~10 pmole/ µl	
DNase free water	up to 20 µl	up to 50 µl

\* For genomic DNA template, 0.1ng ~ 100 ng  
For plasmid DNA, 0.01 ng ~ 15 ng

#### 2) PCR 반응 조건

Step	Temperature	Time	# of cycles
Initial denaturation*	95°C	5 min	1
Denaturation	95°C	30 sec	25~35
Annealing**	55~65 °C	30 sec	
Extension***	72°C	30 sec ~ 2 min	
Final elongation	72°C	5~10 min	1
Cooling	4°C	Unlimited time	1

\* The denaturation temperature can vary from 92°C~95°C.

\*\* Optimal annealing temperature depends on the melting temperature of the primers and on the system used.

\*\*\* For PCR products longer than 3~4 Kb, use an extension time of approximately 1 min per Kb DNA

#### 3) 5X Band Optima

증폭할 부위의 GC 함량이 높거나 복잡한 secondary 구조를 가지고 있어 증폭이 어려운 경우 5X Band Optima 를 추가구매 하여 사용할 수 있습니다.

### 6. 관련 제품

Hot start Taq Polymerase	Cat. No.
DNA free-HotTaq DNA Polymerase 250 unit	DFH-250
DNA free-HotTaq DNA Polymerase 500 unit	DFH-500
PCR Master Mix	
DNA free-Taq Master Mix, 5 ml	DFTM-5
Duo Taq Premix & Polymerase	
DNA free-DuoTaq Premix	DFDP-20
DNA free-DuoTaq Polymerase 250 unit	DFD-250