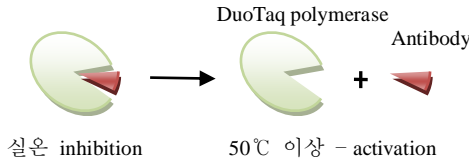


## DNA free-DuoHotTaq PCR Master Mix

Cat. No. DFDHM-5  
Storage Temperature - 20°C

### 1. 제품 정보(Description)

2X DNA free-DuoHotTaq PCR Master Mix는 DNA free-DuoHotTaq DNA Polymerase와 PCR reaction buffer, dNTPs, tracking dye를 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 : No
- Amplification size : < 3 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 components)

제품 구성	DFDHM-5
2X DNA free-DuoHotTaq PCR Master Mix	5 ml

### 5. Unit definition

One unit is defined as the amount of enzyme that will incorporate 10 nM of dNTP into acid-insoluble products in 30 minutes at 75°C.

### 6. 실험방법 (Reaction Protocol)

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

Reaction component	Volume	
Template*	0.1 ng ~ 1 µg	
2X DuoHotTaq Master Mix	10 µl	25 µl
Forward Primers	5~10 pmole	
Reverse Primers	5~10 pmole	
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

\*\* Repeat thawing of dNTPs may cause poor PCR reaction

#### 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	optional	1

\* Denaturation temperature 는 92°C~95°C 범위에 있음.

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

\*\*\*일반적으로 1 min/kb 로 하고 3 kb 이상은 1.5~2.0 min/kb 로 할 것.

#### 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.

### 7. 관련 제품

DNA free-Taq Polymerase	Cat. No.
DNA free-Taq DNA Polymerase 500 unit	DFT-500
DNA free-Taq DNA Polymerase 1000 unit	DFT-1000
PCR Master Mix	
DNA free-Taq Master Mix with dye 5 x 1 ml	DFTM-5
Duo Taq Polymerase	
DNA free-DuoTaq DNA Polymerase 250 unit	DFD-250