AmpMaster™ 2X *Taq* Master Mix

Ver 3.1

Cat. No. 541-010 (0.5 ml x 2 tubes)
541-050 (0.5 ml x 10 tubes)

Storage at -20°C

Disclaimer

For research use only. Not for use in diagnostic or therapeutic procedures.

Description

AmpMaster™ 2X *Taq* Master Mix is made from GeneAll® AmpONE™ *Taq* DNA Polymerase which is purified from the cloned *Thermus aquaticus* DNA polymerase gene in *Escherichia coli* (*E.coli*). This master mix contains all reaction components required for conventional PCR, such as reaction buffer, dNTP, loading dye, stabilizer and sediment in addition to *Taq* DNA polymerase. It is recommended for use in conventional PCR (up to 5 kb), TA cloning and colony PCR.

AmpMaster™ 2X *Taq* Master Mix is highly processive 5′ → 3′ DNA polymerase that lacks 3′ → 5′ exonuclease (proofreading) activity.

This master mix is stable for 18 months at -20°C. It is controlled various reaction volume according to purpose. Therefore, this master mix serves time-saving, cost-effective experiment.

Quality Control

No endonuclease activity, nicking activity, exonuclease activity, or priming activity has been detected.

Components

Cat. No.	AmpMaster™ 2X *Taq* Master Mix *
541-010	0.5 ml x 2 tubes (1 ml)
541-050	0.5 ml x 10 tubes (5 ml)

* AmpMaster™ 2X *Taq* Master Mix contains loading dye.

Storage Conditions

Stable for 18 months when all components are stored in a frost-free freezer at -20ºC.

Features

High efficiency, ready-to-use, time-saving, and cost-effective

Applications

Conventional PCR (up to 5 kb), TA cloning, Colony PCR, High through-put PCR, Routine PCR requiring high reproducibility, DNA sequencing template preparation

Note

Do not contaminate the AmpMaster™ 2X *Taq* Master Mix with primers and template DNA used in individual reactions. Thaw and mix all components thoroughly, spin down shortly and chill on ice.

Recommended PCR Mixture

The volume of components for 20 µl or 50 µl PCR reaction.

Components	Reaction Volume	
	20 µl	50 µl
AmpMaster™ 2X *Taq* Master Mix	10 µl	25 µl
Forward primer (10 pmole/µl)	1 µl	2 µl
Reverse primer (10 pmole/µl)	1 µl	2 µl
Template DNA *	-	-
Add D.W. to	20 µl	50 µl

* Recommended amount of template per PCR reaction:
< 50 ng plasmid or
< 500~1,000 ng genomic DNA or
< 2 µl of a 100 µl single plaque eluate or
1 single bacterial colony

PCR Condition

Step	Temp.	Time	Cycles
Initial Denaturation	95°C	5 min	1
Denaturation	95°C	30 sec	25~40
Annealing	**A**°C	30 sec	
Extension	72°C	**B**	
Final Extension	72°C	5 min	1
Cooling	4°C	∞	-

A: Recommended annealing temperature: 50~65°C
The value is 4-6 lower than Tm of primers
Tm = 2 (A+T) + 4 (G+C)

B: Recommended extension time: 10~60 sec
1 min/kb (the size of target PCR product)