Ultra-Pure Taq PCR Master Mix

For research use only

Catalogue Numbers: UTM200, UTM400

Quantity: 200 rxns (5 µl/rxn, 1 ml), 400 rxns (5 µl/rxn, 1 ml x 2)

Concentration: 5X (200 U/ml Ultra-Pure Taq Polymerase, 1.25 mM dNTPs, 10 mM $MgCl_2$)

Amplification: 100 bp to 5 kb

Storage: 1 year at 4ºC

Geneaid

INTERNATIONAL UKAS QUALITY MANAGEMENT Registration Number 046

CERTIFICATE NO. QAIC/TW/50077

ISO 9001:2008 QMS

Introduction

Ultra-Pure Taq PCR Master Mix includes all of the components necessary to perform PCR, with the exception of template and primer. Ultra-Pure Taq DNA Polymerase, dNTPs, $MgCl_2$ and reaction buffers are provided at optimized concentrations. Simply add primers, template DNA and sterile water to a final volume of up to 100 µl to complete the PCR reaction mix in routine PCR assays including colony PCR and recombinant screening PCR.

Quality Control

Ultra-Pure Taq PCR Master Mix is tested on a lot-to-lot basis in a PCR reaction using 1X Ultra-Pure Taq PCR Master Mix to amplify a 3,000 bp region of the green fluorescent protein gene (GFP). The PCR product is checked on an ethidium bromide-stained agarose gel.

Caution

During the procedure, always wear a lab coat, disposable gloves, and protective goggles

Components

Name	UTM010	UTM200	UTM400
Ultra-Pure Taq PCR Master Mix	10 rxns (50 µl)	200 rxns (1 ml)	400 rxns (1 ml x 2)
Positive Control	NA	10 µl	10 µl

Reaction Set Up

Component	25 µl	50 µl	Final Conc.
Forward primer (10 µM)	0.25-2.5 µl	0.25-2.5 µl	0.1-1.0 µM
Reverse primer (10 µM)	0.25-2.5 µl	0.25-2.5 µl	0.1-1.0 µM
DNA template	1-5 µl	1-5 µl	< 250 ng
Ultra-Pure Taq PCR Master Mix	5 µl	10 µl	1X
Sterile H_2O	Up to 25 µl	Up to 50 µl	

Positive Control Reaction and Program Set Up (NOTE: The positive control will give a PCR product of 1.5 kb)

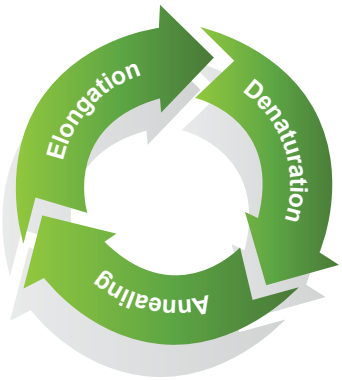
Component	Volume
Positive Control	3 µl
Ultra-Pure Taq PCR Master Mix	10 µl
Sterile H_2O	37 µl
Total	50 µl

General Taq DNA Polymerase Thermal Cycling Program

Please read the entire instruction manual prior to starting the protocol procedure.

Step 1 Initial Denaturation	• 94ºC. • 2-5 minutes. • 92ºC-95ºC (94ºC is the standard denaturation temperature). Denaturation condition varies depending on thermal cycler and tube.
Step 2 Denaturation	• 94ºC. • 20-40 seconds.
Step 3 Annealing	• 50ºC-65ºC. • 30-60 seconds. • Optimal annealing temperature is dependent on the Tm value of the primers and the reaction condition.
Step 4 Elongation	• 72ºC. • 1-3 minutes. • For 1 kb of PCR product, elongate at 72ºC for 1 minute. • For PCR products larger than 2 kb, adjust elongation time based on product size (1 kb/minute).
Step 6 Final Elongation	• 72ºC. • 7 minutes.
Step 7 Cooling	• 4ºC.

25-35 Cycles



Related PCR Products

PCR		
Product	Package Size	Catalogue Number
Ultra-Pure Taq DNA Polymerase	500 U	UT050
HiFi Taq DNA Polymerase	500 U	HT050
Ultra-Pure Taq PCR Master Mix	200/400 rxns	UTM200/400
Ultra-Pure Taq PCR Master Mix with Dye	100 rxns	TQMD100
dNTP Solution	10 mM each, 200 µl	DN200
dNTP Solution	25 mM each, 1 ml	DN1100
dNTP Set	100 mM 1 ml x 4	DN4400
dCTP	100 mM, 1 ml	DC1000
dATP	100 mM, 1 ml	DA1000
dGTP	100 mM, 1 ml	DG1000
dTTP	100 mM, 1 ml	DT1000