

## Product Overview

GloryPol MasterMix is a Taq-based 2X PCR master mix designed to simplify PCR workflows while maintaining high efficiency and reliability. It is particularly suited for direct PCR from plant tissues, including leaves, seeds, and seedlings, lysed using SuperShot(Catalog#RC50). Amplification can be performed directly from these crude lysates without DNA purification, and the master mix has also been successfully used with hair and blood samples, showing reliable performance across different sample types.

The master mix is highly resistant to PCR inhibitors, ensuring consistent results even with challenging or minimally processed samples. This makes it ideal for genotyping assays and other applications that require rapid and dependable amplification. In addition to direct lysate PCR, GloryPol MasterMix works efficiently in standard PCR assays and with a broad range of templates. It can be used for colony PCR, allowing direct amplification from bacterial colonies, and also supports cDNA amplification for gene expression studies and routine PCR applications.

Overall, GloryPol MasterMix combines robustness, versatility, and ease of use, making it a reliable choice for laboratories seeking consistent PCR performance across diverse experimental conditions.

## PCR Protocol

Components	Example for 50µL reaction	Final Concentration
Template DNA	1 µL	1ng - 100 ng
Forward Primer (10µM)	1 µL	0.1 - 1µM
Reverse Primer (10µM)	1 µL	0.1 - 1µM
GloryPol MasterMix (2X)	25 µL	1X
Nuclease Free Water	Upto 50 µL	

Step	Temperature	Time	Cycle
Initial denaturation	95 °C	2 minutes	1
Denaturation	95 °C	30s	25 - 35
Annealing *	55 - 65 °C	30s	
Extension	72 °C	1 minute/kb	
Final Extension	72 °C	5 - 15 minutes	1
Hold, if required.	2- 8 °C	variable	1

GloryPol mastermix contains red dye hence, you can directly load it directly on the gel. The front of red tracking dye runs at 300 - 1000 bp on 0.5 - 1.5 % agarose gel.

## Quality Control Assays

- Purity:** SDS Page analysis with Coomassie Blue Staining resulted in  $\geq 99\%$  purity for Taq.
- Performance testing:** In a 20µL reaction, 10 µL of mastermix was used to amplify 1kB fragment (GAPDH gene) from Direct Lysate of Cotton leaf (Lysed using Supershot[Catalog#50]) with appropriate primers. PCR was run with 35-45 cycles resulted in a single band, confirmed by 1% agarose gel electrophoresis with EtBr.
- Nuclease tests:** No contamination of endo or exonucleases were detected.

### PCR-ready genomic DNA Using SuperShot(Catalog#RC50).

- **Prepare lysis buffer:** Add 5  $\mu$ L  $\beta$ -mercaptoethanol (2.5%) to 200  $\mu$ L SuperShot buffer and mix well.
- **Add sample:** Plants: Add 5–10 mg leaf tissue (torn) or one cracked seed (increase buffer for large seeds)/Microbes: Suspend one isolated colony in buffer/Animals: Add  $10^4$  cells or ~1 cm tissue.
- **Lyse sample:** Homogenize using a bead mill or mortar and pestle until thoroughly lysed.
- **Dilute lysate:** Dilute 1  $\mu$ L lysate in 60  $\mu$ L nuclease-free water.
- **PCR setup:** Use 1  $\mu$ L diluted lysate in a 20  $\mu$ L PCR reaction.

### COLONY PCR METHOD - DIRECT



#### NOTE:

- No need to add entire colony.
- No need to add even half the colony.
- Just a touch is all required !!!

1. Take a pipette tip (10 $\mu$ L) and just touch the colony. Add this colony to GloryPol mastermix.
2. Follow the PCR program as suggested. Initial denaturation step must be 95°C for 2 minutes.
3. After PCR, directly load the sample to gel. YOU ARE DONE.

### COLONY PCR ALTERNATIVE METHOD

1. Take a pipette tip (10 $\mu$ L) and take 1 full colony( Approximate size of the colony could be 0.5 to 1mm DIA). Add this colony to 100 $\mu$ L of Nuclease Free Water or Autoclaved LB Media\*
2. Take 1 $\mu$ L and 5 $\mu$ L from the above and test for PCR SEPARATELY.
3. Follow the PCR program as suggested. Initial denaturation step must be 95°C for 2 minutes.
4. After PCR, directly load the sample to gel. YOU ARE DONE.

*(\* If you are using media then you can use the 100 $\mu$ L (left out) cell-suspension for taking fresh batch. Nuclease free water may lyse the cells hence you can't use it for taking batch.)*

#### Catalog Details

R8320 5 ml

R8321 20 ml

#### STORAGE

-20°C

#### Order Related Queries

Email : info@dxbidt.com | Ph: +91-7349708807

Website: <https://dxbidt.com>

Address: #87, Dasanapura, Lakshmipura Post,  
Bangalore - 560073