



# Ready PCR Mix, 2X

Code	Description	Size
N806-2X1.25ML	Ready PCR Mix, 2X	2 x1.25 mL tubes
N806-1.25ML	Ready PCR Mix, 2X	1.25 mL tube
N806-1.25ML-SAMPLE	Ready PCR Mix, 2X	1.25 mL tube

### **General Information**

VWR Life Science AMRESCO's Ready PCR Mix is supplied as a 2X mixture of reaction buffer, AMRESCO's Extender<sup>™</sup> DNA Polymerase Blend, dNTPs, electrophoresis tracking dye and a non-mutagenic EZ-Vision® visualization dye. Once amplification is complete, the PCR reaction can be directly loaded and separated on an agarose gel using the magenta-colored tracking dye (migrating at approximately 10 bp on a 1% agarose gel) to monitor the DNA migration. After electrophoreses the PCR products are immediately visualized with standard UV illumination without additional post-run staining or destaining steps.

- Direct-to-gel loading after PCR
- Immediate DNA visualization
- Ideal for direct screening of colonies for plasmid
- Safe to use

## Storage/Stability

Store at frozen (0 –  $-20^{\circ}$ C). Ready PCR Mix, 2X is stable through 15 freeze-thaw cycles.

## **Product Use Limitations**

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





#### **Protocol/Procedure:**

#### **Standard PCR Reactions**

The following protocol applies to single reactions where only primers, template, and water need to be added.

- 1. Thaw primers, template DNA and Ready PCR Mix, 2X and place on ice.
- 2. Assemble reactions on ice according to the following table:

Components	Volume (50 µL reaction)	Final Concentration
Ready PCR Mix, 2X	25 µL	1X
25 µM Forward Primer	0.5 – 2.0 μL	0.25 – 1.0 µM
25 µM Reverse Primer	0.5 – 2.0 μL	0.25 – 1.0 µM
5 ng/µL Template	0.2 – 10  µL	1 – 50 ng
Nuclease-free Water	As Needed	-

3. Perform Standard PCR amplification (Example below)

Steps	Time	Temperature (°C)	
А	2 min	95	
В	30 sec	95	
С	30 sec	55-65	
D	1 min*	68-72	
Repeat steps B – D 29 times			
E	7 min	68	
F	Hold	4	

\*Time should be 1 minute for every 1 Kb of expected PCR product size.

 Load and separate PCR products on an agarose gel at 5 – 8 V/cm. PCR products can be visualized with a standard ultraviolet light source. The fluorescent EZ-Vision® DNA dye emits in the blue spectrum for documentation.





#### **Colony Screening**

- 1. Thaw primers and Ready PCR Mix, 2X and place on ice. One primer should be complementary to the insert and the other should be complementary to the plasmid.
- 2. Assemble desired number of reactions on ice according to the table below:

Components	Volume (50 µL reaction)	Final Concentration
Ready PCR Mix, 2X	25 µL	1X
25 µM Forward Primer	0.5–2.0 µL	0.25 – 1.0 µM
25 µM Reverse Primer	0.5 – 2.0 µL	0.25 – 1.0 µM
Nuclease-free Water	As Needed	-

- 3. Pick and resuspend a colony in the PCR reaction.
- 4. Remove 5 µL from the PCR reaction and place in 200 µL of LB and antibiotic in a well of a 96-well plate. Note: In order to ensure correct identification of positive colonies, numbering should be consistent between the PCR reaction vessel, and the wells of the plate for colony growth.
- 5. When a sufficient number of colonies have been selected, place the 96-well plate at 37°C and allow to incubate for about 8 hours.
- 6. Perform PCR reaction (Example program below):

		Temperature		
Steps	Time	(°C)		
А	5 min	95		
В	30 sec	95		
С	30 sec	55-65		
D	1 min*	68-72		
Repeat steps B – D 29 times				
E	7 min	68		
F	Hold	4		

\*Time should be 1 minute for every 1 Kb of expected PCR product size.

5. Load and separate PCR products on an agarose gel at 5 – 8 V/cm. PCR products can be visualized with a standard ultraviolet light source. The fluorescent EZ-Vision® DNA dye emits in the blue spectrum for documentation.



## **Directions for Use**



#### For Technical Support Toll Free: 1-800-610-2789 (USA & Canada)

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