

# ExpressGO™ PreMix 2X PCR Master Mix

Catalog number: C108100  
Size: 1.25 mL (for 100 PCR reactions)  
Store at -20°C

## I. Description:

2X ExpressGO™ PreMix is an optimized and ready-to-use mixture contains of reaction buffer, dNTPs, loading dye, glycerol, PCR enhancers and the PCR polymerase as 2-fold concentration. Comparing with conventional Taq polymerase, ExpressGO™ Taq exhibits higher fidelity and less nonspecific polymerase activity at temperature lower than 50°C. By using 2X ExpressGO™ PreMix, "hot start PCR" can be achieved without any additional reagents or procedures. Thus, 2X ExpressGO™ PreMix can easily amplify 5 kb DNA fragment from lambda DNA template with high specificity. Moreover, 2X ExpressGO™ PreMix is extremely stable. Although it is not recommended, 2X ExpressGO™ PreMix can stand for one month in 37°C storage condition while its amplification ability still maintained. By using 2X ExpressGO™ PreMix, the PCR preparation becomes easier and more efficient. Analyzing is also much convenient now, since samples can be loaded for electrophoresis directly after PCR reaction. It is suitable to routine PCR applications with variant samples, such as purified DNA, cDNA, and bacterial colonies.

## II. Applications:

1. Routine PCR amplification of DNA fragments up to 10 kb.
2. High throughput PCR.
3. Generation of PCR products for TA cloning.
4. Colony PCR

## III. Storage Condition

-20°C	4°C	25°C	37°C
1.5 years	6 months	21 days	14 days

## IV. Recommended PCR Condition:

DNA	Amount
Genomic DNA	10-200 ng
Plasmid DNA	1-10 ng
cDNA	~100 ng

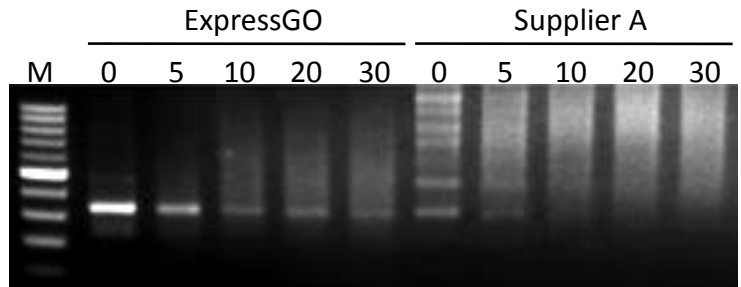
Component	Amount per reaction
1-100 ng DNA template	Variable
10 µM forward Primer	0.5 µl
10 µM reverse Primer	0.5 µl
2X ExpressGO™ PreMix	12.5 µl
Nuclease-free water	to 25 µl
Total volume	25 µl

## V. Thermocycling Conditions for a Routine PCR:

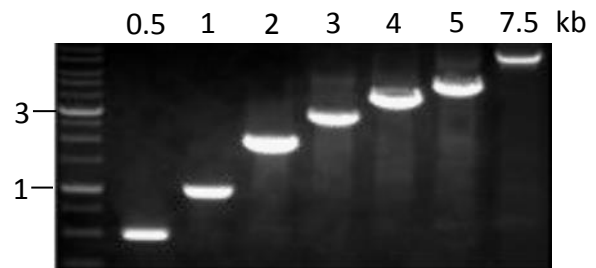
The recommended parameters may be optimized for each new primer-template pair for optimal specificity and amplification.

Cycles	Step	Temperature	Time
1	Initial denaturation	95°C	1-5 mins
25-35	Denaturation	95°C	30 s
	Annealing	45-72°C	30 s
	Extension	68/72°C	1 kb/min
1	Final Extension	72°C	5-10 mins
	Hold	14°C	--

## VI. Experimental Data



**Figure 1. Comparison of PCR amplification specificity between ExpressGO™ and other supplier's non-hot start PCR master mix. (The reaction mixture are incubated at 25°C for 0 to 30 minutes.)**



**Figure 2. ExpressGO™ PCR amplification of amplicons with different sizes.**