ClearPeak 2x SYBR Master Mix

100 rxn, 500 rxn

Cat No: SMM1, SMM5

Shipping : Ship with blue ice.
Storage : Store at -20°C. Avoid freeze and thaw cycles. *ClearPeak* 2x SYBR Master Mix can be stably stored for 6 months under dark conditions at 2~8°C after thawing.

General Information

ClearPeak 2x SYBR Master Mix is a specialized premix for real-time fluorescence quantitative qPCR reactions using the dye method (SYBR Green I). The core component *EcoTaq* DNA Polymerase is an antibody based hot start DNA polymerase that can be restored by heating at 95°C for 5 seconds. It has many advantages such as strong specificity and high detection sensitivity, and is paired with an optimal buffer optimized for qPCR. The unique qPCR buffer system of this product, combined with hot start enzymes, effectively inhibits the production of non-specific products and significantly improves the amplification efficiency of qPCR. It is very suitable for high specificity and sensitivity qPCR reactions. This product is also suitable for qPCR rapid reaction program. Good standard curves can be obtained within a wide quantitative range, with accurate, reproducible, and reliable quantification of target genes.

Fast: PCR lasts less than competitors. *ClearPeak* 2x SYBR Master Mix saves your time.
Ecological: Your PCR wastes less electricity since it lasts shorter. *ClearPeak* 2x SYBR Master Mix helps protecting environment.

SYBR PCR Setup

Component	Amount
ClearPeak 2x SYBR Master Mix	10 µl
Forward Primer	0.2 µM
Reverse Primer	0.2 µM
Template cDNA	2-5 µl
ddH_2O	up to 20 µl
Total	20 µl

PCR Reaction Condition

Two Step

Temperature	Time	Cycles
95°C	5-30 sec	
95°C	3-10 sec	40
60°C	10-30 sec	

Three Step

Temperature	Time	Cycles
95°C	5-30 sec	
95°C	3-10 sec	
60°C	10-30 sec	40
72°C	10-30 sec	

For further information;
ecotechbiotech.com
info@ecotechbiotech.com

Important Notes:

- Please gently mix the tube upside down before use and avoid foaming as much as possible. Avoid repeated freeze-thaw, as repeated freeze-thaw may cause a decrease in product performance.
- It is recommended to use a two-step PCR reaction program. If good experimental results cannot be obtained due to the use of primers with lower Tm values, a three-step PCR amplification can be attempted.
- For amplicons smaller than 200bp, the minimum annealing/extension time can be set to 10 seconds; when it exceeds 200bp, the recommended extension time is 30 seconds.
- Due to the presence of fluorescent dye SYBR Green I in this product, it is necessary to store it away from light. to avoid strong light exposure when preparing the reaction.
- In practical operation, corresponding improvements and optimizations should be made to PCR Setup and PCR Reaction Conditions based on different templates, primer structures, and target fragment sizes.
- Usually, the amount of DNA templates is based on 10-100ng genomic DNA or 1-10ng cDNA. Due to the different copy numbers of target genes contained in templates of different species, gradient dilution can be performed on the templates to determine the optimal template usage.
- Typically, the final concentration of the primer is 0.2μM can achieve successful results, where a final concentration of 0.1-1.0μM primer may serve as a reference for setting the range. In the case of low amplification efficiency, the concentration of primers can be increased; When non-specific reactions occur, the concentration of primers can be reduced to optimize the reaction.