Product Manual

Product Name	2×Taq PCR Mix（With Dye）
Catalog Number	CSB-DKT032、CSB-DKT033
Physical Form	Liquid
Storage Conditions	Store at -20 ±5°C, protected from light. Avoid repeated freeze-thaw cycles. For frequent use, store at 2-8°C, protected from light.
Transportation Conditions	≤0℃； transport on dry ice
Product Components	PCR buffer, dNTP, Mg2+, electrophoresis dye, Taq DNA Polymerase
Quality Control	All components have been tested and are free from external nucleases, endonucleases, and RNase contamination
Shelf Life	12 months

Product Description

2×Taq PCR Mix (With Dye) is designed for optimizing routine PCR amplification reactions. It only requires the addition of template and primers, diluted to a 1× concentration, to perform PCR reactions. The mix contains an electrophoresis indicator dye, allowing for direct gel electrophoresis after PCR, simplifying the process. The PCR product has an A-tailed 3' end, enabling direct cloning into a T-vector. This product is available in two forms: regular type and fast loading type.

Product Components

Catalog Number		Components	Specifications		
			50T	100T	500T
CSB-DKT032	1	2×Taq PCR Mix（With Dye）	0.75mL	1.5mL	5*1.5mL
CSB-DKT033	1	2×Taq PCR Mix	0.75mL	1.5mL	5*1.5mL
	2	Electrophoresis dye	150μL	300μL	1.5mL

Operating instructions

1. Perform all operations on ice until the 2×Taq PCR Mix is completely dissolved. After thorough mixing, centrifuge the solution and collect it at the bottom of the tube.

2. Recommended reaction system (30 μL system as an example):

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Regular Type		Fast Loading Type	
Components	**Volume**	**Components**	**Volume**
ddH2O	Up to 30 μL	ddH2O	Up to 30 μL
2×Taq PCR Mix	15 μL	2×Taq PCR Mix (With Dye)	15 μL
Electrophoresis dye[a]	3 μL		
Forward Primer (10μM)[b]	0.6 μL	Forward Primer (10μM)	0.6 μL
Reverse Primer (10μM)[b]	0.6 μL	Reverse Primer (10μM)	0.6 μL
Template DNA[c]	3μL	Template DNA	3μL

[Notes] a.Electrophoresis dye: No additional dye is required in the 2×Taq PCR Mix (With Dye) specification. Regular type electrophoresis dye can be added separately after PCR is completed before gel electrophoresis.

b.Primer concentration: In general, a final primer concentration of 0.2 μM in the reaction system yields good results. If the reaction performance is poor, adjust the primer concentration within the range of 0.1 μM to 1.0 μM.

c.Template: If the template is undiluted cDNA, the volume used should not exceed 1/10 of the total qPCR reaction volume. For animal and plant genomic DNA, use 0.1-1 μg; for E. coli genomic DNA, use 10-100 ng; for λDNA, use 0.1-10 ng; for plasmid DNA, use 0.1-10 ng.

3. Recommended PCR reaction program:

Steps	Temperature	Time	Number of cycles
Initial denaturation	95°C	3min	1
Denaturation	95°C	10-30s*	30-40*
Annealing	55-65°C*	15-60s*	
Extension	72°C	1 kb/min	
Final extension	72°C	5min	1

* Optimal temperature and time can be adjusted based on the template, fragment size, primers, and other factors.

4. Gel electrophoresis detection: Amplify with the 2×Taq PCR Mix containing dye, and the PCR product can be directly loaded on the gel. If dye was not added during reaction preparation, mix 3 μL of dye into the PCR product before loading on the gel.