2 x Es Taq Master Mix (Dye)

E665625

Storage at -20℃, avoid freeze/thaw cycle

Introduction:

Es Taq Master Mix is a 2X concentrated solution of Es Taq DNA Polymerase, Mg2+, dNTPs and all other components required for PCR, except DNA template and primers. This pre-mixed formulation saves time and reduces contamination due to a reduced number of pipetting steps required for PCR set up. The mix is optimized for efficient and reproducible PCR. Its application for routine PCR with high reproducibility and generation of PCR products for TA. This product has been added with dye (blue) and can be tested directly after the reaction is complete.

Ordering Information:

Cat No.	Components	E665625-1mL	E665625-5mL	E665625-25mL	E665625-40mL
E665625A	2×Es Taq Master Mix(Dye)	1 mL	5×1mL	5×5mL	40×1 mL
E665625B	dd H_2O	1 mL	5×1mL	5×5mL	40×1 mL

Notes: 2×Es Taq Master Mix contains Es Taq DNA Polymerase, 3 mM $MgCl_2$ and 400 μM each dNTP.

Protocol:

Gently vortex and briefly centrifuge 2×Es Taq Master Mix after thawing. Place a thin-walled PCR tube on ice and add the following components for each 50 μL reaction:

PCR reaction:

Components	Total volumn:50μL	Concentration
2×Es Taq Master Mix	25 μL	1×
Forward Primer, 10 μM	2 μL	0.4 μM
Reverse Primer, 10 μM	2 μL	0.4 μM
Template DNA	<0.5μg	<0.5 μg/50 μL
ddH_2O	up to 50 μL	

Notes: The recommended concentration range of the PCR primers is 0.1-1 μM. Excessive primer concentrations increase the probability of mispriming and generation of non-specific PCR products.

PCR thermal cycling conditions:

Step	Temperature	Time	Number of cycles
Initial denaturation	94℃	2 min	
Denaturation	94℃	30 s	25-35
Annealing	55-65℃	30 s	
Extension	72℃	30 s	
Final Extension	72℃	2 min	

Notes:

1）The annealing temperature should be 5℃ lower than the melting temperature (Tm) of the primers. Annealing for 30 seconds is normally sufficient. If non-specific PCR products appear, the annealing temperature should be optimized stepwise in 1-2℃ increments.

2）The optimal extension temperature for ES Taq DNA polymerase is 70-75℃. The recommended extension step is 2 min/kb at 72℃ for PCR.

3）If less than 10 copies of the template are present in the reaction, about 40 cycles are required. For higher template amounts, 25-35 cycles are sufficient.