2×Taq Plus Master Mix (Dye)

T665602

Storage at -20℃

Introduction:

Taq Plus Master Mix is a 2×concentrated solution of Taq Plus Master Mix (Dye), Mg^{2+}, 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. The original formula makes the reaction system stable. At the same time, complex DNA templates can be effectively amplified, and operational error and contamination can be minimized to the possible. This product has been added with dye (blue) and can be tested directly after the reaction is complete.

Ordering Information:

Cat No.	Component	T665602-1mL	T665602-5mL	T665602-40mL	Storage
T665602A	2×Taq Plus Master Mix (Dye)	1mL×5	5mL×5	1mL×40	-20℃. Avoid freeze/thaw cycle
T665602B	dd H_2O	1mL×5	5mL×5	1mL×40	-20℃.

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

Protocol:

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

PCR reaction:

Components	Total volumn:50μL	Concentration
2×Taq Plus Master Mix (Dye)	25 μL	1×
Forward Primer, 10 μM	2 μL	0.4 μM
Reverse Primer, 10 μM	2 μL	0.4 μM
Template DNA	<0.5 μg	<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℃	30s	25-35
Annealing	55-65℃	30s	
Extension	72℃	30s	
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 Taq Plus 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.