

2X PCR Master Mix (1.5mM MgCl₂)

Description: The PCR Master Mix is a ready-to-use master mix. It is a convenient way of amplifying DNA fragments without the need to thaw individual components, reducing the risk of contamination and pipetting errors. The ThermoPrime *Taq* DNA Polymerase, dNTPs, reaction buffer and magnesium chloride are all present in the mix.

Enzyme Source: *Thermus aquaticus*

Associated Activities: ThermoPrime has 5' to 3' polymerization and exonuclease activity but lacks 3' to 5' exonuclease activity (proofreading).

Kit Contents

Vial	Pack Size (cap color)	
	A	B
PCR Master Mix	2 x 1ml (red)	20 x 1ml (red)

Master Mix: Each vial contains 1.0ml of a 2X working concentration PCR Master Mix sufficient for 80 x 25µl reactions. The final reaction 1X contains:

0.625 units	ThermoPrime <i>Taq</i> DNA Polymerase
75mM	Tris-HCl (pH 8.8 at 25°C)
20mM	(NH ₄) ₂ SO ₄
1.5mM	MgCl ₂
0.01% (v/v)	Tween® 20
0.2mM	each of dATP, dCTP, dGTP and dTTP

Storage Conditions: Store the master mix at -20°C until ready for use for up to 1 year. Avoid freeze thawing. The vial can be stored at 4°C for up to 1 month. Shipped on ice within the UK and on dry ice for international and within the US.

Example of Protocol:

Mix gently and spin down the master mix prior to use

	Volume	Final Concentration 1X
PCR Master Mix	12.5µl	1X
Primer forward (10µM each)	1.25µl*	0.5µM*
Primer reverse (10µM each)	1.25µl*	0.5µM*
Water (PCR Grade)	Variable	
DNA Template	0.5 - 10µl	0.5 - 125ng
Total volume	25µl	

*Scale up or down the volume and concentration as appropriate

Example of program:

	Temp.	Time	Number of cycle
Initial Denaturation	94°C	2 min	1 cycle
Denaturation	94°C	20 sec	30 to 40 cycles
Annealing	50-65°C	30 sec	
Extension**	72°C	60 sec	
Final Extension	72°C	5 min	1 cycle

**Increase length of time in proportion to size of amplicon, *Taq* DNA Polymerase extends at approximately 1000 bp/min.

Ordering Information:

AB-0575/DC/A	PCR Master Mix	160 x 25µl rxns
AB-0575/DC/B	PCR Master Mix	1,600 x 25µl rxns

Troubleshooting

For troubleshooting, see www.abgene.com/troubleshoot.asp or contact Thermo Fisher Scientific (ABgene) TechSupport at abgene.techsupport@thermofisher.com

UK TechSupport, call +44 (0) 1372 840 410

For all other regions, please contact your local Thermo Fisher Scientific (ABgene) office / distributor.

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2