

**Thermo Scientific 2X PCR Master Mix**  
(2.0mM MgCl<sub>2</sub>)

**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 (blue)	20 x 1ml (blue)

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 <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
2.0mM	MgCl <sub>2</sub>
0.01% (v/v)	Tween <sup>®</sup> 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-0608/DC/A	PCR Master Mix	160 x 25µl rxns
AB-0608/DC/B	PCR Master Mix	1,600 x 25µl rxns

For technical information or troubleshooting contact Thermo Scientific Genomics Tech Support:

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