

## 2X ReddyMix™ PCR Master Mix (1.5mM MgCl<sub>2</sub>)

**Description:** PCR ReddyMix™ 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 Plus DNA Polymerase, dNTPs, reaction buffer and magnesium chloride are all present in the mix. ReddyMix™ Master Mix also contains a dye and precipitant to facilitate gel loading.

<b>Ordering</b>	AB-0575-DC-LD/A	2 x 1.0ml vials	80 x 50µl rxns
<b>Information:</b>	AB-0575-DC-LD/B	20 x 1.0ml vials	800 x 50µl rxns

**Enzyme Source:** *Thermus aquaticus*

**Kit Components:** Each vial contains 1.0ml of a 2X working concentration PCR Master Mix sufficient for 40 x 50µl reactions. The addition of the template and primers results in a final reaction volume of 50µl, containing:

1.25 units	Thermoprime Plus DNA Polymerase
75mM	Tris-HCl (pH 8.8 at 25°C)
20mM	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>
1.5mM	MgCl <sub>2</sub>
0.01% (v/v)	Tween® 20
0.2mM	each of dATP, dCTP, dGTP and dTTP
	Precipitant and red dye for electrophoresis

**Protocol:** For a 50µl reaction, take 25µl of PCR Master Mix and add template, primers and water in a 25µl volume (scale up or down accordingly if required). After PCR, a sample (10–30% of reaction) may be loaded directly on a gel.

**Associated Activities:** Thermoprime Plus DNA Polymerase has 5' to 3' polymerization and exonuclease activity but lacks 3' to 5' exonuclease activity (proofreading).

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**Storage Conditions:** Store 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.

**Tip:** The gel precipitant in ReddyMix™ Master Mix causes a slight increase in the thermal mass of the reaction mix. In a small number of cases this may necessitate some minor re-optimization of the thermal cycler programme. If this is the case we suggest increasing the temperature of the denaturation step by 1–2°C and decreasing the temperature of the annealing step by 1–2°C. Alternatively, increase the duration of each step by 5–10 seconds.

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