

2X Pfu DNA Polymerase Master Mix **Orange**

(2mM MgCl₂)

Cat. No.: 180501-1

Size: 1.25 mL

Storage:-20

General Description

Pfu DNA Polymerase Master Mix **Orange** is a ready- to-use 2.0x reaction mix. Pfu exhibits both 5' to 3' DNA polymerase activity and 3' to 5' proofreading exonuclease activity. It is recommended for applications, which require extremely high fidelity or blunt ending. Pfu polymerase, the NH₄⁺ buffer system, dNTPs and magnesium chloride are conveniently present in the Pfu DNA Polymerase Master Mix **Orange**. The mixture also contains orange G tracking dyes, allowing direct loading onto gel after PCR reaction.

Key Features

Provides higher fidelity than Taq DNA Polymerase

Produces **blunt-ended** fragments

Processes < **3 kb** with extremely high fidelity

Error rate 1.1×10^{-6}

proofreading enzyme and require an extension time of 1-2 min./kb. Elongation rate (30 bases/sec)

Composition of 2x Pfu Master Mix **Orange**

150 mM Tris-HCl pH 8.5, 40 mM (NH₄)₂SO₄, 4.0 mM MgCl₂, 0.2% Tween 20

0.4 mM dNTPs 0.1 units/μL Pfu DNA polymerase

orange G and xylene cyanol tracking dyes and a stabilizer

Standard PCR Method:

Water	X μl	Y μl
2X PCR Master Mix	25 μl	10 μl
5-50 μM forward primer	1 μl	1 μl
5-50 μM reverse primer	1 μl	1 μl
* template DNA	10 pg-1 μg	10 pg-1 μg
Final volume	50 μl	20 μl

*The amount of DNA template varies according to complexity of its sequence. In the case of mammalian DNA, up to 1 μg is used per reaction. Typical amount of yeast, bacterial, and plasmid DNAs used per reaction are 10 ng, 1 ng, and 10 pg, respectively.

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