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Polymerase chain reaction (PCR) V.4

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ABSTRACT

This protocol is used to amplify target DNA fragment for plasmid construction or other use.

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PROTOCOL CITATION

Shuning Guo 2021. Polymerase chain reaction (PCR). **protocols.io** https://dx.doi.org/10.17504/protocols.io.byrgpv3w

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MATERIALS TEXT

2×High Fidelity Master Mix/2×Rapid Master Mix

ddH20

Template

F/R Primer

Thermo cycler.

SAFETY WARNINGS

Please wear gloves for the experiment, don't try to touch the lid after PCR program initiation.

BEFORE STARTING

Set up a small box with ice, put DNA and 2×high Fidelity Master Mix/or 2×Rapid Master Mix into it before going into the thermocycler.

Choose one case from the cases below.
Step 1 includes a Step case.

Simple PCR for amplifying target DNA fragments

Citation: Shuning Guo (10/04/2021). Polymerase chain reaction (PCR). https://dx.doi.org/10.17504/protocols.io.byrgpv3w

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Simple PCR for amplifying target DNA fragments

Add the following reagent to a PCR tube. $(50 \mu l)$.

A	В
2×High Fidelity Master Mix (Enzyme)	25 μΙ
Template	1 μΙ
Forward Primer (10 µM)	1 μΙ
Reverse Primer (10 µM)	1 μΙ
ddH2O	22 μΙ

3 Program the thermocycler as follows:

A	В
Temperature	Time
95/98°C	5 min
95/98°C	30 s
Tm-3~5°C	30 s
72°C	1kbp/min
72°C	5~10 min
16°C	∞

- 4 Use the palm centrifuge to mix the solution in PCR tube.
- 5 Put the PCR tube into the thermocycler and Run the program.
- 6 Using agarose gel electrophoresis to confirm if correct construct was present.