

Amplify DNA with a versatile and robust RCA kit

TempliAMP™ RCA Kit

Product Intro

Rolling Circle Amplification (RCA) is a powerful isothermal nucleic acid amplification technique particularly useful for amplifying circular DNA constructs, such as plasmids. The process begins with a DNA template and short DNA primers. Phi29 DNA Polymerase extends the primers, continuing to synthesize DNA around the circular template by displacing the previously synthesized DNA strand when encountered. The TempliAMP™ RCA Kit provides all required reagents for robust amplification of circular DNA templates using Phi29 degradation-resistant random primers.

Benefits:

- **Low sample input amount:** Produce µg quantities of DNA from as little as 1 pg input.
- **Versatile DNA inputs:** Amplify DNA directly from purified plasmids, single colonies, liquid cultures, or glycerol stocks.
- **Accurate robust amplification:** Phi29 DNA Polymerase offers both high proofreading (error rate = ~1 in 10⁶-10⁷ bases) and high processivity capabilities.

Product Description

The [TempliAMP™ RCA Kit](#) is powered by Phi29 DNA Polymerase, resulting in high fidelity and high specificity amplification of circular DNA templates. The protocol is simple and effective, capable of generating microgram amounts of DNA in 4-5 hours from as little as 1 pg input. The kit can be used for direct amplification of various circular DNA templates, including purified plasmid, single colonies, liquid cultures, and glycerol stocks. The TempliAMP™ RCA Kit is highly versatile, applicable to various DNA templates, and suitable for a wide range of research applications.

Performance Data

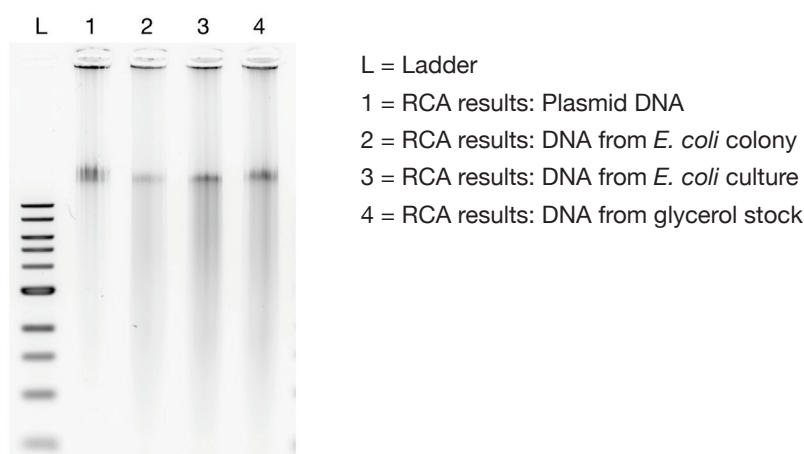


Figure 1. TempliAMP™ RCA reactions were completed following the recommended protocols using purified plasmid (3.5 ng), a single bacterial colony, liquid culture (2 µL of a 1:10 dilution), and glycerol stock (2 µL of a 1:10 dilution) as input. RCA reaction products were visualized on a 1% non-denaturing agarose gel. The TempliAMP™ RCA Kit allows for direct amplification of purified plasmid, bacterial colonies, liquid cultures, and glycerol stocks.

For research use only

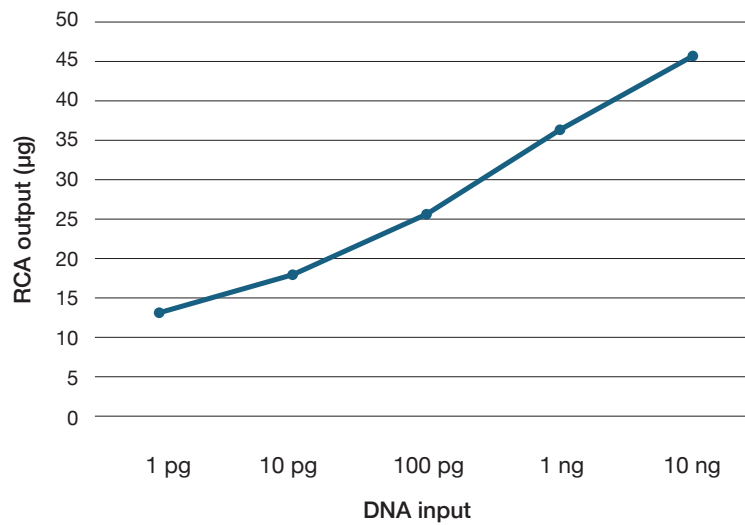


Figure 2. Microgram quantities of DNA can be generated from as a little as 1 pg input. The standard TempliAMP™ protocol is designed for a DNA input from 5 pg to 100 ng.

Ordering information

Catalog Number	Description
TAR250325	TempliAMP™ RCA Kit (25 reactions)

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