

Marketplace

Science, savings, and something fun

Most Valued Products for PCR cloning
Phusion High-Fidelity DNA Polymerases
DreamTaq DNA Polymerase
CloneJET PCR Cloning Kits

Save up to 50% on related products from
the Thermo Scientific cloning lineup

How to get better cloning results

And more

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SCIENTIFIC

**Top PCR
cloning picks**

35% off

**BE THE
CHAMPION**

ISSUE



**Top companion
products**

50% off

Top picks for PCR cloning

Product	Size	Cat. No.
CloneJET PCR Cloning Kit	20 reactions	K1231
	40 reactions	K1232
Phusion High-Fidelity PCR Master Mix with HF Buffer	100 reactions	F531S
	500 reactions	F531L
Phusion Hot Start II High-Fidelity PCR Master Mix	100 reactions	F565S
	500 reactions	F565L
Phusion Green Hot Start II High-Fidelity PCR Master Mix	100 reactions	F566S
	500 reactions	F566L
DreamTaq Hot Start Green PCR Master Mix	200 reactions	K9021
	1,000 reactions	K9022
DreamTaq Hot Start PCR Master Mix	200 reactions	K9011
	1,000 reactions	K9012
DreamTaq Green PCR Master Mix (2X)	200 reactions	K1081
	1,000 reactions	K1082
DreamTaq PCR Master Mix (2X)	200 reactions	K1071
	1,000 reactions	K1072

* Please use promotion code RMD135 and refer to the back cover for additional terms and conditions, and ordering details.

Top companion products

Product	Size	Cat. No.
T4 DNA Ligase (5 U/μL)	1,000 U	EL0011
	5 x 1,000 U	EL0012
	200 U	EL0014
FastAP Thermosensitive Alkaline Phosphatase (1 U/μL)	1,000 U	EF0651
	5 x 1,000 U	EF0652
Klenow Fragment (10 U/μL)	300 U	EP0051
	1,500 U	EP0052
T4 DNA Polymerase (5 U/μL)	100 U	EP0061
	500 U	EP0062

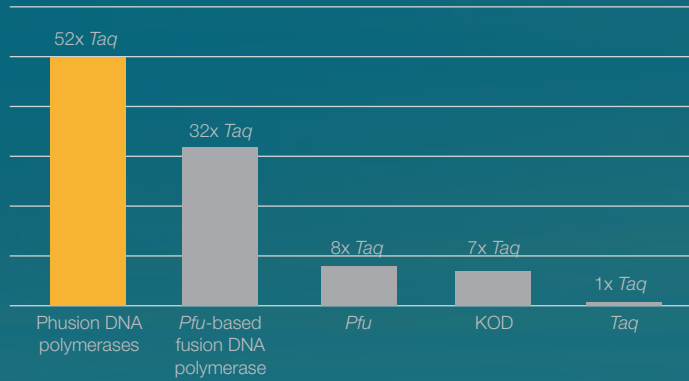
* Please use promotion code RMD150 and refer to the back cover for additional terms and conditions, and ordering details.

Tips for being a PCR cloning champion

Using high-fidelity DNA polymerases

The ability of DNA polymerases to accurately replicate DNA sequences is crucial for downstream applications such as cloning, sequencing, and site-directed mutagenesis.

To generate error-free PCR fragments, use DNA polymerases with high fidelity.



Thermo Scientific™ Phusion™ high-fidelity DNA polymerases offer 52x higher fidelity than *Taq* DNA polymerase, and have become the enzymes of choice for high-performance PCR, enabling:

- Error-free clones for protein expression or gene studies
- High PCR yields with short extension times (15–30 s/kb)
- Amplification of long (up to 20 kb) and GC-rich DNA fragments

Learn more at thermofisher.com/phusion

Using hot-start DNA polymerases

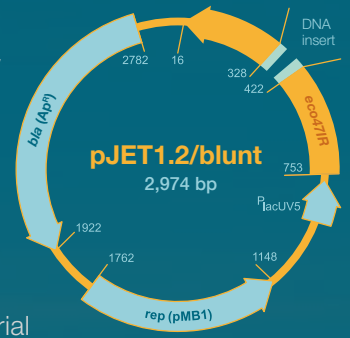
Nonspecific amplification is one of the issues in PCR that can drastically impact performance. Use hot-start DNA polymerases to increase specificity in PCR:

- Specific amplification of target amplicon only
- Higher yield of target amplicon
- Amplification from low input amounts

Learn more at thermofisher.com/dreamtaq

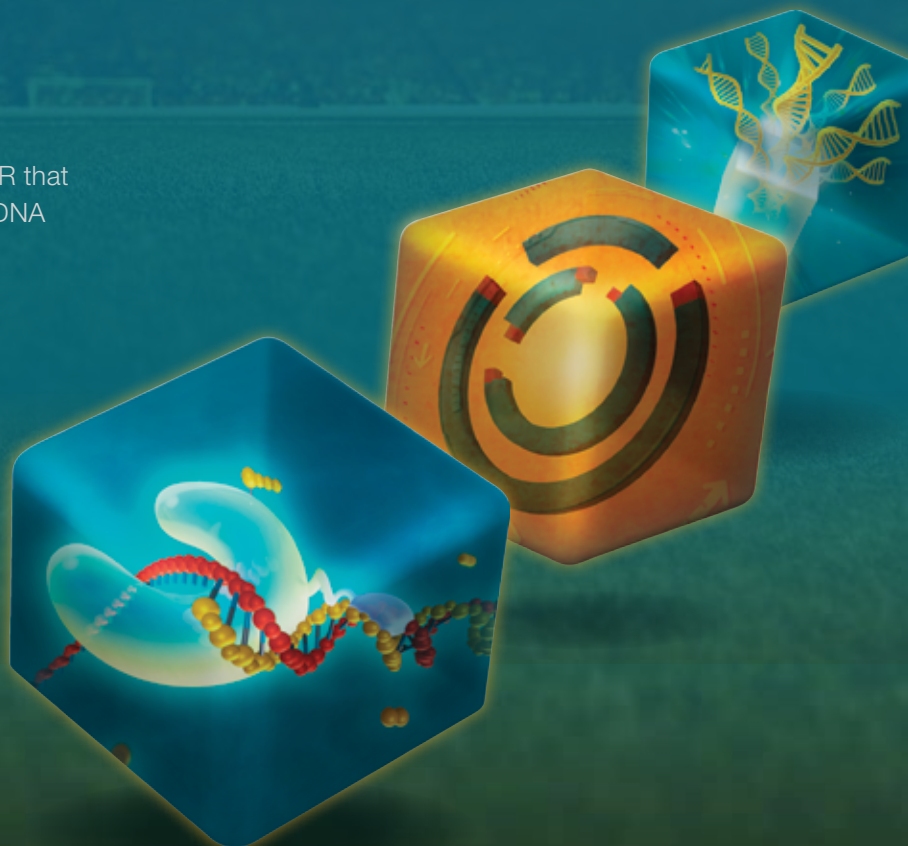
Using PCR cloning kits

An effective method to simplify screening is to use a positive selection vector. Positive selection vectors conditionally express a lethal gene, such as one that encodes a restriction enzyme that digests the genomic DNA of the bacterial host. Expression of the lethal gene is disrupted by ligation of a DNA insert into the cloning site. As a result, only cells with recombinant plasmids are able to grow. The Thermo Scientific™ CloneJET™ PCR Cloning Kit uses positive colony selection to support:



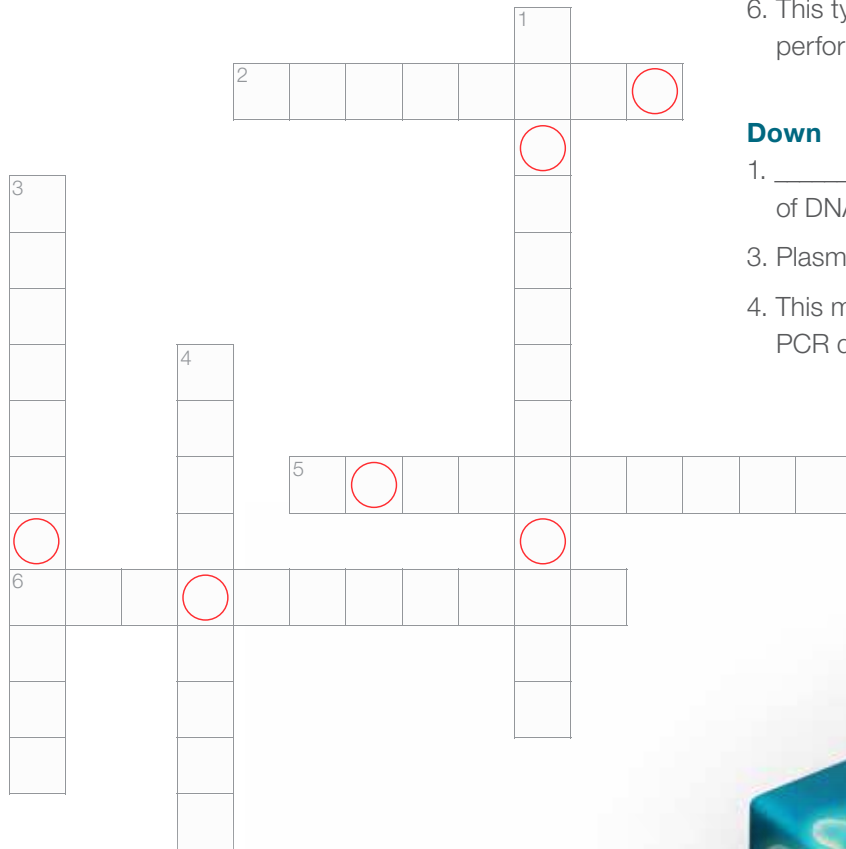
- Reduced processing time for screening of clones
- Savings on cost of reagents
- Typical yields of >99% recombinant clones

Get versatility and value at thermofisher.com/clonejet



PCR cloning challenge

Using the clues given, fill in the crossword puzzle below. There are spaces in answers that include two words. Jumble the letters from the circles to reveal the word for a cloning essential.



Discovered the hidden word? To find out, go to thermofisher.com/marketplacefun

Across

2. Simplify screening by using a _____ selection vector
5. Includes premixed PCR reaction components at optimized concentrations
6. This type of amplification can drastically impact PCR performance

Down

1. _____ DNA polymerases enable error-free replication of DNA sequences
3. Plasmid clones that contain a ligated insert
4. This modification blocks polymerase activity until the initial PCR denaturation step.



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