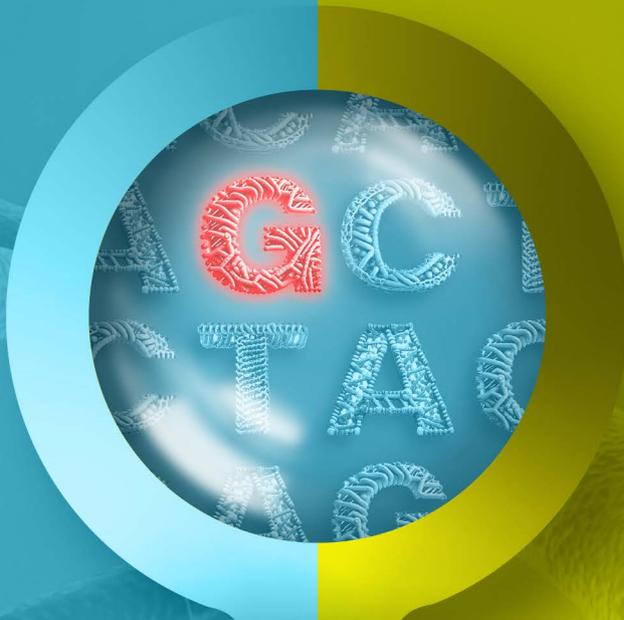


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INSIGHTS

..... Tips, tools, and
..... trusted products



Get an inside look at PCR
and cloning solutions

Lab tips

Recommended workflow products

Educational resources

Molecular biology personality quiz

Find it at eu.fishersci.com

 **fisher** scientific
part of Thermo Fisher Scientific

More PCR options, more cloning value

Everything you need, from isolation to validation

While the fundamentals of molecular biology techniques are straightforward, there are many small details that can cause a seemingly simple experiment to fail. To help you avoid this frustration, here are some trusted products, tools, and tips to help you move forward in your research journey.



DNA/RNA isolation



Rely on short, simple protocols to isolate pure nucleic acids quickly

Thermo Scientific™ GeneJET™ purification kits are reliable and affordable tools for isolation of DNA and RNA from different sources.

thermofisher.com/genejet



cDNA synthesis



Enable reliable and efficient cDNA synthesis in fast reaction times (15–30 minutes)

Thermo Scientific™ Maxima™ H Minus Reverse Transcriptase provides high cDNA synthesis yields over a wide range of temperatures and RNA inputs (1 pg–2.5 µg).

thermofisher.com/maxima



Inside tip

Isolate DNA or RNA from many samples at once. Thermo Scientific™ KingFisher™ purification instruments automate the extraction and purification of DNA, RNA, proteins, and cells, saving time and removing the manual processing steps.

thermofisher.com/kingfisher



Inside tip

Use freshly prepared RNA. Check the integrity of RNA prior to cDNA synthesis by agarose gel electrophoresis.

thermofisher.com/maximalabaid

Inside tip

Quickly calculate the T_m of primers for different DNA polymerases with our online calculator.

thermofisher.com/tmcalculator





Amplification

Investigate it

Poor-quality NTPs and dNTPs can create uncertainty in results. Use high-quality Thermo Scientific™ NTPs and dNTPs with >99% purity.



Simplified reaction setup

Due to specially formulated reaction buffers, Thermo Scientific™ DreamTaq™ DNA Polymerase enables robust DNA amplification with minimal optimization of reaction conditions. Green master mixes help minimize pipetting and handling errors.

thermofisher.com/dreamtaq



Choosing the right thermal cycler is key to the success of your PCR experiments across many applications, including sequencing, genotyping, cloning, and mutagenesis. Applied Biosystems™ thermal cyclers help generate precise, consistent, reproducible results for every challenge, experiment, and budget.

thermofisher.com/thermalcyclers



Skip optimization altogether

Thermo Scientific™ Phusion™ Plus DNA Polymerase buffer is formulated for a universal annealing temperature—no T_m calculation needed. As a hot-start, proofreading PCR enzyme, Phusion Plus DNA Polymerase enables generation of PCR amplicons with very high sequence accuracy, sensitivity, and specificity.

thermofisher.com/phusionplus

Inside tip

Speed up PCR genotyping and bypass purification steps with direct PCR. Add your genotyping sample directly to Thermo Scientific™ Direct PCR master mixes to save time—minimal sample handling, no DNA purification, and fast cycling.

thermofisher.com/directpcr

Inside tip

Prevent cross-contamination by using Thermo Scientific™ EasyStrip™ Plus Tube Strips with individually attached caps. Use our selection tool to find the right plastics for your PCR or qPCR instrument.

thermofisher.com/findplastics



Don't forget primers. Design and purchase tube and plate oligos through this easy-to-use ordering portal:

thermofisher.com/orderoligos





Cloning



High transformation efficiency

Thermo Scientific™ DH10B and DH5α competent cells provide reliable, consistent performance in cloning.

thermofisher.com/tscompcells



High-efficiency PCR cloning in 5 minutes

Try the Thermo Scientific™ CloneJET™ PCR Cloning Kit, an all-inclusive kit with primers and a control. Introduce point mutations, insertions, or deletions in any plasmid DNA using the Thermo Scientific™ Phusion™ Site-Directed Mutagenesis Kit.

thermofisher.com/tscloning

Inside tip

Efficient DNA ligation in only 5 minutes at room temperature. The Thermo Scientific™ Rapid DNA Ligation Kit is key to cloning success.

thermofisher.com/rapidligation



Electrophoresis



Reduce pipetting with ready-to-use DNA ladders

Thermo Scientific™ GeneRuler™ DNA ladders contain Thermo Scientific™ TriTrack™ DNA Loading Dye for easy tracking of DNA migration and are stable at room temperature.

thermofisher.com/generuler



Inside tip

Skip a step and avoid messy weighing with Thermo Scientific™ TopVision™ Agarose Tablets.

thermofisher.com/topvision



Eliminate buffer changes and purification steps

With Thermo Scientific™ FastDigest™ restriction enzymes, perform double and multiple digestion in one universal buffer. DNA-/RNA-modifying enzymes, such as ligases, phosphatases, kinases, and DNA polymerases, have 100% activity in an optimized Thermo Scientific™ FastDigest™ buffer.

thermofisher.com/fastdigest



Inside tip

Eliminate the hassle of gel preparation and casting with Invitrogen™ E-Gel™ Power Snap systems. Demo one today.

thermofisher.com/e-gel



Save up to 45% on PCR and cloning workflow essentials

	Recommended products	Quantity	Cat. No.
DNA/RNA isolation	GeneJET PCR Purification Kit	50 preps	10400450
	GeneJET PCR Purification Kit	250 preps	10400450
	GeneJET Gel Extraction Kit	50 preps	10765651
	GeneJET Gel Extraction Kit	250 preps	10670091
cDNA synthesis	Maxima H Minus First Strand cDNA Synthesis Kit	20 reactions	10338179
	Maxima H Minus First Strand cDNA Synthesis Kit	100 reactions	10430470
	Maxima H Minus Reverse Transcriptase	2,000 units	13223159
	Maxima H Minus Reverse Transcriptase	10,000 units	13233159
Amplification	DreamTaq DNA Polymerase	200 units	10559120
	DreamTaq DNA Polymerase	500 units	10160790
	DreamTaq Green PCR Master Mix (2X)	200 reactions	11813933
	DreamTaq Green PCR Master Mix (2X)	1,000 reactions	11816843
	Phire Plant Direct PCR Master Mix	250 reactions	15255156
	Phire Plant Direct PCR Master Mix	1,250 reactions	15265156
	Phire Tissue Direct PCR Master Mix	250 reactions	15264756
	Phire Tissue Direct PCR Master Mix	1,250 reactions	15252606
	Phusion Plus DNA Polymerase	100 x 50 µL reactions	17218570
	Phusion Plus DNA Polymerase	500 x 50 µL reactions	17208570
	Phusion Plus PCR Master Mix	500 x 50 µL reactions	17238570
	Phusion Plus PCR Master Mix	100 x 50 µL reactions	17248570
	Tubes and Ultra Clear Caps, strips of 8	120 strips	10019242
	EasyStrip Plus Tube Strip with Attached Flat Caps	250 strips	15596619
	PCR Plate, 96-well, non-skirted	25 plates	10100843
	PCR Plate, 96-well, semi-skirted, flat deck	25 plates	10571675
	Armadillo PCR Plate, 96-well, clear frame, clear wells	25 plates	12640965
	Adhesive PCR Plate Seals	100 sheets	11570274
	Adhesive PCR Plate Foils	100 sheets	10130853
	Cloning	FastDigest HindIII	20 reactions
FastDigest Esp3I		20 reactions	10620301
FastDigest NotI		250 reactions	10232590
FastDigest XhoI		400 reactions	10880041
Rapid DNA Ligation Kit		150 reactions	10785841
Phusion Site-Directed Mutagenesis Kit		20 reactions	10493438
CloneJET PCR Cloning Kit		20 reactions	10765841
DH10B Competent Cells		10 x 100 µL	16575681
DH5α Competent Cells		10 x 100 µL	16512160
Electrophoresis		GeneRuler 1 kb DNA Ladder	5 x 50 µg
	GeneRuler 100 bp DNA Ladder	5 x 50 µg	11873953
	TopVision Agarose Tablets	200 tablets (0.5 g each)	15225116

Master molecular biology

Looking to review molecular biology basics, gain confidence in technologies, or refresh your expertise? We have online educational resources to help you learn about cloning, PCR, reverse transcription, and more at your own pace and on your own time. Explore this one-stop education hub to enrich yourself with technical knowledge.

thermofisher.com/mbschool



Online tools

Interactive online tools for PCR annealing temperature calculation, restriction enzyme selection, and more.

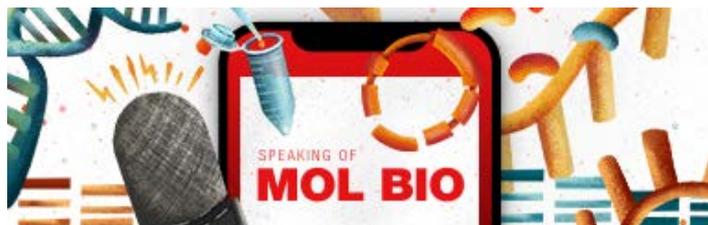
thermofisher.com/mbtools



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