

MasterPure Complete DNA and RNA Purification Kit

Rapid, high-yield nucleic acid purification from a variety of samples

The MasterPure™ Complete Kit purifies high yields of intact TNA, DNA, or RNA from a broad spectrum of biological samples. Published applications include sample types such as human, animal, and plant tissues, blood, plasma, bacteria, metagenomic communities, and many more.

The purified TNA, DNA, or RNA is of high quality: DNA A_{260}/A_{280} ratios are routinely 1.8-2.0. MasterPure purified nucleic acids are suitable for many molecular biology applications, including cloning, endpoint and real-time PCR, next generation and capillary sequencing, bisulfite sequencing for epigenetics, ribosomal RNA analysis, and gene expression analysis.

The convenient, scalable protocol involves gentle lysis and purification that provides high yields of intact nucleic acids – all without the use of toxic chemicals or spin columns.

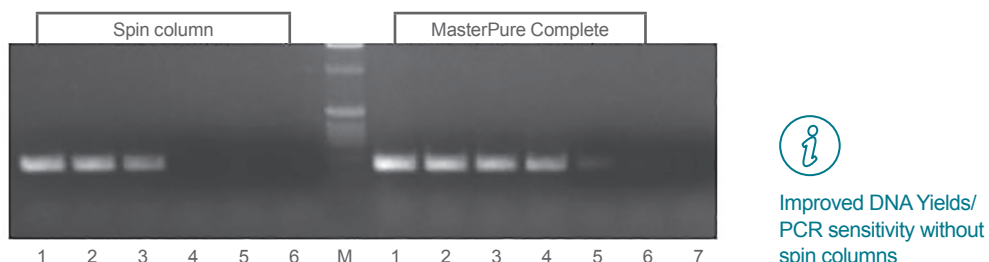


Figure 1. Comparison of PCR sensitivity using templates obtained with the MasterPure Complete Kit versus a spin-column kit. PCR amplification was performed on equivalent fractions of DNA purified from serial dilutions of *E. coli* cells ranging from 2×10^7 (lanes 1) to 200 (lanes 6). Lane M, DNA marker; lane 7, negative control.



Improved DNA Yields/
PCR sensitivity without
spin columns

- **Rapid procedure:** Purify DNA, RNA, or total nucleic acids (TNA) in 30-60 minutes
- **Efficient purification:** Generate high yields of intact DNA, RNA, or TNA-without spin columns
- **Versatile method:** Use one kit for human, animal, or plant tissues, bacteria, and cultured cells
- **Safe workflow:** Avoids use of phenol, chloroform, or guanidinium salts
- **Wide-ranging applications:** Suitable for PCR, next generation sequencing, and other molecular biology applications

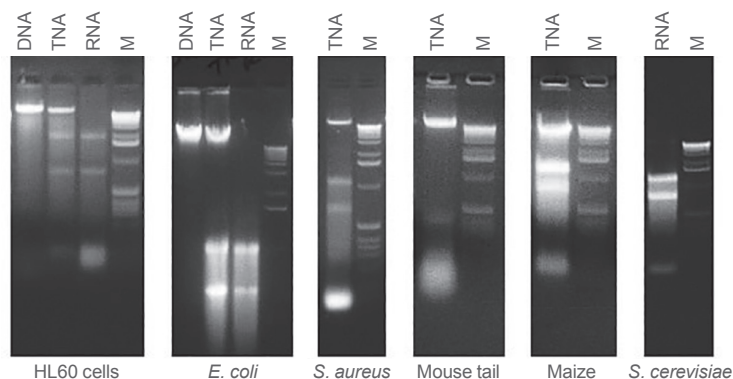


Figure 2. Nucleic acids purified from diverse sources using the MasterPure Complete Kit. Lane M, kilobase ladder.



High-quality nucleic
acid purification from
many sample types

Performance information

Sample	Sample size	Yield		
		TNA	DNA	RNA
Cells				
HeLa/HL60	1 x 10 ⁶ cells	10-30 µg	3-12 µg	7-15 µg
Tissues				
Liver	5 mg	33-42 µg	5-10 µg	13-25 µg
Brain	5 mg	9-13 µg	6-9 µg	4-11 µg
Heart	5 mg	6-10 µg	4-7 µg	4-5 µg
Kidney	5 mg	10-17 µg	3-8 µg	14-17 µg
Thymus	5 mg	15-30 µg	6-12 µg	9-18 µg
Mouse tail	0.5 cm	25-30 µg	9-11 µg	
Other				
Blood	200 µL	3-10 µg	3-9 µg	
Buffy coat	300 µL	40-55 µg	40-55 µg	3-6 µg
<i>E. coli</i>	3.5 x 10 ⁹ cells	2.5-2.8 µg	1.3-1.6 µg	1.6-1.8 µg
<i>S. mutans</i>	1.5 mL	0.9 µg		
Yeast* (<i>S. cerevisiae</i>)	2.2 x 10 ⁶ cells			11-18 µg
	1.1 x 10 ⁷ cells			70-78 µg

Table 1. High yields of purified nucleic acid from diverse sample types.
 *Biosearch Technologies recommends the MasterPure Yeast DNA Purification Kit for extracting DNA from yeast.

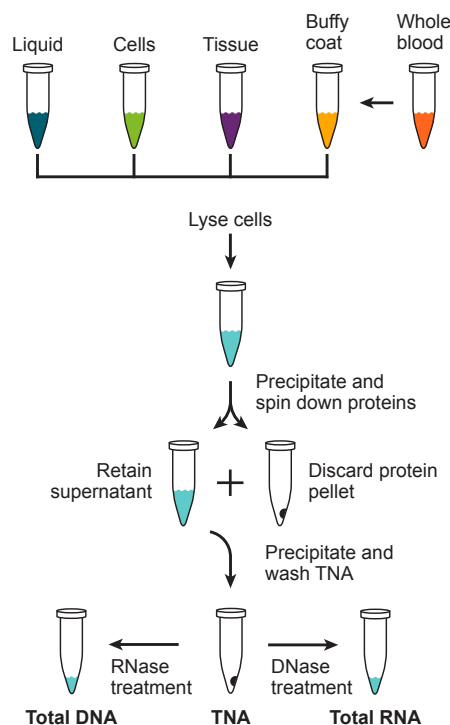


Figure 3. The MasterPure Complete Kit workflow.

One Kit for TNA, DNA, and RNA Purification

Ordering information

Cat no.	Size	Description
MC85200	200 DNA/100 RNA purifications	MasterPure Complete DNA and RNA Purification Kit
MC89010	10 DNA/5 RNA purifications	

Specifications

Components	
	Red Cell Lysis Solution, Tissue and Cell Lysis Solution, MPC Protein Precipitation Reagent, 2X T&C Lysis Solution, TE Buffer, RNase A, RNase-Free DNase I, Proteinase K, 1X DNase Buffer, RiboGuard RNase Inhibitor.

Integrated tools. Accelerated science.

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