



# EchoCLEAN

DNA & RNA Cleanup Kits

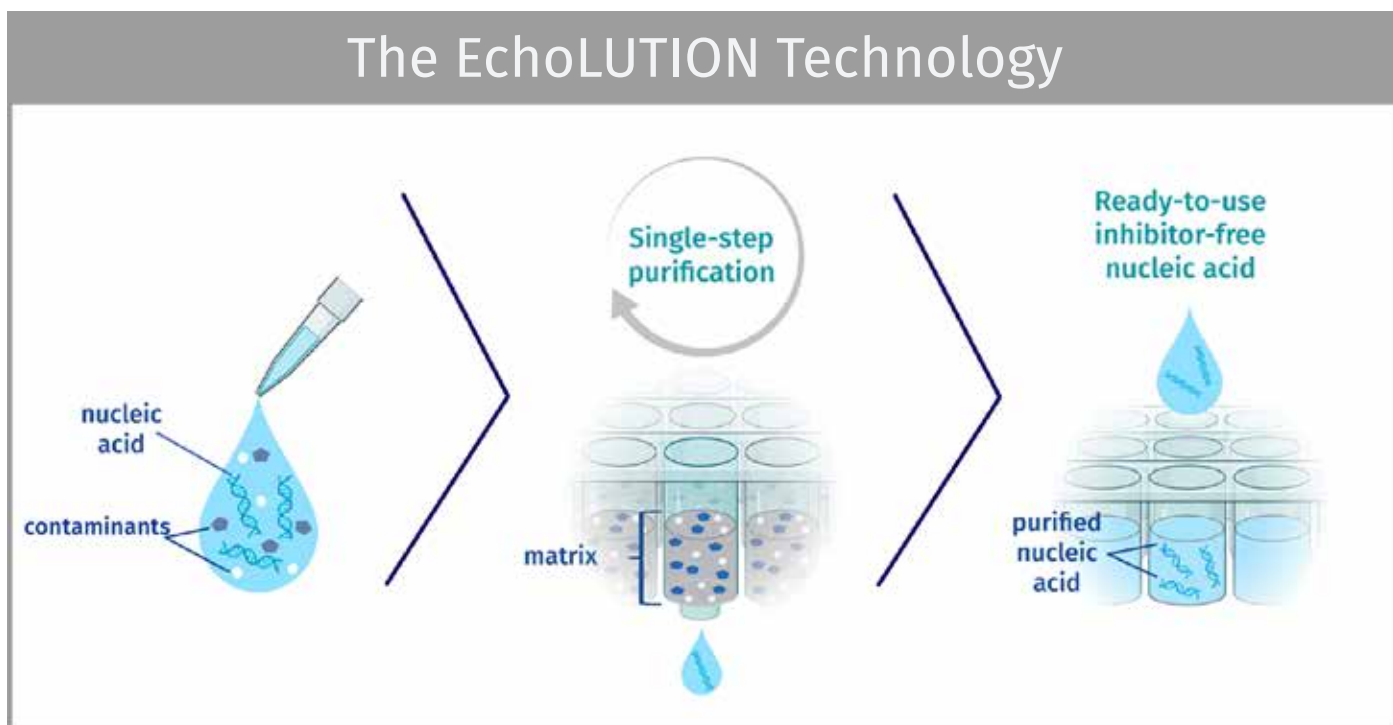


Get rid of impurities in DNA & RNA samples in a single step

**The Nucleic Acid Experts.**

## Get rid of impurities in DNA & RNA samples in a single step

Molecular genetic analysis and applications such as RT-PCR or next-generation sequencing (NGS) for DNA and RNA require a high-quality nucleic acid input. However, depending on the DNA and RNA extraction method used, these nucleic acids can contain traces of organic solvents, salts, or dyes that inhibit downstream applications. The EchoCLEAN Cleanup Kits are based on the single-step purification EchoLUTION technology and remove impurities and inhibitors from DNA and RNA samples in less than 10 minutes without using additional buffers.



## The EchoCLEAN Cleanup Kits provide:

### Convenience and speed

Single-step clean up allows complete process in less than 10 minutes.

### High compatibility

Suitable for clean up of DNA and RNA.

### High sensitivity

Highly pure DNA and RNA free of primers, phenols, contaminants, and inhibitors.

### Reliable results

Clean up of DNA and RNA without using organic solvents, such as ethanol, or additional buffers results in inhibitor-free nucleic acids suitable for downstream applications such as PCR, NGS, and RNA-seq.

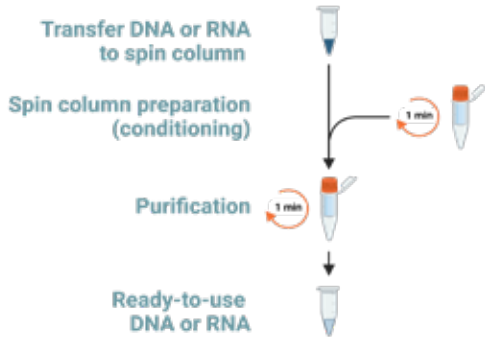
### Sustainability

Up to 70% less plastic consumption compared to other extraction methods and no usage of hazardous reagents.

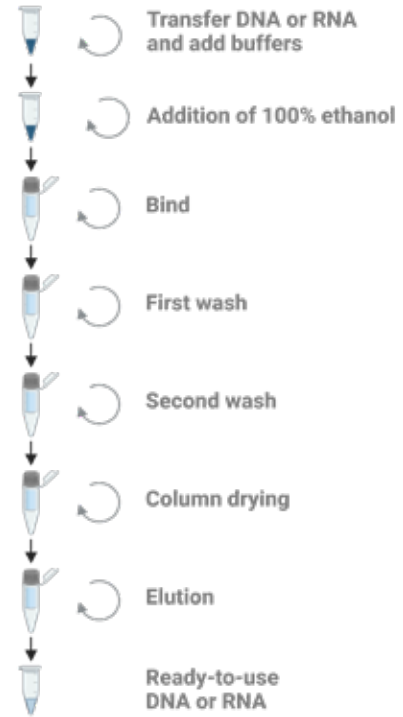
# The workflow: faster and fewer steps

The single-step purification and reduced number of total steps allow the clean up of nucleic acids in less than 10 minutes.

## EchoLUTION technology

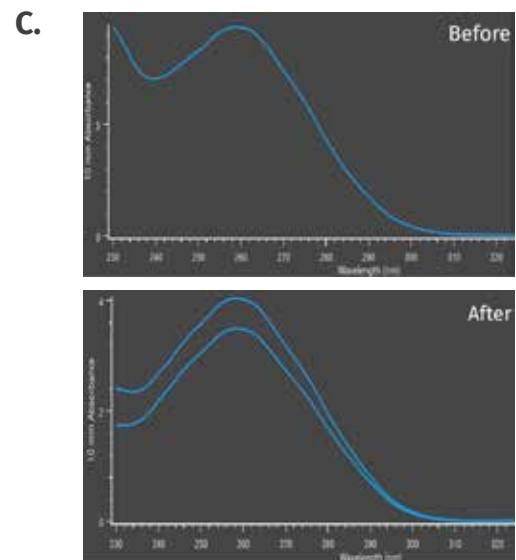
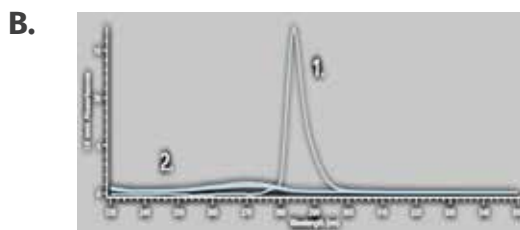
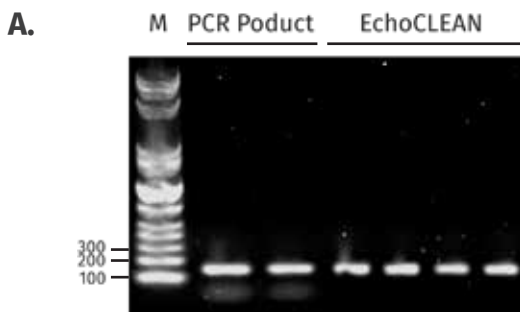


## Bind-wash-elute method



- Only 2 steps needed
- No additional buffers required
- Whole workflow 10 x faster

# EchoCLEAN Cleanup Kits efficiently remove primers and organic compounds



**A.** Four samples were cleaned with the EchoCLEAN DNA CleanUp Kit (for DNA >50 bp) to remove primers from the PCR product of ~200 bp. **B.** (1) DNA sample extracted with a phenol-chloroform method shows a high absorbance peak at 285 nm wavelength due to phenol traces. (2) The organic solvent contamination was removed after cleaning the sample with the EchoCLEAN Organic Solvent DNA Cleanup Kit. **C.** Spectrophotometric analysis showed that RNA extracted with a trizole-based protocol had an  $A_{260}/A_{230}$  ratio of ~0.9 (upper image). After using the EchoCLEAN RNA Cleanup Kit, the absorbance ratio was increased to values around the expected ratio of 2.0 (lower image). These results show an increase in RNA purity.

## Select a kit based on your needs


Kit	Impurities to be removed												
	Organic Solvents				Salts			Dyes			Others		
	Phenol	Trizol	Chloroform	Ethanol	Chaotrophs	Salts	SDS	Sodium azide	Indigo	Gel loading	Primers	dNTPs	Precipitates
EchoCLEAN DNA Cleanup Kit (for DNA >50 bp)				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
EchoCLEAN Organic Solvent DNA Cleanup Kit	✓	✓	✓	✓	✓	✓							✓
EchoCLEAN RNA Cleanup Kit	✓	✓	✓	✓	✓	✓							✓


Kit	Application					
	Phenol-based extraction	Desalting of nucleic acids	Post silica-based extraction	PCR clean up	Enzymatic reaction clean up	Buffer exchange
EchoCLEAN DNA Cleanup Kit (for DNA >50 bp)		✓	✓	✓	✓	✓
EchoCLEAN Organic Solvent DNA Cleanup Kit	✓	✓	✓			✓
EchoCLEAN RNA Cleanup Kit	✓	✓	✓			✓

## Ordering information

EchoCLEAN Cleanup Kits	Reactions	Product no.
EchoCLEAN DNA Cleanup Kit (for DNA >50 bp) (10)	10	020-002-030-010
EchoCLEAN DNA Cleanup Kit (for DNA >50 bp) (50)	50	020-002-030-050
EchoCLEAN DNA Cleanup Kit (for DNA >50 bp) (250)	250	020-002-030-250
EchoCLEAN Organic Solvent DNA Cleanup Kit (10)	10	020-002-040-010
EchoCLEAN Organic Solvent DNA Cleanup Kit (50)	50	020-002-040-050
EchoCLEAN Organic Solvent DNA Cleanup Kit (250)	250	020-002-040-250
EchoCLEAN RNA Cleanup Kit (10)	10	020-002-050-010
EchoCLEAN RNA Cleanup Kit (50)	50	020-002-050-050
EchoCLEAN RNA Cleanup Kit (250)	250	020-002-050-250

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