

# Monarch DNA Cleanup Kits

Monarch DNA Cleanup Kits, available for both **gel extraction** and **reaction cleanup**, are optimized for maximum performance and minimal environmental impact. These kits rapidly and reliably purify up to 5  $\mu$ g of concentrated, high-quality DNA and utilize a bind/wash/elute workflow with minimal incubation and spin times. The columns provided with each kit are specifically designed to eliminate buffer retention and the risk of carryover of contaminants, enabling elution of sample in volumes as low as 6  $\mu$ l. Optimized buffer systems eliminate the need for monitoring and adjusting pH.

The Monarch DNA Gel Extraction Kit can be used to quickly purify DNA from agarose gels. Unlike other kits, there is no need to add isopropanol to the melted agarose prior to loading on the column, saving you a step.

The Monarch PCR & DNA Cleanup Kit (5  $\mu$ g) can be used to purify DNA from a variety of enzymatic reactions. The DNA Wash Buffer provided ensures enzymes, short primers ( $\leq 25$  nt), detergents and other low-molecular weight reaction components are removed.

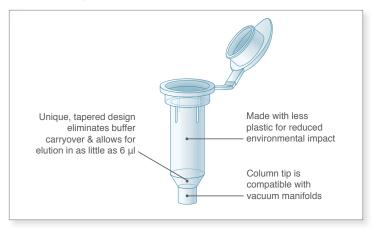
Both kits use significantly less plastic and responsibly-sourced, recyclable packaging, so you can feel good about choosing Monarch for your DNA purification.

### **Benefits**

- Elute in as little as 6 µl
- Eliminate buffer retention and salt carryover with optimized column design
- Save time with fast, user-friendly protocols
- No need to monitor the pH of your reaction
- Reduce your impact on the environment— Monarch kits use less plastic and responsiblysourced, recyclable packaging

Contact your local VWR rep to request a sample.

The improved design of the columns supplied with the Monarch DNA Gel Extraction and PCR & DNA Cleanup Kits enables elution in as little as 6  $\mu$ l, and eliminates buffer retention



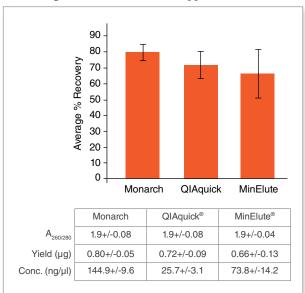




# Monarch DNA Cleanup Kits



DNA purified using the Monarch DNA Gel Extraction Kit is recovered with similar efficiency and purity as the leading supplier, but is more highly concentrated, facilitating its use in downstream applications



One microgram aliquots of a 3 kb fragment were resolved on a 1% w/v agarose gel, excised, and processed with different kits using manufacturer-specified minimum elution volumes. Values reported are the concentration and purity data determined by Nanodrop<sup>™</sup> readings, as well as recovery calculations based on the eluted DNA concentration and recovered volume.

#### **Ordering Information**

PRODUCT	VWR CAT. NO.	SIZE
Monarch DNA Gel Extraction Kit	102971-670	50 preps
	102971-668	250 preps
Monarch PCR & DNA Cleanup Kit (5 μg)	102971-674	50 preps
	102971-672	250 preps
COLUMNS AVAILABLE SEPARATELY		
Monarch DNA Cleanup Columns (5 μg)	102971-676	100 columns
BUFFERS AVAILABLE SEPARATELY		
Monarch DNA Elution Buffer	102971-688	25 ml
Monarch DNA Cleanup Binding Buffer	102971-680	235 ml
Monarch DNA Wash Buffer	102971-682	25 ml
Monarch Gel Dissolving Buffer	102971-678	235 ml

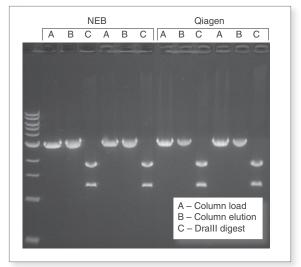
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Monarch PCR & DNA Cleanup Kit (5 μg) performs equivalently to the leading supplier



Preps were performed according to recommended protocols. 1 µg of a 3 kb DNA fragment was incubated with 1 µM primers and OneTaq® Quick-Load® 2X Master Mix. DNA was eluted in 20 µl (NEB) and 40 µl (Qiagen) Elution Buffer. Half of the total elution volume was digested with 5 units of DrallI-HF®. The digest and the unused portion of the elution were resolved on a 1% w/v agarose gel along with a representative sample of the starting material.

### **Specifications**

- Binding Capacity: up to 5 μg
- DNA Size Range: ~50 bp to 25 kb
- Typical Recovery: DNA (50 bp to 10 kb): 70–90% DNA (11–25 kb): 50–70%
- Elution Volume: ≥ 6 µl
- Purity:  $A_{260}/A_{280} \ge 1.8$
- Protocol Time:
  - Gel Extraction: 10 min of spin and incubation time PCR & DNA Cleanup: 5 min of spin and incubation time
- Compatible Downstream Applications: ligation, restriction digestion, labeling and other enzymatic manipulations, library construction and DNA sequencing



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