NUCLEIC ACID PURIFICATION

Quantum Prep® Gel Slice Kit

THE QUANTUM PREP GEL SLICE KIT PROVIDES:

- **MAXIMUM YIELD AND PURITY WITH THE PATENTED QUANTUM PREP MATRIX**
- **PURIFIED DNA IN LESS THAN 15 MIN**
- **EFFICIENT ISOLATION OF DNA FRAGMENTS 50–4,000 bp IN LENGTH**
- **DNA DIRECTLY SUITABLE FOR SUBCLONING, RESTRICTION DIGESTS, LIGATIONS, PCR, AND SEQUENCING APPLICATIONS**

High-Purity DNA Band Recovery from Agarose Gels

The high resolving power of agarose gel electrophoresis lends itself to analytical and preparative separations of nucleic acids. Protocols for the recovery of specific fragments for use in downstream applications require the isolation of individual DNA bands from the gel. The Quantum Prep gel slice kit provides a fast and effective means of DNA fragment isolation from agarose gels, yielding DNA of sufficient purity for applications including subcloning, restriction digests, ligations, labeling, PCR*, and sequencing reactions.

Efficient Procedure

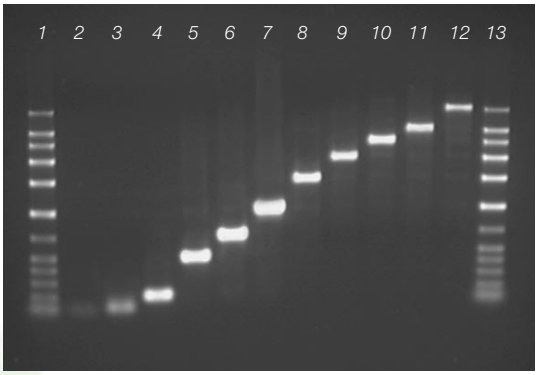
DNA from PCR reactions and enzymatic manipulations is purified from agarose gel slices in less than 15 min, without gravity columns, electroelution devices, phenol extractions, alcohol precipitation, or indicator dyes that may inhibit downstream applications.

Convenient Format

The simple matrix binding and spin column format minimizes sample handling. The chaotropic binding buffer used with the Quantum Prep matrix solubilizes electrophoretically purified DNA in agarose gel slices for immediate adsorption to the patented Quantum Prep purification matrix.

Pure DNA

Quantum Prep gel slice kit-purified DNA from standard or low-melt TAE- and TBE-buffered agarose gel bands is immediately available for sequencing, PCR, subcloning, restriction digests, ligations, and other enzymatic manipulations.



Recovery of DNA fragments from 50 bp to 4.4 kb using the Quantum Prep gel slice kit. Eluted fragments were rerun on a 1.2% TAE-agarose gel. Lanes 1 and 13, a mix of Bio-Rad's mid-range I DNA standards and AmpliSize™ molecular ruler. Fragment sizes: lane 2, 50 bp; lane 3, 100 bp; lane 4, 200 bp; lane 5, 500 bp; lane 6, 700 bp; lane 7, 1,000 bp; lane 8, 1,500 bp; lane 9, 2,000 bp; lane 1, 2,500 bp; lane 11, 3,000 bp; lane 12, 4,400 bp.

Specifications

GEL TYPES	TAE- or TBE-buffered agarose; low melt agarose not required	
METHOD	Diatomaceous earth matrix binding and micro spin column	
DNA SIZE	50–23,000 base pairs	
BINDING CAPACITY	0.05–2 µg; 300 mg gel slice per extraction	
RECOVERY	DNA Size	% Recovery
	23,500 bp	15%
	4,400 bp	25%
	500–3,000 bp	70–80%
	200 bp	>65%
	100 bp	>25%
	50 bp	>15%
PURITY	Sequencing reactions, PCR, restriction analysis, subcloning	

Ordering Information

Catalog #	*Description*
732-6160	Quantum Prep Gel Slice Kit, includes Quantum Prep matrix suspension, wash and elution buffer, spin columns for 100 gel extractions

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NUCLEIC ACID PURIFICATION

Freeze 'N Squeeze™ Spin Columns

THE FREEZE 'N SQUEEZE SPIN COLUMNS OFFER:

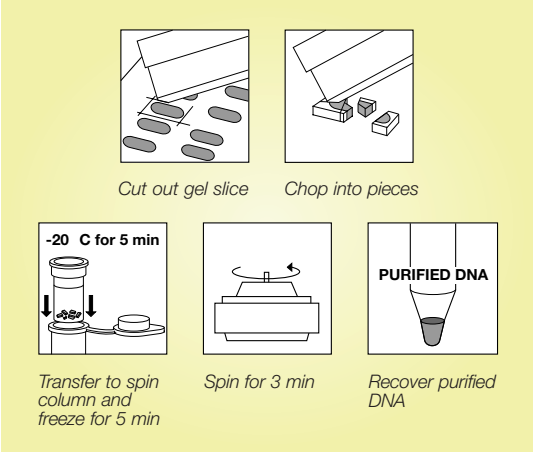
- **QUICK AND EFFECTIVE EXTRACTION OF DNA FROM AGAROSE GEL SLICES**
- **GENTLE SPIN-COLUMN TECHNIQUE. NO MATRICES OR TOXIC BINDING SOLUTIONS REQUIRED**
- **THE ULTIMATE IN CONVENIENCE**
- **SIMPLY CHILL THE GEL SLICE, THEN SPIN TO EXTRACT DNA**
- **DNA SUITABLE FOR MOST ENZYMATIC MANIPULATIONS**

Fast Recovery of DNA Fragments from Agarose Gels

Agarose gel purification of DNA fragments prior to enzymatic manipulation is a common procedure in molecular biology. Extraction of the DNA band is possible through a wide variety of techniques, some more time consuming than others. The Freeze 'N Squeeze spin column provides a quick and effective alternative to chemical extraction and electroelution methods to recover nucleic acid fragments from agarose gels.

Rapid Procedure

If time is the critical factor in your DNA isolation protocols, the Freeze 'N Squeeze spin column will extract agarose gel-purified DNA in only 10 min, with less than 1 min of hands-on time.



The Freeze 'N Squeeze method.

Convenient

The spin column procedure uses centrifugation to draw DNA out of frozen agarose gel slices. No preparation of solutions, columns, resins, or binding membranes is required. You can even extract multiple samples simultaneously.

Reliable Purity

Purified DNA from 50–23,000 base pairs is immediately available for sequencing, PCR, subcloning, ligations, restriction digests, and other enzymatic manipulations.

Specifications

METHOD	Microfuge spin column of frozen gel fragments	
GEL TYPES	TAE-, TBE-buffered agarose; low-melt agarose not required	
DNA SIZE	50–23,000 base pairs (bp)	
CAPACITY	Up to 700 mg gel slice	
TIME	~1 min hands-on; <10 min total	
RECOVERY	DNA Size	% Recovery
	4–23 kb	>60%
	0.5–4 kb	>70%
	50–500 bp	>50%
PURITY	DNA suitable for sequencing, PCR, ligations, labeling, restriction analysis, or other enzymatic reactions	

Ordering Information

Catalog #	*Description*
732-6165	Freeze 'N Squeeze Spin Columns, 25
732-6166	Freeze 'N Squeeze Spin Columns, 100

** The polymerase chain reaction (PCR) process is covered by patents owned by Hoffmann-LaRoche. Use of the PCR process requires a license.*

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