

DNA Gel Extraction Kit

The Norgen DNA Gel Extraction Kit is designed for the rapid preparation and purification of DNA fragments that have been fractionated on agarose gels. The recovered DNA is free from agarose and other impurities, and is compatible with restriction enzyme digestion, ligation into vectors and sequencing.

Purification is based on spin column chromatography. Norgen's column binds DNA under high salt concentrations and releases the bound DNA under low salt and slightly alkali conditions. The DNA of interest is first run on an agarose gel. The DNA band



is then excised from the gel using a razor blade, and the gel slice is transferred to a microcentrifuge tube (please see flow chart on page 3). Next, 3 volumes of Binding Buffer G are added to the gel slice and the tube is incubated at 55°C for up to 10 minutes. The Binding Buffer G contains chaotropic salts, which are used to both melt the agarose gel slice and also to allow reversible binding of the target DNA to the matrix. The sample containing the DNA and the melted agarose is then applied to one of the provided spin columns through centrifugation. Norgen's column binds DNA in a manner that depends on ionic concentrations, thus the DNA will bind to the column while the agarose and other impurities will be removed in the flowthrough. The bound DNA is then washed twice using the provided Wash Solution A in order to remove any remaining impurities, and the purified PCR product is eluted with the Elution Buffer B.

Kit Specifications			
Column Binding Capacity	10 µg	Size of DNA Purified	100 - 15,000 bp
Maximum Weight of Gel Slice	400 mg	Minimum Elution Volume	30 µL
Average Recovery	70 - 90%	Time to Complete 10 Purifications	20 minutes

DNA Gel Extraction Kit Benefits

Fast and easy processing	Rapid spin-column format allows for the processing of multiple samples in 20 minutes.
High recovery	Recovery of DNA fragments up to 90% for inputs of > 1 µg.
Recovered DNA is suitable for downstream applications	Purified DNA is fully compatible with restriction digestions, ligations, and other downstream applications.
Useable with a variety of agarose percentages	Kit is compatible with agarose gel concentrations of up to 4%

DNA Gel Extraction Kit

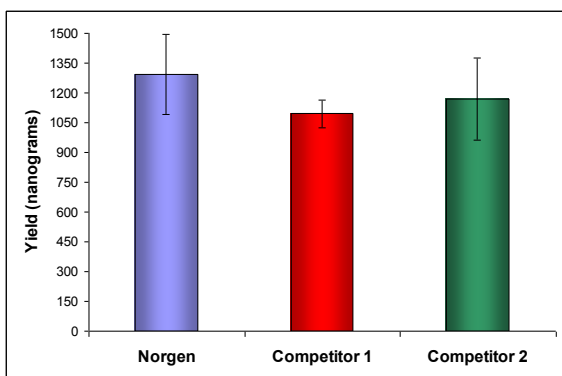


Figure 1. Efficient Recovery from Agarose Gels

A 500bp fragment was purified from a 1% agarose gel using Norgen's DNA Gel Extraction Kit and two other commercial kits. The Norgen kit shows a significantly higher efficiency compared to the competitor kits based on the average of three purifications.

DNA Gel Extraction Kit Contents

1. Binding Buffer G
2. Wash Solution A
3. Elution Buffer B
4. Spin Columns inserted in Collection Tubes
5. Elution tubes (1.7 mL)
6. Product Insert

Customer-Supplied Reagents and Equipment

- Benchtop microcentrifuge
- 95% ethanol
- Isopropanol

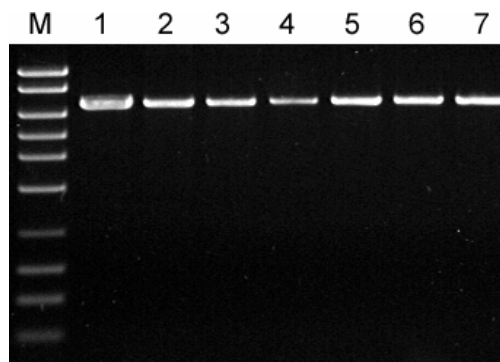


Figure 2. Efficient Recovery of Large DNA Fragments

A 3,700bp fragment was purified from a 0.9% agarose gel using Norgen's DNA Gel Extraction Kit (Lanes 5-7) and a competitor's kit (Lanes 2-4). Lane 1 indicates 20% of the input amount, while lanes 2-7 contain 20% of the eluted amount. Again, Norgen's kit shows a higher recovery than the competitor's kit.

Storage Conditions

All solutions should be kept tightly sealed and stored at room temperature. These reagents should remain stable for 1 year in their unopened containers.

Shipping Conditions

The DNA Gel Extraction Kit is shipped at room temperature.

Cat #	Description	Quantity
13100	DNA Gel Extraction Kit	50 preps