



Frequently Asked Questions for PurElute™ GX DNA Gel Extraction & Cleanup Kit

What is the PurElute™ GX DNA Gel Extraction & Cleanup Kit?

The PurElute™ GX DNA Gel Extraction & Cleanup Kit is a high performance easy-to-use purification kit based on the familiar DNA-binding silica membrane technology. The kit is designed for purification of dsDNA fragments from both agarose gel slices and aqueous reactions. Primers, primer-dimers, dNTPs, salts, un-incorporated DNA labels, and enzymes are removed. Purified products can be used in a variety of downstream applications, such as microarray analysis, sequencing, ligation, restriction digestion, PCR, etc.

What is the size range of DNA fragments which can be purified with PurElute™ GX DNA Gel Extraction & Cleanup Kit?

A large range of dsDNA sizes, from 70 bp to >20 kb, can be purified using the kit with high recovery efficiency.

The kit can effectively remove small size nucleic acids, such as primers and primer-dimers.

For DNA >10kb, mix gently during purification to avoid shearing of the large DNA molecules.

How does the GX Binding Buffer work?

GX Binding Buffer is comprised of (1) a chaotropic agent that solubilizes agarose gel and promotes DNA capture by the column; (2) pH buffer that keeps pH of the binding mixture within 6 – 7 for optimal DNA binding ; (3) yellow-colored pH indicator to ensure a correct pH and visualize complete gel solubilization.

What is the binding capacity of the GX Binding Columns and the expected DNA recovery efficiency?

The binding capacity for dsDNA is approximately 5 µg.

The DNA recovery is 75-90%, depending on DNA concentration, size of the fragment, and elution volume.

Can I use vacuum to operate the purification process?

Yes. The GX spin column has drip director which can be connected to standard vacuum manifolds.

Protocols for purification by centrifugation and vacuum are provided.

Which elution volume should I use?

We recommend eluting in 15 – 50 µl samples can be concentrated by eluting in small volumes; however, high volume elution maximizes the total recovery. A volume of 30 µl is usually sufficient for a complete elution.

Which elution buffer can be used?

10mM Tris-HCl, pH 8.5 is provided in the PurElute™ GX DNA Gel Extraction & Cleanup Kit for DNA elution.

TE or fresh dH₂O can also be used for elution if it is preferable for your downstream applications.

What methods should I use to quantify purified products?

Agarose gel electrophoresis analysis or fluorescence dsDNA quantitation (e.g. PicoGreen) assay can be used to determine DNA concentration of purified products.

When I use a UV spectrometer to determine the yield by OD₂₆₀ reading, the values for samples purified with some other commercial products are higher than that with PurElute™ GX DNA Gel Extraction and Cleanup Kit. Why?



**Frequently Asked Questions for
PurElute™ GX DNA Gel Extraction & Cleanup Kit**

These samples purified with other commercial products may contain remaining chaotropic agents and impurities because of insufficient wash and non-optimal construction of the binding column. As a result an inflated OD₂₆₀ absorbance and overestimated DNA yield may be observed.