

# FastGene™ Gel/PCR Extraction Kit



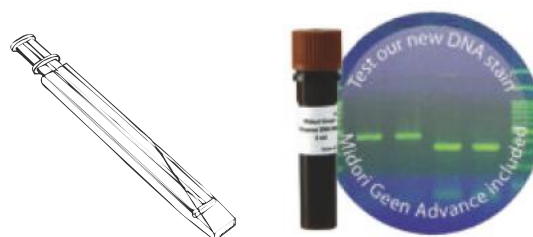
- ✓ Very high recovery rate
- ✓ Cost effective preparations
- ✓ Fast and convenient procedure
- ✓ MIDORI<sup>Green</sup> Advance and Gel Band Cutter are included

## Two in one - DNA cleanup from agarose gels and PCR

The FastGene® Gel/PCR Extraction Kit is designed for the extraction of DNA from agarose gels and for the purification of PCR products. DNA fragments purified with FastGene® Gel/PCR Extraction Kits are ready for direct use in all common downstream applications, like sequencing, ligation and transformation, restriction digestion, microarray analysis, PCR and *in vitro* transcription.

## Specification

Parameter	Gel Extraction	PCR Clean-up
Max. sample volume	300 mg agarose gel	100 µl PCR mix
Gel	< 2,5% TAE or TBE	---
Typical Recovery	70-80%	80-90%
Binding capacity	10 µg	10 µg
DNA fragment size	50 bp - 10 kb	50 bp - 10 kb
Primer removal	---	< 25 bp
Elution volume	20-50 µl	20-50 µl
Prep time	20 minutes	20 minutes



Each Gel/PCR Extraction Kit contains 5 Agarose Gel Band Cutter and 50 µl MIDORI<sup>Green</sup> Advance. Everything you need to cut out your band!

## Get your free sample











Convince yourself and test the Gel/PCR Extraction Kit for free. Just contact us and get your free sample very soon.

## Ordering information

Cat. No.	Product	Content
FG-91202	FastGene® Gel/PCR Extraction Kit	100 preps + 50 µl MIDORI <sup>Green</sup> Advance + 5 Gel Band Cutter
FG-91302	FastGene® Gel/PCR Extraction Kit	300 preps + 50 µl MIDORI <sup>Green</sup> Advance + 5 Gel Band Cutter
FG-830	FastGene® Agarose Gel Band Cutter	50 pieces

# FastGene™ Gel/PCR Extraction Kit



	DNA extraction from gel	Purification of PCR products
Sample preparation	 up to 300mg of gel 500µl of GP1 Vortexing 65°C ; 10 - 15min Invert the tube	 PCR products : Buffer GP1 = 1 : 5 (e.g. 40µl : 200µl) Vortexing
Sample loading	 Load the sample onto the column 13,000rpm ; 30sec	 Load the sample onto the column 13,000rpm ; 30sec
Membrane washing	 600µl of GP2 13,000rpm ; 30sec * For TBE gels this wash step should be repeated.	 600µl of GP2 13,000rpm ; 30sec
Membrane drying	 13,000rpm ; 2min	 13,000rpm ; 2min
Elution	 20 - 50µl of GP3 2min at room temperature 13,000rpm ; 2min	 20 - 50µl of GP3 2min at room temperature 13,000rpm ; 2min

## Easy workflow

The FastGene® Gel/PCR Extraction Kit provides spin columns, buffers, and collection tubes for silica-membrane-based purification of DNA fragments from agarose gels and PCR products. With a simple and fast bind-wash-elute procedure you can purify DNA ranging from 15 bp to 10 kb with an elution volume of 20-50 µl.



PCR fragments of 300 bp were purified from 40 µl of a PCR stock solution using FastGene® Gel/ PCR Extraction Kit and a competitor kit, according to manufacturers protocol. 5 µl of eluted DNA was analyzed on a 1.5% TAE agarose gel. The figure demonstrates that the FastGene® Gel/PCR Extraction Kit shows up to 90% of DNA recovery.

## Extraction of large DNA fragments with the FastGene® Gel/PCR Extraction Kit

### Background:

It is a well-known problem that the recovery of DNA fragments larger than 1 kb proves to be difficult and leads to the loss of large amounts of DNA. In this AppNote the FastGene® Gel/PCR Extraction Kit was used for the isolation of two DNA bands resulted from a restriction digest.

### Method:

A 6.9 kb large plasmid was digested with a restriction enzyme. The restriction digest was analysed by agarose gel electrophoresis at 100 V for 20 min. The 0.7% agarose gel was produced using 1x TAE buffer (Fig 1.). The target fragments were excised out of the gel and transferred in a 1.5 ml tube. The fragments were purified with the FastGene® Gel/PCR Extraction Kit. 100 ng of each purified DNA fragment were electrophoresed again at 100 V for 20 min (Fig. 2).

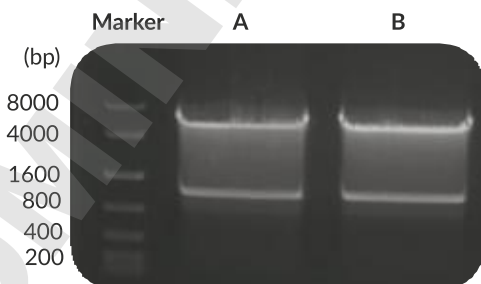


Fig. 1: Identification of two restriction sites (5.4 kb and 1.5 kb) of the plasmid after restriction.

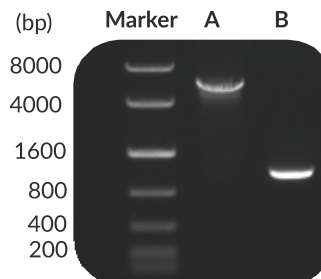


Fig. 2: Clear identification of the two DNA fragments after extraction with the FastGene® Gel/PCR Extraction Kit.

### Results/Conclusion:

Both fragments show a good recovery rate after extraction. The customer also highlighted the fast preparation, easy handling, high recovery rate for large fragments and the unproblematic performance of downstream applications.