## **Ultra-fast**

## small-scale purification of

# **Plasmid DNA**



### **Features**

- The NucleoSpin<sup>®</sup> Plasmid QuickPure column features a new specially treated silica membrane which allows to speed up the procedure by a combined washing/drying step.
- No additional steps are necessary if nuclease rich strains like HB101, ABLE and JM110 are used.
- The number of washing and drying steps is reduced from 3 to only 1! Therefore, the hands-on-time is less than 11 min.

## **Technical Specifications**

Purification technique	silica membrane
Culture volume	1-3 ml
Binding capacity	up to 15 μg ready to use plasmid DNA
Elution volume	50 μl
Purity (A 260 / 280)	1.7 – 1.9
Time/prep*	11 min / 18 preps
*Hands-on-time	

## **Highly pure Plasmid DNA in only four steps!**

The isolation of plasmid DNA is one of the most common and standardized applications used in nearly every lab. In the course of refinement MACHEREY-NAGEL has designed a new kit for ultra-fast small-scale plasmid DNA purification which gives you a saving of time and costs.

With the NucleoSpin<sup>®</sup> Plasmid QuickPure method, the bacteria culture is lysed according to alkaline lysis. The lysate is cleared by centrifugation and the supernatant is loaded onto the NucleoSpin<sup>®</sup> Plasmid QuickPure column. Contaminations like salts, metabolites, nucleases and soluble macromolecular cellular components are removed by only a single washing step with buffer AQ. Pure plasmid DNA is finally eluted under low ionic strength conditions with slightly alkaline buffer AE (5 mM Tris-Cl, pH 8.5). The prepared plasmid DNA is suitable for all common downstream applications like sequencing, hybridizations, and restriction analysis.

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#### **Comparison of plasmid yield**



Plasmid DNA was isolated from a 3 ml saturated *E.coli* culture (LB medium) according to the NucleoSpin<sup>®</sup> Plasmid QuickPure (NS-QuickPure) in comparison to the NucleoSpin<sup>®</sup> Plasmid (NS-P) and 4 other commercially available plasmid miniprep kits. 4  $\mu$ l of each eluate were loaded on a 1% agarose gel. A comparison of the yield obtained from each sample demonstrates that the plasmid DNA isolated with NucleoSpin<sup>®</sup> Plasmid QuickPure shows equal yields to NucleoSpin<sup>®</sup> Plasmid, competitor Q and P but higher yields to competitors A and S.

**High-quality DNA for automated sequencing** 



Typical fluorescent capillary sequencing result from plasmid DNA using the NucleoSpin<sup>®</sup> Plasmid QuickPure kit, and sequenced in a cycle sequencing reaction on an ABI PRISM<sup>®</sup> 3700. Please note the absence of "no calls (N)" far behind the reading length of 700 bp.

#### Stability!

#### Nuclease

#### poor rich

1	2	3	4	
1	1	11	31	-
-	-	=	-	-
2		Ξ		

Plasmid DNA from endonuclease poor respectively rich strains have been isolated using the NucleoSpin<sup>®</sup> Plasmid QuickPure kit. After storage of the eluates for 6 weeks at 4°C the plasmid DNA were restricted with *Msp* I and analyzed on a 1% agarose gel.

The results clearly show that the endonucleases are removed efficiently during the single wash and drying step.

### **Related products**

With the NucleoSpin<sup>®</sup> and NucleoBond<sup>®</sup> product lines MACHEREY-NAGEL offers a wide range of kits for plasmid DNA isolation. The purification systems are based on silica-membrane technology (from miniprep up to manual and automated medium- or high-throughput) respectively anion-exchange chromatography (from small-scale up to preparative-scale). Protocols are available for high- and low copy plasmids, BACs, PACs, Cosmids as well as endotoxin-free plasmid DNA (patented).

For more information on our products and local distributors in your country, please visit our webpage at www.mn-net.com

## **Ordering Information**

Product	Preps	Cat.No.
NucleoSpin <sup>®</sup> Plasmid QuickPure	10	740615.10
NucleoSpin <sup>®</sup> Plasmid QuickPure	50	740615.50
NucleoSpin <sup>®</sup> Plasmid QuickPure	250	740615.250

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## **MACHEREY-NAGEL**

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