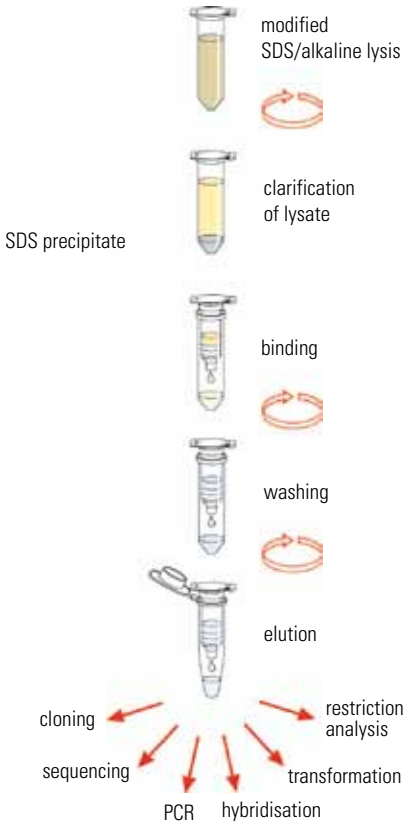
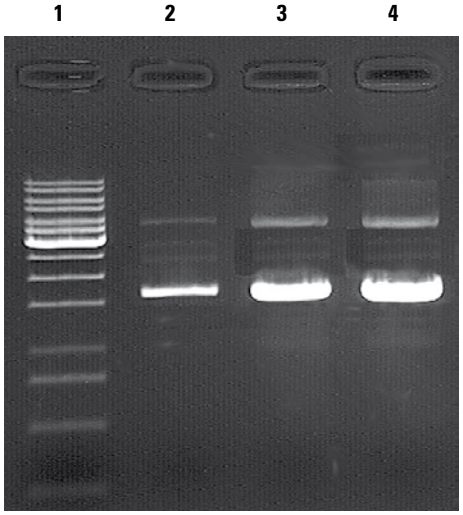
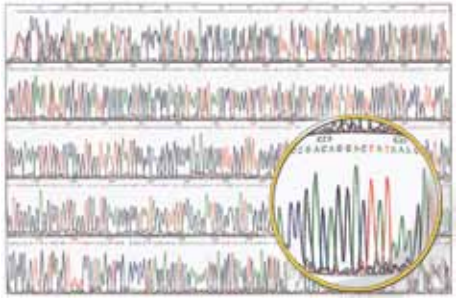
NucleoSpin® Plasmid procedure





High purity plasmid miniprep
Agarose gel analysis of pUC19 plasmid DNA after purification with the NucleoSpin® Plasmid kit. 2mL of *E.coli* DH 5α™ culture grown in LB medium (lane 2), 5mL culture (lane 3) and 8mL culture (lane 4) were processed: lane 1: marker.



High quality DNA for automated sequencing
Dye-terminator sequence of vector pBluescript® SK-purified with the NucleoSpin® Plasmid kit. Sequence was analysed on a MegaBACE 1000 DNA Analysis System.

Purification kits, plasmid, low-throughput, NucleoSpin® Plasmid

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MACHEREY-NAGEL

Applications: High copy-number plasmid DNA from *E. coli*.
Support protocols for M13 DNA (additional buffer required) and low copy-number vector DNA (increased buffer volumes required).

Features:

- Yield: up to 25µg (from 1 to 5mL) or up to 40µg (from 5 to 10mL) *E. coli* culture
- Sample material: 1mL to 5mL or 5 to 10mL *E. coli* culture depending on buffer volumes used
- Binding capacity: 60µg
- Fast procedure: 18 minipreps in 25min
- Elution volume: 50µL
- Silica-membrane technology
- No use of organic solvents
- Recovery: 85% to 95% (depending on elution volume)
- Sequencing-grade plasmid DNA suitable for any kind of enzymatic reaction
- Vectors <15kb
- Highly pure nucleic acids suitable for all common downstream applications
- Mini spin columns

NucleoSpin® Plasmid is designed for the rapid, small-scale preparation of high-purity plasmid DNA.
The kit allows purification of up to 25µg plasmid DNA per preparation from 1mL to 5mL of a saturated *E. coli* culture. Up to 40µg of plasmid DNA can be obtained when processing 5mL to 10mL *E. coli* culture. For this purpose, the buffer volumes are increased using the NucleoSpin® buffer set in addition. Optimal results are obtained for isolation of plasmid DNA from *E. coli* strains. Harvested bacteria are re-suspended and processed by SDS/alkaline lysis. High-salt buffer is added to neutralise the lysate and to create appropriate conditions for DNA binding to the silica membrane. After centrifugation the clear supernatant is loaded onto a NucleoSpin® Plasmid spin column. Contaminations like salts and macromolecular cellular components are removed by simple washing with ethanolic buffer A4.
Additional washing with buffer AW is recommended for the following demands:
- Complete removal of high levels of endonucleases with buffer AW pre-warmed to 50°C (e.g. from *E. coli* wild-type strains)
- Processing of 5mL to 10mL of bacterial culture
- Long read length in DNA sequencing
- Better performance of critical enzymatic reactions

Highly pure plasmid is finally eluted in 50µL slightly alkaline buffer AE (5mM Tris/HCl, pH 8.5). Alternatively, water (pH 8.0 to 8.5) can be used.

Kit components: NucleoSpin® Plasmid columns, collecting tubes 2mL, buffers, RNase A.

Catalogue No	Alt. No	Quantity	Pack qty
NZ74058810	740588.10	10 preps	1
NZ74058850	740588.50	50 preps	1
NZ740588250	740588.250	250 preps	1

Accessories

Catalogue No	Alt. No	Description	Quantity	Pack qty
NZ740953	740953	NucleoSpin® buffer set for 300 preps for the isolation of low copy-number plasmids, buffers A1, A2, A3, RNase A	-	1
NZ7409111	740911.1	Resuspension buffer A1, without RNase A	1,000mL	1
NZ7409121	740912.1	Lysis buffer A2	1,000mL	1
NZ7409131	740913.1	Neutralisation buffer A3	1,000mL	1
NZ7409141	740914.1	Wash buffer A4, 5x concentrate final volume 1L	200mL	1
NZ7409161	740916.1	Wash buffer AW	1,000mL	1
NZ740914	740914	Wash buffer A4, 5x concentrate final volume 100mL	20mL	1
NZ7409171	740917.1	Elution buffer AE	1,000mL	1
NZ740505	740505	RNase A, lyophilised	100mg	1
NZ74050550	740505.50	RNase A, lyophilised	50mg	1

All products are for research use only, unless otherwise indicated.