Bioanalysis

MACHEREY-NAGEL

Plasmid purification for transfection

NucleoSnap Plasmid Midi

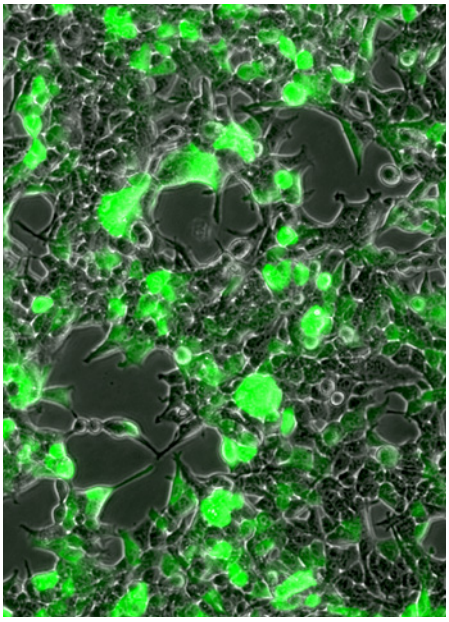
NEW generation of plasmid midi preparation

- New column design for vacuum processing of large sample volumes
- Transfection-grade plasmid DNA for sensitive downstream applications
- Isolate up to 700 µg plasmid DNA in only 35 minutes

NucleoSnap Plasmid Midi

The fastest way to isolate transfection-grade plasmid DNA

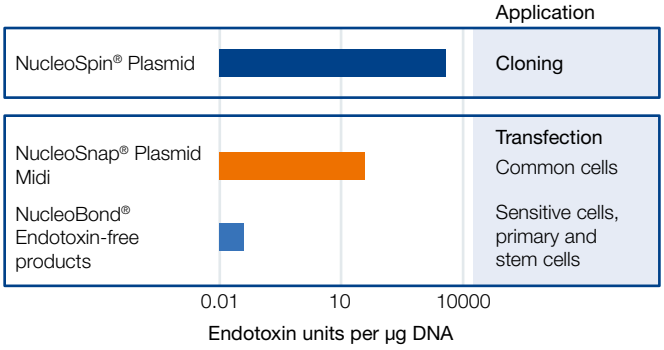
Endotoxins are co-purified during plasmid preparations from bacterial lysates. Since they interfere with eukaryotic cell survival, endotoxin reduction is essential prior to cell transfection. MACHEREY-NAGEL has developed a new column format and a novel buffer chemistry to enable vacuum-processed isolation of transfection-grade plasmid DNA in a midi format.

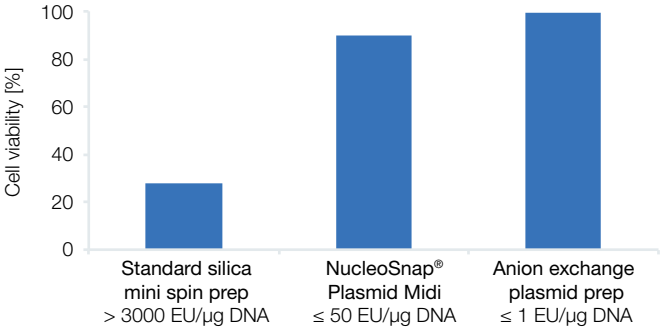


Product at a glance

Technology	Silica-membrane technology
Format	Snap-off column, vacuum processing
Lysate clarification	Large filter spin columns (2 min centrifugation)
Sample material	Typically 50 mL *E. coli* culture (OD_{600} = 5)
Vector size	≤ 25 kbp
Typical yield	400–700 µg (50 mL culture, OD_{600} = 4, high-copy plasmid)
A_{260}/A_{280}	1.8–1.9
Preparation time	35 min/6 preps
Endotoxin level	< 50 EU/µg DNA
Binding capacity	1.5 mg

Application data





Endotoxin levels appropriate for individual applications

A quantitative chromogenic LAL-test was used to assess endotoxin content. As indicated, the content of endotoxin is strongly depended on the technology of plasmid purification. Low endotoxin levels were detected after purification with NucleoSnap Plasmid Midi resulting in a plasmid solution directly appropriate for transfection of common cells.

High cell viabilites of eukaryotic cells

Eukaryotic Huh-7 cells were transfected with Lipofectamin 2000 and 2.5 µg plasmid DNA (pCMV-GFP, kindly provided by PlasmidFactory GmbH & Co. KG, Bielefeld, Germany). The plasmid DNA was prepared with a standard silica mini spin prep (such as NucleoSpin® Plasmid), NucleoSnap Plasmid Midi and an anion exchange DNA isolation kit (such as NucleoBond® Xtra Midi EF).

Ordering information

Product	Specifications	Preps / Pack of	REF
NucleoSnap Plasmid Midi	Kit for the isolation of up to 700 µg transfection-grade plasmid DNA	10 / 50	740494.10 / .50
NucleoVac 24 Vacuum Manifold	Vacuum manifold for processing NucleoSnap or NucleoSpin® columns	1	740299
NucleoVac Mini Adapter	Disposable adapters for processing NucleoSpin® or NucleoSnap columns on the NucleoVac 24 Vacuum Manifold	100	740297.100
NucleoVac Stop-cock	Stop-cocks for processing samples with different flow rates on the NucleoVac 24 Vacuum Manifold	24	740298.24
NucleoSpin® Plasmid Transfection-grade	Mini spin kit for the isolation of transfection-grade plasmid DNA	10 / 50 / 250	740490.10 / .50 / .250
NucleoSpin® 96 Plasmid Transfection-grade	For isolation of transfection-grade plasmid DNA in 96-well format	1 x 96 / 4 x 96 / 24 x 96	740491.1 / .4 / .24

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