

MACHEREY-NAGEL

# Plasmid purification for transfection

Bioanalysis



## 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

**MACHEREY-NAGEL**

[www.mn-net.com](http://www.mn-net.com)



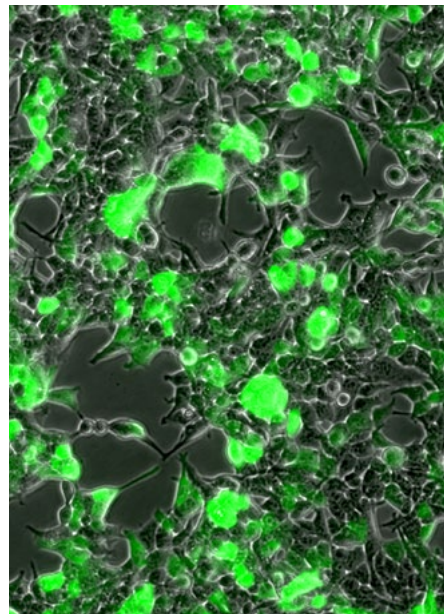
# NucleoSnap Plasmid Midi

## The fastest way to isolate transfection-grade plasmid DNA

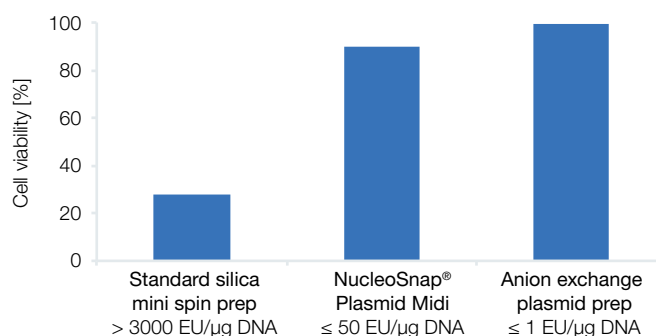
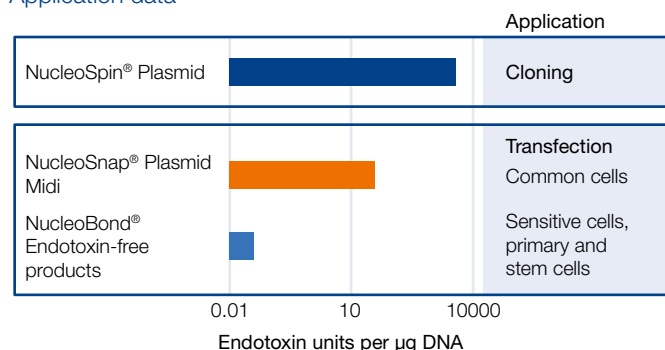
Endotoxins are co-purified during plasmid preparations from bacterial lysates. Since they interfere with eukaryotic cell survival, endotoxin reduction is essential prior to cell transfection. MACHEREY-NAGEL has developed a new column format and a novel buffer chemistry to enable vacuum-processed isolation 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 <i>E. coli</i> culture (OD <sub>600</sub> = 5)       |
| Vector size                        | ≤ 25 kbp   |
| Typical yield                      | 400–700 µg (50 mL culture, OD <sub>600</sub> = 4, high-copy plasmid) |
| A <sub>260</sub> /A <sub>280</sub> | 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 viabilities 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    |

[www.mn-net.com](http://www.mn-net.com)

NucleoBond® and NucleoSpin® are registered trademarks of MACHEREY-NAGEL GmbH & Co. KG · Düren · Germany

# MACHEREY-NAGEL



Management System  
EN ISO 13485:2016  
ISO 9001:2015



[www.tuv.com](http://www.tuv.com)  
ID 0000056401

MACHEREY-NAGEL GmbH & Co. KG · Valencienner Str. 11 · 52355 Düren · Germany

DE +49 24 21 969-0 info@mn-net.com

CH +41 62 388 55 00 sales-ch@mn-net.com

FR +33 388 68 22 68 sales-fr@mn-net.com

US +1 888 321 62 24 sales-us@mn-net.com