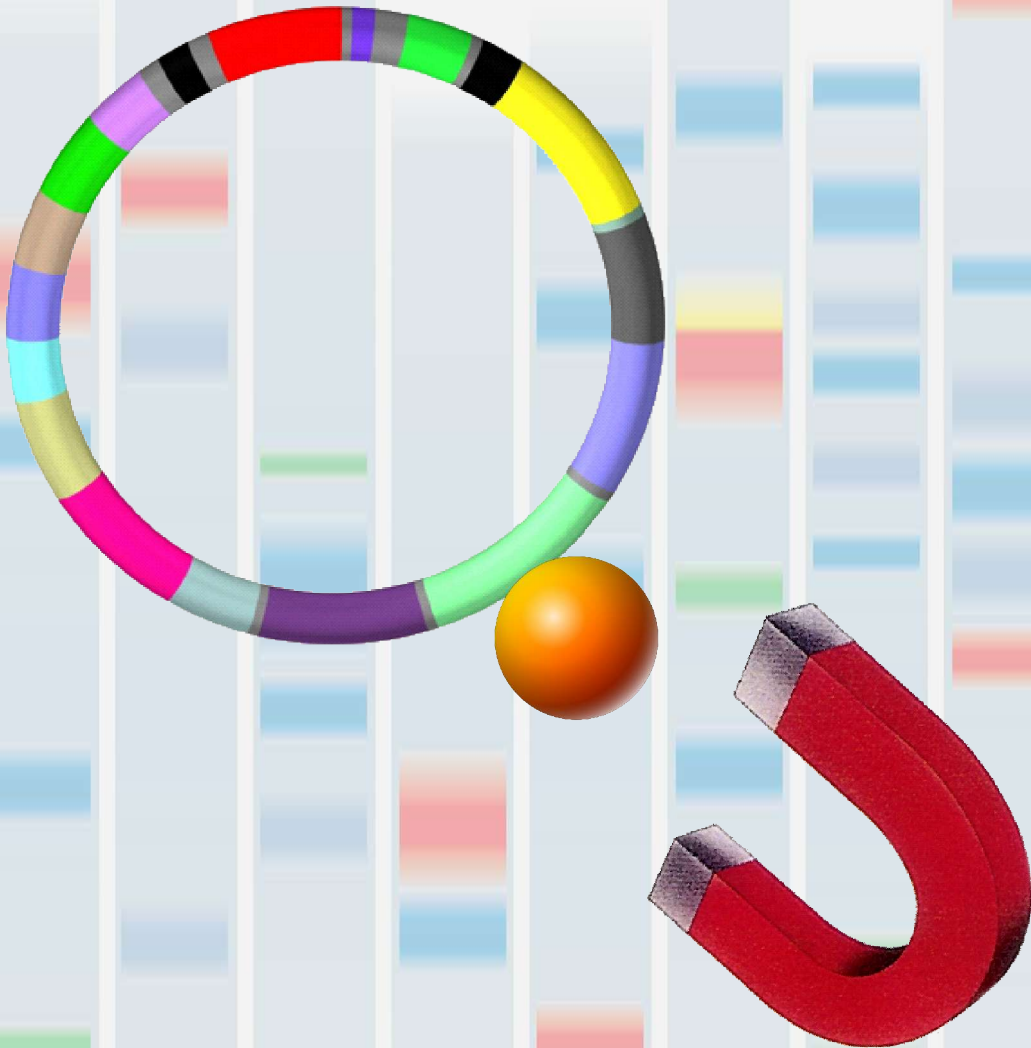


geneMAG-plasmidDNA

the magnetic plasmidDNA purification kit

For isolation of plasmidDNA from
E.coli with magnetic beads

store the kit at room temperature



chemicell

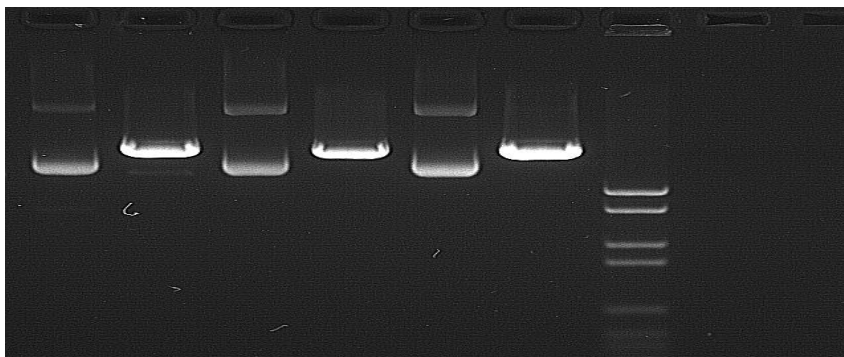
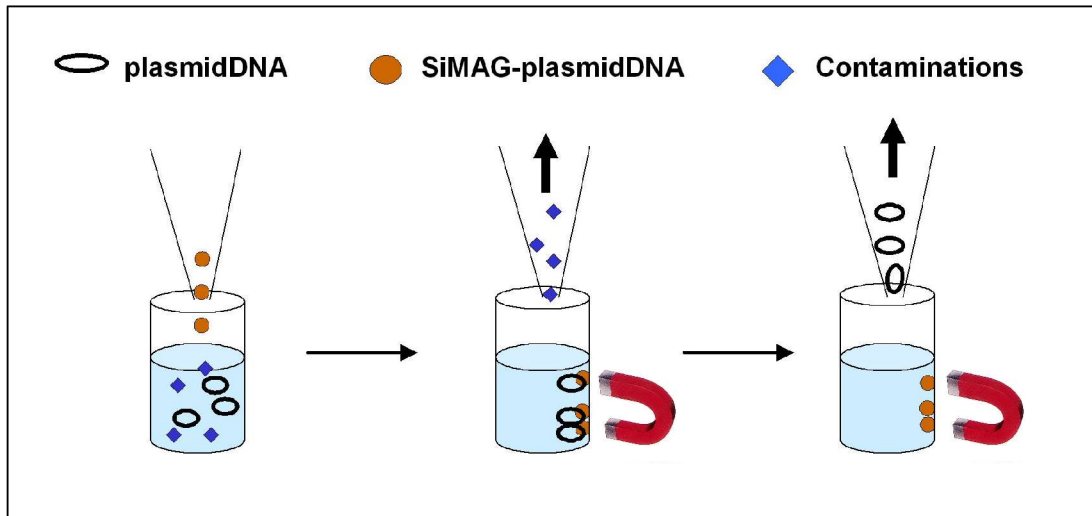
NEW TOOLS IN BIOSCIENCES

Technology

The **geneMAG-plasmidDNA** kit is a highly efficient tool for the isolation of plasmidDNA with magnetic silica beads. The plasmidDNA can be isolated directly from *E.coli* cultures.

The pelleted bacteria are resuspended (Suspension Solution) and the *E.coli* cells are lysed by SDS/alkaline (Lysis Buffer). The Neutralization/Bead Buffer precipitates chromosomal DNA, denatured proteins, cellular debris and SDS which are removed from the sample by magnetic separation. The plasmidDNA binds to the magnetic silica particles (**SiMAG-plasmidDNA**) under ethanolic conditions (Binding Buffer). The wash steps guarantee a clean plasmidDNA which is suitable for transfections or other biochemical applications.

geneMAG-plasmidDNA is highly suitable for variety of automatization platforms since it requires no centrifugation, vacuum filtration procedures.



Agarose gel electrophoresis of purified plasmidDNA and complete digestion with restriction enzymes.
(Data kindly provided by U. Böttcher, GeneExpress GmbH, Germany)

Products

Kits	Contents	Number of isolations	Price Euro/US\$
geneMAG-plasmidDNA 10 (Cat. No.: 3501-10)	<ul style="list-style-type: none"> • 2 mg RNase A (lyophilized) • 2 ml Lysis Buffer • 2 ml Neutralization Buffer • 1.5 ml SiMAG-plasmidDNA Beads 	10 preps per 1.5 ml of <i>E. coli</i>	30 / 40
geneMAG-plasmidDNA 50 (Cat. No.: 3501-50)	<ul style="list-style-type: none"> • 6 mg RNase A (lyophilized) • 8 ml Lysis Buffer • 8 ml Neutralization Buffer • 5.5 ml SiMAG-plasmidDNA Beads 	50 preps per 1.5 ml of <i>E. coli</i>	120 / 162
geneMAG-plasmidDNA 250 (Cat. No.: 3501-250)	<ul style="list-style-type: none"> • 30 mg RNase A (lyophilized) • 38 ml Lysis Buffer • 38 ml Neutralization Buffer • 28 ml SiMAG-plasmidDNA Beads 	250 preps per 1.5 ml of <i>E. coli</i>	480 / 648

Reagents and Equipment to be Supplied by the User

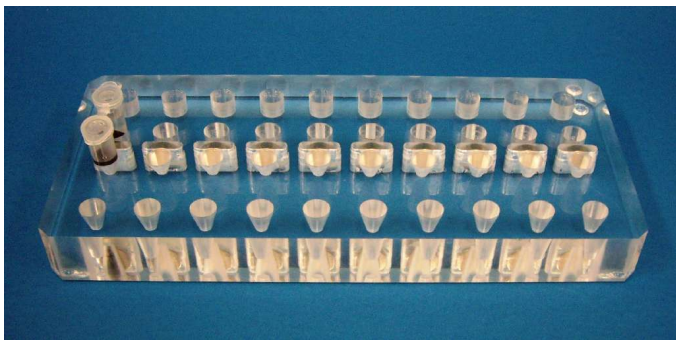
- **Suspension Buffer:** 50 mM Tris-HCl, 10 mM EDTA, pH 8.0
- **Binding Buffer :** 100% Ethanol or 100% Isopropanol
- **Wash Buffer:** 70% Ethanol or 70% Isopropanol
- **Elution Buffer:** ddH₂O
- **Vortex mixer, centrifuge and heating block** or water bath (60°C), **magnetic separator**

Utensils for magnetic plasmidDNA purification

The **MagnetoPURE** separator is specially designed for magnetic separation of DNA/RNA in 1.5 ml and 2 ml tubes. The position of the high powerful magnet guaranties fast and easy separation of the magnetic particles.



MagnetoPURE



MagnetoPURE BIG SIZE

Separator	Cat. No.:	Price Euro/US\$
MagnetoPURE	MP-10	65 / 85
MagnetoPURE BIG SIZE	MP-20	350 / 460

—————→ **SPECIAL OFFER**

As an introductory offer you will receive a **geneMAG-plasmidDNA 10** kit for free in combination with the purchase of the **MagnetoPURE** separator.

SPECIAL OFFER:	Cat. No.:	Price Euro/US\$
MagnetoPURE geneMAG-plasmidDNA 10	3501-SO	65 / 85

Protocol

This protocol describes the isolation of plasmidDNA from 1.5 ml of *E. coli* LB culture

Before first use of the kit, resuspend the RNase A in Suspension Buffer
***(400 µg/ml final concentration of RNase).**

Store at 2-8°C in refrigerator, but for a long term storage -20°C is recommended.

1. Transfer 1.5 ml of cultured cells into a 1.5 ml microcentrifuge tube.
2. Centrifuge for **2 minutes** at 11,000 x g to pellet the cells. Discard the supernatant.
3. Add 150 µl of **Suspension Solution** with **RNase A*** to the cell pellet. Mix by vortexing 30 seconds.
4. Add **150 µl Lysis Buffer**. Mix gently by inverting the tube **6-8 times**. Do not vortex. Incubate at room temperature for a maximum of **5 minutes**.
5. Add **150 µl of Neutralization Buffer**. Mix gently by inverting the tube **6-8 times**. Do not vortex. Centrifuge for **8 min.** at **11,000 x g** at room temperature.
- 5a. **Optional: No centrifugation step!** Add 150 µl **Neutralization/Bead Buffer**. Prepare the **Neutralization/Bead Buffer**: Add 100 µl **SiMAG-plasmidDNA** in a tube, collect the beads by magnetic separator and discard the supernatant. Resuspend the beads in 150 µl **Neutralization Buffer**.
6. Place the tube on a magnetic separator . Transfer the supernatant to a new tube and add 100 µl of **SiMAG-plasmidDNA**, and 1 ml of **Binding Buffer**. Mix gently by inverting the tube **6-8 times**. Do not vortex.

Tip: *Resuspend the magnetic beads completely before use by vortexing*

7. Place the tube on a magnetic separator for 1 minute and collect the bead/plasmid DNA-pellet. Remove and discard the supernatant.

Tip: *Some of the solution with beads will end up in the cap of the tube. The tube can be tipped or turned upside down, while placed in the magnet to wash down the beads trapped in the cap.*

Protocol

8. Add 1 ml **Wash Buffer**. Mix gently by inverting the tube **6-8 times**. Do not vortex. Collect the bead/plasmidDNA-pellet for 1 minute with the magnet, remove and discard the supernatant. Repeat the washing step **one**.
9. Leave the tube in the magnet to keep the bead/DNA-pellet immobilized on the tube wall. Overlay the pellet carefully with 1 ml **ddH₂O**. Avoid suspending the bead/DNA-pellet (do not mix or vortex) and remove the supernatant immediately.
10. Add 100 µl **Elution Buffer (ddH₂O)**, vortex and incubate for 10 minutes at 60 °C in a thermomixer and vortex the tube from time to time for the complete resuspension of the pellet.

Tip: *Complete resuspension of the pellet is important to recover high yields of DNA. Repeat mixing (vortex) during the incubation step.*

11. Collect the beads with the magnet and transfer the solution with the eluted DNA to a new clean tube. If the solution is not clear repeat the step.

Tip: *The isolated plasmidDNA can be stored at 2-8 °C in a refrigerator, but for a long term storage - 20 °C is recommended.*

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