geneMAG-RNA/DNA

the magnetic RNA/DNA purification kit

For isolation of total RNA/DNA from blood, cells, bacteria and viruses with magnetic beads

store the kit at room temperature

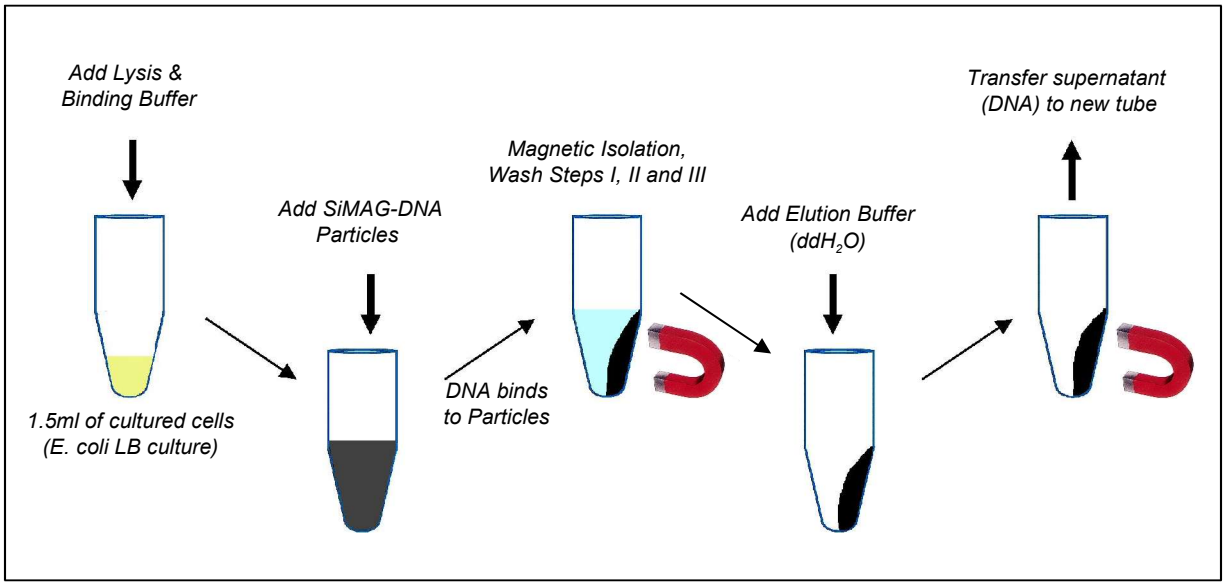
chemicell

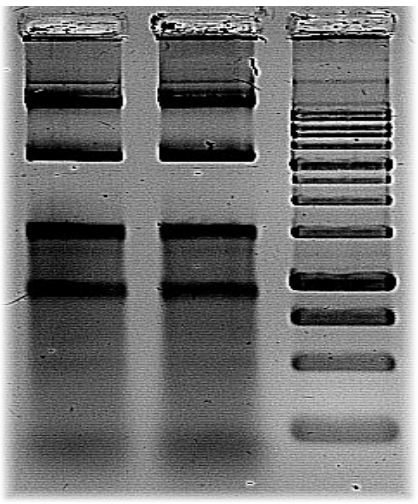
NEW TOOLS IN BIOSCIENCES

Technology

The **geneMAG-RNA/DNA** kit is a novel, simple and highly efficient tool for the isolation of total RNA/DNA with magnetic silica beads.

Simple washing steps with two different buffers remove salts, metabolites and macromolecular cellular components. Pure RNA/DNA is finally eluted under low ionic strength conditions with RNase-free water.





Total RNA/DNA was isolated from 1.5ml E. coli LB culture using geneMAG-RNA/DNA.
(Data kindly provided by Cengiz Öztürk, Charité, University Hospital of Humboldt-University to Berlin, Germany)

Products

Kits	Contents	Number of isolations	Price Euro/US$
geneMAG-RNA/DNA 15 (Cat. No.: 3401-15)	• 15 ml Lysis & Binding Buffer • 30 ml Wash Buffer I • 1.5 ml SiMAG-RNA/DNA	15 preps per 1.5 ml of *E. coli*	40 / 52
geneMAG-RNA/DNA 100 (Cat. No.: 3401-100)	• 100 ml Lysis & Binding Buffer • 200 ml Wash Buffer I • 10 ml SiMAG-RNA/DNA	100 preps per 1.5 ml of *E. coli*	220 / 286
geneMAG-RNA/DNA 500 (Cat. No.: 3401-500)	• 500 ml Lysis & Binding Buffer • 1000 ml Wash Buffer I • 50 ml SiMAG-RNA/DNA	500 preps per 1.5 ml of *E. coli*	900 / 1170

Reagents and Equipment to be Supplied by the User

• **Wash Buffer II**: 70% Ethanol **or** 70% Isopropanol.

• **Elution Buffer:** Nuclease-free water **or** DEPC-Water for elution of RNA/DNA from the beads.

• **DNase Treatment:** DNA-free™ Kit, DNase Treatment and Removal Reagents Part Number AM1906 (Applied Biosystems).

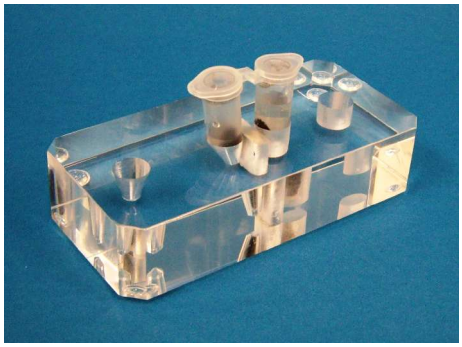
• **Vortex mixer** and **heating block** or water bath (65°C), **magnetic separator.**

Safety Note

Lysis/Binding-Buffer and **Wash Buffer I** contain chaotropic salts, which are irritant. Take appropriate laboratory safety measures and wear gloves when handling. **Avoid skin and eye contact**

Utensils for magnetic RNA/DNA 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 recieve a **geneMAG-RNA/DNA 15** kit for free in combination with the purchase of the **MagnetoPURE** separator.

SPECIAL OFFER:	Cat. No.:	Price Euro/US$
MagnetoPURE **geneMAG-RNA/DNA 15**	3401-SO	65 / 85

This protocol describes the isolation of total RNA/DNA from 1.5 ml of *E. coli* LB culture

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 **1 ml Lysis & Binding Buffer** and 100 µl **SiMAG-RNA/DNA** silica beads to the sample, vortex and incubate for 2-5 minutes at room temperature.

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

4. Place the tube on a magnetic separator for 1 minute and collect the bead/RNA/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.

5. Add 1 ml **Wash Buffer I** and mix gently by inverting the tube **6-8 times** at room temperature**.** Collect the bead/RNA/DNA-pellet for 1 minute with the magnet, remove and discard the supernatant. Do not vortex. Repeat washing step **once**.

6. Add 1 ml **Wash Buffer II** and mix gently by inverting the tube **6-8 times** at room temperature**.** Collect the bead/RNA/DNA-pellet for 1 minute with the magnet, remove and discard the supernatant. Do not vortex. Repeat washing step **once**.

7. Leave the tube in the magnet to keep the bead/RNA/DNA-pellet immobilized on the tube wall. Overlay the pellet carefully with 1 ml **Nuclease-free water**. Avoid suspending the bead/RNA/DNA-pellet (do not mix or vortex) and remove the supernatant immediately.

8. Add 100 µl **Elution Buffer** vortex and incubate for 10 minutes at 65 °C in a thermo-mixer 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 RNA/DNA. Repeat mixing (vortex) during the incubation step.

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

Optional: DNase Treatment

Use Ambion® DNA-free™ DNase Treatment and Removal Reagents and follow the instructions of the manufacturer.

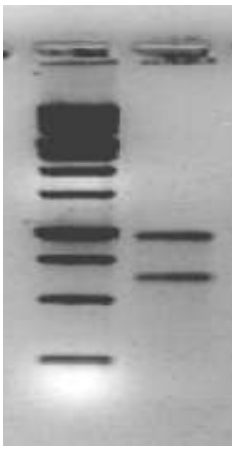
10. Add 5 µL (2 Units/ µl) rDNase I to the eluted RNA/DNA and mix gently.

11. Incubate at 37°C for 30 min.

12. Add 10 µl resuspended DNase Inactivation Reagent and mix well.

13. Incubate 2 minutes at room temperature, mix occasionally.

14. Centrifuge at 11,000 x g for 2 minutes, carefully transfer the RNA containing supernatant into a fresh tube.



Total RNA was isolated from 1 ml E. coli LB culture using geneMAG-RNA/DNA with subsequent DNase treatment (Ambion).

(Data kindly provided by Cengiz Öztürk, Charité, University Hospital of Humboldt-University to Berlin, Germany)

Contact

chemicell GmbH

Eresburgstrasse 22-23
12103 Berlin
Germany

@ **info@chemicell.com**

Tel.: +49-30-2141481
Fax.: +49-30-21913737
e-mail: info@chemicell.com
Internet: www.chemicell.com