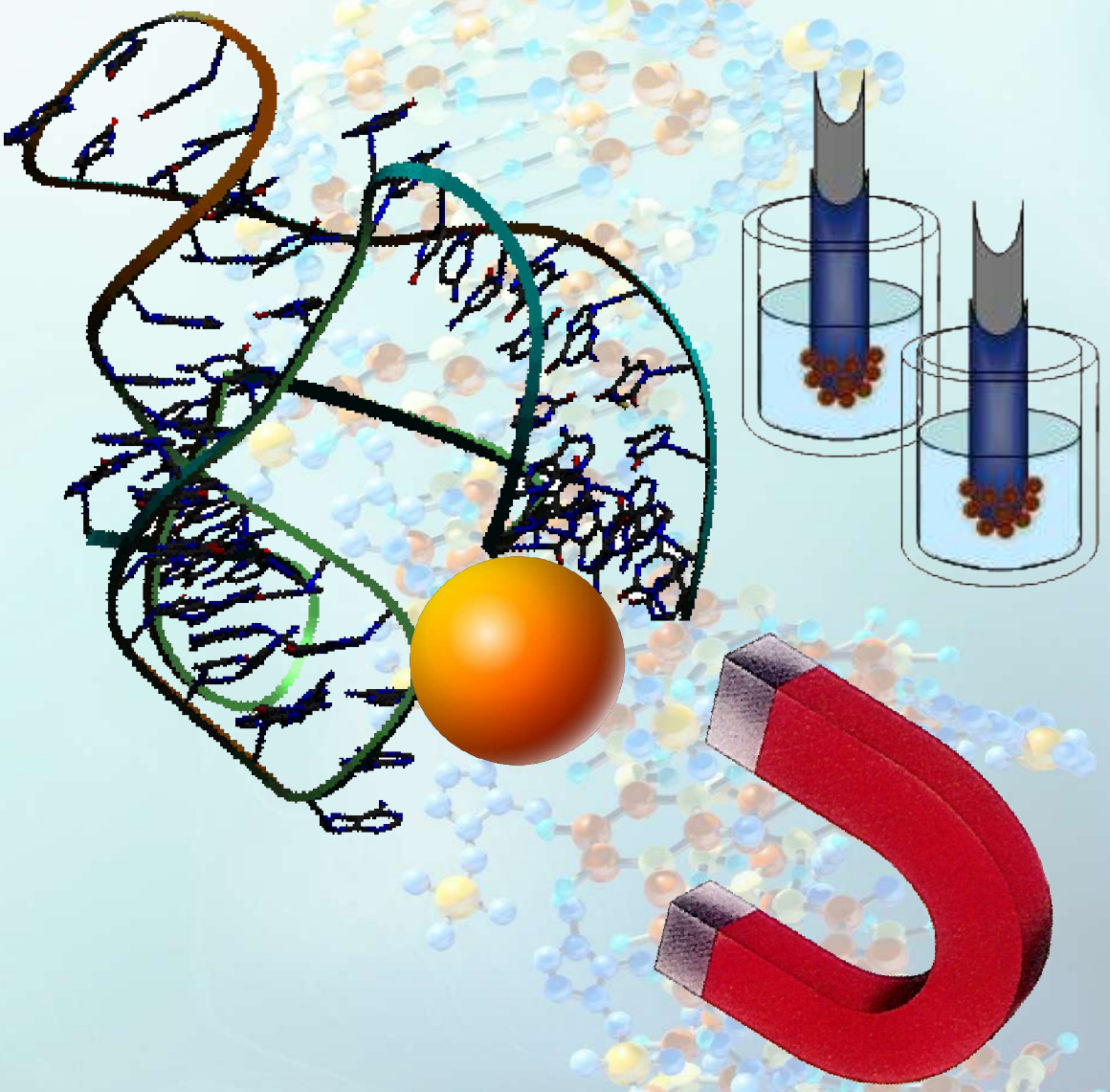
geneMAG-RNA/DNA 96

compatible for KingFisher™ 96 and BioSprint™ 96

Magnetic RNA/DNA purification kit compatible for KingFisher 96™ or BioSprint 96™ workstation.



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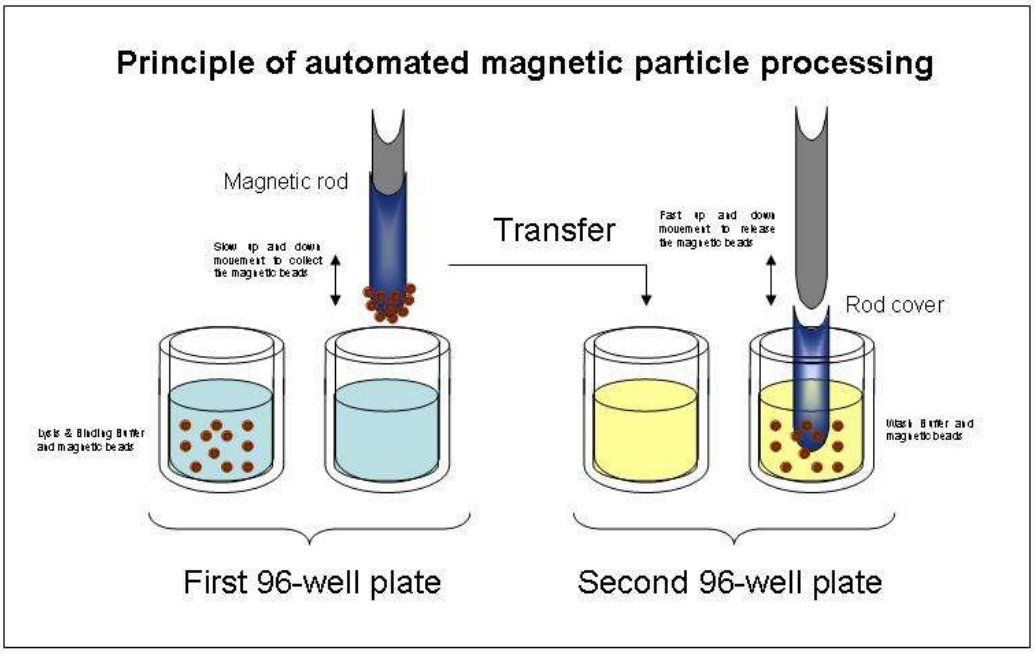
NEW TOOLS IN BIOSCIENCES

Technology

The **geneMAG-RNA/DNA 96** 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.



The magnetic bead processing of KingFisher™ 96 / BioSprint™ 96 workstation

The KingFisher™ 96 workstation is a trademark of Thermo Fisher Scientific.

The BioSprint™ 96 workstation is a trademark of Qiagen.

Products

Kits	Contents	Number of isolations	Price Euro/US$
geneMAG-RNA/DNA 96 (Cat. No.: KF3401-96)	• 100 ml Lysis & Binding Buffer • 200 ml Wash Buffer I • 10 ml SiMAG/KF-DNA Beads	1 x 96 preps per 10^9 bacteria	185 / 240
geneMAG-RNA/DNA 480 (Cat. No.: KF3401-480)	• 500 ml Lysis & Binding Buffer • 1000 ml Wash Buffer I • 50 ml SiMAG/KF-DNA Beads	5 x 96 preps per 10^9 bacteria	725 / 942

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.
- **KingFisher™ 96 / BioSprint™ 96 workstation**
- **Deep well 96-well plates (2,2 ml) squared well**
- **KingFisher™ 96 plate (0,3 ml)**
- **Magnet Head for deep well 96-well plates**
- **DNase Treatment:** DNA-free™ Kit, DNase Treatment and Removal Reagents Part Number AM1906 (Applied Biosystems).

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**

Protocol for KingFisher™ 96 or BioSprint 96™

This protocol describes the isolation of genomic-DNA from 10^9 bacteria cells per each well of 96-well plate with the geneMAG-RNA/DNA 96 kit using KingFisher™ 96 or BioSprint™ 96 workstation.

Preparation of the deep well 96-well plates (2,2 ml)

First 96-well plate:

1. Add 100 µl **Bacteria Suspension** in each well

Bacteria Suspension: Add 1.5 ml of overnight cultured cells (approximately 10^8 cells) into a 1.5 ml microcentrifuge tube. Centrifuge for 2 minutes at 11,000 x g to pellet the cells. Discard the supernatant.
Resuspend the bacteria pellet in 100 µl **Lysis & Binding Buffer**

2. Add 1000 µl **Lysis & Binding Buffer** and 100 µl **SiMAG/KF-DNA.**

Second 96-well plate:

1. Add 1000 µl **Wash Buffer I** in each well

Third 96-well plate:

1. Add 1000 µl **Wash Buffer I** in each well

Fourth 96-well plate:

1. Add 1000 µl **Wash Buffer II** (70% 2-propanol) in each well

Fifth 96-well plate:

1. Add 1000 µl **Wash Buffer II** (70% 2-propanol) in each well

Sixth 96-well plate: Use 96-well plate with max. volume of 0,3 ml

1. Add 100 µl **Elution Buffer** (dH2O) in each well

Seventh 96-well plate: Parking station!!!!

Protocol for KingFisher™ 96 or BioSprint 96™

Settings of the processing times for Lysis- & Binding-, Wash- and Elution steps :

Start the KingFisher Software and set the following parameters:

1. Lysis & Binding process (first deep-well plate):
6 minutes with low stirring

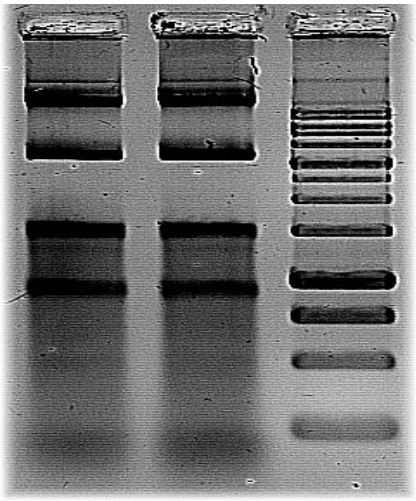
2. Wash process with Wash Buffer I (second deep-well plate):
1 minutes with medium stirring

3. Wash process with Wash Buffer I (third deep-well plate):
1 minutes with medium stirring

4. Wash process with Wash Buffer II (fourth deep-well plate):
1 minutes with medium stirring

5. Wash process with Wash Buffer II (fifth deep-well plate):
1 minutes with medium stirring

6. Elution process with Elution Buffer (dH2O):
Heat time: 10 minutes with high stirring
Temperature: 80°C



Total RNA/DNA was isolated from 1.5ml E. coli LB culture using geneMAG-RNA/DNA 96.
(Data kindly provided by Cengiz Öztürk, Charité, University Hospital of Humboldt-University to Berlin, Germany)

Optional: DNase Treatment

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

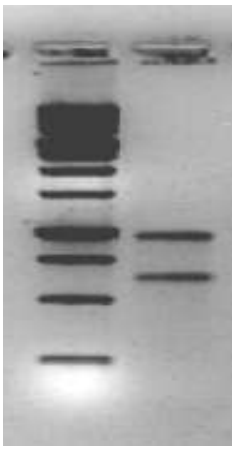
10. Add 5 µL (2 Units/ µl) rDNase I to the eluted RNA/DNA and mix gently.

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 96 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