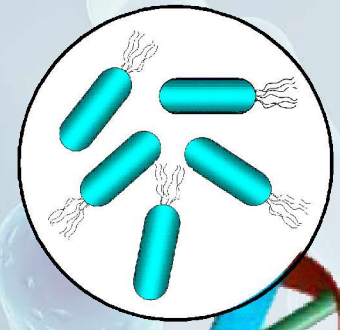
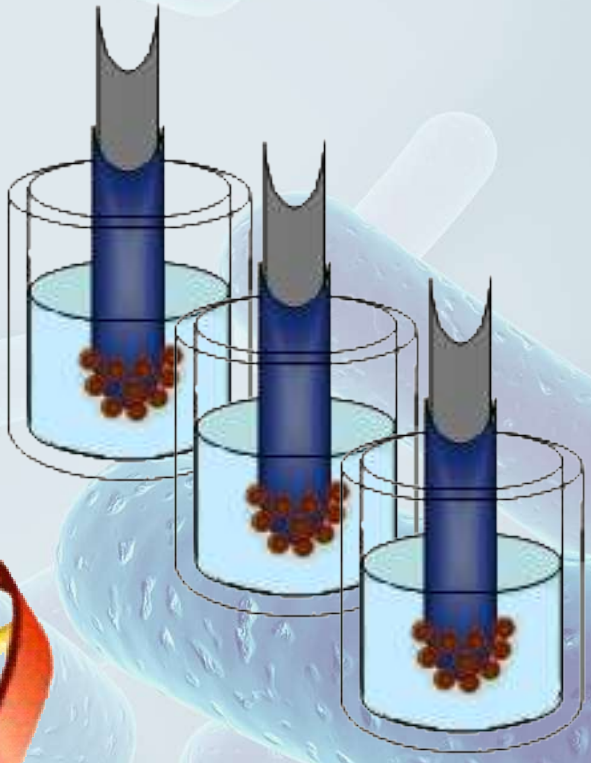
geneMAG-DNA 96 / *Bacteria*

compatible for KingFisher™ 96 and BioSprint™ 96



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



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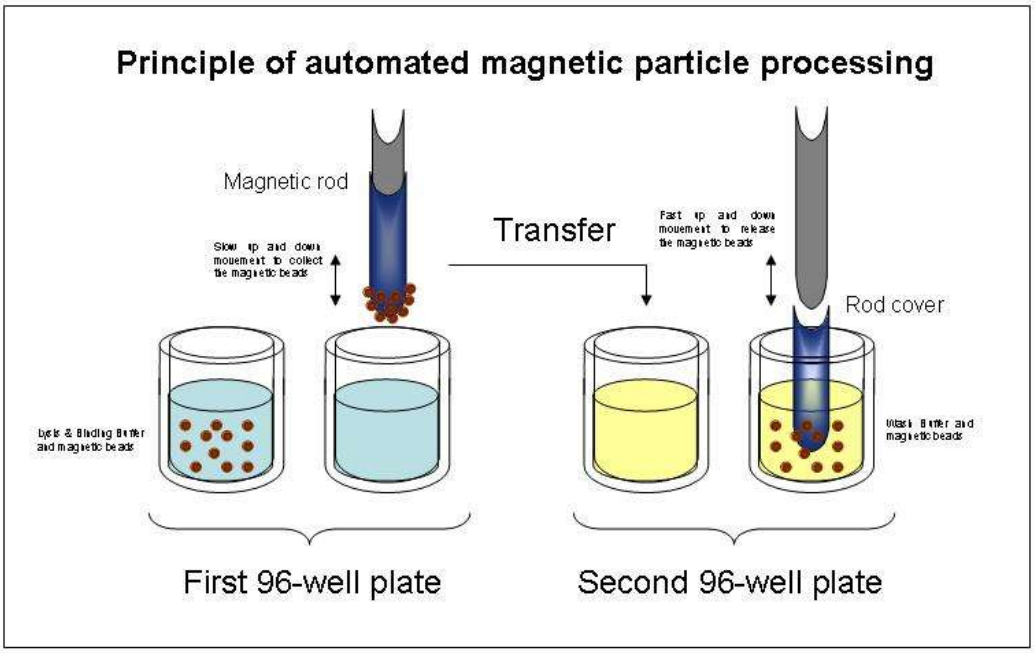
NEW TOOLS IN BIOSCIENCES

The **geneMAG-DNA 96 / *Bacteria*** kit is a novel, simple and highly efficient tool for isolation of genomic DNA from bacteria with magnetic silica beads using the KingFisher™96 or BioSprint™ 96 workstations.

The lysis and binding of DNA is carried out under non-chaotropic conditions with the Lysis & Binding Buffer. The wash steps with Wash Buffer I, II and III guarantee a clean DNA which is suitable for PCR reactions or other biochemical applications.

geneMAG-DNA 96 / *Bacteria* is highly suitable for a variety of automatization platforms since it requires no centrifugation or vacuum filtration procedures.



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-DNA 96 / Bacteria (Cat. No.: KF3101-96)	• 100 ml Lysis & Binding Buffer • 200 ml Wash Buffer I • 10 ml SiMAG/KF-DNA Beads	1 x 96 preps per 10^9 bacteria	220 / 286
geneMAG-DNA 480 / Bacteria (Cat. No.: KF3101-480)	• 500 ml Lysis & Binding Buffer • 1000 ml Wash Buffer I • 50 ml SiMAG/KF-DNA Beads	5 x 96 preps per 10^9 bacteria	900 / 1170

Reagents and Equipment to be Supplied by the User

- **Wash Buffer II**: 70% ethanol or 70% 2-propanol
- **Elution Buffer:** ddH_2O
- **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**

Storage

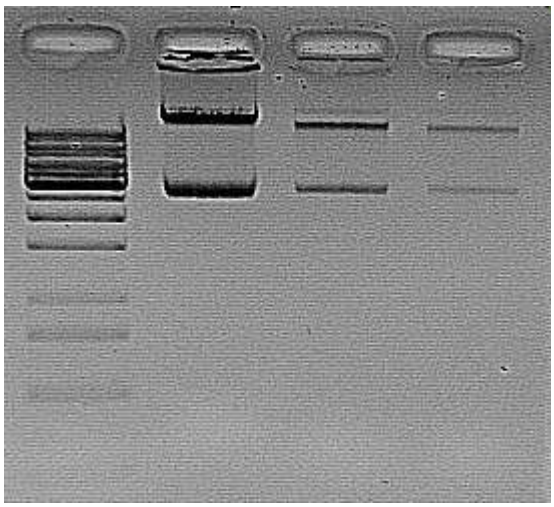
The kit compounds are stable at room temperature. If there are salt precipitates in the Lysis/Binding Buffer or Wash Buffer I dissolve these precipitates by warming in a water bath.

Safety Note

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

Bacteria cells	10^2	10^4	10^9
Lysis & Binding Buffer	250 µl	500 µl	1000 µl
SiMAG/KF-DNA	25 µl	50 µl	100 µl
Wash Buffer I 2x	500 µl	500 µl	1000 µl
Wash Buffer II 2x	500 µl	500 µl	1000 µl
Elution Buffer* (ddH_2O)	100 - 400 µl	100 - 400 µl	100 - 800 µl

*We recommend ddH_2O for elution, alternatively 10 mM Tris-HCl, pH 8.0 or TE-Buffer, pH 8.0



Agarose gel (1%) analysis of genomic DNA from Bacteria (e.g. E.*coli*) (Data kindly provided by Cengiz Öztürk, Charité, University Hospital of Humboldt-University to Berlin, Germany)

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-DNA 96 / *Bacteria* 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

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