

# NucleoMag<sup>®</sup> DNA Microbiome

Automated purification of stool, soil and biofilm samples on the Maelstrom 4800

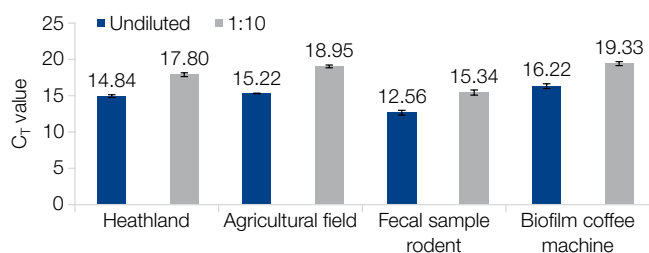


## Introduction

Microbial communities inside and outside of our bodies define and modulate human health. Moreover, the microbiome of the soil and biofilm around us plays a substantial role for ecosystem health. MACHEREY-NAGEL's NucleoMag<sup>®</sup> DNA Microbiome kit was developed to isolate high quality DNA from various samples such as stool, soil and biofilms and uses patented inhibitor removal technology.

Extraction of high quality DNA representative of all organisms present in a sample is one of the most crucial steps for all microbiome and metagenomics analysis. To achieve efficient lysis, even from difficult to lyse organisms we recommend to combine NucleoMag<sup>®</sup> DNA Microbiome with mechanical homogenization by bead beating (ceramic beads, MN Bead Tubes Type A)

Here we evaluated the qPCR performance of DNA extracted with NucleoMag<sup>®</sup> DNA Microbiome on the TANBead Maelstrom 4800.



### NucleoMag<sup>®</sup> DNA Microbiome

Technology	Magnetic beads
Sample material	≤ 200 mg stool ≤ 200 mg soil biofilm (incl. swabs)
Elution volume	50–100 µL
Fragment size	300 bp–approx. 50 kbp
Preparation time	approx. 41 min

### TANBead Maelstrom 4800

Description	Automated nucleic acid extraction instrument
Technology	Magnetic rods; mixing by whirl stirring
Capacity	Up to 48 samples/run
Footprint	58.0 x 47.0 x 43.0 cm

### Efficient DNA isolation from soil, stool and biofilm microorganisms

Stool, soil and biofilm samples were subjected to a mechanical lysis procedure with MN Bead Tubes Type A. DNA was purified from the homogenates using the NucleoMag<sup>®</sup> DNA Microbiome kit (MN) on the TANBead Maelstrom platform. DNA eluates were used in a qPCR for the bacterial 16s rRNA gene. DNA eluates obtained with NucleoMag<sup>®</sup> DNA Microbiome are free of PCR inhibition.

For more information please contact MACHEREY-NAGEL Bioanalysis technical support: [support@mn-net.com](mailto:support@mn-net.com)

## Your advantages at a glance

- Patented inhibitor removal technology
- Convenient and fast nucleic acid purification on the Maelstrom 4800
- Highly pure nucleic acids - superior downstream performance

Product	Specifications	Pack of	REF
NucleoMag <sup>®</sup> DNA Microbiome	Magnetic bead based kit for the purification of microbial DNA from bacteria or yeast; contains NucleoMag <sup>®</sup> B-Beads, buffers	96 preps 384 preps	744330.1 744330.4
MN Bead Tubes Type A	2 mL screw cap micro tubes prefilled with 0.6–0.8 mm ceramic beads; recommended for soil, stool and biofilm samples.	50	740786.50
MN 96 Bead Plate Type A	Rack of prefilled tube strips (12 strips with 8 tubes each) containing 0.6–0.8 mm ceramic beads; suitable in conjunction with mixer mill; recommended for soil, stool and biofilm samples.	4 x 96 preps 24 x 96 preps	740850.4 740850.24