

# magtivio



## MagSi-DNA Stool

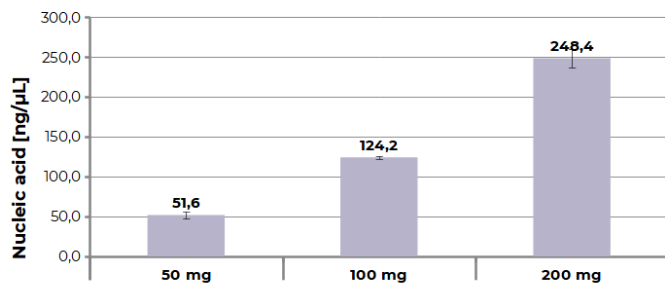
*Isolation of microbiome DNA  
from human stool samples*

## Microbiome DNA isolation from fresh, frozen or stabilized human stool samples

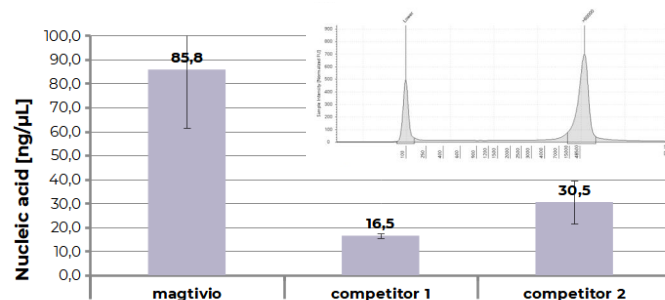
Human microbiome analysis is the study of microbial communities found in and on the human body. The goal of human microbiome profiling studies is to understand the role of microbes in health and disease. The **MagSi-DNA Stool** kit is intended for manual and automated isolation of microbiome DNA (mixture of bacterial/microbial and host DNA) from fresh, frozen or stabilized human stool samples. Processing time for the preparation of 96 samples is about 60 minutes including heat lysis incubations. The obtained DNA can be used directly for downstream applications such as PCR or NGS.

### General Features

- Short and easy protocols, 96 samples in 60 minutes
- Suitable for fresh, frozen or stabilized stool samples
- Compatible with DNA Genotek's OMNIgene®-GUT collection kit (OM-200)
- Ready-to-use wash buffers, no additional alcohol required
- Consistently high yield and purity of high molecular weight microbiome DNA



**Figure 1.** Nucleic acid concentrations (NanoDrop) obtained from different input weights of stool samples. A260/280 ratios are 1.95 for all sample input weights (data not shown).



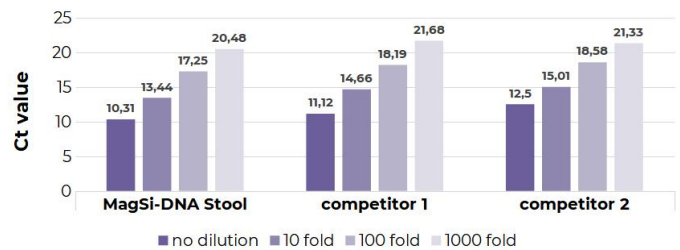
**Figure 2.** Nucleic acid concentrations (NanoDrop) and electropherogram (TapeStation) obtained from stool stabilized in OMNIgene®-GUT. 200 µL of the preserved stool sample was processed using MagSi-DNA Stool versus two competitor kits. High molecular weight DNA was obtained with the MagSi-DNA Stool kit as demonstrated by analysis of the purified sample with Genomic DNA Screentape on Agilent TapeStation (picture insert, top-right).

### Ordering Information

Art. No.	Description	Amount
MDKT00230096	MagSi-DNA Stool	96 preps
MDKT00230960	MagSi-DNA Stool	10 x 96 preps
MDKT0023B096	MagSi-DNA Stool (incl. GP Lysis Tubes)	96 preps
MDKT0023B960	MagSi-DNA Stool (incl. GP Lysis Tubes)	10 x 96 preps
MDPL00330100	GP Lysis Tubes	100 pcs

**MagSi-DNA Stool** is optimized for use in isolating total DNA from human stool samples. The MagSi-ST10 magnetic beads are easy to handle and are supplied in a storage buffer for optimized resuspension and minimized sedimentation. Depending on the sample materials RNA may be co-purified.

For efficient lysis of hard-to-lyse bacteria (e.g. gram positive bacteria) mechanical disruption with **GP Lysis Tubes** is recommended. If the microorganism of interest requires stronger homogenization than provided by a vortex, or if using a bead beater is desired, high-powered bead beating may be used, e.g. with the Geno/Grinder® (SPEX Sample Prep).



**Figure 3.** Ct values obtained by qPCR targeting a bacterial 16s rDNA gene on purified DNA obtained from preserved stool samples versus competitor extraction kits. Purified samples were used undiluted and diluted as indicated in the qPCR reaction. No PCR inhibition was observed. Lowest Ct values were obtained with the MagSi-DNA Stool kit, demonstrating the high yield of the recovered DNA.

### Easy to Automate

- Minimal accessory requirements
- PurePrep / KingFisher™ / Biosprint 96 / MagMax™ protocols and consumables available
- Compatible with general liquid handling robots (e.g. Hamilton®, TECAN®)
- Magnetic separators for microtubes and microplates separately available for convenient manual or automated DNA extractions

