



MagAttract PowerSoil Pro DNA Kit for KingFisher

Overview

Hands-Free
Purification

Features and
Benefits

Yield & Quality

Microbial Diversity

Yield & Quality –
Competitor

Purity & Diversity –
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Yield & Quality –
Stool

Purity & Diversity –
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Ordering
Information



Sample to Insight



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Yield & Quality –
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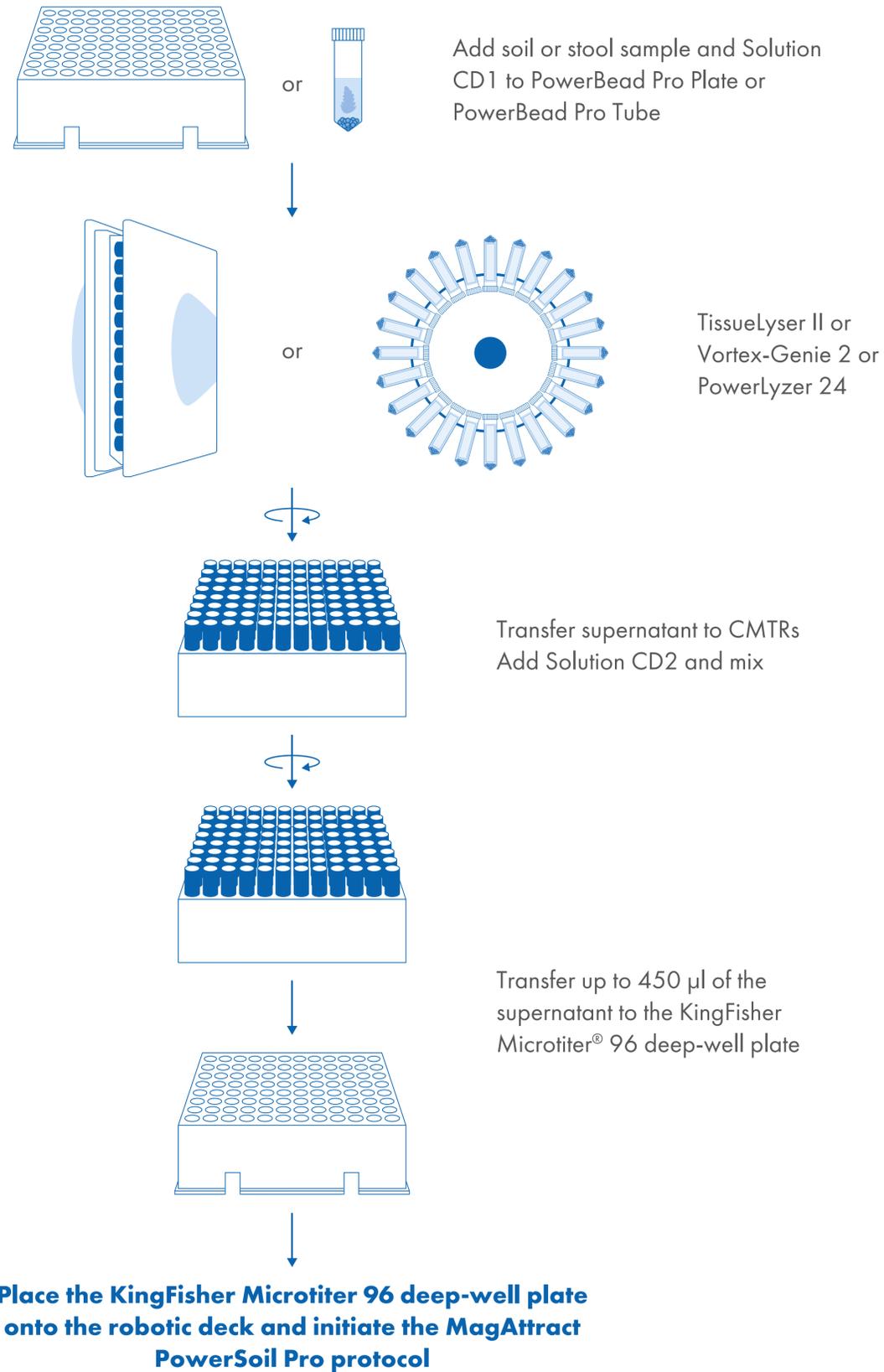
Purity & Diversity –
Competitor

Yield & Quality –
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Purity & Diversity –
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MagAttract PowerSoil Pro DNA Procedure



 Download
Handbook



Features and benefits

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Yield & Quality – Competitor

Purity & Diversity – Competitor

Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information

- Higher yield (due to more efficient PowerBead Pro technology and lysis chemistry)
- Greater purity, better inhibitor removal
- More accurate representation of the microbiome

Features	Specifications
Sample types	Soil and stool
Sample size	0.25 g of soil or 0.1 g of stool
Processing	Bead beating using PowerBead Pro Tubes or Plates
Bead type	Mixture of zirconium beads
Storage temperature	Solution CD2 should be stored at 2–8°C upon arrival. All other reagents and kit components of the MagAttract PowerSoil Pro DNA Kit can be stored at room temperature (15–25°C).
Throughput	96-well plate
Automated on	KingFisher

 [Visit Product Webpage](#)



Yield

Quality

Higher DNA yields with the Pro kits

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Yield & Quality – Competitor

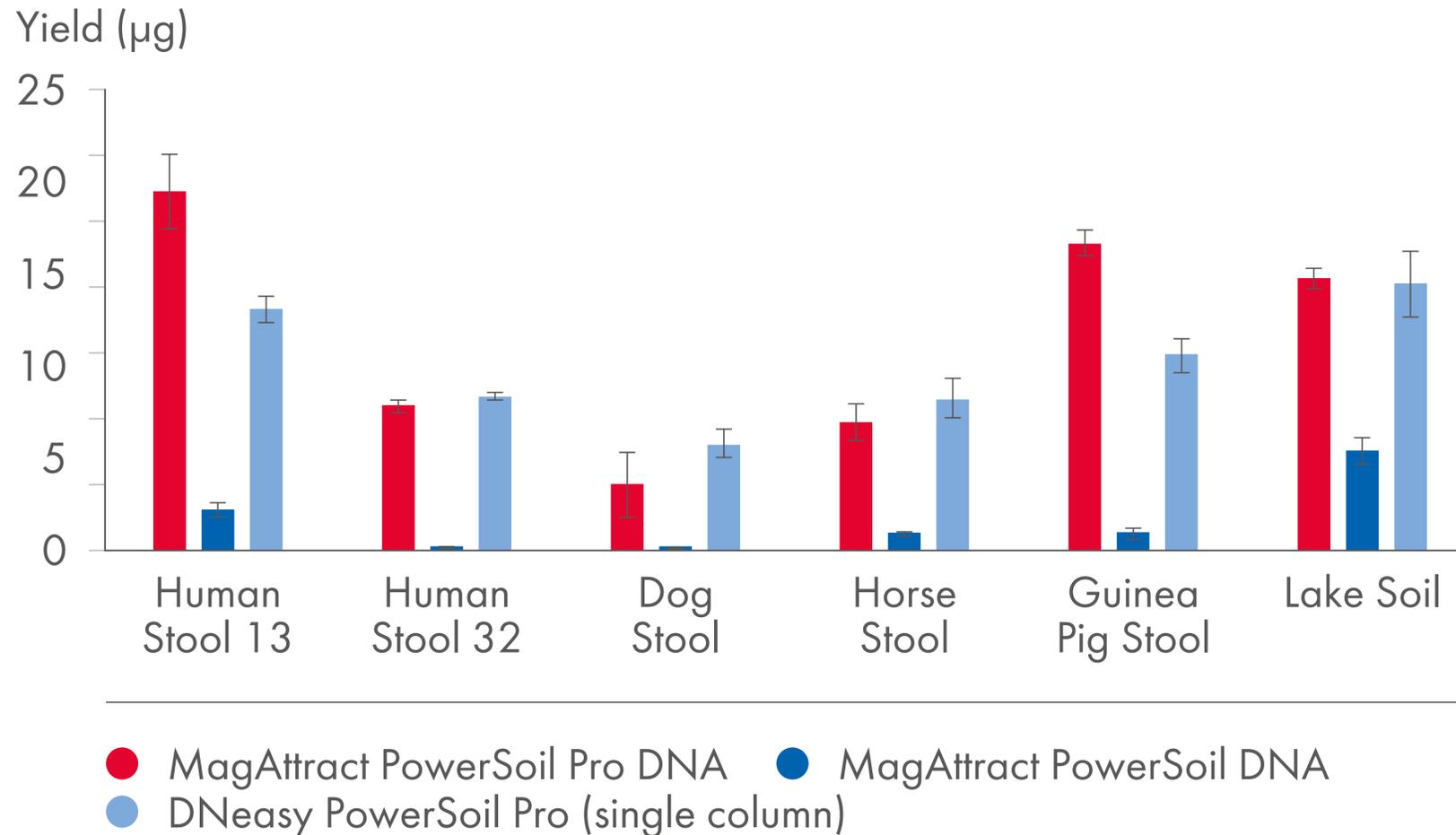
Purity & Diversity – Competitor

Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information

DNA yield



Increased performance of the MagAttract PowerSoil Pro DNA Kit in comparison with the legacy MagAttract PowerSoil DNA Kit and comparable to the manual DNeasy PowerSoil Pro Kit.

DNA was isolated from 100 mg stool (human, dog, horse, guinea pig) and 250 mg soil samples according to the protocols of the kits. Samples purified with the MagAttract PowerSoil Pro DNA Kit (red) contained higher DNA yields for all sample types compared to samples purified with the legacy MagAttract PowerSoil DNA Kit (dark blue) and comparable yields to samples purified with the manual DNeasy PowerSoil Pro Kit (light blue).



Yield

Quality

Better DNA quality with the Pro kits

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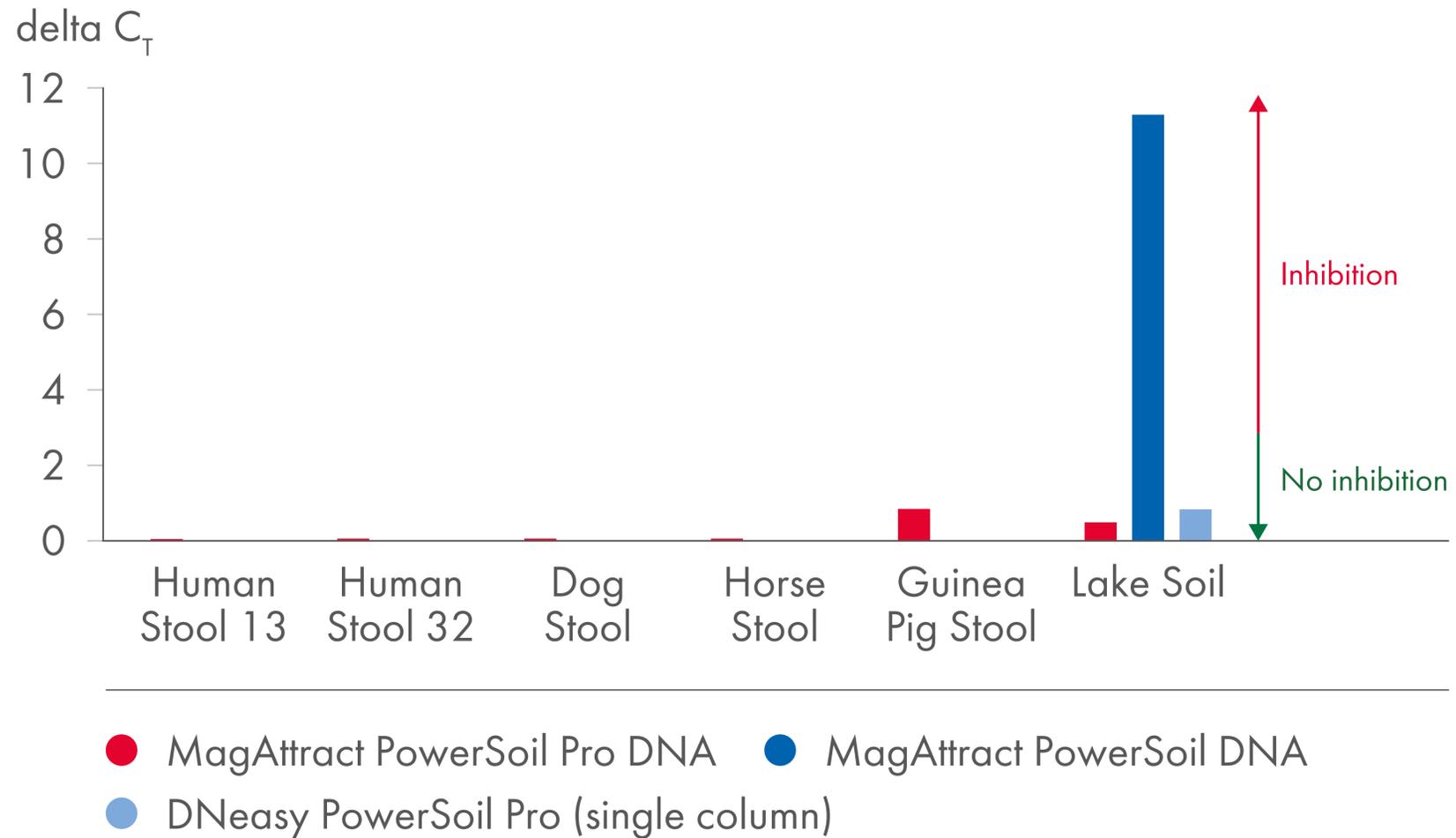
Purity & Diversity – Competitor

Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information

DNA quality – PCR inhibition



Increased purity of isolated DNA obtained with the MagAttract PowerSoil Pro DNA Kit in comparison to DNA obtained with the legacy MagAttract PowerSoil DNA Kit and comparable to the manual DNeasy PowerSoil Pro Kit.

DNA was isolated from 100 mg stool (human, dog, horse, guinea pig) and 250 mg soil samples according to the protocols of the kits.



More accurate representation of the microbiome with the Pro kits

Microbial diversity 1

Microbial diversity 2

Overview

Lake Soil

Hands-Free Purification

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Yield & Quality – Competitor

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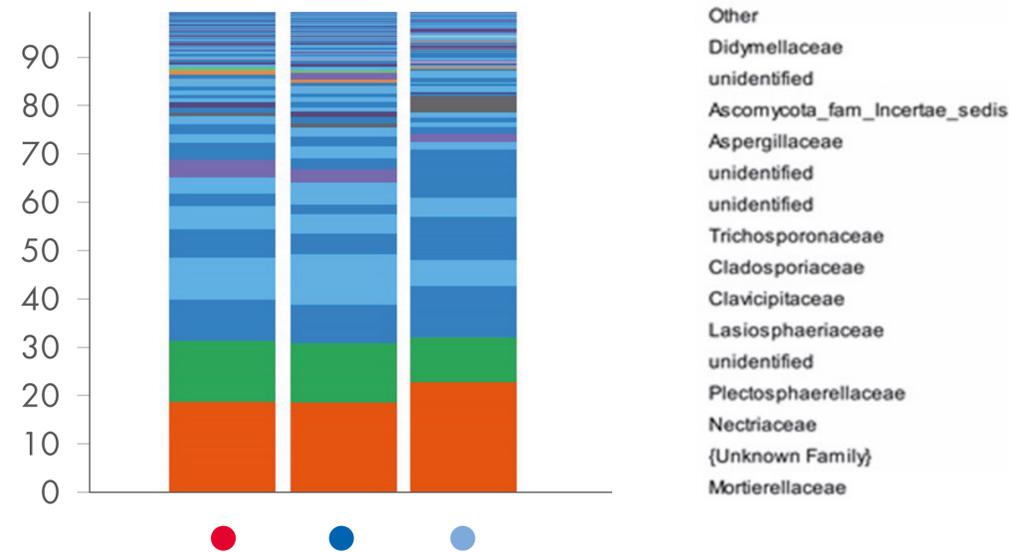
Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information

A OTU table

Abundance of fungal OTUs

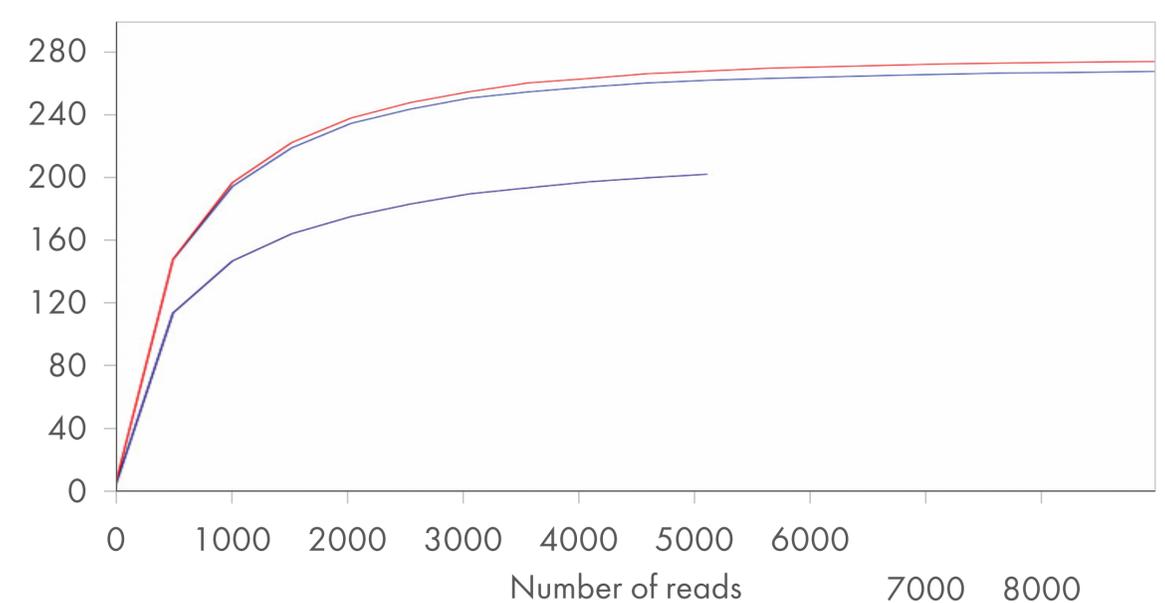


● MagAttract PowerSoil Pro DNA ● MagAttract PowerSoil DNA ● DNeasy PowerSoil Pro (single column)

B Alpha diversity

Total fungal OTUs

Total Number



Increased fungal representation after purification with the MagAttract PowerSoil Pro DNA Kit in comparison with the legacy MagAttract PowerSoil DNA Kit and comparable to the manual DNeasy PowerSoil Pro Kit.

DNA prepared from soil samples was isolated with MagAttract PowerSoil Pro DNA (red), MagAttract PowerSoil DNA (dark blue) and DNeasy PowerSoil Pro (single column, light blue) Kits. To analyse the ITS regions, the 16S/ITS Region Panel and QIAseq 16S/ITS Index Kit were used. Data analysis was performed with the Microbial Genomics Pro suite (CLC workbench) using the UNITE fungal database. Each result represents an aggregation of three data sets per sample. **A** The abundance of fungal operational taxonomic units (OTUs) is visualized in the OTU table. **B** Alpha diversity was determined by total number of OTUs.



More accurate representation of the microbiome with the Pro kits

Microbial diversity 1

Microbial diversity 2

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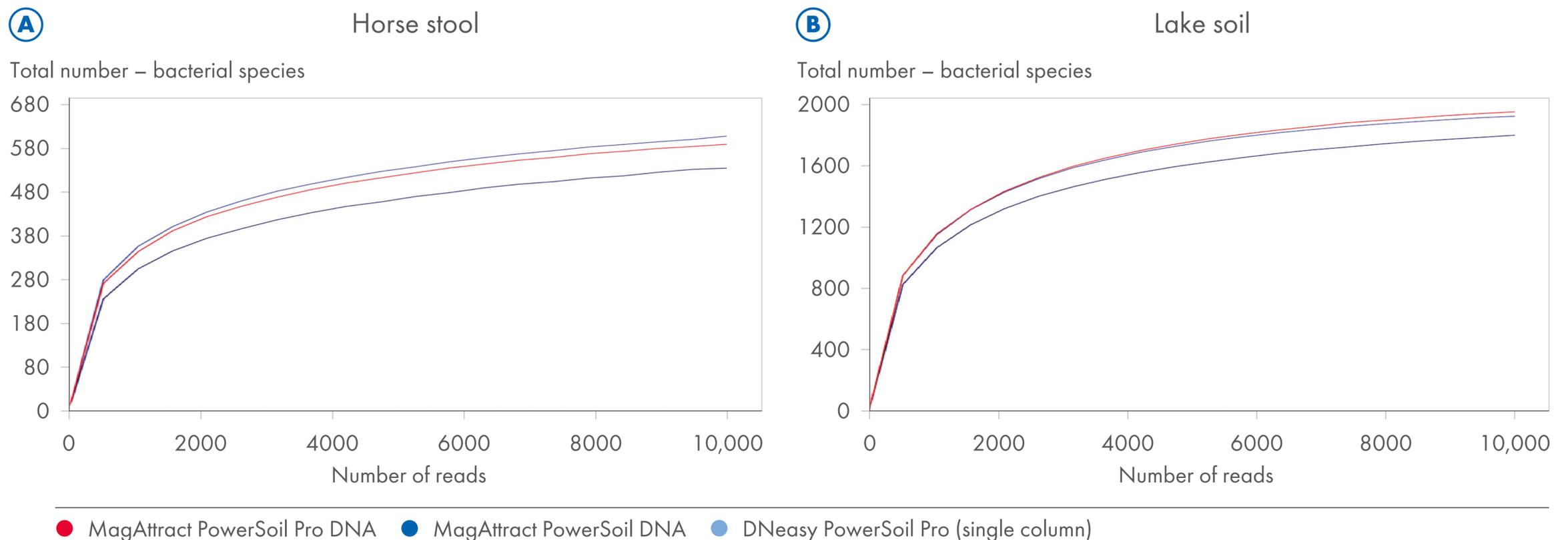
Purity & Diversity – Competitor

Yield & Quality – Stool

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Ordering Information

Alpha diversity



Increased bacterial representation after purification with the MagAttract PowerSoil Pro DNA Kit in comparison with the legacy MagAttract PowerSoil DNA Kit and comparable to the manual DNeasy PowerSoil Pro Kit.

DNA prepared from stool and soil samples was isolated with MagAttract PowerSoil Pro DNA (red), MagAttract PowerSoil DNA (dark blue) and DNeasy PowerSoil Pro (single column, light blue). To analyse the 16S rRNA genes, the 16S/ITS Region Panel (V4V5) and QIAseq® 16S/ITS Index Kit were used. Data analysis was performed with the Microbial Genomics Pro suite (CLC workbench) using the SILVA database (16S v138 99%). Each result represents an aggregation of three data sets per sample.

A Alpha diversity was determined by the total number of bacterial species in the stool sample. **B** Alpha diversity was determined by the total number of bacterial species in the soil sample.



Higher DNA yields for soil and stool samples compared with competitor kits

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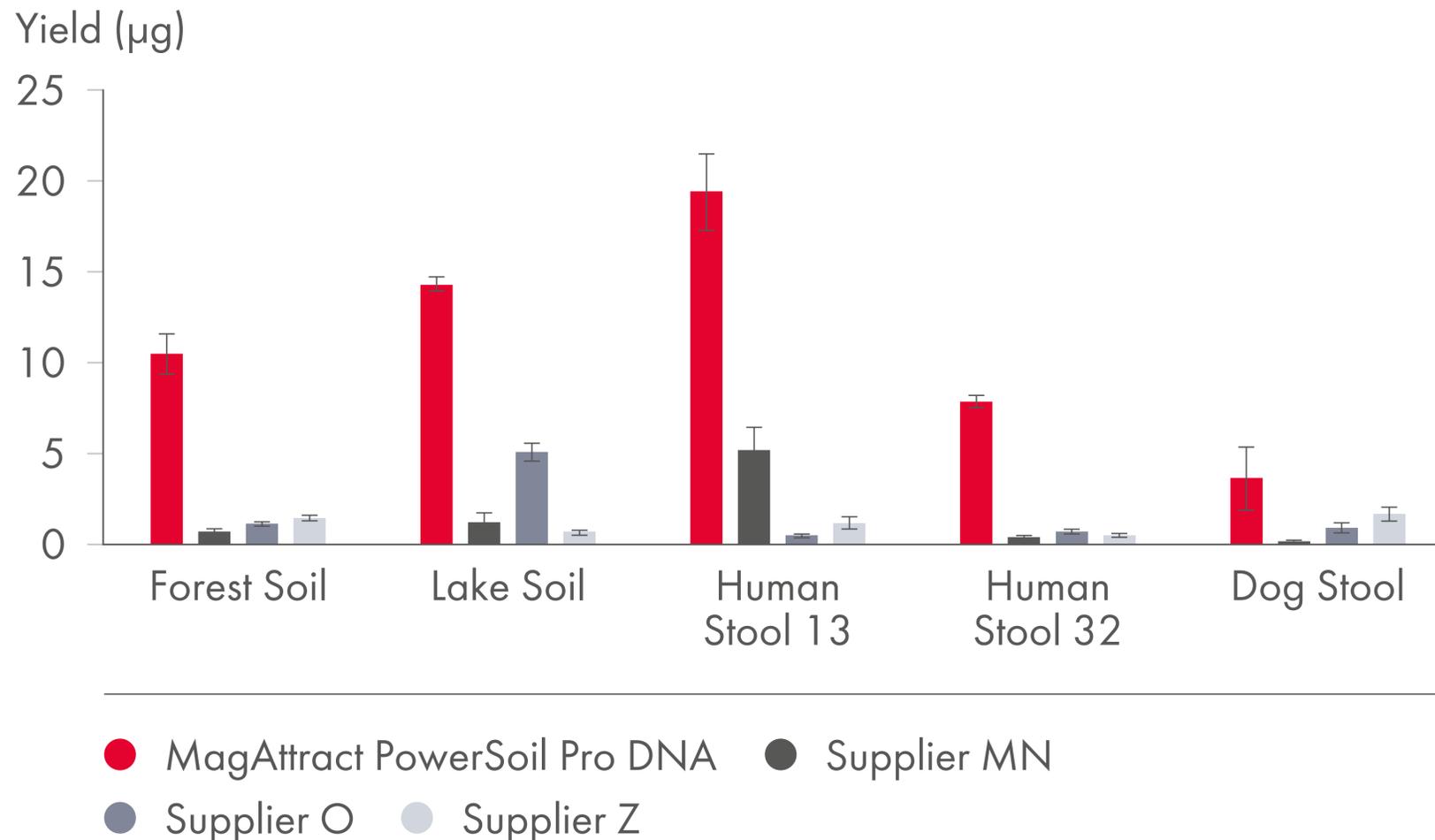
Purity & Diversity – Competitor

Yield & Quality – Stool

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Ordering Information

DNA yield



Increased performance of the MagAttract PowerSoil Pro DNA Kit in comparison with competitor kits.

Soil (forest, lake) and stool (human and dog) samples were processed according to the appropriate protocol and their DNA isolated. The DNA yields were measured with a Qubit Fluorometer. The amount of DNA obtained from samples processed with the MagAttract PowerSoil Pro DNA Kit (red) was higher than the amount of DNA obtained from samples processed with competitor kits (shades of grey).



Better DNA quality for soil and stool samples compared with competitor kits

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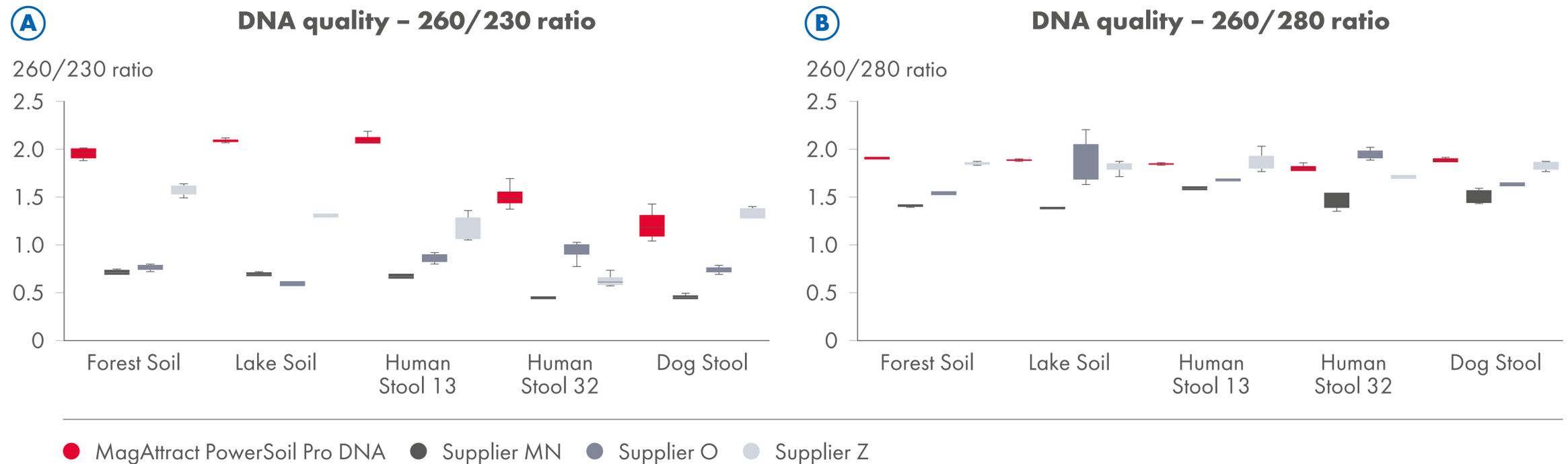
Yield & Quality – Competitor

Purity & Diversity – Competitor

Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information



Increased DNA quality of samples purified with the MagAttract PowerSoil Pro DNA Kit in comparison to samples purified with competitor kits.

Soil (forest, lake) and stool (human and dog) samples were processed according to the appropriate protocol and their DNA isolated. The 260/230 ratios of samples processed with the MagAttract PowerSoil Pro DNA Kit (red) were higher than the 260/230 ratios of samples processed with competitor kits (shades of grey). The 260/280 ratios of samples processed with the MagAttract PowerSoil Pro DNA Kit (red) were similar to the 260/280 ratios of samples processed with competitor kits.



Improved DNA purity for soil and stool samples compared with competitor kits

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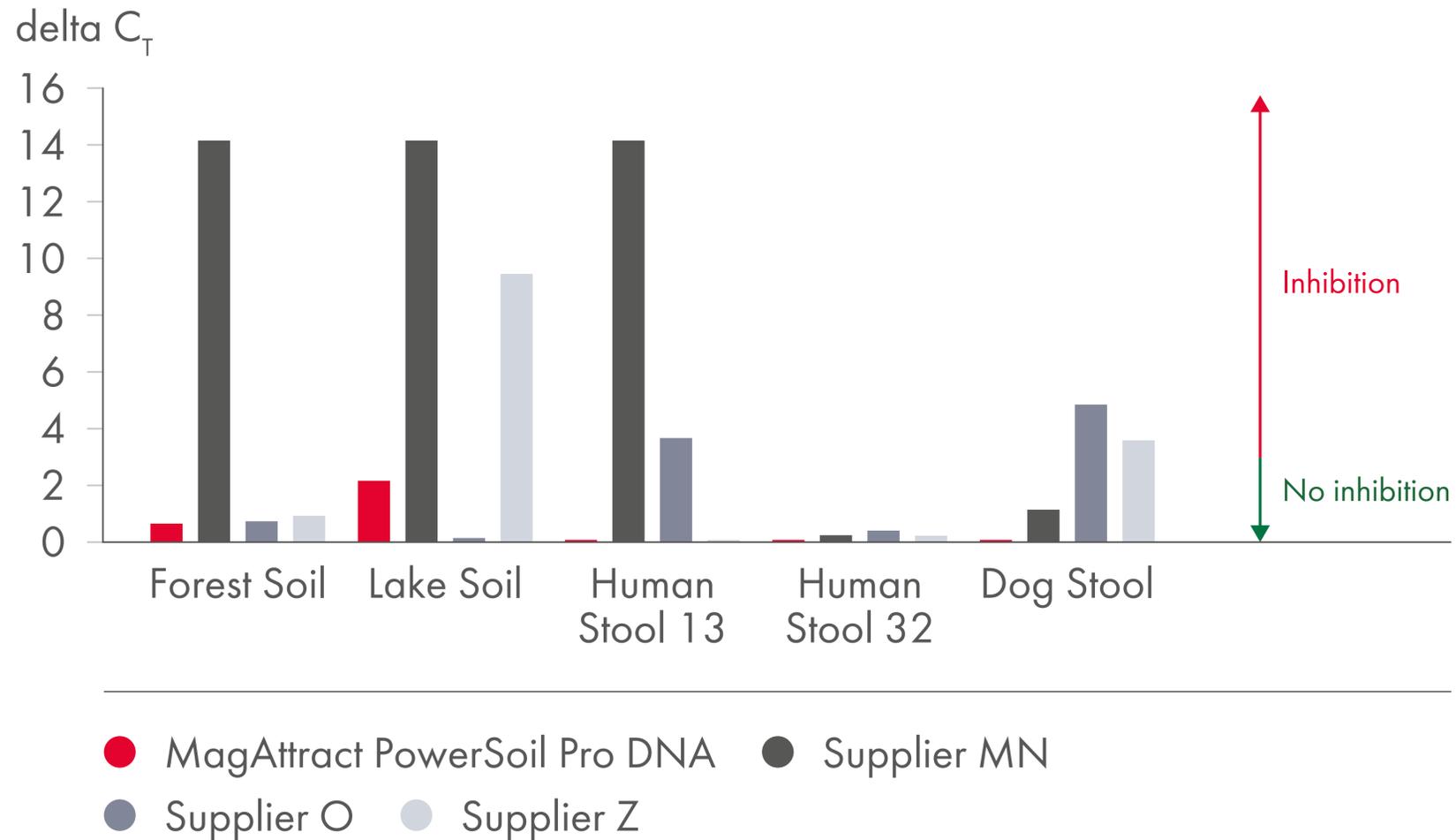
Purity & Diversity – Competitor

Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information

DNA purity – PCR inhibition



Increased purity of isolated DNA obtained with the MagAttract PowerSoil Pro DNA Kit in comparison to DNA obtained from competitor kits.

Soil and stool samples were processed and their DNA isolated according to the protocols of the kits. The internal control (IC) from the QuantiFast Pathogen +IC kit was spiked with 4 µl isolated DNA. After IC amplification via PCR, the C_T values were compared to the C_T values for PCR with water added to the IC (representing no inhibition) by calculating Delta C_T (C_T (PCR spiked with isolated DNA) – C_T (PCR spiked with water)).



More accurate representation of the microbial diversity compared with competitor kits

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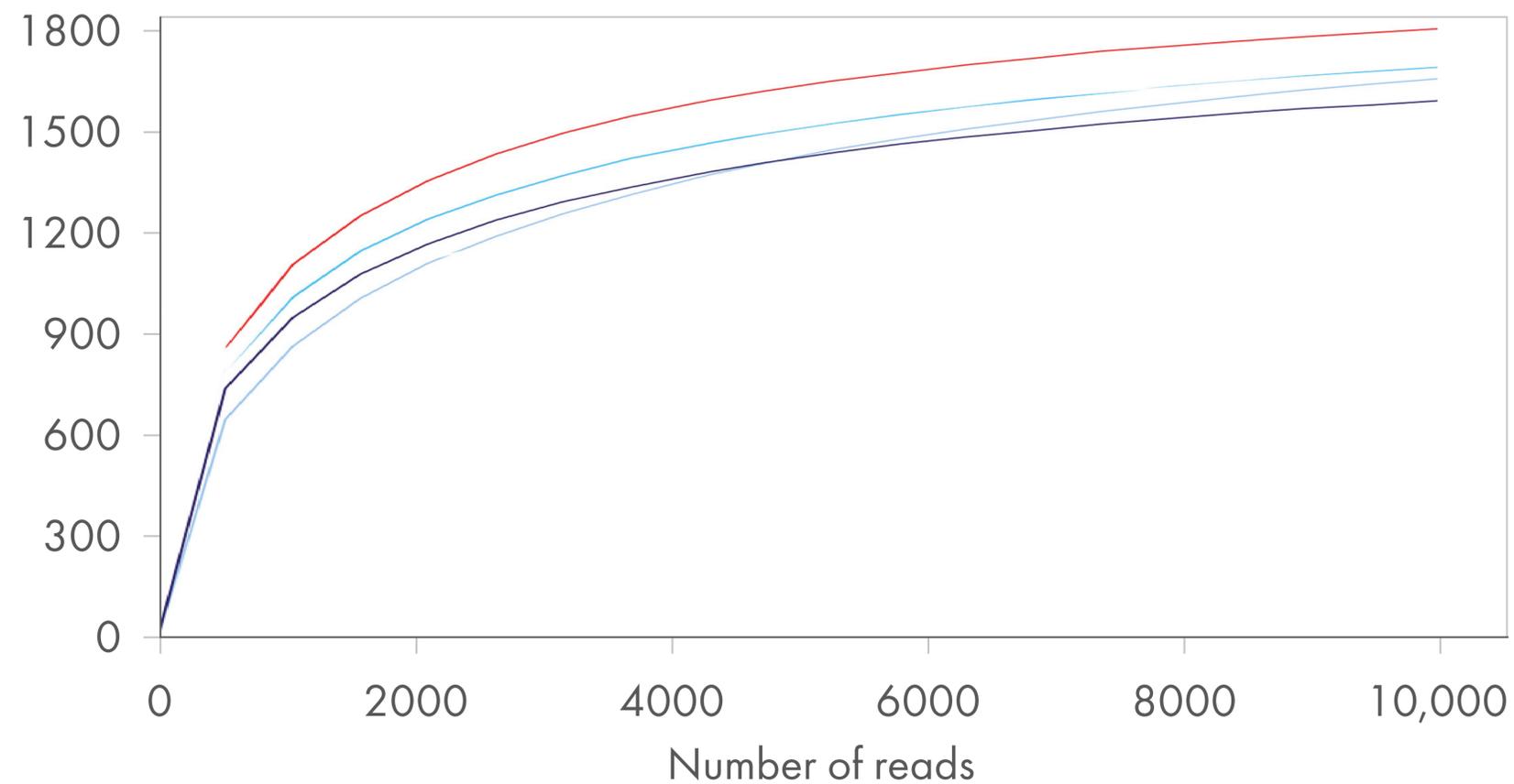
Yield & Quality – Stool

Purity & Diversity – Stool

Ordering Information

Lake soil – Alpha diversity

Total number – bacterial species



- MagAttract PowerSoil Pro DNA
- Supplier MN
- Supplier O
- Supplier Z

Increased bacterial representation after purification with the MagAttract PowerSoil Pro DNA Kit in comparison to competitor kits.

DNA prepared from soil samples was isolated with MagAttract PowerSoil Pro DNA (red) and other technologies. 16S libraries of the 16S gene (V4 region) were prepared using barcoded 515fB and 806rB primers and the QIAGEN UCP Multiplex PCR Kit. Data analysis was performed with the Microbial Genomics Pro suite (CLC workbench) using the SILVA database. Each result represents an aggregation of three data sets per sample. Alpha diversity was determined by total number of species.



Higher DNA yield for stool samples compared with competitor kits

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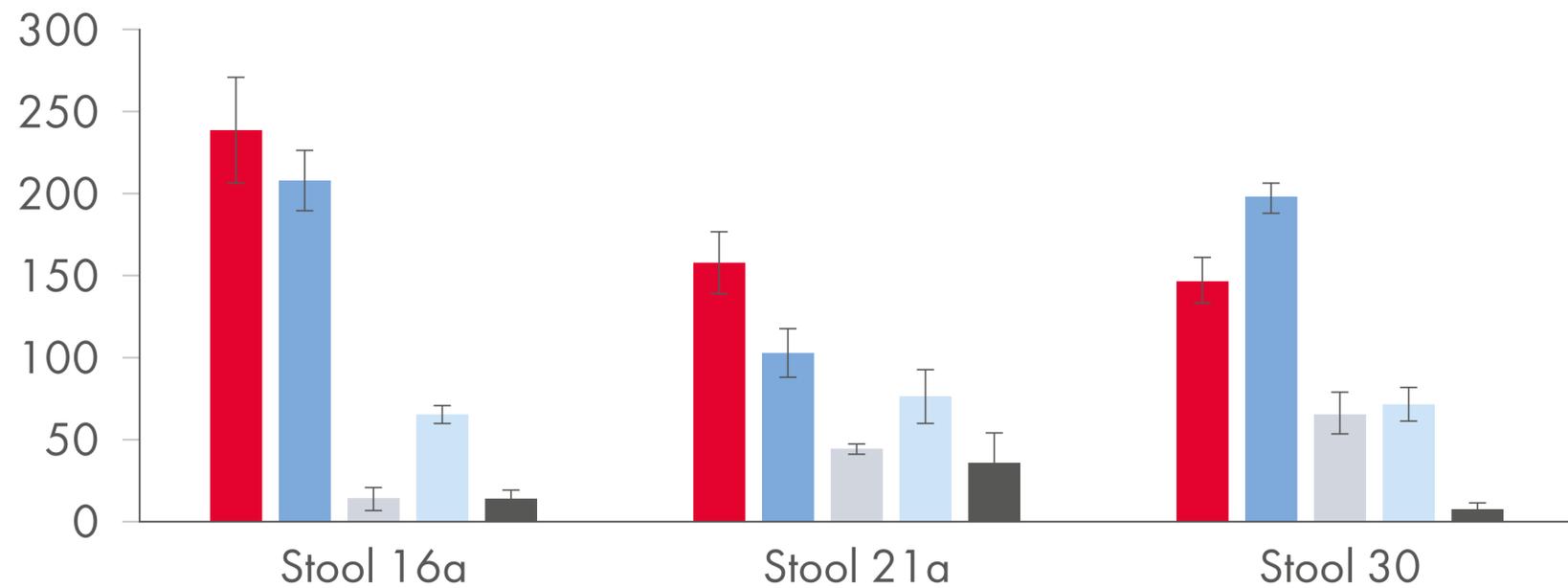
Yield & Quality – Stool

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Ordering Information

DNA yield

Yield (ng DNA/mg sample)



- MagAttract PowerSoil Pro DNA
- DNeasy PowerSoil Pro (single column)
- Supplier Z ● Supplier T ● Supplier MN

Increased performance of the MagAttract PowerSoil Pro DNA Kit in comparison with competitor kits.

Human stool samples were processed according to the appropriate protocol and their DNA isolated. The yield of DNA per mg sample from samples processed with the MagAttract PowerSoil Pro DNA Kit (red) was higher than the yield of DNA per mg sample obtained from samples processed with competitor kits and similar to those processed with the DNeasy PowerSoil Pro Kit (dark blue).



Better DNA quality for stool samples compared with competitor kits

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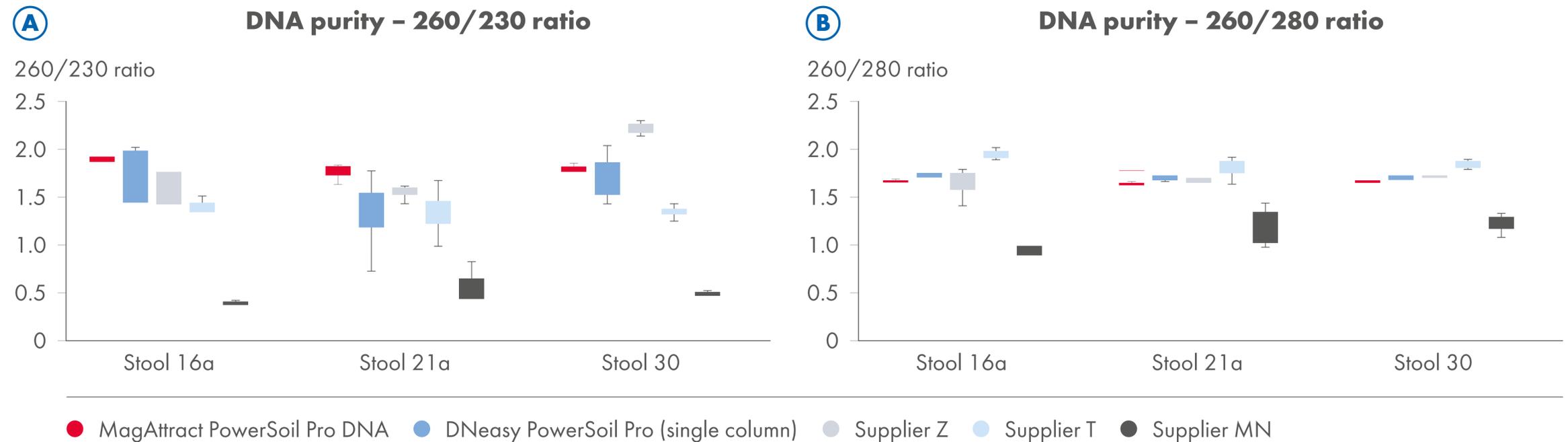
Yield & Quality – Competitor

Purity & Diversity – Competitor

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Increased DNA quality of samples purified with the MagAttract PowerSoil Pro DNA Kit in comparison to samples purified with competitor kits.

Human stool samples were processed according to the appropriate protocol and their DNA isolated. The 260/230 ratios of samples processed with the MagAttract PowerSoil Pro DNA Kit (red) were higher than the 260/230 ratios of samples processed with competitor kits. The 260/280 ratios of samples processed with the MagAttract PowerSoil Pro DNA Kit were consistent with the 260/280 ratios of samples processed with competitor kits.



Improved DNA purity for stool samples compared with competitor kits

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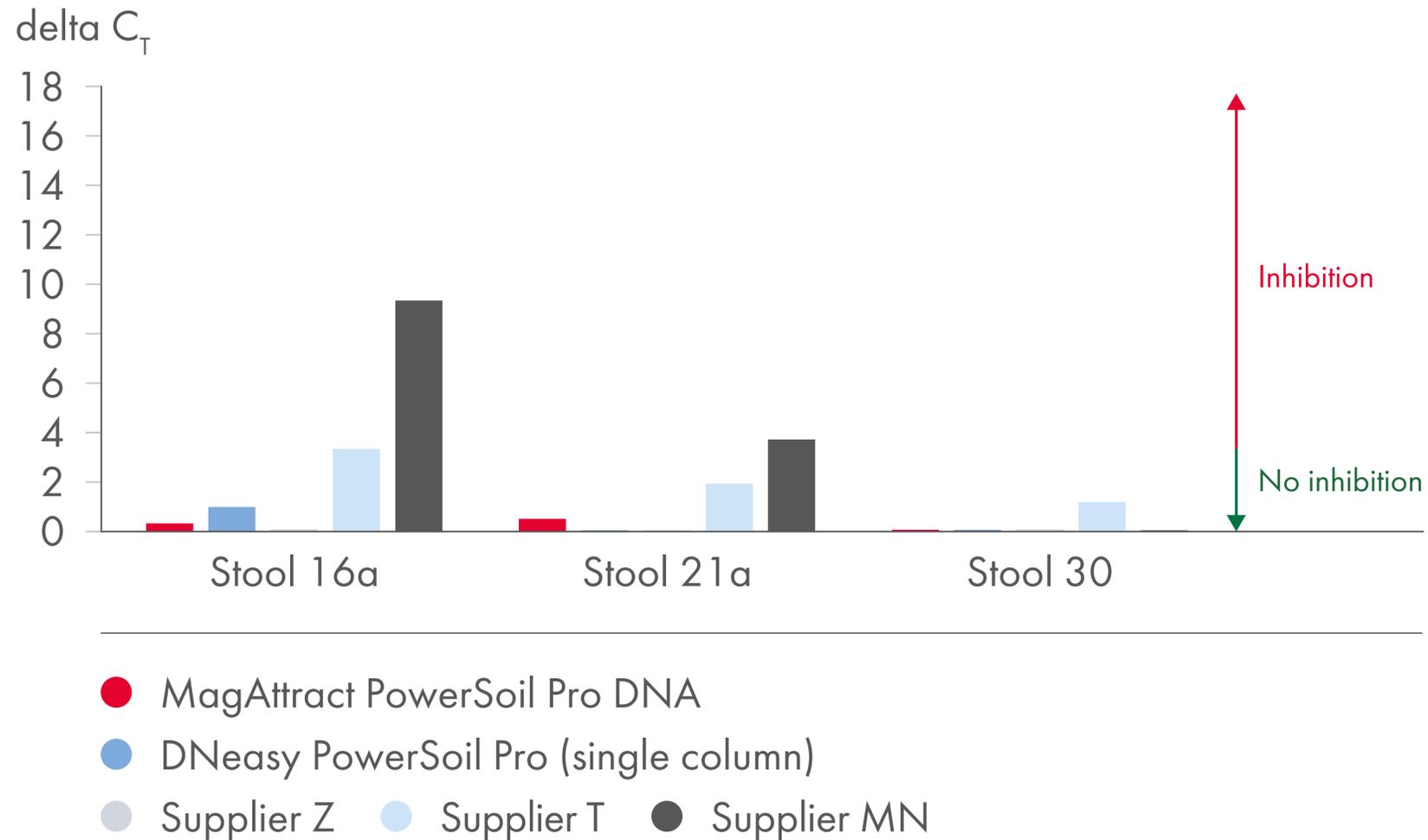
Purity & Diversity – Competitor

Yield & Quality – Stool

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DNA purity – PCR inhibition



Increased purity of isolated DNA obtained with the MagAttract PowerSoil Pro DNA Kit in comparison to DNA obtained from competitor kits.

The internal control (IC) from the QuantiFast Pathogen +IC kit was spiked with 4 µl isolated DNA. After IC amplification via PCR, the C_T values were compared to the C_T values for PCR with water added to the IC (representing no inhibition) by calculating Delta C_T (C_T (PCR spiked with isolated DNA) – C_T (PCR spiked with water)).



More accurate representation of the stool microbiome compared with competitor kits

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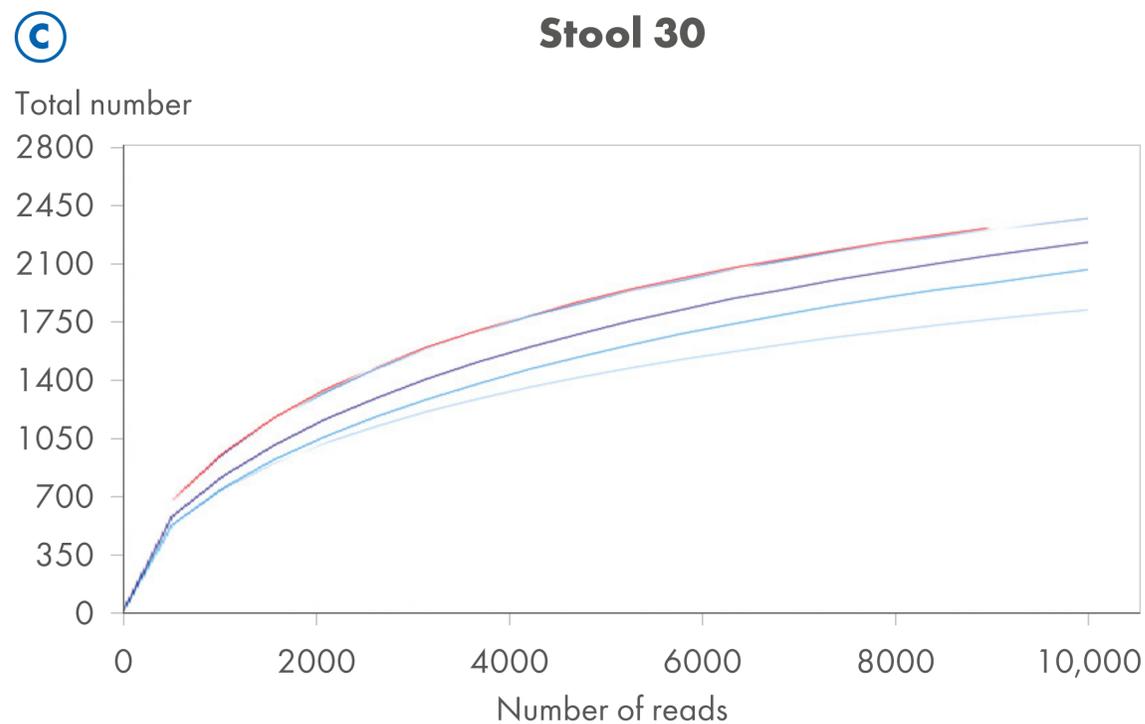
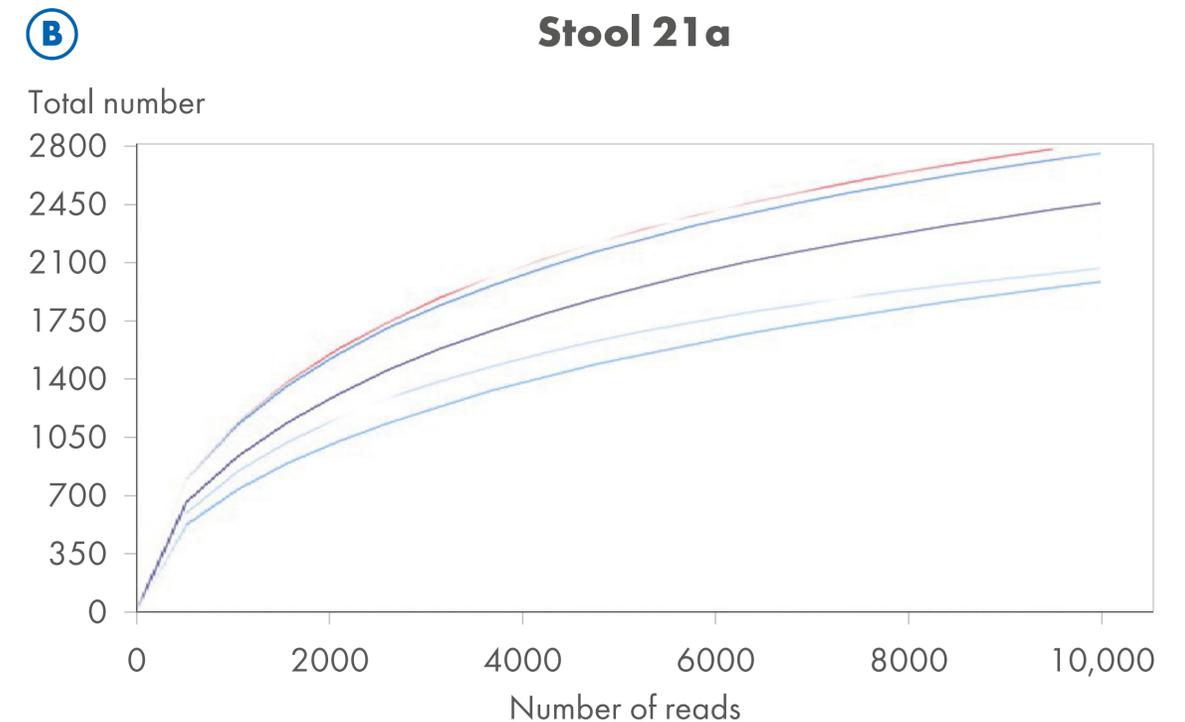
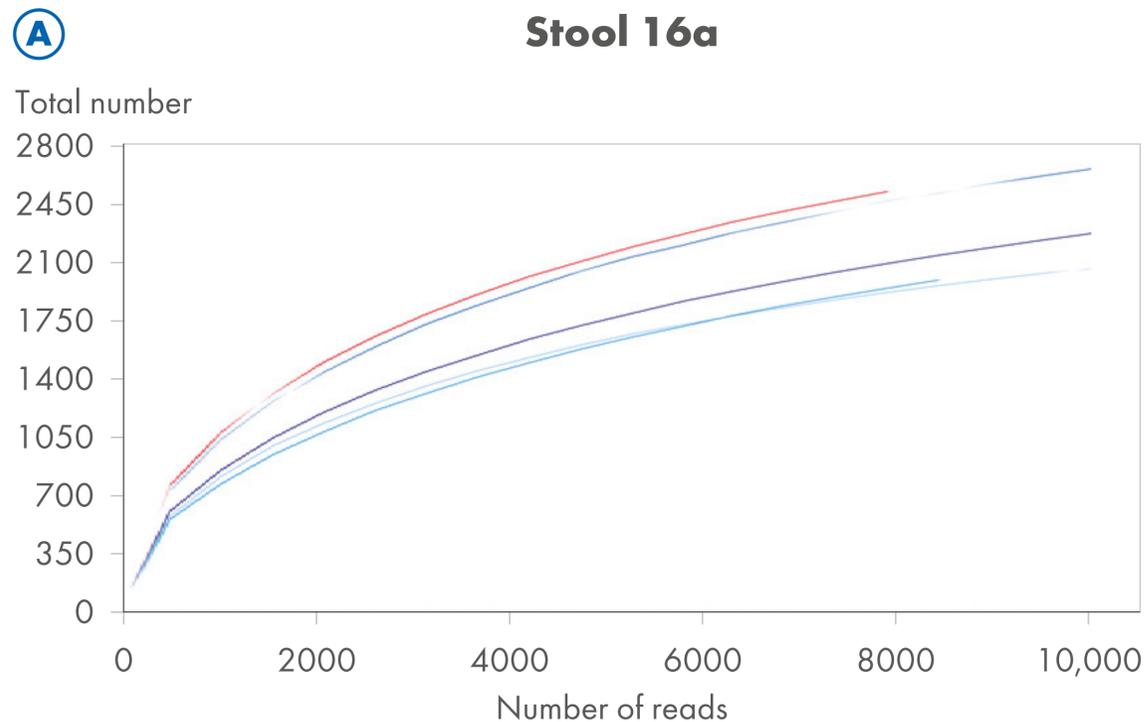
Yield & Quality – Competitor

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● MagAttract PowerSoil Pro DNA ● DNeasy PowerSoil Pro (single column)
● Supplier Z ● Supplier T ● Supplier MN

Increased bacterial representation after purification with the MagAttract PowerSoil Pro DNA Kit in comparison to competitor kits.

DNA prepared from human stool samples was isolated with MagAttract PowerSoil Pro DNA Kit (red) and other technologies. Samples purified with MagAttract PowerSoil Pro DNA identified increased numbers of species compared to samples purified with other technologies and comparable numbers of species compared to samples purified with the DNeasy PowerSoil Pro Kit (dark blue).



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Product	Contents	Cat. no.
MagAttract PowerSoil Pro DNA Kit for KingFisher	For 4 x 96 preps, for the epMotion: Racked collection microtubes with caps, Solution CD1, Solution CD2, RNase A, MagAttract Suspension G, QSB1 concentrate, MW1 concentrate, Solution C6	47109
PowerBead Pro Tubes (50)	Prefilled bead tubes, 2 ml for sample disruption	19301
PowerBead Pro Plates (4 x 96)	Prefilled bead plates for sample disruption	19311

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