

MagAttract PowerSoil Pro DNA

For hands-free isolation of DNA from soil and stool using automated processing and liquid-handling systems

Overview

Hands-free Purification

Features and Benefits

Pro Kit Yield vs. Legacy

Pro Kit Quality vs. Legacy

Pro Kit Yield vs. Competitor

Pro Kit Quality vs. Competitor

Ordering Information



Overview

Hands-free
Purification

Features
and Benefits

Pro Kit Yield
vs. Legacy

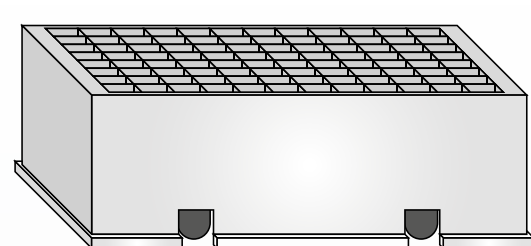
Pro Kit Quality
vs. Legacy

Pro Kit Yield
vs. Competitor

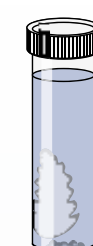
Pro Kit Quality
vs. Competitor

Ordering
Information

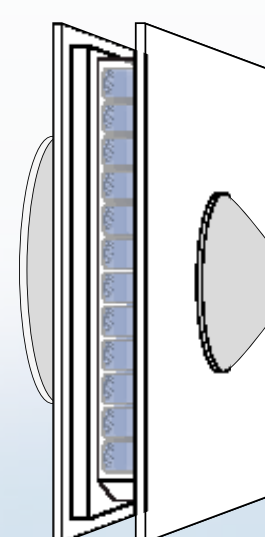
MagAttract PowerSoil Pro DNA Procedure



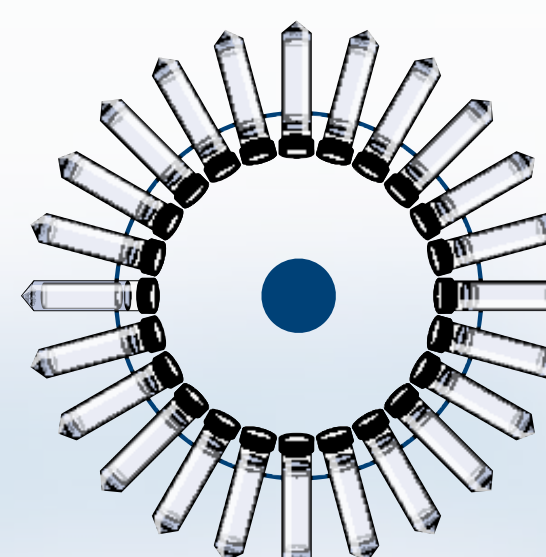
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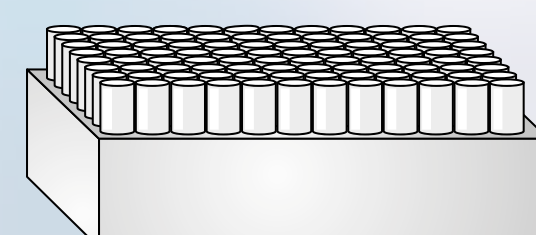
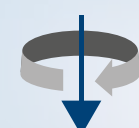
Add soil or stool sample and
Solution CD1 to PowerBead Pro
Plate or PowerBead Pro Tube



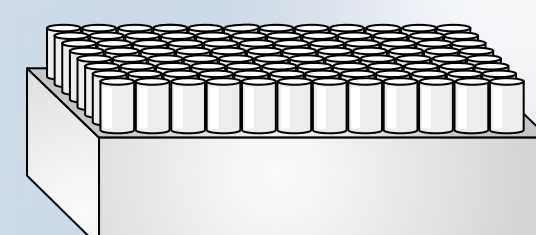
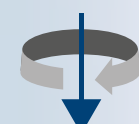
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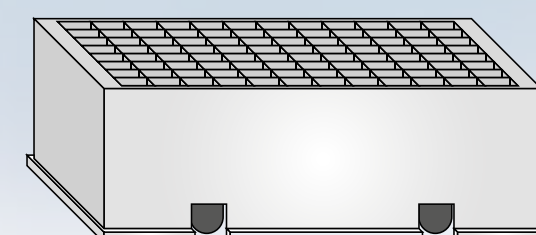
TissueLyser II or
Vortex-Genie 2 or
PowerLyzer 24



Transfer supernatant to CMTRs
Add Solution CD2 and mix



Transfer up to 450 μ l of the
supernatant to the KingFisher
Microtiter[®] 96 deep-well plate



Place the KingFisher Microtiter 96 deep-well plate
onto the robotic deck and initiate the MagAttract
PowerSoil Pro protocol



Download
Handbook

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Features and benefits

Features	Specifications
Sample types	Processed 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

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

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Features and Benefits

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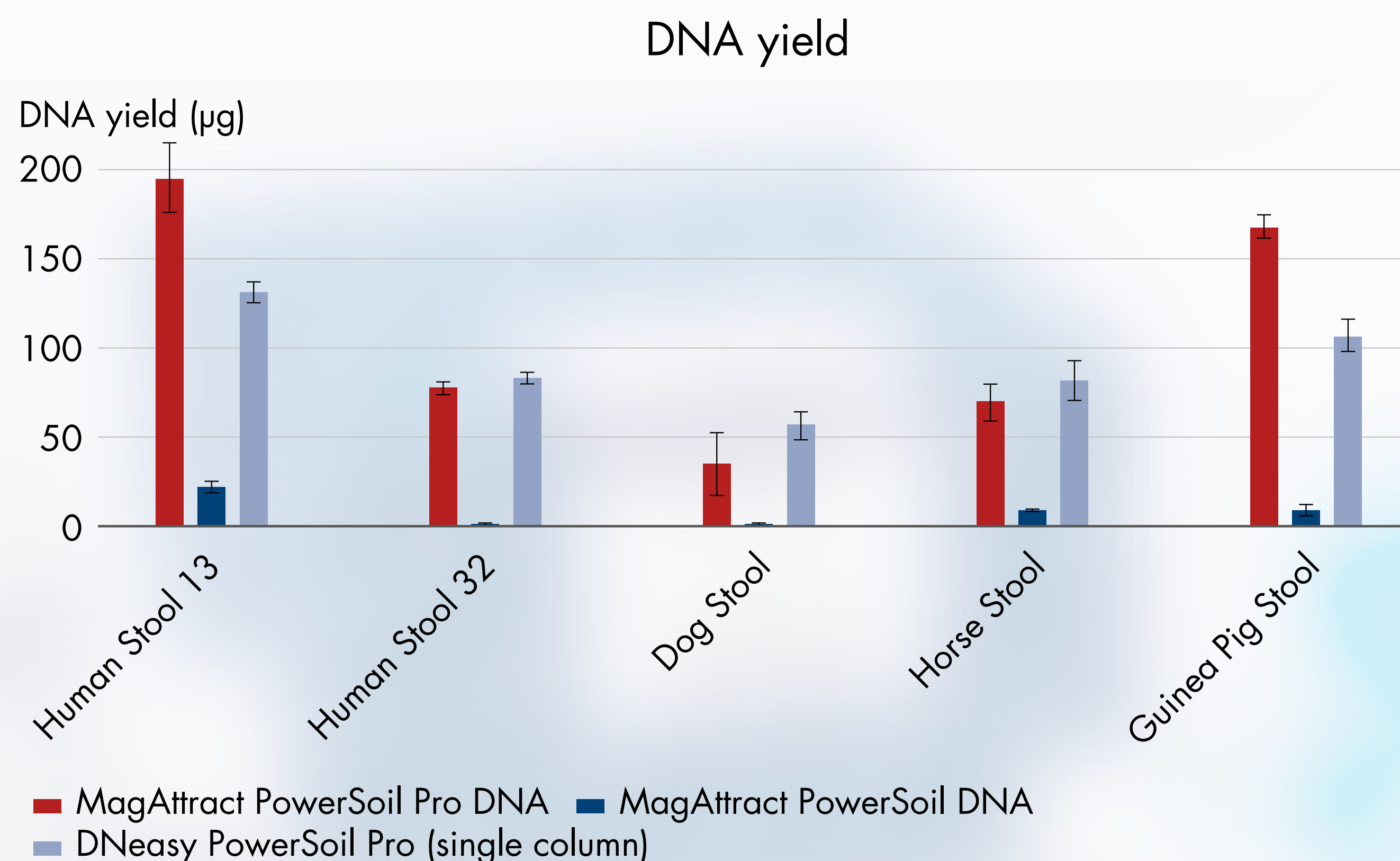
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Better performance compared with legacy kits – DNA yield



Yield performance comparison of MagAttract PowerSoil Pro DNA to the legacy MagAttract PowerSoil DNA and the manual DNeasy PowerSoil Pro Kit. DNA was isolated from 100 mg stool (human, dog, horse, guinea pig). Samples were prepped via the established MagAttract PowerSoil Pro DNA protocol (using 300 µl CD2, 450 µl lysate, QSB1 concentrate for binding, MW1 concentrate for wash step 1 and 80% ethanol for wash step 2 and 3), the legacy MagAttract PowerSoil DNA (450 µl lysate) and DNeasy PowerSoil Pro (450 µl lysate) protocol. The DNA yields were measured with a Qubit Fluorometer (A). MagAttract PowerSoil Pro DNA (red) obtained higher DNA yields for all sample types compared to the legacy MagAttract PowerSoil Kit DNA (dark blue) and comparable yields to the manual DNeasy PowerSoil Pro Kit (light blue).

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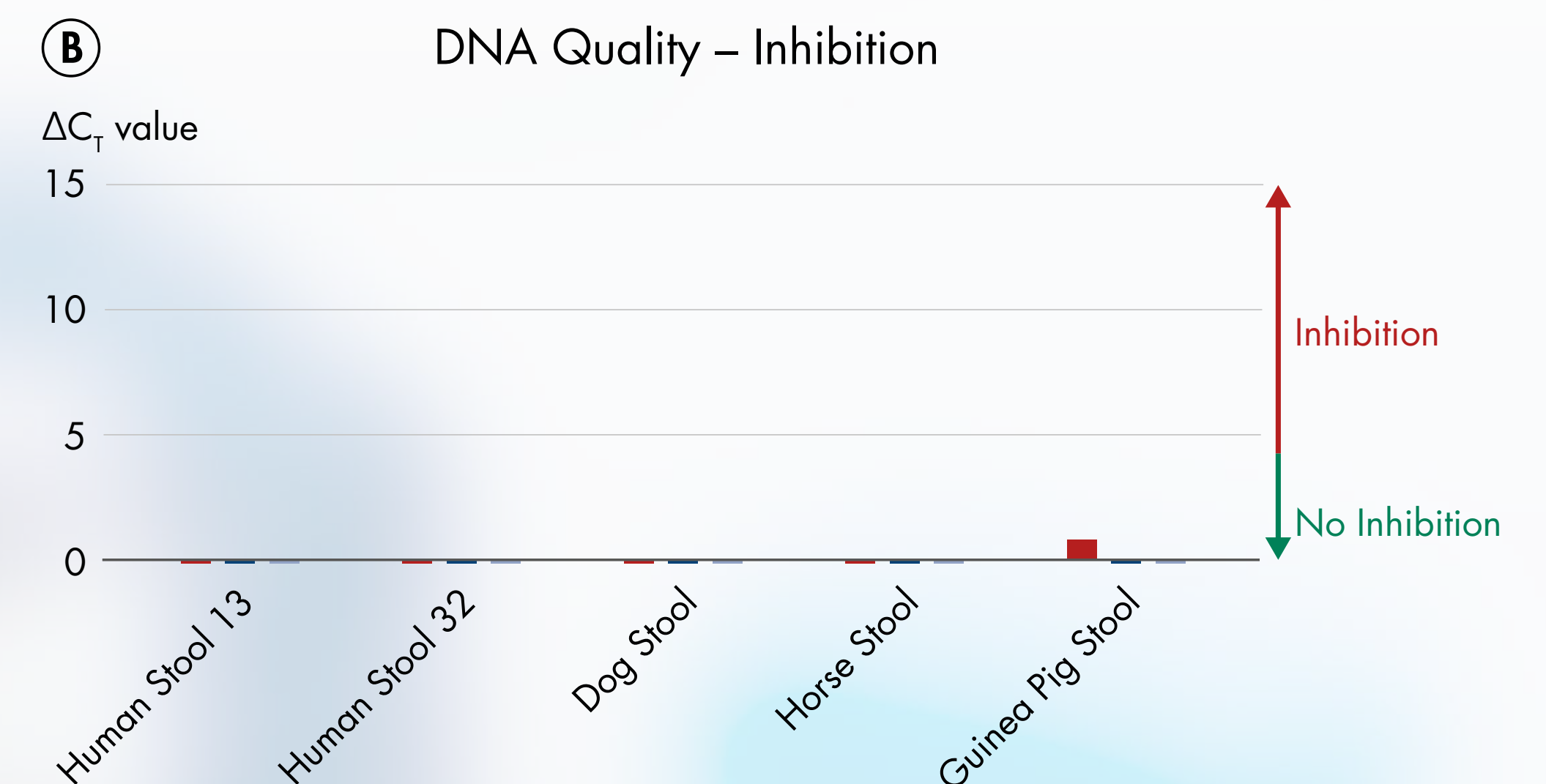
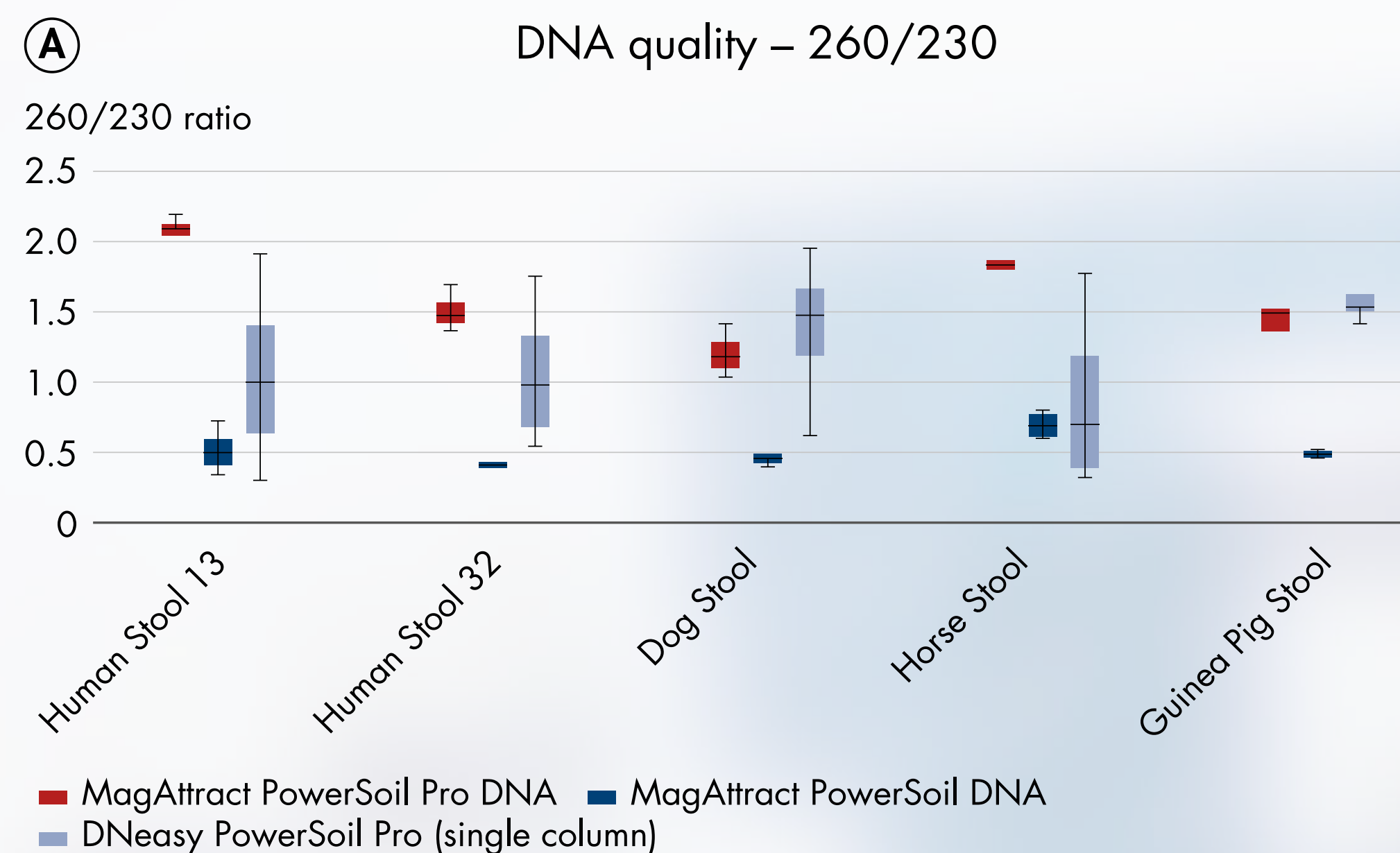
Pro Kit Quality vs. Legacy

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Better performance compared with legacy kits – DNA quality



Quality performance comparison of MagAttract PowerSoil Pro DNA to the legacy MagAttract PowerSoil DNA and the manual DNeasy PowerSoil Pro Kit. DNA was isolated from 100 mg stool (human, dog, horse, guinea pig). Samples were prepped via the established MagAttract PowerSoil Pro DNA protocol (using 300 μ l CD2, 450 μ l lysate, QSB1 concentrate for binding, MW1 concentrate for wash step 1 and 80% ethanol for wash step 2 and 3), the legacy MagAttract PowerSoil (450 μ l lysate) and DNeasy PowerSoil Pro DNA (450 μ l lysate) protocol. The DNA quality was measured using QIAxpert (A). The 260/230 ratios for all samples were higher with the MagAttract PowerSoil Pro DNA (red) compared to MagAttract PowerSoil DNA (dark blue) and higher or comparable to the manual DNeasy PowerSoil Pro (light blue). The co-isolation of inhibitors was assessed via Inhibition PCR (B). The internal control (IC) from the QuantiFast Pathogen +IC kit was spiked with 4 μ l isolated DNA (4 replicates). 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)). The eluates showed no inhibition.

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Features and Benefits

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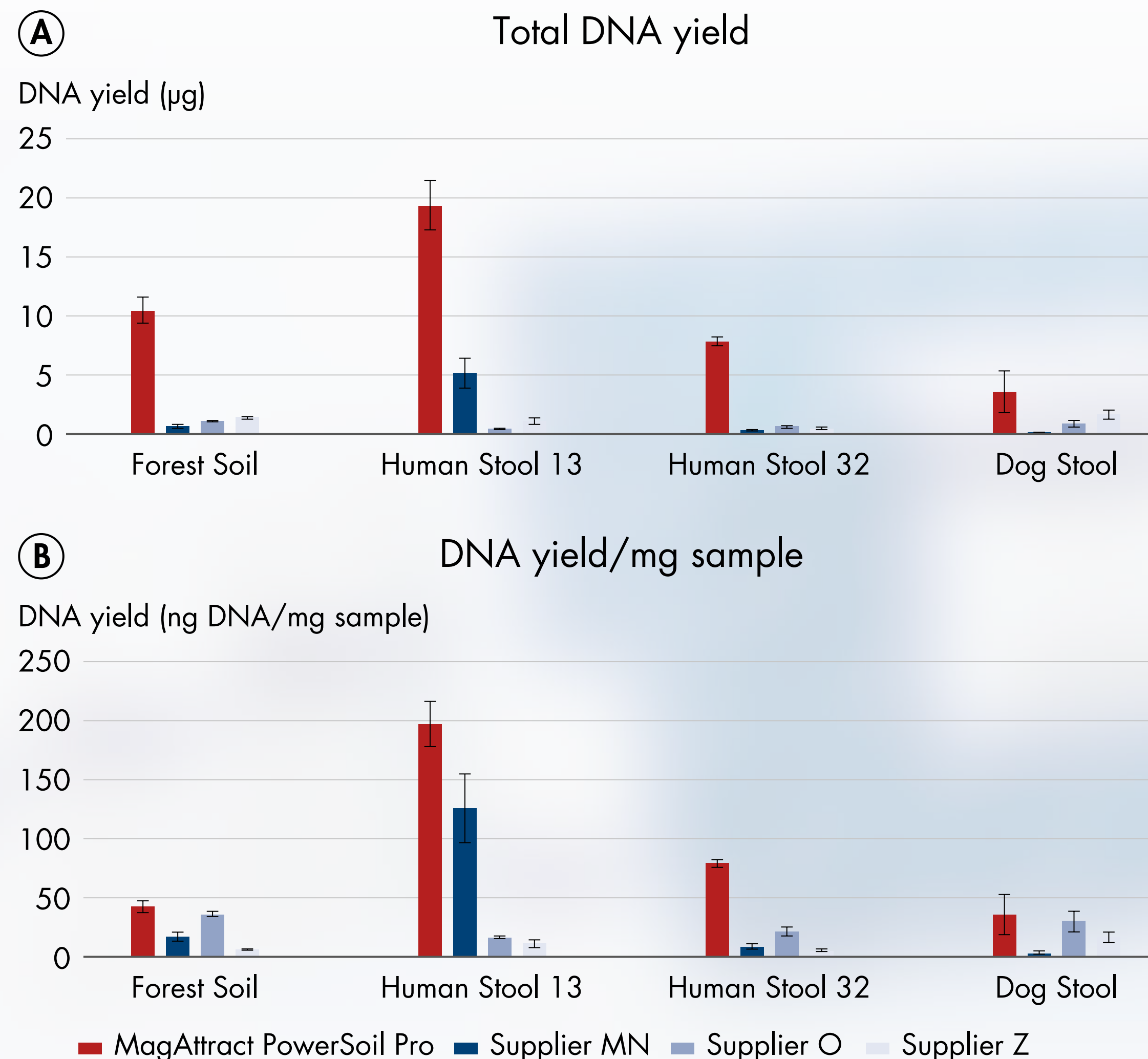
Pro Kit Quality vs. Legacy

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Better performance compared with competitor kits – DNA yield



Performance comparison of MagAttract PowerSoil Pro DNA to different competitor kits like Supplier MN, Supplier O and Supplier Z. DNA was isolated from soil (forest) and stool (human and dog) according to the appropriate protocol. The DNA yields were measured with a Qubit Fluorometer. Based on the total DNA yield and the DNA yield per mg sample the MagAttract PowerSoil Pro DNA (red) obtained higher yields for all samples types compared to all competitor kits.

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Features and Benefits

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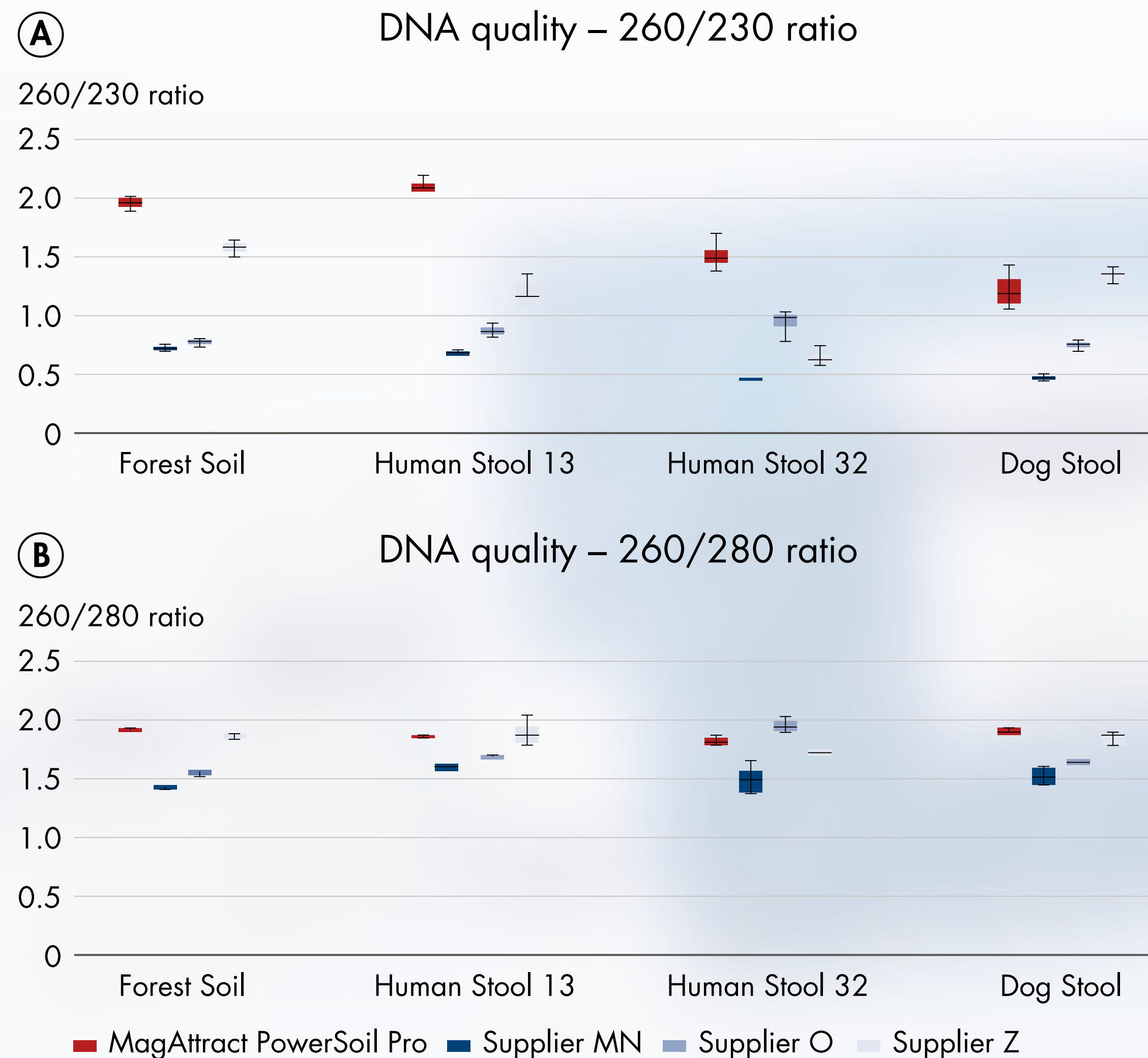
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Ordering Information

Better performance compared with competitor kits – DNA quality



Performance comparison of MagAttract PowerSoil Pro DNA to different competitor kits like Supplier MN, Supplier O, and Supplier Z Yield. The DNA quality was measured using QIAxpert. The 260/230 ratios for all samples were higher with the MagAttract PowerSoil Pro DNA (red) compared to all competitor kits. The 260/280 ratios for all samples were consistent with the MagAttract PowerSoil Pro DNA (red) compared to all competitor kits. Most of the competitor kits showed lower 260/280 ratios.

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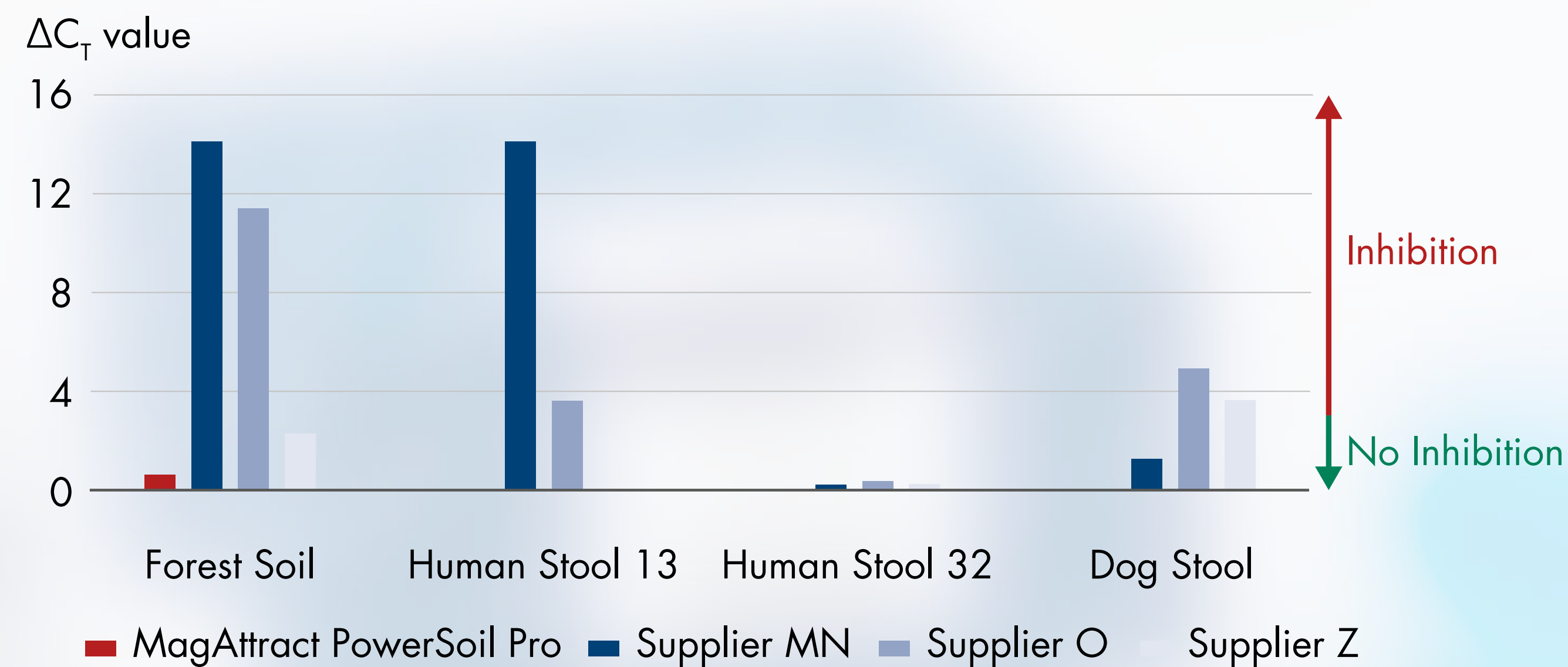
Pro Kit Yield vs. Competitor

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Ordering Information

Better performance compared with competitor kits – DNA quality

DNA quality – Inhibition PCR



Performance comparison of MagAttract PowerSoil Pro DNA to different competitor kits like Supplier MN, Supplier O, and Supplier Z - Inhibition. The co-isolation of inhibitors was assessed via Inhibition PCR. The internal control (IC) from the QuantiFast Pathogen +IC kit was spiked with 4 µl isolated DNA (4 replicates). 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)). The MagAttract PowerSoil Pro eluates showed no inhibition for all samples compared to all competitor kits.

- Overview
- Hands-free Purification
- Features and Benefits
- Pro Kit Yield vs. Legacy
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- Ordering Information

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Product	Contents	Cat. no.
<u>MagAttract PowerSoil Pro DNA Kit</u>	For 4 x 96 preps, for the Kingfisher®: Racked collection microtubes with caps, Solution CD1, Solution CD2, RNase A, MagAttract Suspension G, QSB1 concentrate, MW1 concentrate, Solution C6	47109

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