



PowerSoil™ DNA Isolation Kit

Giving You the Power to Do More with Soil

- ✓ **Processes all soil types** including compost, sediment, clay and acidic soils
- ✓ **Inhibitor Removal Technology®** removes 100% of humic substances and PCR inhibitors
- ✓ **Rapid isolation** of genomic DNA
- ✓ **Variety of applications** including biodefense, soil-borne pathogen detection, agriculture and microbiome research

DNA



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Giving You the Power to Do More with Soil

Powered by IRT

The PowerSoil® DNA Isolation Kit is our most effective soil DNA kit, which uses our novel, MO BIO patented Inhibitor Removal Technology® (IRT) to extract microbial DNA from all soil types and other environmental samples. The isolated DNA has the highest level of purity allowing for more successful PCR and qPCR amplification of organisms from the sample. The kit is ideal for processing all environmental samples including difficult types containing a high humic acid content such as compost, sediment, and manure. PCR analysis has been performed to detect a variety of organisms including both Gram-positive and Gram-negative bacteria (e.g. *Bacillus subtilis*, *Bacillus anthracis*), fungi (e.g. yeasts, molds), algae, and actinomycetes (e.g. *Streptomyces*), and nematodes. The PowerSoil® DNA Isolation Kit is also available in a 96 well format.

Next Generation Technology

The PowerSoil® DNA Isolation Kit distinguishes itself from other kits with IRT, a patented humic substance/brown color removal technology that removes PCR inhibitors from even the most difficult soil types, promoting successful downstream PCR analysis.

Kit Versatility

Our customers use this kit successfully on diverse sample types such as Rhizosphere samples and hydrocarbon contaminated samples, skin, vaginal and surface swabs, and in a variety of applications including biodefense, agriculture and microbiome analysis. These soil kits are used by the USEPA, USDA, FBI and CDC for soil analysis. For fecal samples, The PowerFecal™ DNA Isolation Kit is now available (Cat# 12830-50), with identical chemistry and dry bead tubes.

Specifications

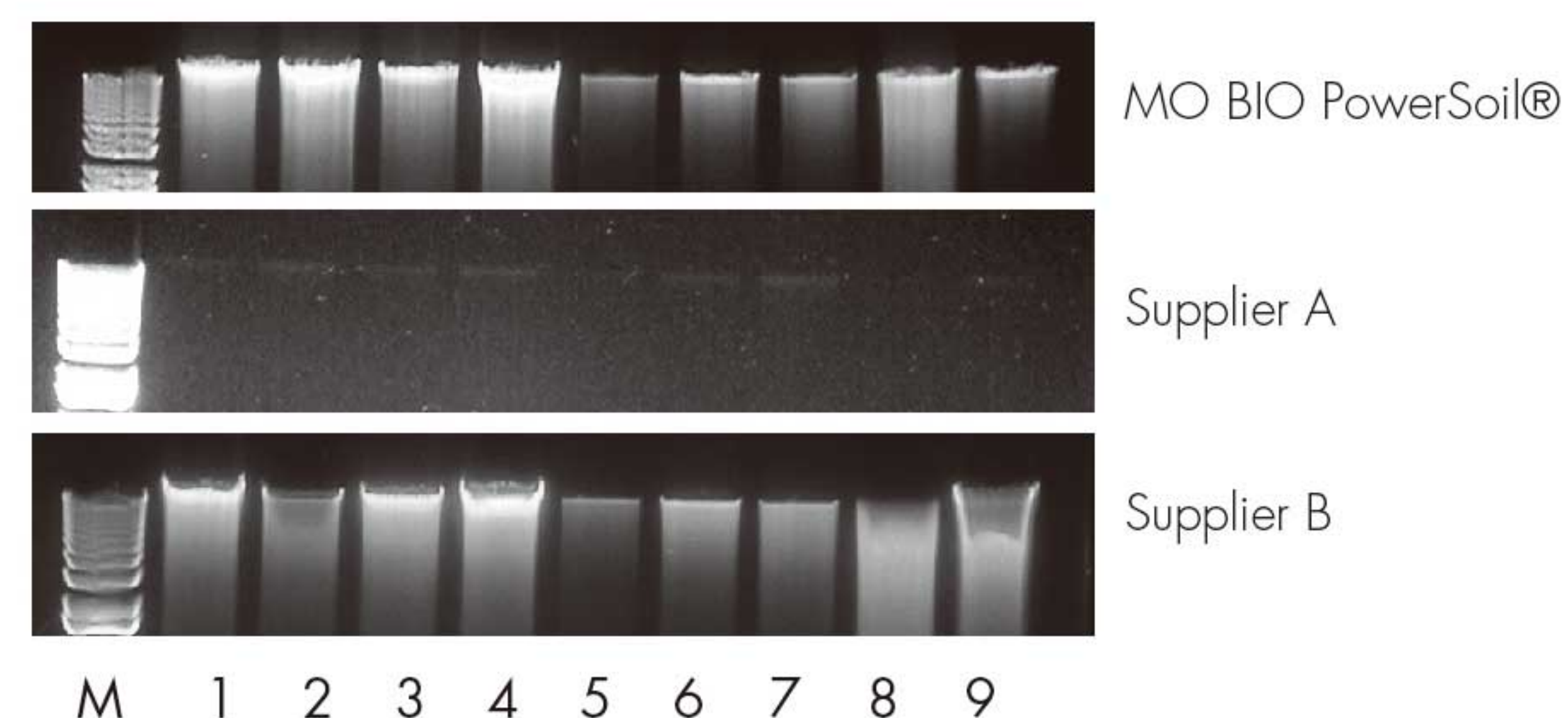
Format	Silica Spin Filter Tubes
Method	Bead Beating
Binding Capacity	Up to 20 µg per filter
Throughput	1 - 24 samples
Time	30 minutes
Starting Amount	250 mg
Equipment Required	Vortex and Vortex Adapter

The difference is clear!

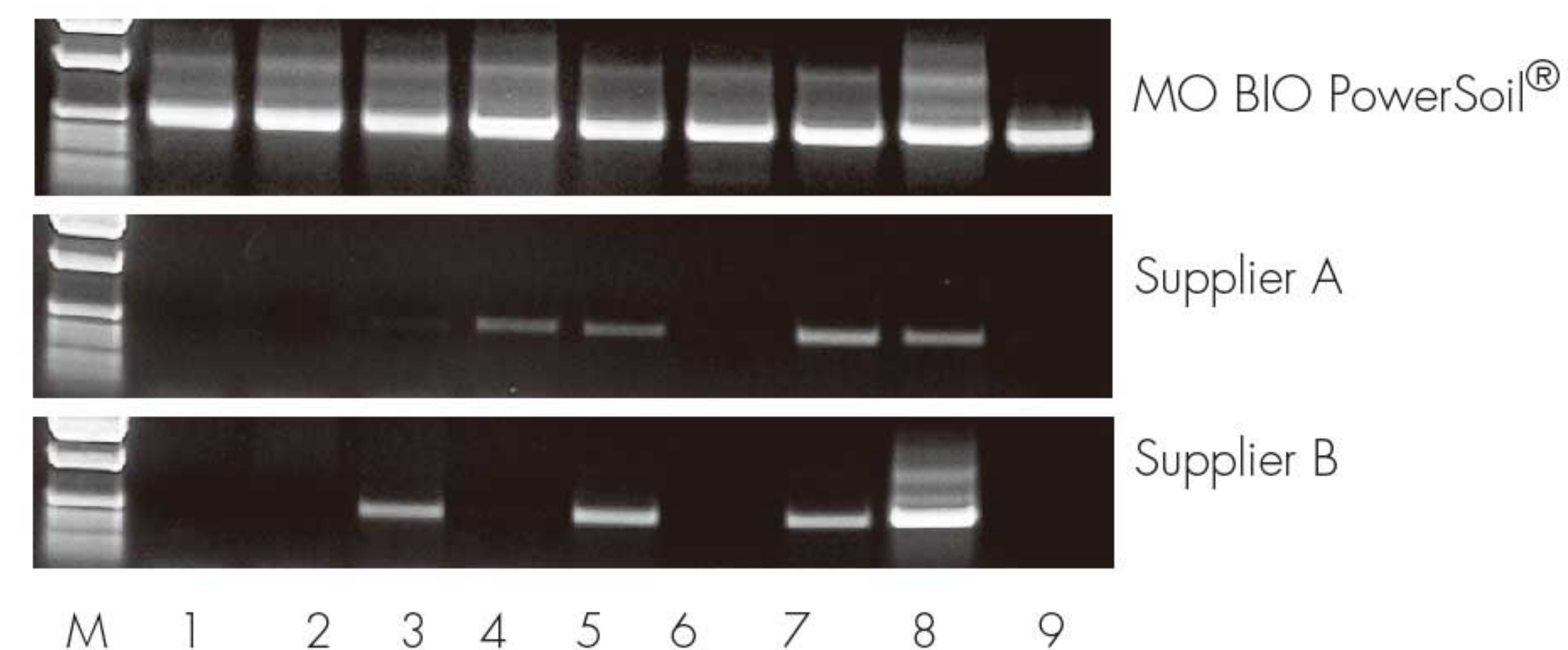
100% of DNA samples isolated with the MO BIO PowerSoil® DNA Isolation Kit showed no carry-over of brown humic substances and no PCR inhibition.



The PowerSoil® DNA Isolation Kit is More Effective for Community Analysis by PCR



High Yield, Intact Genomic DNA. Total Genomic DNA was isolated from nine different sample types using the MO BIO PowerSoil® DNA Isolation Kit and soil DNA isolation kits from two other suppliers. All isolations were performed following the manufacturers' protocols. Eluted genomic DNA was displayed on a 0.8% TAE agarose gel (15 µl per lane).



Confidence in Your PCR Analysis. PCR analysis using eubacterial primers was performed on 1 µl of the undiluted DNA eluate. PCR products were displayed on a 0.8% TAE agarose gel. Lane M is DNA Marker.

Lane 1 - Landfill 0-3 inches Lane 4 - Coffee Compost Lane 7 - Mud Sediment
Lane 2 - Landfill 3-6 inches Lane 5 - Marine Sediment Lane 8 - Horse Manure
Lane 3 - Late-stage Compost Lane 6 - Lake Sediment Lane 9 - Mulch Topsoil

Only DNA isolated with PowerSoil® yielded a PCR product for Landfill samples (lanes 1 and 2), Lake Sediment (lane 6) and Mulch Topsoil (lane 9). DNA isolated using other supplier kits failed to amplify products for these samples, most likely due to high levels of humic acid substances remaining in the final DNA eluate.

Positive PCR amplification using PowerSoil® was observed with 100% of the samples. PCR analysis resulted in only 44% positive amplification with supplier kits tested.

Order information

Catalog No.	Description	Quantity
12888-50	PowerSoil® DNA Isolation Kit	50 preps
12888-100	PowerSoil® DNA Isolation Kit	100 preps
12955-4	PowerSoil®-htp 96 Well DNA Isolation Kit	4x96 preps
12955-12	PowerSoil®-htp 96 Well DNA Isolation Kit	12x96 preps

中国区订购联系信息

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