



RNA PowerSoil[®] DNA Elution Accessory Kit

Catalog No.	Quantity
12867-25	25 Preps

Instruction Manual



Version: 08112011

Technical Information: Toll free 1-800-606-6246, or 1-760-929-9911 Email: technical@mobio.com Website: www.mobio.com



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Introduction

MO BIO Laboratories' RNA PowerSoil[®] DNA Elution Accessory Kit is designed to co-isolate DNA for the recovery of the total nucleic acid content of the original sample. When used in combination with the RNA PowerSoil[®] Total RNA Isolation Kit (catalog #12866-25) both the RNA and the DNA can be isolated and eluted into two separate fractions.

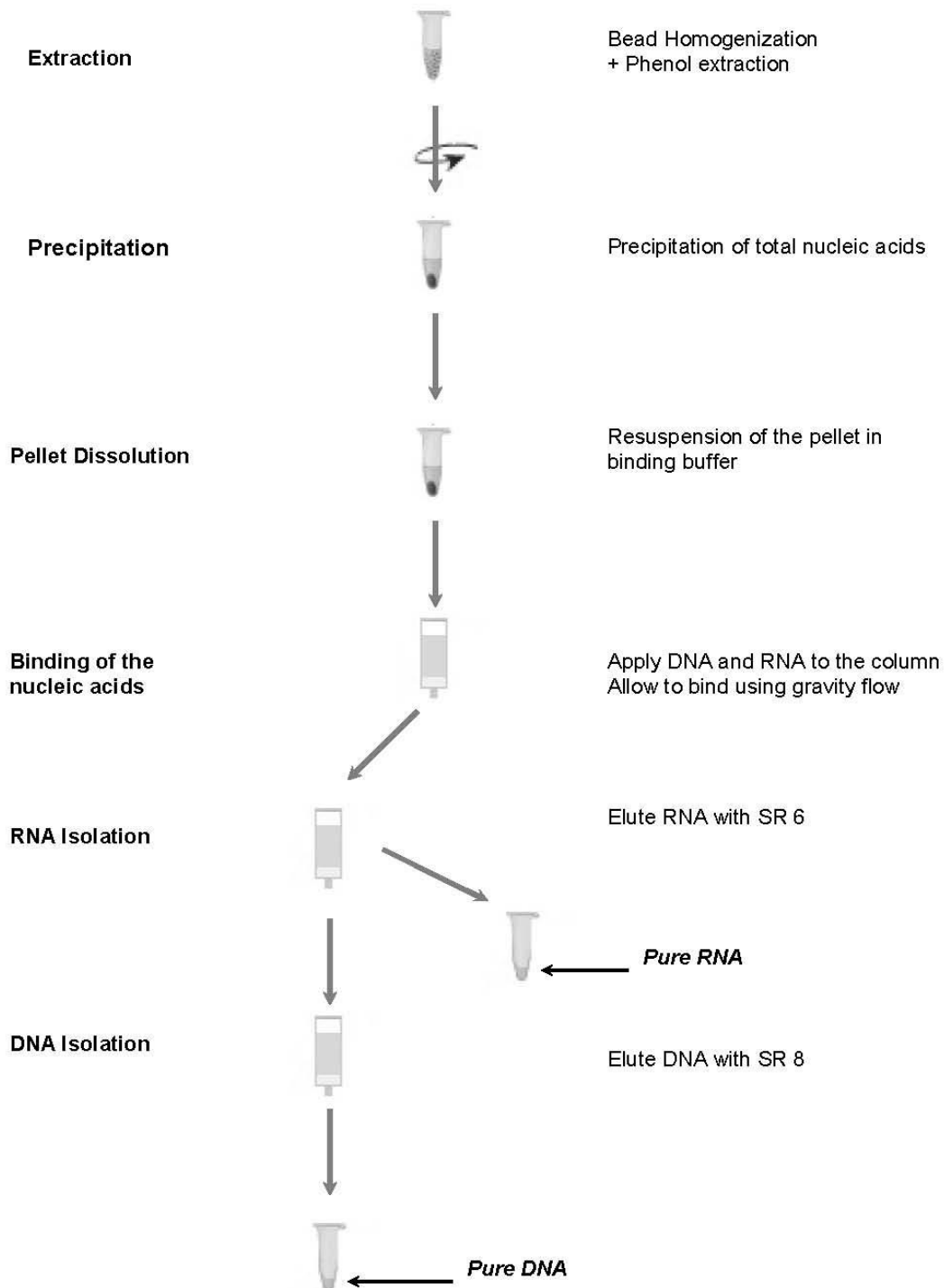
Protocol Overview

After the RNA is eluted from the RNA capture column using the RNA PowerSoil[®] Total RNA Isolation Kit, the column is placed in a new 15 ml tube. The DNA elution buffer is added to the column and DNA is preferentially eluted from the proprietary matrix of the capture column. DNA is then concentrated and ready for use for downstream applications without further handling or purification.

This kit is for research purposes only. Not for diagnostic use.

Other Related Products	Catalog No.	Quantity
RNA PowerSoil [®] Total RNA Isolation Kit	12866-25	25 preps
RNase-Free Gloves	1555-XS	bag of 100
	1555-S	bag of 100
	1555-M	bag of 100
	1555-L	bag of 100
UltraClean [®] Lab Cleaner	12095-250	250 ml squeeze bottle
	12095-500	500 ml spray bottle
	12095-1000	1 liter bottle

RNA PowerSoil® DNA Elution Accessory Kit



**Equipment Required:**

Microcentrifuge (13,000 x g)

Pipettor (20 µl to 1000 µl)

Serological pipettes (1 ml and 10 ml)

Vortex

RNase-Free gloves (MO BIO Catalog # 1555-S (small), 1555-M (medium) and 1555-L (large))

Lab Cleaner for RNase Removal (MO BIO Catalog # 12095-250, 12095-500)

Vortex Adapter (MO BIO Catalog # 13000-V1-15 for Vortex Genie 2 or 13000-LV2-15 for Labnet Vortex)

Reagents Required but Not Included

RNA PowerSoil[®] RNA Isolation Kit (MO BIO Catalog # 12866-25)

Kit Contents

Component	Kit Catalog# 12867-25	
	Catalog #	Amount
Solution SR4	12867-25-1	27.5 ml
Solution SR7	12867-25-2	3 ml
Solution SR8	12867-25-3	27.5 ml
15 ml Collection Tubes	12867-25-T1	25
2.2 ml Collection Tubes	12867-25-T2	25

Kit Storage

Kit reagents and components should be stored at room temperature (15 to 30°C).

Precautions

Please wear gloves, laboratory coat and safety glasses when using this product. Avoid skin contact with kit reagents. In case of contact, wash the affected area thoroughly with soap and water. Do not ingest. See Material Safety Data Sheets (MSDS) for emergency procedures in case of accidental contact or ingestion. MSDS information is available upon request (760-929-9911) or at www.mobio.com.

WARNING: Reagent SR4 is flammable and should be kept away from open flames and sparks.

IMPORTANT NOTE FOR USE: Wear RNase and DNase-Free gloves at all times. Remove RNases and DNases from work surfaces with Lab Cleaner before starting. These products are available separately from MO BIO Laboratories, Inc. (refer to the “Equipment Required” section).



Experienced User Protocol

Please wear gloves at all times.

DNA Elution Procedure

1. Transfer the RNA Capture Column from step 19 of the RNA PowerSoil[®] Total RNA Isolation Kit (MO BIO Catalog # 12866-25) to a **15 ml Collection Tube** (provided) and add 1 ml of **Solution SR8** to the RNA Capture Column to elute the bound DNA into the **15 ml Collection Tube**. Allow **Solution SR8** to gravity flow into the **15 ml Collection Tube**.
2. Transfer the eluted DNA to a **2.2 ml Collection Tube** (provided) and add 1 ml of **Solution SR4**. Invert at least once to mix and incubate at -20°C for 10 minutes.
3. Centrifuge the **2.2 ml Collection Tube** at 13,000 x g for 15 minutes at room temperature to pellet the DNA.
4. Decant the supernatant and invert the **2.2 ml Collection Tube** onto a paper towel for 10 minutes to air dry the pellet.
5. Resuspend the DNA pellet in 100 µl of **Solution SR7**.

Note: Although RNA carryover does not occur with the majority of soil types, certain soils high in organic matter may present unique carryover situations. In situations where the absence of RNA contamination is critical, an RNase treatment of the isolated DNA is recommended; see the Hints and Troubleshooting Guide for instruction.

Thank you for choosing the RNA PowerSoil[®] DNA Elution Accessory Kit.



Detailed Protocol (Describes what is happening at each step)

Please wear gloves at all times.

DNA Elution Procedure

1. Transfer the RNA Capture Column from step 19 of the RNA PowerSoil[®] Total RNA Isolation Kit (catalog #12866-25) to a **15 ml Collection Tube** (provided) and add 1 ml of **Solution SR8** to the RNA Capture Column to elute the bound DNA into the **15 ml Collection Tube**. Allow **Solution SR8** to gravity flow into the **15 ml Collection Tube**.

What's happening: The Solution SR8 elution buffer is a salt solution that allows for the preferential release of DNA from the RNA Capture Column leaving residual debris and inhibiting substances in the column.

2. Transfer the eluted DNA to a **2.2 ml Collection Tube** (provided) and add 1 ml of **Solution SR4**. Invert at least once to mix and incubate at -20°C for 10 minutes.
3. Centrifuge the **2.2 ml Collection Tube** at 13,000 x g for 15 minutes at room temperature to pellet the DNA.
4. Decant the supernatant and invert the **2.2 ml Collection Tube** onto a paper towel for 10 minutes to air dry the pellet.

What's happening: Solution SR4 is 100% Isopropanol. Eluted DNA from the Capture Column is precipitated, centrifuged, and allowed to air dry prior to resuspending and concentrating.

5. Resuspend the DNA pellet in 100 µl of **Solution SR7**.

What's happening: Solution SR7 is RNase/DNase-Free water used to resuspend the pelleted DNA. Solution SR7 contains no EDTA. DNA is now ready for any downstream application. For long term storage of samples 10 mM Tris pH 8.0 or TE buffer may be used to resuspend the pelleted DNA.

Note: Although RNA carryover does not occur with the majority of soil types, certain soils high in organic matter may present unique carryover situations. In situations where the absence of RNA contamination is critical, an RNase treatment of the isolated DNA is recommended; see Additional Information Section for instruction).

Thank you for choosing the RNA PowerSoil[®] DNA Elution Accessory Kit.

Hints and Troubleshooting Guide

Soil Types and Soil Amount Processed

The yield and purity of DNA and RNA isolated using the RNA PowerSoil[®] Total RNA Isolation Kit in combination with the RNA PowerSoil[®] DNA Elution Accessory Kit will depend on the soil type processed. A wide range of soil types can be processed with different physical, chemical and biological characteristics including compost, manure, estuary sediment, and other soil types high in organic content. In our experience, it is possible to use up to a maximum of 2 g for most soil types. For soils with high organic content, as little as 0.25 g of soil will yield an adequate amount of total nucleic acid from a sample and reduce the potential for DNA and RNA elution crossover between fractions. We recommend at most 0.25-0.5 g for absorbent soils like potting soil or peat.

Column Flow

The RNA Capture Columns used in the RNA PowerSoil[®] Total RNA Isolation Kit and in combination with the RNA PowerSoil[®] DNA Elution Accessory Kit are rated for gravity flow and should not be used with centrifugal or vacuum force.

DNase/RNase Digestion Procedure

Note: ONLY RNase-Free DNase may be used with this protocol (MO BIO Catalog # 15601-100). The presence of RNases will result in digested RNA.

The presence of carryover DNA with RNA or vice versa isolated using the RNA PowerSoil[®] Total RNA Isolation Kit in combination with the RNA PowerSoil[®] DNA Elution Accessory Kit does not occur with the majority of soil types. It has been noted, however, that soils with high organic matter content may show crossover of DNA or RNA between fractions.

The following protocol should serve as a guide to the enzymatic digestion of either the DNA or RNA in the fraction of interest.

- a. Add the appropriate amount of enzyme buffer and or water and up to 4 Units of DNase or RNase enzyme to the nucleic acid sample to obtain a total volume of 200 μ l. A typical 10X DNase/RNase digestion buffer is 10 mM CaCl₂ and 10 mM MgCl₂ in 10 mM Tris-HCl buffer, pH 7.5.
- b. Incubate at 37°C for 30 to 45 minutes.
- c. Add 200 μ l of phenol:chloroform:isoamyl alcohol (pH 6.5 – 8.0) and vortex to mix. Incubate at room temperature for 5 minutes.
- d. Centrifuge the sample at 10,000 x g for 5 minutes.
- e. Carefully remove the upper aqueous phase and transfer it to a new tube.
- f. Add 1/10th volume of 5M NaCl, two volumes of 100% ethanol and invert to mix.
- g. Incubate at -20°C for 30 minutes and centrifuge at 10,000 x g for 10 minutes.
- h. Decant the supernatant and air dry the pellet.
- i. Resuspend the pellet in an appropriate volume of Solution SR7.

Multiple Elutions from the Same Column

Multiple elutions beyond those called for in the protocol are not recommended when using the RNA Capture Columns. Although a small amount of additional RNA or DNA may come off the column with multiple elutions, the inhibitors associated with the starting material will also begin to wash off the column and could cause inhibition in downstream applications.



Contact Information

Technical Support:

Phone MO BIO Laboratories, Inc. Toll Free 800-606-6246, or 760-929-9911

Email: technical@mobio.com

Fax: 760-929-0109

Mail: MO BIO Laboratories, Inc, 2746 Loker Ave West, Carlsbad, CA 92010

Ordering Information:

Direct: Phone MO BIO Laboratories, Inc. Toll Free 800-606-6246, or 760-929-9911

Email: orders@mobio.com

Fax: 760-929-0109

Mail: MO BIO Laboratories, Inc, 2746 Loker Ave West, Carlsbad, CA 92010

For the distributor nearest you, visit our web site at www.mobio.com/distributors



Other Quality Products Available from MO BIO Laboratories, Inc.

For more product and detailed information go to www.mobio.com/catalog-request to request a catalog.

DNA Purification and Gel Extraction	Catalog No.	Quantity
PowerClean® DNA Clean-Up Kit	12877-50	50 preps
UltraClean® 15 DNA Purification Kit	12100-300	300 preps
UltraClean® PCR Clean-Up Kit	12500-50 12500-100 12500-250	50 preps 100 preps 250 preps
UltraClean®-htp 96 Well PCR Clean-Up Kit	12596-4 12596-12	4 x 96 preps 12 x 96 preps
UltraClean® GelSpin® DNA Extraction Kit	12400-50 12400-100 12400-250	50 preps 100 preps 250 preps
Plasmid DNA Isolation	Catalog No.	Quantity
UltraClean® 6 Minute Mini Plasmid Prep Kit	12300-50 12300-100 12300-250	50 preps 100 preps 250 preps
UltraClean® Standard Mini Plasmid Prep Kit	12301-50 12301-100 12301-250	50 preps 100 preps 250 preps
UltraClean®-htp 96 Well Plasmid Prep Kit	12396-4 12396-12	4 x 96 preps 12 x 96 preps
UltraClean® Midi Plasmid Prep Kit	12700-20 12700-50	20 preps 50 preps
UltraClean® Maxi Plasmid Prep Kit	12600-10 12600-20	10 preps 20 preps
UltraClean® Endotoxin-Free Mini Plasmid Prep Kit	12311-100 12311-250	100 preps 250 preps
UltraClean® Endotoxin-Free Midi Plasmid Prep Kit	12711-10	10 preps
UltraClean® Endotoxin-Free Maxi Plasmid Prep Kit	12611-10	10 preps
UltraClean® Endotoxin Removal Kit	12615	1 kit
UltraClean® Endotoxin-Free Ethanol Precipitation Kit	12616	1 kit
UltraClean® Endotoxin Removal Reagent	12625-25	25 ml
Endotoxin-Free Sodium Chloride	12626-15	15 ml
Endotoxin-Free Centrifuge Tubes	12617-100 12618-50 12619-25	100 each/2 ml tubes 50 each/15 ml tubes 25 each/50 ml tubes
RNA Isolation	Catalog No.	Quantity
PowerLyzer™ UltraClean® Tissue & Cells RNA Isolation Kit	15055-50	50 preps
PowerLyzer™ UltraClean® Plant RNA Isolation Kit	13355-50	50 preps
PowerBiofilm™ RNA Isolation Kit	25000-50	50 preps
LifeGuard™ Soil Stabilization Solution	12868-10 12868-100 12868-1000	10 ml 100 ml 1 L
On-Spin Column DNase I Kit (RNase-Free)	15100-50	50 preps
BiOstic® Stabilized Blood RNA Isolation Kit	12231-20 12231-50 12231-100	20 preps 50 preps 100 preps
BiOstic® Blood Total RNA Isolation Kit	12230-20 12230-50	20 preps 50 preps

RNA Isolation ... Continued	Catalog No.	Quantity
RNA PowerSoil® DNA Elution Accessory Kit	12867-25	25 preps
RNA PowerSoil® Total RNA Isolation Kit	12866-25	25 preps
UltraClean® Microbial RNA Isolation Kit	15800-50 15800-250	50 preps 250 preps
UltraClean® Tissue & Cells RNA Isolation Kit	15000-50 15000-250	50 preps 250 preps
UltraClean® Plant RNA Isolation Kit	13300-20 13300-50	20 preps 50 preps
Genomic DNA Isolation	Catalog No.	Quantity
PowerLyzer™ PowerSoil® DNA Isolation Kit	12855-50	50 preps
PowerLyzer™ UltraClean® Microbial DNA Isolation Kit	12255-50	50 preps
PowerBiofilm™ DNA Isolation Kit	24000-50	50 preps
PowerFood™ Microbial DNA Isolation Kit	21000-50 21000-100	50 preps 100 preps
BiOstic® Bacteremia DNA Isolation Kit	12240-50	50 preps
BiOstic® FFPE Tissue DNA Isolation Kit	12250-50	50 preps
BiOstic® Paraffin Removal Reagent	12251-50	2 x 25 ml
PowerMax® Soil DNA Isolation Kit	12988-10	10 preps
PowerSoil® DNA Isolation Kit	12888-50 12888-100	50 preps 100 preps
PowerSoil®-htp 96 Well Soil DNA Isolation Kit	12955-4 12955-12	4 x 96 preps 12 x 96 preps
UltraClean® Soil DNA Isolation Kit	12800-50 12800-100	50 preps 100 preps
UltraClean®-htp 96 Well Soil DNA Isolation Kit	12896-4 12896-12	4 x 96 preps 12 x 96 preps
UltraClean® Mega Soil DNA Isolation Kit	12900-10	10 preps
PowerClean® DNA Clean-Up Kit	12877-50	50 preps
UltraClean® Fecal DNA Isolation Kit	12811-50 12811-100	50 preps 100 preps
PowerMicrobial® Midi DNA Isolation Kit	12225-25	25 preps
PowerMicrobial® Maxi DNA Isolation Kit	12226-25	25 preps
UltraClean® Microbial DNA Isolation Kit	12224-50 12224-250	50 preps 250 preps
UltraClean®-htp 96 Well Microbial DNA Isolation Kit	10196-4 10196-12	4 x 96 preps 12 x 96 preps
PowerPlant® DNA Isolation Kit	13200-50 13200-100	50 preps 100 preps
UltraClean® Plant DNA Isolation Kit	13000-50 13000-250	50 preps 250 preps



Other Quality Products Available from MO BIO Laboratories, Inc.

For more product and detailed information go to www.mobio.com/catalog-request to request a catalog.

Genomic DNA Isolation ... Continued	Catalog No.	Quantity
UltraClean®-htp 96 Well Plant DNA Isolation Kit	13096-4 13096-12	4 x 96 preps 12 x 96 preps
UltraClean® Tissue & Cells DNA Isolation Kit	12334-50 12334-250	50 preps 250 preps
UltraClean®-htp 96 Well Tissue DNA Isolation Kit	12996-4 12996-12	4 x 96 preps 12 x 96 preps
UltraClean® Blood DNA Isolation Kit (Non-Spin)	12000-100	100 preps
UltraClean® Blood DNA Isolation Kit (Processes 1,000 ml of Blood)	12000-1000	1 kit
UltraClean® Blood DNA Isolation Kit Plus RNase (Processes 1,000 ml of Blood)	12002-1000	1 kit
UltraClean® BloodSpin® DNA Isolation Kit	12200-50 12200-250	50 preps 250 preps
UltraClean®-htp 96 Well BloodSpin® DNA Isolation Kit	12296-4 12296-12	4 x 96 preps 12 x 96 preps
UltraClean® Forensic DNA Isolation Kit	14000-10 14000-20	10 isolations 20 isolations
PowerWater® Sterivex DNA Isolation Kit	14600-50-NF	50 preps
PowerWater® DNA Isolation Kit	14900-50-NF 14900-50-22 14900-50-45 14900-100-NF 14900-100-22 14900-100-45	50 preps (No filters) (0.22 µm) (0.45 µm) 100 preps (No filters) (0.22 µm) (0.45 µm)
RapidWater™ DNA Isolation Kit	14810-50-NF 14810-50-22 14810-50-45 14810-100-NF 14810-100-22 14810-100-45	50 preps (No filters) (0.22 µm) (0.45 µm) 100 preps (No filters) (0.22 µm) (0.45 µm)
UltraClean® Water DNA Isolation Kit (0.45µm filters)	14800-10 14800-25	10 preps 25 preps
UltraClean® Water DNA Isolation Kit (0.22 µm filters)	14880-10 14880-25	10 preps 25 preps
UltraClean® Water DNA Isolation Kit (No filters)	14800-10-NF 14800-25-NF	10 preps 25 preps
Microbiological Culture Media	Catalog No.	Quantity
TB DRY® Powder Growth Media	12105-05 12105-1 12105-5	500 g 1 kg 5 kg
LB Broth Powder Growth Media, pH 7	12106-05 12106-1 12106-5	500 g 1 kg 5 kg
LB Agar Powder Growth Media, pH 7	12107-05 12107-1 12107-5	500 g 1 kg 5 kg
LB Broth (Lennox) Powder Growth Media, pH 7	12108-05 12108-1 12108-5	500 g 1 kg 5 kg

Microbiological Culture Media ... Continued	Catalog No.	Quantity
LB Agar (Lennox) Powder Growth Media, pH 7	12109-05 12109-1 12109-5	500 g 1 kg 5 kg
Soybean-Casein Digest Medium (TSB), USP	12114-05 12114-1 12114-5	500 g 1 kg 5 kg
Soybean-Casein Digest Agar Medium (TSA), USP	12115-05 12115-1 12115-5	500 g 1 kg 5 kg
Yeast Extract	12110-05 12110-1 12110-5	500 g 1 kg 5 kg
Tryptone	12111-05 12111-1 12111-5	500 g 1 kg 5 kg
Agar, Bacteriological Grade	12112-05 12112-1 12112-5	500 g 1 kg 5 kg
Other Reagents and Lab Accessories	Catalog No.	Quantity
20 bp DNA Ladder	17020-40	40 µg
100 bp DNA Ladder	17100-40	40 µg
1 kb DNA Ladder	17200-100	100 µg
UltraClean® Agarose, Molecular Biology Grade	15003-50 15003-100 15003-500 15003-1000	50 g 100 g 500 g 1 kg
UltraClean® MS-8 Agarose	15515-50 15515-100 15515-500	50 g 100 g 500 g
UltraClean® Forensic Agarose	15505-50 15505-100 15505-500	50 g 100 g 500 g
UltraClean® Low Melt Agarose	15005-50 15005-100 15005-500	50 g 100 g 500 g
UltraClean® Low Melt Sieve Agarose	15004-50 15004-100 15004-500	50 g 100 g 500 g
Ethidium Bromide Solution	15006-1 15006-10	1 ml 10 ml
Ethidium Bromide Destaining Tea Bags	15007-25	25 bags
Dry Gel Loading Dye with Bromophenol Blue	15020-10 15020-20	10 plates 20 plates
Bromophenol Blue Gel Loading Buffer	15008-1 15008-5	1 ml 5 x 1 ml
Bromophenol Blue/Xylene Cyanol Gel Loading Buffer	15009-1 15009-5	1 ml 5 x 1 ml
TAE Buffer, 50X (Tris-acetate-EDTA)	15001-100 15001-500 15001-1000	100 ml 500 ml 1 liter



Other Quality Products Available from MO BIO Laboratories, Inc.

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Other Reagents and Lab Accessories... <i>Continued</i>	Catalog No.	Quantity
TBE Buffer, 10X (Tris-borate-EDTA)	15002-100 15002-500 15002-1000	100 ml 500 ml 1 liter
RNase-Free Gloves	1555-XS 1555-S 1555-M 1555-L	bag of 100 bag of 100 bag of 100 bag of 100
UltraClean® Lab Cleaner	12095-250 12095-500 12095-1000	250 ml squeeze bottle 500 ml spray bottle 1 liter bottle
KAPA PROBE FAST qPCR Kits	51220-100 51220-500 51220-1000	100 reactions 500 reactions 1000 reactions
KAPA SYBR® FAST Universal 2X qPCR Master Mix	51230-100 51230-500 51230-1000	100 reactions 500 reactions 1000 reactions
KAPA2G Robust HotStart ReadyMix	51240-100 51240-500	100 reactions 500 reactions
KAPA HiFi HotStart ReadyMix	51250-100 51250-500	100 reactions 500 reactions
KAPA2G FAST HotStart DNA Polymerase with dNTPs	51260-100 51260-250 51260-500	100 reactions 250 reactions 500 reactions
KAPA2G FAST HotStart ReadyMix	51270-100 51270-500	100 reactions 500 reactions
KAPA Long Range HotStart DNA Polymerase with dNTPs	51280-100 51280-250 51280-500	100 reactions 250 reactions 500 reactions
KAPA Taq Polymerase ReadyMix	51290-250	250 reactions
OmniTaq™ DNA Polymerase Enzyme	1224-250	250 reactions (10 U/μl)
OmniTaq™ DNA Polymerase 2x Master Mix	1226-250	250 reactions (5 x 1.25 ml/tube)
Omni KlenTaq™ DNA Polymerase Enzyme	1225-250	250 reactions (25 U/μl)
Omni KlenTaq™ DNA Polymerase 2x Master Mix	1227-250	250 reactions (5 x 1.25 ml/tube)
DNase (RNase-Free)	15600-5 15601-100	5 mg 2500 units
Proteinase K	1223-100 1222-2	100 mg 2 ml (20 mg/ml)
Ribonuclease A (25 mg/ml)	1202-1 1202-5	1 ml 5 ml
PCR Water	17000-1 17000-5 17000-10 17000-11	1 ml 5 x 1 ml 10 x 1 ml 10 ml bottle
Molecular Biology Grade Water	17012-200 17012-5200	200 ml 5 x 200 ml
DEPC Treated Water	17011-200 17011-5200	200 ml 5 x 200 ml
Endotoxin-Free Water	17013-10 17013-50 17013-100 17013-500	10 ml 50 ml 100 ml 500 ml
UltraClean® 5N NaOH UltraClean® 0.1N NaOH UltraClean® 0.5M EDTA, pH 8.0 UltraClean® TE-4 Buffer	17300-30 17301-30 17310-100 17320-1000	30 ml 30 ml 100 ml 1L

Other Reagents and Lab Accessories... <i>Continued</i>	Catalog No.	Quantity
UltraClean® TE Buffer	17325-1000	1L
UltraClean® 1X PBS, pH 7.4	17330-500	500 ml
UltraClean® 2M Tris, pH 8.0	17370-250	250 ml
UltraClean® 0.1M Tris, pH 7.0	17371-1000	1L
Instrumentation and Accessories	Catalog No.	Quantity
PowerLyzer™ 24 Bench Top Bead-Based Homogenizer (110/220V)	13155	1 unit
PowerLyzer™ Tube Holder	13156	1 unit
PowerLyzer™ Tube Holder Stand	13157	1 unit
PowerVac™ Mini System	11992	1 unit + 20 adapters
PowerVac™ Manifold	11991	1 unit
PowerVac™ Mini Spin Filter Adapters	11992-10 11992-20	10 adapters 20 adapters
Ceramic Bead Tubes, 1.4 mm	13113-50	50 bead tubes
Ceramic Bead Tubes, 2.8 mm	13114-50	50 bead tubes
Glass Bead Tubes, 0.5 mm	13116-50	50 bead tubes
Glass Bead Tubes, 0.1 mm	13118-50	50 bead tubes
Metal Bead Tubes, 2.38 mm	13117-50	50 bead tubes
2.0 ml Tough Tubes with Cap	13119-500 13119-1000	500 1000
Carbide Bead Tubes, 0.25 mm	13121-50	50 x 0.5 ml tubes
Garnet Bead Tubes, 0.15 mm	13122-50	50 x 0.5 ml tubes
Garnet Bead Tubes, 0.70 mm	13123-50	50 x 2 ml tubes
Garnet + ¼ Ceramic 15 ml Bead Tubes, 0.70 mm	13134-50	50 tubes
Garnet + ¼ Ceramic 50 ml Bead Tubes, 0.70 mm	13144-10 13144-50 13144-100 13144-500	10 tubes 50 tubes 100 tubes 500 tubes
Glass 15 ml Bead Tubes, 0.1 mm	13135-50	50 tubes
Glass 50 ml Bead Tubes, 0.1 mm	13145-10 13145-50 13145-100 13145-500	10 tubes 50 tubes 100 tubes 500 tubes
Glass 15 ml Bead Tubes, 1.0 mm	13136-50	50 tubes
Ceramic 15 ml Bead Tubes, 1.4 mm	13137-50	50 tubes
Ceramic 50 ml Bead Tubes, 1.4 mm	13147-10 13147-50	10 tubes 50 tubes
Metal 50 ml Bead Tubes, 2.38 mm	13149-10 13149-50	10 tubes 50 tubes



Other Quality Products Available from MO BIO Laboratories, Inc.

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Instrumentation and Accessories... <i>Continued</i>	Catalog No.	Quantity
PowerMix 15 ml Bead Tubes	13138-50	50 tubes
PowerMix 50 ml Bead Tubes	13148-10 13148-50	10 tubes 50 tubes
2 ml Collection Tubes	1200-100-T 1200-150-T 1200-250-T	100 tubes 150 tubes 250 tubes
2 ml Screw Cap Tubes	12800-200-E	200 tubes & caps
15 ml Collection Tubes	12700-T	25 tubes
50 ml Centrifuge Tubes	12600-T	25 tubes
Spin Filters (in 1.9 ml tubes)	1200-50-SF 1200-100-SF 1200-250-SF	50 filters 100 filters 250 filters
Endotoxin-Free Centrifuge Tubes	12617-100 12618-50 12619-25	100 each/2 ml tubes 50 each/15 ml tubes 25 each/50 ml tubes
15 ml Midi Spin Filters	12700-SF	25 spin filters
Vortex-Genie® 2 Vortex (120V)	13111-V	1 unit
Vortex-Genie® 2 Vortex (220V)	13111-V-220	1 unit
Vortex Adapter, holds 12 (1.5-2.0 ml) tubes	13000-V1	1 unit
Vortex Adapter, holds 6 (5 ml) tubes	13000-V1-5	1 unit
Vortex Adapter, holds 4 (15 ml) tubes	13000-V1-15	1 unit
Vortex Adapter, holds 2 (50 ml) tubes	13000-V1-50	1 unit
Vortex Adapter, holds 24 (1.5-2.0 ml) tubes	13000-V1-24	1 unit
BagMixer® 400 VW	23112	1 unit
BagFilter® 400 P	23113-500	Box of 500
BagPage® 400	23114-500	Box of 500

Instrumentation and Accessories... <i>Continued</i>	Catalog No.	Quantity
Whirl-Pak® Collection Bag, Medium (1,627 ml)	23211-500	500 bags
Whirl-Pak® Collection Bag, Large (3,637 ml)	23212-250	250 bags
Whirl-Pak® Stand up Bag, Small (118 ml)	23220-500	500 bags
Whirl-Pak® Stand up Bag, Medium (532 ml)	23221-500	500 bags
Whirl-Pak® Stand up Bag, Large (1,242 ml)	23222-250	250 bags
Whirl-Pak® Stand up Bag, Extra-Large (2,041 ml)	23223-250	250 bags
Whirl-Pak® Scoop Bag, 60 ml	23240-50	50 bags
Anti-Static Funnels, Micro	23301-96	Pack of 96
Anti-Static Funnels, Small	23302-50	Pack of 50
Anti-Static Funnels, Medium	23303-50	Pack of 50
Anti-Static Funnels, Large	23304-20	Pack of 20
Mini Horizontal Gel System	16001	1 each
Mini Horizontal Gel Caster, 3 place	16003	1 each
Mini Horizontal Gel Tray	16004	1 each
Polycarbonate Single-sided Comb	16005 16006 16007 16008	1 mm x 3 well 1 mm x 8 well 1 mm x 10 well 1 mm x 12 well
Polycarbonate Dual-sided Comb	16013 16014 16015 16016	1 mm x 8 well/16 well 1 mm x 10 well/14 well 2 mm x 8 well/16 well 2 mm x 10 well/14 well
Teflon Single-sided Comb	16009 16010 16011 16012	1 mm x 3 well 1 mm x 8 well 1 mm x 10 well 1 mm x 12 well
Teflon Dual-sided Comb	16017 16018 16019 16020	1 mm x 8 well/16 well 1 mm x 10 well/14 well 2 mm x 8 well/16 well 2 mm x 10 well/14 well
Power Supply w/Timer, (120V)	16023	1 unit



Other Quality Products Available from MO BIO Laboratories, Inc.

For more product and detailed information go to www.mobio.com/catalog-request to request a catalog.

Instrumentation and Accessories... <i>Continued</i>	Catalog No.	Quantity
96 Well Plate Shaker (120V)	11996	1 unit
96 Well Plate Shaker (220V)	11996-220	1 unit
Plate Adapter Set	11999	1 set

Instrumentation and Accessories... <i>Continued</i>	Catalog No.	Quantity
Vacuum Pump (120V)	11998	1 unit
Vacuum Pump (220V)	11998-220	1 unit