VWR® for nucleic acid preparation

01. SAMPLE DISRUPTION & HOMOGENISATION
02. NUCLEIC ACID ISOLATION
03. PHOTOMETRY
04. CENTRIFUGATION & STORAGE

VWR® for nucleic acid preparation

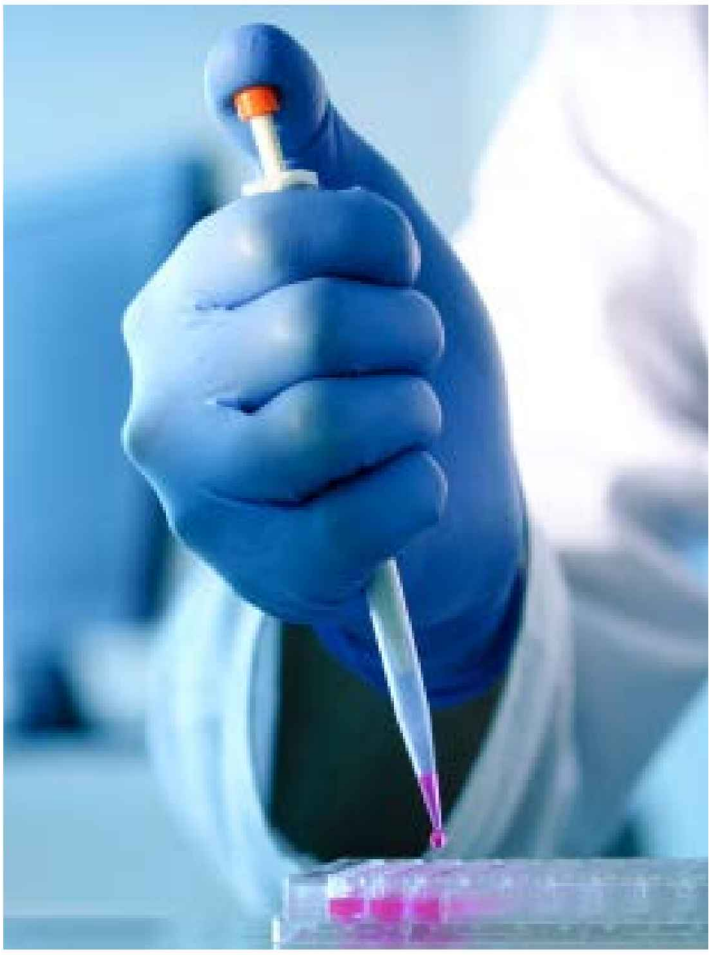
Welcome to the VWR branded range of products for nucleic acid preparation

No doubt quality and quantity of nucleic acids extracted from your samples is key for your success in many downstream applications like expression profiling, genotyping, sequencing or cloning. We, therefore, understand that you will not take decisions lightly, and carefully select reliable solutions from a partner you can trust. Being a well-known solution provider to labs around the globe, we want to make sure you are aware of our range of products for nucleic acid preparation that have proved they deserve to carry the VWR logo.

Starting with sample disruption and homogenisation, this catalogue features bead beaters which will maximise yields and reproducibility, while minimising time and effort spent, as well as any risk of cross contamination. The second chapter provides access to a broad spectrum of very effective reagents and kits for the purification of RNA, genomic DNA, plasmid DNA or PCR products. For determining concentration and purity of nucleic acids, a selection of VWR photometers can be found in the 3rd chapter before the workflow is completed by products for centrifugation and storage.

Most of our products are available for lab demonstration, trials or samples to make sure you're happy with your decision before you order. Just get in touch with us!

Your VWR Life Science Team



VWR® 4-PLACE MINI BEAD MILL HOMOGENIZER

The VWR® 4-Place Mini Bead Mill Homogenizer is a compact and powerful bead mill homogenizer.

- Specifically designed for grinding, lysing, and the homogenization of biological samples prior to molecular extraction
- Ideal solution for releasing DNA, RNA, proteins, and enzymes from tough samples while still retaining molecular integrity
- Offers a broad performance range

Using sample tubes pre-filled with a variety of lysing beads, the mill vigorously and uniformly shakes the tubes providing an efficient, consistent, high-yield and quality homogenization in less than 60 seconds. The VWR® 4-Place Mini Bead Mill supports simultaneous processing of samples in 4 x 0.5 mL, 4 x 1.5 mL, 4 x 2 mL, or 1 x 7 mL tubes. It does not require a cool down period between runs, allowing for non-stop use and high throughput. The unit features a convenient front loading design and safety lid closure.

Ordering information: Includes the VWR® Mini Bead Mill Drive Unit, integrated 0.5 mL, 1.5 mL and 2 mL tube carriage, interchangeable 1 x 7 mL tube carriage, user manual, and two-year warranty. VWR® disposable bead tubes are sold separately.

Description	Cat. No.
VWR® MINI BEAD MILL 4 HOMOGENIZER, 230V	**432-0366**

Description	Cat. No.
1.5ML HARD TISSUE GRINDING MIX, 50 PACK	**432-0368**
1.5ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	**432-0369**
1.5ML HARD TISSUE HOMOGENIZING MIX, 50 PACK	**432-0370**
2ML TOUGH MICRO ORGANISM LYSING MIX, 50 PACK	**432-0371**
2ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	**432-0372**
2ML HARD TISSUE HOMOGENIZING MIX, 50 PACK	**432-0373**
2ML HARD TISSUE GRINDING MIX, 50 PACK	**432-0374**
0.5ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	**432-0375**

VWR® BEAD MILL HOMOGENIZER

The VWR® Bead Mill is part of the newest generation of bead mill homogenizers. This economical system is specifically designed for grinding, lysing and homogenization of up to 16 samples. Using sample tubes pre-filled with a variety of lysing beads, the VWR Bead Mill vigorously and uniformly shakes the tubes providing an efficient, consistent, high-yield and quality homogenization usually in less than 40 seconds.

- 16 sample capacity
  (12 x 2 ml tubes and 4 x 7 ml tubes, 16 in total)
- Run time 1 second to 10 minutes
- 0.8 to 6 m/s
- Up to 99 programs

The VWR® Bead Mill simultaneously homogenizes 12 x 0.5mL, 4 x 1.5mL, 12 x 2mL, or 4 x 7mL samples

The VWR® Bead Mill is an ideal solution for releasing DNA, RNA and proteins from tough samples.

It does not require a cool down between runs which allows for non-stop use and high throughput. The unit features a convenient front loading design with snap in tube carriage.

Ordering information: Includes the Bead Mill Drive Unit, Tube Carriage, User Manual, and a two-year warranty.

Description	Cat. No.
VWR® BEAD MILL HOMOGENIZER, 230V	**432-0367**

VWR® BEAD MILL MAX

The VWR® Bead Mill MAX is the premier model of the VWR® Bead Mill Homogenizer line. The VWR® Bead Mill MAX is designed to grind, lyse or homogenize the most difficult samples with repeatable results. Using sample tubes, pre-filled with a variety of bead media, the VWR® Bead Mill MAX vigorously and uniformly shakes the tubes providing an efficient, consistent, high yield and quality homogenate usually in less than 30 seconds. The unique tube carriage motion ensures that the intra-tube bead movement reduces swirling and creates the highest bead impact force of any bead mill on the market.

- Process in tubes ranging from - 24 x 0.5 mL, 24 x 1.5 mL, 24 x 2 mL, 12 x 7 mL, or 6 x 30 mL
- Optional cryo cooling unit can be ordered separately for preventing increase of sample temperature during homogenization (requires compressed air, liquid nitrogen or dry ice in ethanol).
- User friendly, multilingual touch screen interface
- No cool down required between runs: process hundreds of sample per day
- Unlimited programmable memory settings for storing protocols
- Convenient front loading design features an integrated lid lock that engages during operation
- Ideal for sample preparation when extracting DNA, RNA, proteins and small molecules
- Includes 2 mL tube carriage.

Specifications

Run Time	1 second to 10 minutes	
Electrical	120VAC / 230 V	
Sample Volume Range	0.5 mL	30 mL
No. of cycles	1-10	
Weight	29.5 kg (65 lbs)	
Performance	0. to 6.5 m/s	
Dimensions	30.5 x 43.2 x 36.8 cm	

Description	Cat. No.
VWR® BEAD MILL MAX HOMOGENIZER 230V	432-0380

Description	Cat. No.
CRYO COOLING UNIT, COMPATIBLE WITH THE BEAD MILL MAX	432-0394
7ML TUBE CARRIAGE KIT, COMPATIBLE WITH THE BEAD MILL MAX	432-0395
30ML TUBE CARRIAGE KIT, COMPATIBLE WITH THE BEAD MILL MAX	432-0396
1.5ML HARD TISSUE GRINDING MIX, 50 PACK	432-0368
1.5ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	432-0369
1.5ML HARD TISSUE HOMOGENIZING MIX, 50 PACK	432-0370
2ML TOUGH MICRO ORGANISM LYSING MIX, 50 PACK	432-0371
2ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	432-0372
2ML HARD TISSUE HOMOGENIZING MIX, 50 PACK	432-0373

Description	Cat. No.
2ML HARD TISSUE GRINDING MIX, 50 PACK	432-0374
0.5ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	432-0375
7ML HARD TISSUE GRINDING MIX, 50 PACK	432-0397
7ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	432-0398
7ML HARD TISSUE HOMOGENIZING MIX, 50 PACK	432-0399
30ML HARD TISSUE GRINDING MIX, 50 PACK	432-0402
30ML SOFT TISSUE HOMOGENIZING MIX, 50 PACK	432-0403
30ML HARD TISSUE HOMOGENIZING MIX, 50 PACK	432-0404

MIXER MILL, BEATER

A ball mill for disintegration of small sample volumes that can also be used to shake/mix microtubes and microplates. Wide range of applications in different scientific fields from geology to biotechnology.

- Easy to use–simple knob and keypad to control frequency and timer
- Easy to maintain–brushless DC motor
- Large range of grinding jars and tube holders to suit the sample requirements

Model	Beater
Max. sample volume (ml)	2×50
Vibrational frequency (Hz)	3 - 30
Speed display	LED
Grinding time setting (min)	5 s to 60 min
Power consumption (W)	200 VA
W×D×H (mm)	365×405×225
Weight (kg)	42

Description	Pk	Cat. No.
Beater	1	**412-0167**

Material	Sample volume (ml)	Max. feed size (mm)	Pk	Cat. No.
Grinding jars				
Stainless steel	0,5	1	2	**412-0168**
Stainless steel	2	2	2	**412-0169**
Stainless steel	4	4	2	**412-0170**
Stainless steel	10	6	2	**412-0171**
Stainless steel	15	6	2	**412-0172**
Stainless steel	20	8	2	**412-0173**
Steel, hardened	0,5	1	2	**412-0174**
Steel, hardened	2	2	2	**412-0175**
Steel, hardened	4	4	2	**412-0176**
Steel, hardened	10	6	2	**412-0177**
Steel, hardened	15	6	2	**412-0178**
Steel, hardened	20	8	2	**412-0179**
PTFE	20	8	2	**412-0260**
Tungsten carbide	10	6	2	**412-0261**
Stainless steel, forensic applications	10	6	2	**412-0264**
Grinding balls				
Stainless steel	3		20	**412-0201**
Hardened steel	3		20	**412-0266**
Tungsten carbide	3		20	**412-0268**
Stainless steel	5		20	**412-0190**
Tungsten carbide	5		20	**412-0269**
Hardened steel	5		20	**412-0273**
Stainless steel	7		20	**412-0202**
Hardened steel	7		20	**412-0267**
Tungsten carbide	7		20	**412-0270**
Agate	10		10	**412-0262**
Hardened steel	10		10	**412-0274**
Stainless steel	10		10	**412-0277**
Hardened steel	12		10	**412-0275**
Stainless steel	12		10	**412-0278**
Stainless steel	20		5	**412-0265**
Tungsten carbide	20		5	**412-0271**
Stainless steel	25		5	**412-0193**
Hardened steel	25		5	**412-0276**
Accessories				
Tube holder, PTFE for reaction vials, 12×0,2 ml tubes on each arm			1	**412-0181**
Tube holder, PTFE for reaction vials, 12×2 ml tubes on each arm			2	**412-0182**
Tube holder, PTFE for reaction vials, 6×2 ml tubes on each arm			2	**412-0183**
Tube holder, PTFE for reaction vials, 6×2 ml tubes (screw cap) on each arm			2	**412-0184**
Holder, PTFE, for up to 3 microplates or 1 deep well plates on each arm			2	**412-0185**
Rack, PTFE, for 24x1,5/2,0 ml tubes (with or without screw cap)			2	**412-0199**
Dummy plate, PTFE, for replacing 1 microtitre plate in the rack			2	**412-0200**
Rack , PTFE, 50 ml with 5 places for conical tubes			2	**412-0212**
Set of spanners			1 SET	**412-0180**
Holder for 15 ml falcon tubes			2	**412-0263**
Holder, stainless steel, for DNA kit, for 1 deep-well plate or 3 standard microplates on each arm			2	**412-0272**

DEEP WELL PLATES, 96 SQUARE WELL

These 96 deep square well plates, made from virgin PP, are designed to make the interchanging of plates simpler in automated systems. They are also ideal for housing both cell and bacterial culture.

- Chemical resistant
- Free from DNase and RNase
- V-bottom well shape maximises liquid removal and aids resuspension
- No inner edges to interfere with magnetic bead collection
- Raised well rims to improve heat sealing
- Conical base aids sample concentration, reconstitution and centrifugation

Can be autoclaved once, but only if not used with robotic systems.

Description	Colour	Sterile	Packed	Well volume (ml)	Pk	Cat. No.
Deep well plate, 96 square well	Clear	-	5 per inner pack	2,0	50	**732-3323**
Deep well plate, 96 square well	Clear	+	5 per inner pack	2,0	50	**732-3325**

Description	Pk	Cat. No.
Accessories		
Cap mat, 96 square well, EVA	50	**732-3333**
Cap mat, 96 square well, PP	50	**732-3334**

96-Well deep well microplates, clear

DEEP WELL PLATES, 96 SQUARE WELL, REINFORCED FOR GENOMICS APPLICATIONS

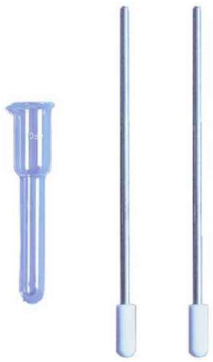
With reinforced walls to the bottom of the well backed with supporting ribs on the underside of the plate, these 2 ml square well PP blocks can be used safely and with confidence for plant DNA extraction. The wells have a total volume of 2,12 ml giving a generous working volume of 1,90 ml per well in a 45 mm high plate.

- Made from pure, virgin, extractable-free PP, rigorously tested for leachates
- Solid, stable and strong – able to withstand the applied forces in bead-beaters
- Manufactured to ANSI/SLAS specifications
- Free from DNase and RNase

Re-usable friction seals are available for these plates. The standard EVA cap mat is flexible and easy to apply. For those wishing to freeze the sealed plate at –80°C, a special PP cap mat is available. This forms a very tight seal and because it is made of the same polymer as the plate, it expands and shrinks at the same rate, thereby ensuring that the cap mat will not loosen as the temperature changes, preventing cross-contamination between wells. A special cap mat applicator is also available designed to reduce the risk of repetitive strain injuries whilst sealing large numbers of plates.

Description	Colour	Sterile	Packed	Well volume (ml)	Pk	Cat. No.
Deep well plate, 96 square well	Clear	-	5 per inner pack	2,0	50	**732-3331**
Deep well plate, 96 square well	Clear	+	5 per inner pack	2,0	50	**732-3332**

Description	Pk	Cat. No.
Accessories		
Cap mat, 96 square well, EVA	50	**732-3333**
Cap mat, 96 square well, PP	50	**732-3334**



TISSUE GRINDERS, POTTER-ELVEHJEM TYPE

Borosilicate glass tube, PTFE pestle with stainless steel shaft. Tissue grinders are used for controlled reduction of particle size and homogenisation of a variety of substances, especially biological material. The shearing forces generated by the movement of the rotating plunger in a precision bore tube cause size reduction, determining factors include clearance between the pestle head and tube, speed of rotation and viscosity of medium.

Grinding chamber clearance: 0.15–0.25 mm

Diameter of stainless steel shaft is 6.5 mm

Capacity (ml)	Ø ext.×length (mm)	Total length (mm)	Pk	Cat. No.
Glass vessel				
2	8×120	120	1	**432-0200**
5	12×135	135	1	**432-0201**
10	15×150	150	1	**432-0202**
15	19×155	155	1	**432-0203**
30	25×175	175	1	**432-0204**
50	32×195	195	1	**432-0205**
Plain plunger				
2		230	1	**432-0206**
5		235	1	**432-0207**
10		270	1	**432-0208**
15		270	1	**432-0209**
30		270	1	**432-0210**
50		270	1	**432-0211**
Plunger with serrated tip				
2		230	1	**432-0212**
5		235	1	**432-0213**
10		270	1	**432-0214**
15		270	1	**432-0215**
30		270	1	**432-0216**
50		270	1	**432-0217**

Tissue DNA kit, peqGOLD, 200 tests

DISPOSABLE PESTLES, MICROTUBES AND CORDLESS MOTOR FOR PELLET MIXING

Pestles and microtubes manufactured from polybutylene terephthalate (PBTP) in a Class 10 000, ISO Class 7, M5.5 cleanroom. Designed for homogenising cells and plant tissue or for re-suspending protein and DNA pellets. An optional battery-powered motor can be used with the pestles and microtubes. Pestles are 75 mm in length.

- Free from DNase, RNase and non pyrogenic
- Grooved grip makes pestle handle easy to turn without slipping, even when wearing gloves
- Lightweight motor reduces hand fatigue
- High speed vortexing action of the motor completely homogenises cell tissue or pellets within seconds

Pestles and microtubes are individually wrapped. Optional motor is supplied with a pestle adapter and two AA batteries.

Description	Capacity (ml)	Pk	Cat. No.
Pestle	0,5	100	**431-0095**
Pestle	1,5	100	**431-0094**
Microtube	0,5	100	**431-0097**
Microtube	1,5	100	**431-0096**
Pestle and microtube	0,5	100	**431-0099**
Pestle and microtube	1,5	100	**431-0098**

Description	Pk	Cat. No.
Accessories		
Pestle motor	1	**431-0100**
Replacement pestle adapter	1	**431-0101**

DNA ISOLATION, BLOOD AND TISSUE DNA MINI KITS, PEQGOLD

Fast, easy, and economical kit for isolation of DNA from a variety of samples including fresh or frozen cultured cells, tissue, blood, buccal swabs and saliva.

- No need for organic extractions
- No need for time-consuming alcohol precipitations
- Enzymatic degradation of cellular RNA
- Efficient separation of enzyme inhibitors and contaminants
- High yields due to strong lysis
- Fast, purification in less than 20 min (after lysis)

Typical starting amount should be 30 mg tissue, 5×10^6 cultured cells, or up to 250 µl. Gives purified DNA suitable for almost any downstream application.

Kit contains peqGOLD DNA Mini columns, 2 ml collection tubes, BL buffer, TL buffer, Proteinase K solution, HBC buffer, DNA wash buffer and elution buffer.

Description	Pk	Cat. No.
Blood and tissue DNA mini kit	5 Tests	**13-3396-00**
Blood and tissue DNA mini kit	50 Tests	**13-3396-01**
Blood and tissue DNA mini kit	200 Tests	**13-3396-02**