

# VVR® for nucleic acid preparation

01. SAMPLE DISRUPTION & HOMOGENISATION

02. NUCLEIC ACID ISOLATION

**03. PHOTOMETRY** 

04. CENTRIFUGATION & STORAGE



### VWR® for nucleic acid preparation

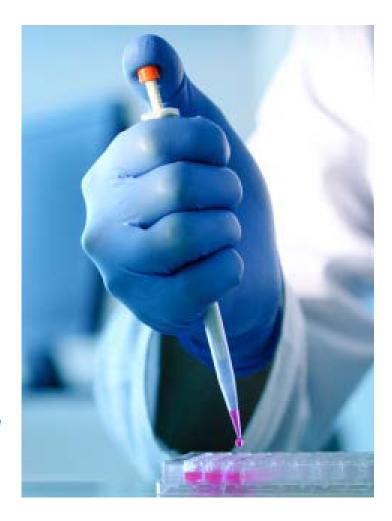
### Welcome to the VWR branded range of products for nucleic acid preparation

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



01

SAMPLE DISRUPTION & HOMOGENISATION

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### **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  $\times$  0.5mL, 4  $\times$  1.5mL, 12  $\times$  2mL, or 4  $\times$  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		

	at. No.
VWR® BEAD MILL MAX HOMOGENIZER 230V 43	2-0380

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 disintregration 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	Dk Cat No		

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				
	reaction vials, 12×0,2 n	nl tubes on each arm	1	412-0181
	reaction vials, 12×2 ml		2	412-0182
	reaction vials, 6×2 ml t		2	412-0183
	reaction vials, 6×2 ml t			
each arm			2	412-0184
Holder, PTFE, for up t each arm	o 3 microplates or 1 de	ep well plates on	2	412-0185
Rack, PTFE, for 24x1,5	5/2,0 ml tubes (with or v	vithout screw cap)	2	412-0199
Dummy plate, PTFE, f	for replacing 1 microtitr	e plate in the rack	2	412-0200
Rack , PTFE, 50 ml wi	th 5 places for conical	tubes	2	412-0212
Set of spanners			1 SET	412-0180
Holder for 15 ml falca	n tubes		2	412-0263
Holder, stainless steel standard microplates	l, for DNA kit, for 1 deep on each arm	p-well plate or 3	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

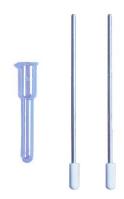
With reinforced walls to the bottom of the well backed with supporting ribs on the underside of the plate, these 2 ml square well PP blocks can be used safely and with confidence for plant DNA extraction. The wells have a total volume of 2,12 ml giving a generous working volume of 1,90 ml per well in 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 Accessories	Pk	Cat. No.
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 ser	rrated 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<sup>6</sup> 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



Microspin tissue DNA mini kit, 50 tests

### DNA ISOLATION, MICROSPIN TISSUE DNA MINI KITS, PEQGOLD

Fast, easy, and economical kit for isolation of genomic DNA from small sample volumes and sizes for consistent PCR and analytical test results.

- No need for organic extractions
- No need for time consuming ethanol precipitations
- Enzymatic degradation of cellular RNA
- Efficient separation of inhibitors and contaminants
- Fast, 20 min or less

Typical starting amount 10 mg tissue. Speed of minicolumn technology and specifically formulated buffers allow the purification of genomic DNA up to 60 kb.

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

Description	Pk	Cat. No.
Microspin tissue DNA mini kit	5 Tests	13-3096-00
Microspin tissue DNA mini kit	50 Tests	13-3096-01
Microspin tissue DNA mini kit	200 Tests	13-3096-02

### DNA ISOLATION, BACTERIAL DNA MINI KIT, PEQGOLD

Bacterial DNA Mini Kit for the extraction of high quality DNA from gram positive and gram negative bacteria. For up to 1×10° cells per preparation typical yield is up to 30 µg.

- Also suited to extractions from difficult to lyse bacteria
- Suitable for the simultaneous processing of multiple samples
- No need for organic extractions
- No need for time-consuming alcohol precipitations
- Efficient separation of inhibitors

Kit contains peqGOLD DNA columns, 2 ml collection tubes, Proteinase K, TL buffer, BL buffer, HBC buffer, Glass beads S, RNAse A, Lysozyme, DNA wash and elution buffer.

Description	Pk	Cat. No.
Bacterial DNA Mini Kit	5 Tests	13-3450-00
Bacterial DNA Mini Kit	50 Tests	13-3450-01
Bacterial DNA Mini Kit	200 Tests	13-3450-02

### DNA ISOLATION, PLANT DNA MINI KIT, PEQGOLD

Dependable isolation of high-quality total cellular DNA from a variety of plant species and tissues. peqGOLD Homogenizer Columns remove cell debris and improve sample handling following lysis.

- Fast-Process 50 mg of fresh sample or 30 mg of dry sample in under 40 minutes
- Reproducible–Standardised method for reliable results from a variety of samples
- Safe-No organic extractions
- High-quality-Purified DNA suitable for most downstream applications

Each kit contains peqGOLD DNA mini columns, peqGOLD DNA homogenizer columns, 2 ml collection tubes, SP1 buffer, SP2 buffer, SP3 buffer, RNase A and elution buffer.

Description	Pk	Cat. No.
Plant DNA Mini Kit	5 Tests	13-3486-00
Plant DNA Mini Kit	50 Tests	13-3486-01
Plant DNA Mini Kit	200 Tests	13-3486-02



Total RNA kit, peaGOLD



peaGOLD microspin total RNA kit

### RNA ISOLATION, TOTAL RNA KIT, PEQGOLD

Easy-to-use method for isolation up to 100  $\mu g$  of total RNA from cultured eukaryotic cells and soft tissues < 1×10<sup>7</sup> cells or 30 mg tissue.

- Fast, 20 minutes or less
- Safe with no phenol/chloroform extractions
- Versatile with both spin and vacuum protocols available
- Homogenizer Column reduces RNA column clogging
- Compatible with peqGOLD DNase I Digestion Kit for lowest level of gDNA co-purification (13-1091-01)

See attached manual.

RNA ISOLATION, MICROSPIN TOTAL RNA	A KII, PEQGOLD
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Purified RNA can be used in downstream applications such as RT-PCR, nuclease protection assay, and in vitro translation.

- High quality with up to 50 µg of total RNA from cultured eukaryotic cells, tissues such as laser dissected samples (LDS) or fine needle aspirates (FNA) suitable for a variety of downstream applications
- Fast, 30 minutes or less
- Safe with no phenol/chloroform extractions

Sample up to 5×10<sup>5</sup> eukaryotic cells or 5 mg tissue, yields up to 15 µg.

Each kit includes: peqGOLD Microspin RNA LE columns, 2 ml collection tubes, TRK lysis buffer, RWF wash buffer, nuclease-free water, carrier RNA.

Description	Pk	Cat. No.
Total RNA Kit	5 Tests	13-6834-00
Total RNA Kit	50 Tests	13-6834-01
Total RNA Kit	200 Tests	13-6834-02

Description	Pk	Cat. No.
MicroSpin Total RNA Kit	5 Tests	13-6831-00
MicroSpin Total RNA Kit	50 Tests	13-6831-01
MicroSpin Total RNA Kit	200 Tests	13-6831-02

Plant RNA Kit efficiently isolates RNA from a wide range of plant species and plant tissue, effectively removing genomic DNA, polysaccharides, phenol and other secondary metabolites. Starting amount can be up to 100 mg plant tissue. The isolated RNA is directly suitable for downstream applications.



- DNA Removing columns for efficient separation of DNA and cellular debris
- No need for organic extractions
- Immediate inactivation of endogenous and exogenous RNases
- Favoured binding of RNA molecules >200 bases

RNA ISOLATION, PLANT RNA KIT, PEQGOLD

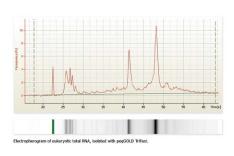
- Efficient separation of enzyme inhibitors and contaminants
- Final elution in RNase-free water

Kits contains peqGOLD RNA Mini columns, peqGOLS RNA Homogenizer columns, 2 ml collection tubes, NTL lysis buffer, SP buffer, RB buffer, RNA wash buffer I, nuclease-free water.



Plant RNA kit, peqGOLD, 50 preparations

<b>Description</b>	Pk	Cat. No.
Plant RNA Kit	5 Tests	13-6627-00
Plant RNA Kit	50 Tests	13-6627-01
Plant RNA Kit	200 Tests	13-6627-02



## PEGGOLD RNAPUTE Left Establisher von RNA MAN N. 30-1002 Mark N. 30-1002

### DNA/RNA/PROTEIN PURIFICATION REAGENT, PEQGOLD TRIFAST" AND TRIFAST" FL

For isolation of RNA, DNA and protein from one sample. Contains phenol and guanidine isothiocyanate.

- Suitable for small and large samples
- Specialised 'FL' version optimised for extractions from fluids

Description	Pk	Cat. No.
TriFast™ for the extraction of DNA/RNA/protein, 100 ml	1	30-2010
TriFast™ FL for the extraction of DNA/RNA/protein from fluids, 100 ml	1	732-3314

### RNAPURE™, PEQGOLD

Ready to use reagent for quick and simple purification of high quality total RNA. Contains phenol and guanidine isothiocyanate.

Suitable for small and large samples

- Reliable and reproducible with high purity RNA

Description	Pk	Cat. No.
RNAPure™ for total RNA extraction, 100 ml	1	732-3312

### PLASMID PURIFICATION, PLASMID MINIPREP KIT I, PEQGOLD

Plasmid Miniprep Kit I for the easy, quick and efficient extraction of highly pure plasmid DNA. Isolate up to 30 µg of high-quality plasmid DNA from 1 to 5 ml bacterial cultures in 30 minutes or less. Plasmid DNA obtained with peqGOLD Plasmid Miniprep kits can directly be used for a wide range of downstream applications.

- Suitable for the simultaneous processing of multiple samples
- Short hands-on and preparation times (<15 minutes)
- No need for organic extractions or precipitations
- Complete enzymatic degradation of all cellular RNA
- Efficient removal of enzyme inhibitors and contaminants

Each kit includes peqGOLD DNA columns and 2 ml collection tubes, RNase A solution, Solution I, II and III, HBC buffer and DNA wash buffer, and elution buffer.

Description	Pk	Cat. No.
Plasmid Miniprep Kit I	5 Tests	13-6942-00
Plasmid Miniprep Kit I	50 Tests	13-6942-01
Plasmid Miniprep Kit I	200 Tests	13-6942-02



Plasmid miniprep kit II

### PLASMID PURIFICATION, PLASMID MINIPREP KIT II, PEQGOLD

Isolate up to  $40-70~\mu g$  of high-quality plasmid DNA from up to 15 mL bacterial cultures in 30 minutes or less. Simplified with VWR peqGold Mini Column II technology into three quick steps: bind, wash, and elute.

- Safe, no phenol/chloroform extractions
- Versatile with both spin and vacuum formats available
- High quality DNA is suitable for a wide range of downstream applications

Each kit contain peqGOLD DNA columns, 2 ml collection tubes, Solution I, Solution II, Solution III, HBC buffer, DNA wash buffer, RNase A, Elution buffer.

Description	Pk	Cat. No.
Plasmid Miniprep Kit II	5 Tests	13-6945-00
Plasmid Miniprep Kit II	50 Tests	13-6945-01
Plasmid Miniprep Kit II	200 Tests	13-6945-02



PCR clean-up, cycle-pure kits, peqGOLD

### PCR CLEAN-UP, CYCLE-PURE KITS, PEQGOLD

Purification of single or double-stranded DNA from PCR or other enzymatic reactions.

- Downstream application or cloning, Sanger sequencing, in vitro transcription and nucleic acid labelling.
- Elution volume of 30–50 μl
- Starting amount of 5–50 µl enzymatic reactions
- DNA has >90% recovery, 70 bp to 20 kb

Completely removes primers, nucleotides, enzymes, salts, and other impurities from the DNA sample.

Kit contains peqGOLD DNA columns, 2 ml collection tubes, CP buffer, DNA wash buffer, Elution buffer.

Description	Pk	Cat. No.
Cycle-Pure Kit	5 Tests	13-6492-00
Cycle-Pure Kit	50 Tests	13-6492-01
Cycle-Pure Kit	200 Tests	13-6492-02

### DNA CLEAN-UP, MICROSPIN CYCLE-PURE KITS, PEQGOLD

Clean up DNA in low elution volume (10–15  $\mu l)$  from PCR reactions using spin columns.

Starting amount up to 10  $\mu g$  DNA

- DNA recovered >90% recovery, 70 bp to 20 kb

Modified from the peqGOLD Cycle-Pure Kit.

Each kit comprises peqGOLD MicroSpin DNA columns, 2 ml collection tubes, CP buffer, DNA wash buffer and Elution buffer.

Description	Pk	Cat. No.
MicroSpin Cycle-Pure Kit	5 Tests	13-6293-00
MicroSpin Cycle-Pure Kit	50 Tests	13-6293-01
MicroSpin Cycle-Pure Kit	200 Tests	13-6293-02



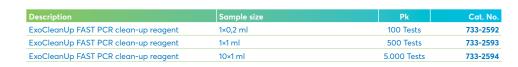
MicroSpin cycle-pure kit, peqGOLD

### ONE-STEP PCR CLEAN-UP, EXOCLEANUP FAST

VWR ExoCleanUp FAST PCR reagent is a one-step PCR clean-up reagent for optimal sequencing results, consisting of a balanced combination of a heat-labile exonuclease I (HL-ExoI) and a recombinant shrimp alkaline phosphatase (rSAP).

- Designed to clean-up PCR products in 5 minutes
- No need for spin columns or magnetic beads
- Treatment improves downstream applications, such as DNA sequencing and SNP analysis

Treatment of amplified PCR products with this reagent helps to remove residual primers and single-stranded DNA, and inactivates excess dNTPs by dephosphorylation. After enzymatic treatment at 37 °C for a minimum of 2 minutes, this reagent is completely inactivated by heating at 80 °C for a minimum of 3 minutes.







### DNA CLEAN-UP, GEL EXTRACTION KIT, PEQGOLD

Purifies DNA bands 70 bp–20 kb in length from agarose gels. The DNA band of interest is excised from the gel, dissolved in binding buffer, and efficiently processed in a peqGOLD DNA column. >90%recovery. Elution volume:  $30–50~\mu$ l.

- Simple protocol and short hands-on times of less than 15 minutes
- Internal control of reaction conditions by pH sensitive indicator
- No need for organic extractions or precipitations
- Efficient removal of inhibitors and contaminants
- No shearing of DNA or carry-over of silica material

Kit contains peqGOLD DNA columns and 2 ml collection tubes, XP» Binding buffer and Elution buffer.

Description	Pk	Cat. No.
Gel Extraction Kit	5 Tests	13-2500-00
Gel Extraction Kit	50 Tests	13-2500-01
Gel Extraction Kit	200 Tests	13-2500-02



DNase I digest kit, 50 tests

### **DNASE I DIGEST KIT, PEQGOLD**

For quick and easy removal of unwanted DNA directly on the column during RNA preparation.

- Efficient removal of contaminating DNA from RNA preparations
- Free from RNases and inhibitors

Kit contains RNase-free DNase I and DNase I Digestion Buffer.

Description	Pk	Cat. No.
DNase I Digest Kit	5 Tests	13-1091-00
DNase I Digest Kit	50 Tests	13-1091-01

### PROTEINASE K, FROM TRITIRACHIUM ALBUM, CHROMATOGRAPHICALLY PURIFIED

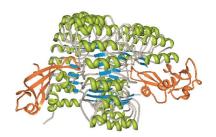


Activity approximately 30 Anson units per g.

1 Anson unit is the amount of enzyme which liberates 1 mmol of Folin positive amino acids per minute at pH 7,5 and 35 °C using haemoglobin as substrate. Powerful proteolytic activity on proteins, glycoproteins and peptides. Used for the digestion of human and animal tissues prior to and to inactivate DNases and RNases during isolation of nucleic acids.

CAS No.	39450-01-6
Colour	white
Enzyme activity	Min.30,0 mAU/mg (Haemoglobin; pH 7,5; 37 °C)
Enzyme name	Proteinase K
Formulation	Lyophilisate
Species	Tritirachium album
Storage conditions	Freezer
Tested applications	For electrophoresis

Pk	Cat. No.
100 mg	390972X
10 g	39097CB



Structure of ribonuclease inhibitorangiogenin complex. PDB 1A4Y. Papageorgiou, A.C., Shapiro, R., and Acharya, K.R. (1997) *EMBO J.* **16**, 5162–5177.

### RIBONUCLEASE INHIBITOR (RNASE INHIBITOR) (FROM HUMAN PLACENTA) FOR BIOTECHNOLOGY

RNase inhibitor is used to inhibit the activity of RNases in reaction mixtures for cDNA synthesis and *in vitro* transcription, as well as for long-term storage of valuable RNA samples. A unit of this protein will inhibit 50% of the activity of 5 ng of RNase A.

Human placental source, 40 KU/ml

Activity @25 °C: 10 U/ul

DNase (endonuclease): None

DNase (exonuclease): None

Biological activity	40 kU/ml
Grade	For biotechnology
Protein synonyms	RNase inhibitor
Protein/peptide name	Ribonuclease inhibitor
Source	Placenta
Species	Human

Pk	Cat. No.
2 KU	E633-2KU

### **WATER FOR PCR**

The PCR grade water is ultrapure  $H_2O$ , tested for contaminating activities, with no trace of endonuclease activity, nicking activity or exonuclease activity. Absence of human DNA is tested by PCR

Description	Pack type	Pk Info	Pk	Cat. No.
Water for PCR	Plastic tube	6×5 ml	1 KIT	733-2573

### **WATER NUCLEASE FREE**

Water, nuclease-free, molecular biology grade (RNase, DNase and protease tested).

Description	Pack type	Pk	Cat. No.
Water nuclease free	Plastic bottle	100 ml	436912C

### TE (TRIS-EDTA) BUFFER, pH 8,0 FOR BIOTECHNOLOGY



Ready to use Tris-EDTA buffer.

- Composition: 10 mM Tris, 1 mM EDTA
- pH 8,0

Description	Pk	Cat. No.
TE buffer, pH 8,0	100 ml	E112-100ML
TE huffer pH 8.0	500 ml	F112-500MI

# Avantor Services Caupment Services Our equipment services optimise your uptime, ensuring your equipment is fully compliant and performing to specifications. We offer: - Multi-vendor technical services - Installation - Repairs - Relocation - Calibration - Validation - Preventive maintenance - Warranty - Asset management



mvSPEC



М4

### MICROVOLUME SPECTROPHOTOMETERS, MYSPEC

mySPEC allows you to perform nucleic acid and protein microvolume concentration plus purity measurements.

- Large dynamic range (2 ng/ $\mu$ l to 15  $\mu$ g/ $\mu$ l (dsDNA)) eliminates error-prone dilutions and calculations
- Stand-alone 8,4" touch screen versions are also available
- Automated data analysis after user-defined purity setting

mySPEC Twin has a cuvette port so that cell density or enzymatic measurements can be performed. It combines microvolume and cuvette functions with temperature control (30 to 40  $^{\circ}$ C) and stirrer (0; 50; 1000 min<sup>-1</sup>).

Pre-configured modules allow for rapid, fully automated data analysis, including concentration and purity of RNA and DNA, protein measurements (A280, Bradford, Lowry, BCA, Pierce 660), determination of labelling efficiencies, colorimetric assays on enzymatic activities and cell density measurements.

Light source	Pulsed xenon
Detector	Charged-couple device (CCD) array
Absorbance range 0,02 – 300 A	
Absorbance accuracy	±2% @ 0,76 A @ 257 nm
Output	USB
Sample size	1μΙ
Electrical	12 V/30 W
Wavelength range	190 - 840 nm
Weight	2 kg

Description	Model	Pk	Cat. No.
Microvolume spectrophotometer with USB cable and software	mySPEC	1	732-2533
Stand-alone microvolume spectrophotometer	mySPEC Touch	1 SET	732-2534
Microvolume spectrophotometer with cuvette housing, USB cable and software	mySPEC Twin	1	732-2535
Stand-alone microvolume spectrophotometer with cuvette housing	mySPEC Twin Touch	1 SET	732-2536

### **UV/VISIBLE SPECTROPHOTOMETER, M4**

The M4 single split-beam spectrophotometer, with flashing xenon lamp, is an easy to use, highly reliable and accurate product.

- Single split-beam design for sample and blank variability can be monitored at the same time
- Xenon flash lamp with a very strong energy in the UV and visible range
- Connects to a computer based on Windows® through various interfaces

Measure absorbance and transmission at any defined wavelength, generate a graph and search for peaks and valleys, also analyse the graph via built-in methods.

The application can be extended to luminosity determination, multiple wavelength measurement, quantitative analysis, dynamic determination, DNA/ protein determination and spectral measurements.

Supplied with a user manual, 10 mm quartz cuvette, 10 mm glass cuvette, fuse, power cable and dust cover.

Display	5" colour touch screen
Wavelength range 190–1100 nm	
Spectral bandwidth 2 nm	
Light source	Flashing xenon lamp
Languages	6 can be switched: English, German, French, Spanish, Portuguese, simplified Chinese, Russian
Output	USB; serial port; Bluetooth® (optional)
W×D×H	456×360×185 mm
Weight	10,5 kg

Description	Model	Pk	Cat. No.
UV/Visible spectrophotometer	M4	1	634-1087





The P4 UV/Visible spectrophotometer is an easy to use instrument with advanced performance.

- Highly accurate and reliable
- Simple, elegant design with aluminum base
- Easy to change lamp, user friendly interface

Provides several basic functions, such as photometry test, quantitation test and spectrum scanning.

Absorbance range	-0,3+3,0 A		
Photometric range	0-200% T		
Wavelength accuracy	±0,5 nm		
Wavelength repeatability	<0,2 nm		
Scanning speed	4200 nm/min		
Light source	Tungsten/deuterium		
Memory	236 Kb		
W×D×H	456×360×185 mm		
Weight	10,7 kg		
Power	100-240 V AC; 50/60 Hz; 120 W		

Description	Model	Range	Pk	Cat. No.
UV/Visible spectrophotometer	P4	190-1100 nm	1	634-1089



### **UV/VISIBLE SPECTROPHOTOMETER, UV-6300PC**

UV/Visible spectrophotometer with double-beam optical system, designed for applications including general research, pharmaceutical, biochemical and clinical laboratory use, new material development and quality control.

- Standard photometrics: Absorption, transmission and concentration
- Quantitative analysis and kinetics, multi-wavelength scan and spectrum scan
- DNA/RNA and protein analysis
- Internal control via keypad and PC control (optional)
- UV-Vis Analyst software for more powerful data processing and expanded data collecting

Supplied with 4 optical glass cells, 2 quartz cells, dust cover, USB cable, USB (8 GB) stick, UV-Vis Analyst software for PC control, cell holders for sample and reference, power cables with UK, CH and EU plugs.

Display	LCD, 320×240 P
Absorbance range	-0,3+3,0 A
Optical design	Double beam
Absorbance accuracy	±0,002 A @ 1,0 A
Photometric accuracy	≤0,3% T
Photometric range	0 - 200% T; 0 - 9999 conc.
Photometric stability	0,001 A/h @ 500 nm
Wavelength accuracy	±0,3 nm
Wavelength range	190–1100 nm
Stray light ≤0,05% T @ 220 and 360 nm	
Scanning speed	100 - 3000 nm/min. Intervals: 0,1; 0,2; 0,5; 1,0; 5,0 nm
Light source	Tungsten/deuterium
Memory	200 results and 200 curves
Languages	English, French, German, Spanish
Interfaces	Parallel printer
Output	
W×D×H	590×420×260 mm
Weight	26 kg

Description	Model	Pk	Cat. No.
UV/Visible spectrophotometer	UV-6300PC	1	634-6041

### **STANDARD CUVETTES**

Description	Height (mm)	Path length (mm)	Window material	Pk	Cat. No.
Flow cell	15	5	Optical glass	1	634-0690
Flow cell	15	10	Optical glass	1	634-0691
Flow cell	15	20	Optical glass	1	634-0692
Flow cell	15	30	Optical glass	1	634-0693
Flow cell	15	5	Quartz	1	634-0694
Flow cell	15	10	Quartz	1	634-0695
Flow cell	15	20	Quartz	1	634-0696
Flow cell	15	30	Quartz	1	634-0697

### **SQUARE CUVETTES**

Description	Path length (mm)	Window material	Pk	Cat. No.
Square cuvettes	10	Glass	4	634-6013
Square cuvettes	20	Glass	2	634-6014
Square cuvettes	30	Glass	2	634-6015
Square cuvettes	50	Glass	2	634-6016
Square cuvette	100	Glass	1	634-6017
Square cuvettes	10	Quartz	2	634-6018
Square cuvettes	20	Quartz	2	634-6019
Square cuvettes	30	Quartz	2	634-6020
Square cuvettes	50	Quartz	2	634-6021
Square cuvette	100	Quartz	1	634-6022

### **MICRO CUVETTES**

Description	Height (mm)	Volume (μl)	Path length (mm)	Window material	Pk	Cat. No.
Micro cell	15	100	10	Quartz	1	634-0688
Micro cell	15	200	10	Quartz	1	634-0689
Micro cell	15	500	10	Quartz	1	634-6025

### **MICRO CUVETTES**

- Micro cuvettes with PTFE lids or stoppers.
- Suitable for high precision analytical techniques.
- Please note that pairs are spectrally calibrated.



104.002-QS

Description	Туре	Height (mm)	Volume (µl)	Path length (mm)	Window material	Pk	Cat. No.
Micro cuvettes with PTFE stoppers							
Micro cell with PTFE stopper	Micro	40	400	10	Quartz (Suprasil®)	1	634-9242
Micro cell with PTFE stopper, matched	Micro	40	400	10	Quartz (Suprasil®)	1 PAIR	634-0858
Micro cell with PTFE stopper and black windows	Micro	40	400	10	Quartz (Suprasil®)	1	634-9241
Micro cell with PTFE stopper and black windows, matched	Micro	40	400	10	Quartz (Suprasil®)	1 PAIR	634-0981
Micro cuvettes with PTFE lids							
Micro cell with PTFE lid	Micro	25	700	10	Quartz (Suprasil®)	1	634-9236
Micro cell with PTFE lid and black windows	Micro	25	300	10	Quartz (Suprasil®)	1	634-9238
Micro cell with PTFE lid	Micro	45	700	10	Optical glass	1	634-9079
Micro cell with PTFE lid	Micro	45	700	10	Quartz (Suprasil®)	1	634-9080
Micro cell with PTFE lid, matched	Micro	45	700	10	Quartz (Suprasil®)	1 PAIR	634-0969
Micro cell with PTFE lid and black windows	Micro	45	700	10	Optical glass	1	634-9214
Micro cell with PTFE lid and black windows	Micro	45	700	10	Quartz (Suprasil®)	1	634-9081
Micro cell with PTFE lid and black windows, matched	Micro	45	700	10	Quartz (Suprasil®)	1 PAIR	634-0970
Micro cell with PTFE lid	Micro	45	500	10	Quartz (Suprasil®)	1	634-9240
Micro cell with PTFE lid and black windows	Micro	45	500	10	Quartz (Suprasil®)	1	634-1060





### **ULTRA-MICRO CUVETTES**

Ultra-micro cuvettes with PE stoppers.

Please note that pairs are spectrally calibrated.

Туре	Height (mm)	Centre height	Volume (µl)	Path length (mm)	Window material	Pk	Cat. No.
Ultra micro	45	8,5 mm	20	10	Quartz (Suprasil®)	1	634-0977
Ultra micro	45	15 mm	20	10	Quartz (Suprasil®)	1	634-0976
Ultra micro	45	8,5 mm	50	10	Quartz (Suprasil®)	1	634-9093
Ultra micro	45	8,5 mm	50	10	Quartz (Suprasil®)	1	634-9092
Ultra micro	45	15 mm	50	10	Quartz (Suprasil®)	1	634-9328
Ultra micro	45	15 mm	50	10	Quartz (Suprasil®)	1	634-9091
Ultra micro	12	4,5 mm	120	10	Quartz (Suprasil®)	1	634-0973
Ultra micro	8,1	4,5 mm	120	10	Quartz (Suprasil®)	1	634-0972
Ultra micro, matched	45	8,5 mm	100	10	Quartz (Suprasil®)	1 PAIR	634-0975
Ultra micro	45	8,5 mm	100	10	Quartz (Suprasil®)	1	634-9090
Ultra micro, matched	45	15 mm	100	10	Quartz (Suprasil®)	1 PAIR	634-0974
Ultra micro	45	15 mm	100	10	Quartz (Suprasil®)	1	634-9089
Ultra micro	45	8,5 mm	160	10	Quartz (Suprasil®)	1	634-9088
Ultra micro	45	15 mm	160	10	Quartz (Suprasil®)	1	634-9087

### **ABSORPTION CUVETTES WITH LIDS**

These semi-micro cuvettes are specially designed for research needs.

- Cells with PTFE lid

Please note that pairs are spectrally calibrated.

Туре	Height (mm)	Volume	Path length (mm)	Window material	Pk	Cat. No.
Semi-micro	45	700 µl	5	Quartz (Suprasil®)	1	634-9156
Semi-micro	45	1 ml	10	Optical glass	1	634-9144
Semi-micro	45	1 ml	10	Quartz (Suprasil®)	1	634-9154
Semi-micro	45	1,4 ml	10	Optical glass	1	634-9112
Semi-micro	45	1,4 ml	10	Quartz (Suprasil®)	1	634-9122
Semi-micro	45	1,4 ml	10	Quartz (Suprasil® 300)	1	634-9132
Semi-micro, matched	45	1,4 ml	10	Quartz (Suprasil®)	1 PAIR	634-0849
Semi-micro, matched	45	1,4 ml	10	Quartz (Suprasil®)	1 PAIR	634-0856
Semi-micro	45	1,4 ml	10	Optical glass	1	634-9148
Semi-micro	45	1,4 ml	10	Quartz (Suprasil®)	1	634-9158
Semi-micro	45	1,4 ml	10	Treated glass	1	634-9049
Semi-micro	45	7 ml	50	Optical glass	1	634-9115
Semi-micro	45	7 ml	50	Quartz (Suprasil®)	1	634-9125

Description	Pk	Cat. No.
Accessories		
PTFE stoppers with NS5 fitting	5	634-1145
PTFE stoppers with NS7 fitting	5	634-1146



### **MACRO CUVETTES**

Disposable macro cuvettes, four clear sides.

- Clear and clean optical path
- Four windows for precise measurements
- Manufactured under controlled room conditions

Specially designed for fluorescence spectroscopy.

Range	Height (mm)	Volume (ml)	Path length (mm)	Window material	Pk	Cat. No.
340 – 900 nm	35	2,5 - 4,5	10	PS	100	634-1067



### **ABSORPTION CUVETTES, 100**

High quality cuvettes made from glass or quartz for online spectrophotometric analysis.

Please note that pairs are spectrally calibrated.

ISO 17025 certified NIST traceable reference standards and immersion probes.

Туре	Height (mm)	Volume	Path length (mm)	Window material	Pk	Cat. No.
Glass mode	els					
Macro	45	350 µl	1	Optical glass	1	634-9011
Macro	45	700 µl	2	Optical glass	1	634-9012
Macro, matched	45	700 µl	2	Optical glass	1 PAIR	634-0961
Macro	45	1,75 ml	5	Optical glass	1	634-9013
Macro	45	3,5 ml	10	Optical glass	1	634-9014
Macro, matched	45	3,5 ml	10	Optical glass	1 PAIR	634-0842
Macro	45	7 ml	20	Optical glass	1	634-9015
Macro, matched	45	7 ml	20	Optical glass	1 PAIR	634-0960
Macro	45	14 ml	40	Optical glass	1	634-9016
Macro, matched	45	14 ml	40	Optical glass	1 PAIR	634-0963
Macro	45	17,5 ml	50	Optical glass	1	634-9017
Macro, matched	45	17,5 ml	50	Optical glass	1 PAIR	634-0846
Macro	45	35 ml	100	Optical glass	1	634-9018
Macro, matched	45	35 ml	100	Optical glass	1 PAIR	634-0957
Quartz mo	dels					
Macro	45	350 µl	1	Quartz (Suprasil®)	1	634-9021
Macro	45	350 µl	1	Quartz (Suprasil® 300)	1	634-9031
Macro	45	350 µl	1	Quartz (Suprasil®)	1	634-0959
Macro, matched	45	350 µl	1	Quartz (Suprasil®)	1 PAIR	634-0845
Macro	45	700 µl	2	Quartz (Suprasil®)	1	634-9022

Туре	Height (mm)	Volume	Path length (mm)	Window material	Pk	Cat. No.
Glass mod	els					
Macro	45	700 µl	2	Quartz (Suprasil® 300)	1	634-9032
Macro, matched	45	700 µl	2	Quartz (Suprasil®)	1 PAIR	634-0962
Macro	45	1,75 ml	5	Quartz (Suprasil®)	1	634-9023
Macro	45	1,75 ml	5	Quartz (Suprasil® 300)	1	634-9033
Macro, matched	45	1,75 ml	5	Quartz (Suprasil®)	1 PAIR	634-0965
Macro	45	3,5 ml	10	Quartz (Suprasil®)	1	634-9024
Macro	45	3,5 ml	10	Quartz (Suprasil® 300)	1	634-9034
Macro, matched	45	3,5 ml	10	Quartz (Suprasil®)	1 PAIR	634-0843
Macro, matched	45	3,5 ml	10	Quartz (Suprasil® 300)	1 PAIR	634-0844
Macro	45	7 ml	20	Quartz (Suprasil®)	1	634-9025
Macro	45	7 ml	20	Quartz (Suprasil® 300)	1	634-9035
Macro	45	14 ml	40	Quartz (Suprasil®)	1	634-9026
Macro	45	14 ml	40	Quartz (Suprasil® 300)	1	634-9036
Macro, matched	45	14 ml	40	Quartz (Suprasil®)	1 PAIR	634-0964
Macro	45	17,5 ml	50	Quartz (Suprasil®)	1	634-9027
Macro	45	17,5 ml	50	Quartz (Suprasil® 300)	1	634-9037
Macro, matched	45	17,5 ml	50	Quartz (Suprasil®)	1 PAIR	634-0847
Macro	45	35 ml	100	Quartz (Suprasil®)	1	634-9028
Macro	45	35 ml	100	Quartz (Suprasil® 300)	1	634-9038
Macro, matched	45	35 ml	100	Quartz (Suprasil®)	1 PAIR	634-0958





Disposable cuvettes in either optical polystyrene (PS) or polymethyl methacrylate (PMMA), for use with most polar solvents, acids and alkaline solutions.

- Minimum variation of extinction values

**DISPOSABLE CUVETTES** 

- Recessed windows, clear and clean optical path
- Optimum transmittance and reduced risk of contamination

For determinations in water analysis, chemistry and life science applications.

Resealable – cuvettes are assorted by cavity numbers.

Туре	Range	Volume (ml)	Path length (mm)	Window material	Pk	Cat. No.
Semi-micro	300 – 900 nm	1,5 - 3	10	PMMA	100	634-0678
Macro	300 – 900 nm	2,5 - 4,5	10	PMMA	100	634-0677
Semi-micro	340 – 900 nm	1,5 - 3	10	PS	100	634-0676
Macro	340 – 900 nm	2,5 - 4,5	10	PS	100	634-0675





This personal centrifuge has a fixed speed of 6000 min<sup>-</sup> 1/2000 ×g, and is designed for applications requiring relatively low g-forces, such as microfiltration, cell separation and quick spin downs from the walls of tubes.

- Quick-release rotors: No tools are required to exchange the rotors or attach them to the motor shaft
- Easy to operate: Close the lid of the centrifuge to start a run; press and release the tab on lid to stop

The tube rotor spins up to eight individual 1,5/2,0 ml plastic microcentrifuge tubes. It will also accept 0,5 and 0,4 ml tubes with the supplied adapters. The additional PCR rotor is designed to centrifuge four 8×0,2 ml PCR strip tubes. It will also accept up to 32 individual 0,2 ml tubes.

Supplied with 8×1,5/2,0 ml rotor, 4×(8×0,2 ml) strip tube rotor, 8 adapters for 0,4 ml tubes and 8 adapters for 0,5 ml tubes.

Model	MiniStar	MiniStar blueline			
Max. capacity	8×1,5/2,0 ml tubes or 4×(8×0,2 ml) tube strips				
Max. speed (min <sup>-1</sup> )	6000				
Max. RCF (×g)	2000				
Noise level (dB(A))	56				
Power consumption (W)		5			
W×D×H (mm)	132×132×112				
Weight (kg)	0,55				
Acceleration/deceleration time	5/1,5 s				

Description	Pk	Cat. No.
Microcentrifuge MiniStar, white, with rotors and adapters, EU-plug	1	521-2161
Microcentrifuge MiniStar blueline, blue, with rotors and adapters. EU-plua	1	521-2319



### MICROCENTRIFUGES, VENTILATED/ **REFRIGERATED, MICRO STAR 17 / 17R**

Micro Star 17 and 17R microcentrifuges combine power, versatility and convenience in a safe, compact, easy to use laboratory instrument. Both the ventilated Micro Star 17 and the refrigerated Micro Star 17R are designed to accelerate the routine sample preparation process. The special biocontainment rotor lid for one-click rotor opening and closing, shortens retrieval time compared to screw on lids.

- Quiet and powerful performance up to 17000 ×g
- ClickSeal® biocontainment rotor lid keeps the user and the samples safe
- Easy operation; intuitive controls and bright, easy to read displays
- Separate short-spin key for quick centrifugation

Supplied with 24-place rotor for 1,5/2,0 ml tubes and aerosol-tight rotor lid.

Model	Micro Star 17 Micro Star 17R			
Temperature (°C)	9+40			
Max. speed (min <sup>-1</sup> )	13300			
Max. RCF (×g)	17000			
Timer	1 – 99 min (in increments of 1 min) + Hold mode			
Noise level (dB(A))	<56 <50			
W×D×H (mm)	240×350×230	292×440×330		

Description	Pk	Cat. No.
Microcentrifuge, ventilated, Micro Star 17	1	521-1646
Microcentrifuge, refrigerated, Micro Star 17R	1	521-1647



Centrifuge, Microstar 30R

### MICROCENTRIFUGE, HIGH-SPEED, UNIVERSAL, REFRIGERATED, MICRO STAR 30R

The compact Micro Star 30R refrigerated centrifuge is an economic, versatile and easy-to-use cross-over centrifuge which combines the features of a high speed microcentrifuge and a multipurpose centrifuge. This quiet and smooth running centrifuge accommodates rotors for microtubes (24×1,5/2,0 ml), microplates and 15/50 ml conical tubes as well as a 16-place rotor for 5 ml tubes and a swing-bucket rotor for 6 blood collection tubes. Ideal for use in life science, biotechnology laboratories and clinical laboratories.

 Temperature range from -9 to +40 °C with pre-cooling function

- Max. speed: 31150×g (18000 rpm)
- Timer from 10 s to 99,5 minutes or continuous
- Saves up to 100 user-defined programs
- Automatic rotor recognition, imbalance detection and quickspin function
- Refrigerant with low GWP and CO<sub>2</sub> emissions according to EU standards valid from 2020
- 6 different rotors available

The Micro Star 30R is available without rotor for free rotor selection or as a package which includes microtube rotor RA 24/2 with aerosol tight rotor lid.

Model	Micro Star 30R
Temperature (°C)	-9+40
Max. capacity	6×50 ml
Max. speed (min <sup>-1</sup> )	18000
Max. RCF (×g)	31150
Timer	10 s - 99,5 min or continuous
Noise level (dB(A))	< 56
Power consumption (W)	700
W×D×H (mm)	360×675×288
Weight (kg)	51

<b>Description</b>	Pk	Cat. No.
Microcentrifuge, refrigerated, Micro Star 30R with aerosol tight rotor RA 24/2	1	521-2574



### CENTRIFUGES, BENCH TOP, VENTILATED/REFRIGERATED, MEGA STAR 600 / 600R

These small bench top centrifuges are ideal for research and clinical applications in pharmaceutical and biotechnical industries, as well as for academic research. They offer good capacity in a compact design with a smart and simple interface.

- Auto-Lock® III rotor system: Tool-free rotor exchange system enables quick rotor exchange; with just the push of a button users can quickly change rotors and easily access the rotor chamber for cleaning
- Aerosol-tight ClickSeal® bucket caps and rotor lid sealing system: Glove friendly one handed open/close capability
- Time saving pulse function for short runs
- Highly visible backlit display for easy reading of parameters across the lab

Mega Star 600 centrifuges are available as a ventilated or a refrigerated version. The refrigerated version, with pre-cooling function, is suitable for temperaturesensitive sample processing with control between -10 and +40 °C.

Mega Star 600 / 600R are supplied with rotor TX-150, set of four round buckets and four ClickSeal® caps. The Mega Star 600R is also available in a package with MicroClick rotor incl. ClickSeal® biocontainment rotor lid. All packages come with two power cords (EU and UK plug). Adapters need to be ordered separately. Additional rotors are available on request.

Model	Mega Star 600R
Max. capacity - swing-out rotor	4×145 ml
Max. speed - swing-out rotor (min <sup>-1</sup> )	4350 (with TX-150 rotor) / 17850 (with MicroClick rotor)
Max. RCF - swing-out rotor (×g)	3046 (with TX-150 rotor) / 30279 (with MicroClick rotor)
Temperature (°C)	-10+40
Acceleration/braking ramps	2/2 (standard and soft)
Motor	Brushless induction motor
Control	Microprocessor
Functions	Auto-Lock III rotor locking system, pre-cooling and CFC-free refrigeration, ClickSeal® sealing system
Programs	3 (direct access) + 96 additional (via folder)

Timer	9 h 99 min 50 s + continuous	
Anti-unbalance system	Continuous vibration measurement, with rotor measurement with rotor measurement.	
Display	Large, bright LCD	
Languages	English, German, French, Spanish, Italian, Dutch and Russian	
Noise level (dB(A))	<56 (with TX-150 rotor) / <52 (with MicroClick rotor)	
Power supply	230 V / 50 - 60 Hz	
Power consumption (W)	750	
W×D×H (mm)	460×670×320	
Weight (kg)	74 (centrifuge only)	

Description	Pk	Cat. No.
Refrigerated bench top centrifuge, Mega Star 600R, micro package incl. MicroClick rotor and ClickSeal® rotor lid	1	521-1895





Microcentrifuge tubes with socket screw-cap

### MICROCENTRIFUGE TUBES WITH SOCKET SCREW CAPS

These clear, high grade PP tubes are ideal for sample processing applications.

- RNase-, DNase- and endotoxin-free

Excellent for freezer storage or secure sample handling. Screw caps incorporate silicone O-rings for a leakproof seal and accept colour coded inserts. Inserts snap into the top of the cap and create a flush surface. Tubes are available with standard or loop caps, which tether the cap to the tube.

Caps and tubes are steam autoclavable at 121 °C and freezable to -80 °C.

Manufactured in a Class 100000 cleanroom environment

Manufactured under ISO 13485:2016 and ISO 9001:2015 quality management systems Sterile tubes are sterilised by gamma irradiation SAL  $10^{-6}$  (ISO 11137).

Capacity (ml)	Туре	Colour	Version	RCF max. (×g)	Pk	Cat. No.
Tubes with green col	our caps in separate resealable bags					
0,5	With green screw cap	Natural	Non graduated, conical bottom, non sterile	20000	500	525-1231
0,5	With green screw cap	Natural	Non graduated, freestanding, non sterile	20000	500	525-1233
1,5	With green screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1236
1,5	With green screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1237
2,0	With green screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1240
2,0	With green screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1241
Sterile tubes with att	ached natural colour caps					
0,5	With natural screw cap	Natural	Non graduated, conical bottom, sterile	20000	500	525-0642
0,5	With natural screw cap	Natural	Non graduated, freestanding, sterile	20000	500	525-0644
1,5	With natural screw cap	Natural	Graduated, conical bottom, sterile	20000	500	525-0646
1,5	With natural screw cap	Natural	Graduated, freestanding, sterile	20000	500	525-0648
2,0	With natural screw cap	Natural	Graduated, conical bottom, sterile	20000	500	525-0650
2,0	With natural screw cap	Natural	Graduated, freestanding, sterile	20000	500	525-0652
Tubes with green col	our loop style caps					
0,5	With green loop style screw cap	Natural	Non graduated, conical bottom, non sterile	20000	500	525-1234
0,5	With green loop style screw cap	Natural	Non graduated, freestanding, non sterile	20000	500	525-1235
1,5	With green loop style screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1238
1,5	With green loop style screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1239
2,0	With green loop style screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1243
2,0	With green loop style screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1244





Microcentrifuge tubes

### **DISPOSABLE MICROCENTRIFUGE TUBES**

These tubes are made from USP Class VI PP.

- Amber coloured for light-sensitive substances
- RNase-, DNase- and endotoxin-free
- Engraved graduations ensure accuracy
- Caps will not pop open during centrifuging
- Caps can be penetrated by a syringe

These tubes also feature flat, pierceable, frosted caps and a side labelling surface.

Autoclavable at 121 °C and freezable to -80 °C.

Manufactured in a Class 100 000 cleanroom environment

Manufactured under ISO 13485:2016 and ISO 9001:2015 quality management systems

Assorted pack contains 100 tubes each of red, orange, yellow, green and blue.

Capacity (ml)	Туре	Colour	Version	RCF max. (×g)	Pk	Cat. No.
0,5 ml tubes						
0,5	With attached cap	Natural	Graduated, conical bottom, non sterile	20000	1.000	525-1220
0,5	With attached cap	Amber	Graduated, conical bottom, non sterile	20000	1.000	525-1246
0,5	With attached cap	Assorted	Graduated, conical bottom, non sterile	20000	1.000	525-1222
0,5	With attached cap	Blue	Graduated, conical bottom, non sterile	20000	1.000	525-1250
0,5	With attached cap	Green	Graduated, conical bottom, non sterile	20000	1.000	525-1251
0,5	With attached cap	Orange	Graduated, conical bottom, non sterile	20000	1.000	525-1248
0,5	With attached cap	Purple	Graduated, conical bottom, non sterile	20000	1.000	525-1249
0,5	With attached cap	Red	Graduated, conical bottom, non sterile	20000	1.000	525-1221
0,5	With attached cap	Yellow	Graduated, conical bottom, non sterile	20000	1.000	525-1247
1,5 ml tubes						
1,5	With attached cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1126
1,5	With attached cap	Natural	Graduated, conical bottom, sterile	20000	500	525-1178
1,5	With attached cap	Amber	Graduated, conical bottom, non sterile	20000	500	525-1223
1,5	With attached cap	Assorted	Graduated, conical bottom, non sterile	20000	500	525-1230
1,5	With attached cap	Blue	Graduated, conical bottom, non sterile	20000	500	525-1228
1,5	With attached cap	Green	Graduated, conical bottom, non sterile	20000	500	525-1229
1,5	With attached cap	Orange	Graduated, conical bottom, non sterile	20000	500	525-1225
1,5	With attached cap	Purple	Graduated, conical bottom, non sterile	20000	500	525-1227
1,5	With attached cap	Red	Graduated, conical bottom, non sterile	20000	500	525-1226
1,5	With attached cap	Yellow	Graduated, conical bottom, non sterile	20000	500	525-1224
2,0 ml tubes						
2,0	With attached cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1136
2,0	With attached cap	Amber	Graduated, conical bottom, non sterile	20000	500	525-1127
2,0	With attached cap	Assorted	Graduated, conical bottom, non sterile	20000	500	525-1135
2,0	With attached cap	Blue	Graduated, conical bottom, non sterile	20000	500	525-1133
2,0	With attached cap	Green	Graduated, conical bottom, non sterile	20000	500	525-1134
2,0	With attached cap	Orange	Graduated, conical bottom, non sterile	20000	500	525-1129
2,0	With attached cap	Purple	Graduated, conical bottom, non sterile	20000	500	525-1131
2,0	With attached cap	Red	Graduated, conical bottom, non sterile	20000	500	525-1130
2,0	With attached cap	Yellow	Graduated, conical bottom, non sterile	20000	500	525-1128



Microcentrifuge tubes

### MICROCENTRIFUGE TUBES WITH FLAT SCREW CAPS

These tubes are made from ultra-clear USP Class VI PP that allows easy viewing of contents.

- RNase-, DNase- and endotoxin-free
- Engraved graduations ensure accuracy
- Fit most common rotors
- Smooth surface for applying labels

These tubes feature universal screw threads for use with most popular brand screw caps. Low profile caps include an ethylene propylene O-ring, ensuring a leakproof seal.

Tubes and caps are autoclavable at 121 °C and freezable to -80 °C.

Manufactured in a Class 100 000 cleanroom environment

Manufactured under ISO 13485:2016 and ISO 9001:2015 quality management systems

Sterile tubes are radiation sterilised SAL  $10^{-6}$  (ISO 11137). Certificate available for every lot.

Tubes are packed 500 per bag. Assorted pack of caps (525-1187) contains equal quantities of red, orange, yellow, blue and green.

Capacity (ml)	Туре	Colour	Version	RCF max. (×g)	Pk	Cat. No.
Non sterile microc	entrifuge tubes with natural co	olour caps in separate resealab	le bags			
0,5	With natural screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1144
0,5	With natural screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1157
1,5	With natural screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1145
1,5	With natural screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1158
2,0	With natural screw cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1146
2,0	With natural screw cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1160
Sterile microcentri	ifuge tubes with natural colour	caps attached				
0,5	With natural screw cap	Natural	Graduated, conical bottom, sterile	20000	500	525-1140
0,5	With natural screw cap	Natural	Graduated, freestanding, sterile	20000	500	525-1155
1,5	With natural screw cap	Natural	Graduated, conical bottom, sterile	20000	500	525-1141
1,5	With natural screw cap	Natural	Graduated, freestanding, sterile	20000	500	525-1159
2,0	With natural screw cap	Natural	Graduated, conical bottom, sterile	20000	500	525-1143
2,0	With natural screw cap	Natural	Graduated, freestanding, sterile	20000	500	525-1156
Microcentrifuge tu	bes only					
0,5	Without cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1137
0,5	Without cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1147
1,5	Without cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1138
1,5	Without cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1148
2,0	Without cap	Natural	Graduated, conical bottom, non sterile	20000	500	525-1139
2,0	Without cap	Natural	Graduated, freestanding, non sterile	20000	500	525-1149

Colour	Pk	Cat. No.
Flat screw caps for microcentrifuge tubes		
Assorted	500	525-1187
Blue	500	525-1180
Green	500	525-1179
Natural	500	525-1186
Orange	500	525-1183
Purple	500	525-1181
Red	500	525-1182
White	500	525-1185
Yellow	500	525-1184



Microcentrifuge tubes

### MICROCENTRIFUGE TUBES, HIGH PERFORMANCE

These tubes are made from USP Class VI PP, which ensures a clear view of the pellet. They incorporate a high strength wall, and can be centrifuged to twice the g-force that most other microcentrifuge tubes can withstand.

- Amber coloured for light-sensitive substances
- Ideal for vortexing and shaking tables
- RNase-, DNase- and endotoxin-free
- Engraved graduations ensure accuracy
- Fit all common rotors
- Ideal for phenol/chloroform extractions

These tubes also feature flat, pierceable, frosted caps and a side labelling surface. The ergonomically designed caps, with smooth surfaces, help reduce the potential for repetitive strain injuries.

Steam autoclavable at 121 °C and freezable to -80 °C.

Manufactured in a Class 100 000 cleanroom environment

Manufactured under ISO 13485:2016 and ISO 9001:2015 quality management systems

Assorted pack contains 100 tubes each of green, blue, red, orange and yellow in separate bags.

Because tubes have a tightly fitting cap, they should not be used for boiling.

Capacity (ml)	Туре	Colour	Version	RCF max. (×g)	Pk	Cat. No.
0,5 ml tubes						
0,5	With attached lid	Natural	Graduated, conical bottom, non sterile	35000	1.000	525-1172
0,5	With attached lid	Assorted	Graduated, conical bottom, non sterile	35000	1.000	525-1170
0,5	With attached lid	Blue	Graduated, conical bottom, non sterile	35000	1.000	525-1171
0,5	With attached lid	Green	Graduated, conical bottom, non sterile	35000	1.000	525-1177
0,5	With attached lid	Orange	Graduated, conical bottom, non sterile	35000	1.000	525-1173
0,5	With attached lid	Purple	Graduated, conical bottom, non sterile	35000	1.000	525-1174
0,5	With attached lid	Red	Graduated, conical bottom, non sterile	35000	1.000	525-1175
0,5	With attached lid	Yellow	Graduated, conical bottom, non sterile	35000	1.000	525-1176
1,5 ml tubes						
1,5	With attached lid	Natural	Graduated, conical bottom, non sterile	40000	500	525-1164
1,5	With attached lid	Amber	Graduated, conical bottom, non sterile	40000	500	525-1161
1,5	With attached lid	Assorted	Graduated, conical bottom, non sterile	40000	500	525-1167
1,5	With attached lid	Blue	Graduated, conical bottom, non sterile	40000	500	525-1162
1,5	With attached lid	Green	Graduated, conical bottom, non sterile	40000	500	525-1163
1,5	With attached lid	Orange	Graduated, conical bottom, non sterile	40000	500	525-1165
1,5	With attached lid	Purple	Graduated, conical bottom, non sterile	40000	500	525-1166
1,5	With attached lid	Red	Graduated, conical bottom, non sterile	40000	500	525-1168
1,5	With attached lid	Yellow	Graduated, conical bottom, non sterile	40000	500	525-1169



### **DEEP WELL PLATES, 96 ROUND WELL**

Made of virgin PP to minimise extractables.

- Raised rim to prevent cross contamination and enable a better heat-welded seal
- Also available rimless to allow insertion of vials, or when adhesive seals are used
- Free from DNase and RNase
- Round bottom for optimal mixing and recovery
- Suitable for use with automated sample handling systems
- Can be stored at -80 °C

Description	Colour	Sterile	Packed	Well volume (ml)	Pk	Cat. No.
Deep well plate, 96 round well, raised rim	Clear	-	5 per inner pack	1,0	50	732-3322
Deep well plate, 96 round well, raised rim	Clear	+	5 per inner pack	1,0	50	732-3324
Deep well plate, 96 round well, rimless	Clear	-	5 per inner pack	1,0	50	732-3328
Deep well plate, 96 round well, rimless	Clear	-	5 per inner pack	2,0	50	732-3329
Deep well plate, 96 round well, rimless	Clear	+	5 per inner pack	2,0	50	732-3330



384-Well deep well microplates, square

### **DEEP WELL PLATES, 384 SQUARE WELL**

These deep 384 square well plates are made from PP in a Class 100 000 cleanroom. They are designed for high density sample collection and/or storage.

- Height 30 mm
- Free from DNase and RNase
- Manufactured to ANSI/SLAS specifications
- Can be stored at -80 °C

Description	Colour	Sterile	Packed	Well volume	Pk	Cat. No.
Deep well plate, 384 square well	Clear	-	6 per inner pack	300 µl	48	732-3326
Deep well plate, 384 square well	Clear	+	6 per inner pack	300 μΙ	48	732-3327

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