porvair sciences

The Specialist for Microplates

Dunn Labortechnik

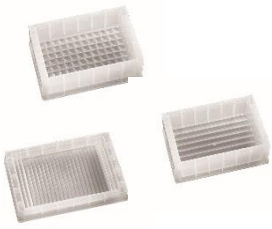
Consumables
Product Overview
- Prices on request -

Assay- and Krystal™ Plates
Filtration Plates

Plates and 8-well stripes
for different binding capacities

Solid Phase Extraction (SPE)

Manifolds



Reservoirs

Would you like to seal your plates?
Please ask for our separate price list on seals and sealing devices!

Heat Sealer
Ultraseal™ Range

Thermal seals and adhesive foils
in single or roll format

porvair sciences · EXCEL SCIENTIFIC · FINNERAN A Porvair PLC Company

Capper
and Sealing Mats

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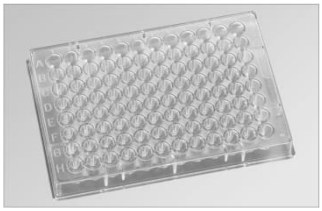
Content

Microtest plates for Life Sciences

96-wells, clear, with flat, round or V-bottom

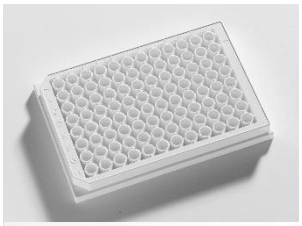
- Manufactured from high quality crystal polystyrene
- Flat bottom for spectrophotometric work
- V-bottom minimizing residual liquid
- Round (U) bottom for cell/particulate collection
- Robot compatible
- Working volumes from 275 µl down to 10 µl
- Also available sterile and packed individually

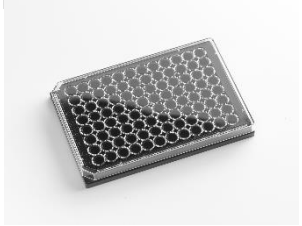


Cat. No.	Description	Case
210004	96-well, 200 µl volume, PS, **clear**, V-bottom	100
210104	Same as 210004 but **sterile** and packed individually	100 x 1
209004	96-well, 270 µl volume, PS, **clear**, round bottom	100
209104	Same as 209004 but **sterile** and packed individually	100 x 1
208004	96-well, 350 µl volume, PS, **clear**, flat bottom	100
208104	Same as 208004 but **sterile** and packed individually	100 x 1

96-wells, assay plates

Specifically designed for absorbance, fluorescence, luminescence and scintillation applications. The design uses the most popular 96-well format with standard 'chimney' wells to overcome optical crosstalk and contamination.



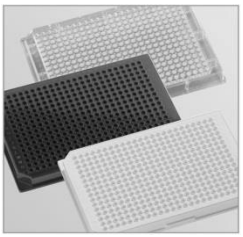


- Manufactured from PS, conform to ANSI/SLAS standards
- White and Black
- Black plates designed for top reading fluorescence instruments
- Black plates have low background fluorescence and minimise light scattering
- White plates maximise signal for luminescence readers
- Highly polished well to give better readings
- Specially designed plate featuring a white well set in a black matrix to overcome the problem of a very high luminescence causing false positives
- Working volumes of 350 µl/well
- Alphanumerically labelled wells mean samples can be easily traced

Cat. No.	Description	Case
204003	96-well, 350 µl, PS, **white**, bulk package, with lid	100
204512	96-well, 350 µl, PS, **white**, TC treated, with lid, packed individually, **sterile**	50
204012	96-well, 350 µl, PS, **white**, TC treated, with lid, packed individually, **sterile**	100
205503	96-well, 350 µl, PS, **black**	50
205003	96-well, 350 µl, PS, **black**, bulk package, with lid, **sterile**	100
205512	96-well, 350 µl, PS, **black**, TC treated, with lid, packed individually, **sterile**	50
205012	96-well, 350 µl, PS, **black**, TC treated, with lid, packed individually, **sterile**	100

384-well, low volume assay plates - round wells

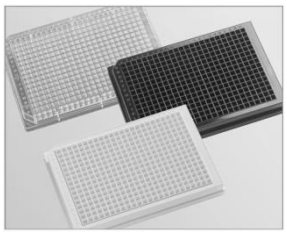
- Especially round wells
- Rounded well rims prevent build-up of drops
- Designed for fluorescence, luminescence or ELISA
- Black and transparent polystyrene plates
- Total volume: 30 µl / well
- Standard height of 14,7 mm for automation



Cat. No.	Description	Case
221103	384-well, 30 µl, PS, round wells, **clear***	50
223103	384-well, 30 µl, PS, round wells, **black**	50

* = limited quantity available, please contact us for further information

384-well plate - square wells



- Designed to reduce well-to-well crosstalk
- Black plates have low background fluorescence and minimise light scattering
- White plates enhance bio- & chemiluminescence signals and have low background luminescence and fluorescence
- Well working volumes of 120 µl
- Rounded square at the well bottom to reduce wicking
- Low residual volume
- Conform to ANSI/SLAS standards
- Alphanumerically labelled wells mean samples can be stored and easily traced

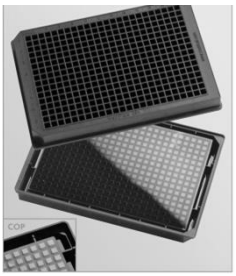
Cat. No.	Description	Case
221003	384-well, 120 µl, PS, **clear**, bulk package	100
221509	384-well, 120 µl, PS, **clear**, TC treated, with lid, packed individually, **sterile**	50
222503	384-well, 120 µl, PS, **white**	50
222003	384-well, 120 µl, PS, **white**, bulk package	100
222509	384-well, 120 µl, PS, **white**, TC treated, with lid, packed individually, **sterile**	50
222009	384-well, 120 µl, PS, **white**, TC treated, with lid, packed individually, **sterile**, bulk package	100
223503	384-well, 120 µl, PS, **black**	50
223003	384-well, 120 µl, PS, **black**, bulk package	100
223509	384-well, 120 µl, PS, **black**, TC treated, with lid, packed individually, **sterile**	50
223009	384-well, 120 µl, PS, **black**, TC treated, with lid, packed individually, **sterile**, bulk package	100

24-, 96- and 384-well Krystal™

- Clear plate bottom permits direct microscopic viewing
- Opaque walls to prevent well-to-well crosstalk
- Thickness of bottom: 0.75 mm (24- and 96-well), 0.40 mm (384-well)
- For use with top- or bottom- measuring devices
- Maintaining the standard SLAS/ANSI format
- Well volume: 3.1 ml (24-well), 350 µl (96-well) und 120 µl (384-well)
- Constructed from ultrapure grade polystyrene
- TC-treated plates with lid and sterile
- 384-well plates have a market leading plate flatness (± 0.1mm tolerance) that translates into a significant increase in measurement precision and elimination of read errors when performing cell based assays

Cat. No.	Description	Case
303002	24-well Krystal™, 3.1 ml, PS, **white**	68
303006	24-well Krystal™, 3.1 ml, PS, **white**, TC treated, with lid, packed individually, **sterile**	56
303008	24-well Krystal™, 3.1 ml, PS, **black**	68
303012	24-well Krystal™, 3.1 ml, PS, **black**, TC treated, with lid, packed individually, **sterile**	56
214003	96-well Krystal™, 350 µl, PS, **white**	100
214006	96-well Krystal™, 350 µl, PS, **white**, TC treated, with lid, packed individually, **sterile**	100
215003	96-well Krystal™, 350 µl, PS, **black**	100
215006	96-well Krystal™, 350 µl, PS, **black**, TC treated, with lid, packed individually, **sterile**	100
311001	384-well Krystal™, 120 µl, PS, **white**	100
311003	384-well Krystal™, 120 µl, PS, **white**, TC treated, with lid, packed individually, **sterile**	100
312001	384-well Krystal™, 120 µl, PS, **black**	100
312003	384-well Krystal™, 120 µl, PS, **black**, TC treated, with lid, packed individually, **sterile**	100

Krystal™ CoP-bottom plates (UV-transparent)



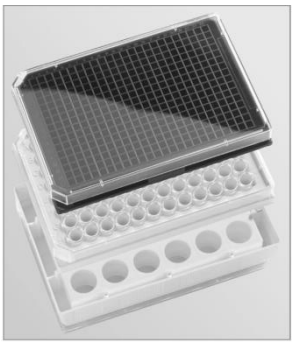
Recently, scientists have begun using chemistries which require excitation or detection wavelengths in the far UV region, below 350 nm (e. g. confocal microscopy). Porvair Sciences has introduced a very high specification CoP-bottomed (Cycloolefin-Polymer), UV-transparent microplate for those experiments.

- 220 nm UV “cut-off“
- Very low autofluorescence
- High degree of planar flatness
- Biocompatible adhesive
- Robot-friendly, conform to ANSI/SLAS standards
- High chemical resistance to most solvents
- Working volume of 120 µl

Cat. No.	Description	Case
327001	384-well Krystal™ transparent CoP-bottom plate, 120 µl, **black**, square wells	32

Krystal™ glass bottom plate

Krystal™ glass bottom plates consist of a polystyrene upper part and a clear borosilicate glass sheet fixed to the base with a proprietary adhesive. This process results in consistent flatness of the base and gives improved light transmission whilst maintaining a flat optical plane for growing cells. The nominal cut-off wavelength of 335 nm allows most fluorescence assays to be excited or read through the glass bottom.



- High quality plate for whole plate CCD imaging and applications with laser
- Manufactured from polystyrene and borosilicate glass (thickness 175 µm)
- 24-, 96- and 384-well plates
- Very low autofluorescence
- High degree of planar flatness (± 30 µm flatness across base)
- Biocompatible adhesive
- Chemical resistance against alcohol, DMSO and PBS
- Robot-friendly, conform to ANSI/SLAS standards
- Optical “cut-off“ at a wavelength of 335 nm
- For measurements between 350 - 700 nm

Cat. No.	Description	Case
324041	24-well, glass bottom, **black**, with lid, packed individually	10
324042	24-well, glass bottom, **black**, with lid, packed individually, **sterile**	10
324051	24-well, glass bottom, **white**, with lid, packed individually	10
324052	24-well, glass bottom, **white**, with lid, packed individually, **sterile**	10
324001	96-well, glass bottom, **black**, with lid, packed individually	10
324002	96-well, glass bottom, **black**, with lid, packed individually, **sterile**	10
324011	96-well, glass bottom, **white**, with lid, packed individually	10
324012	96-well, glass bottom, **white**, with lid, packed individually, **sterile**	10
324021	384-well, glass bottom, **black**, with lid, packed individually	10
324022	384-well, glass bottom, **black**, with lid, packed individually, **sterile**	10
324031	384-well, glass bottom, **white**, with lid, packed individually	10
324032	384-well, glass bottom, **white**, with lid, packed individually, **sterile**	10

Krystal™ plates with quartz bottom (black and UV-transparent)

The quartz bottom of the UV-transparent plates allows applications which require excitation or detection of wavelengths between 200 nm - 900 nm.

Cat. No.	Description	Case
325001	96-well Krystal™ plate with quartz bottom	1
325011	96-well Krystal™ plate with quartz bottom	10
325051	96-well Krystal™ plate with quartz bottom	50
325002	384-well Krystal™ plate with quartz bottom	1
325012	384-well Krystal™ plate with quartz bottom	10
325052	384-well Krystal™ plate with quartz bottom	50

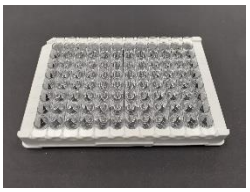
Krystal™ plates from chemically resistant quartz (autoclavable)

The solid transparent quartz bottom of the Krystal™ plate is chemically resistant. The plates are autoclavable and can be used several times.
The Krystal™ plates from solid quartz allow applications which require excitation or detection of wavelengths between 190 nm - 900 nm.

Cat. No.	Description	Case
500222	96-well Krystal™ plate, solid quartz (transparent)	1

Krystal™ High and Medium Bind Microplates for big molecules and proteins

Capture and detect biomolecules with uniformity, stability and reproducibility.
Plates are optimised for efficient capture of a wide range of biomolecules for affinity binding assays such as ELISA.



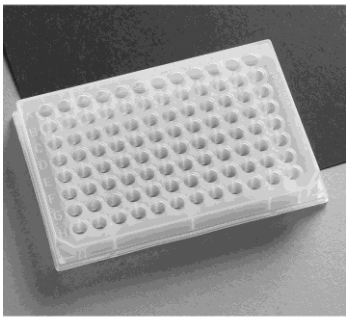
- Especially suitable for **COVID-19 test labs**, virology and serology labs.
- Plates with medium binding capacities of 100 ng to 200 ng IgG/cm^2 have a hydrophobic passive adsorption of large molecules with large hydrophobic regions. Ideal for passive adsorption of lipid-rich biomolecules and antigens including viral antigens (non-protein).
- Plates with high binding capacities of 400 ng to 500 ng IgG/cm^2 have a hydrophobic surface for passive adsorption of proteins with different grades of hydrophilicity.
  Ideal for immunoassays, binding of glycoproteins and serum samples.
- Available as 96-well plates or single 8-well strips.
- 96-well plates have a total surface area of 215 mm^2 and 8-well strip plates of 207 mm^2 (both have a bottom surface area of 31 mm^2).
- Conform to ANSI/SLAS standards.
- Flat-bottom for superb CRISP detection.
- Working volumes up to 320 µl.
- Ideal for high-throughput applications.

Cat. No.	Description	Case
208105	Solid 96-well plate, 400 µl, PS, high binding capacity, **sterile**	50
208106	Solid 96-well plate, 400 µl, PS, medium binding capacity	50
208107	8-well strip plate (12 x 8 strips), 360 µl, PS, high binding capacity, **sterile**	50
208108	8-well strips plate (12 x 8 strips), 360 µl, PS, medium binding capacity	50

Deep-well Plates

Collecting and storage of liquids in cell biology, molecular biology and drug research.

96-well plates, round wells



- Manufactured from pre-tested polypropylene for low extractables
- Alphanumeric grid-referencing
- Partly DNase/ RNase free^O
- Available in white or black!
- 14.7 mm or 42 mm high
- Rimmed version to stop cross contamination and enable a better seal
- Non-rimmed version to allow insertion of vials, or where the seal is not crucial
- Cylindrical well with round bottom for optimal mixing and recovery
- Very easy to use with automated sample handling systems
- Polypropylene (PP): storage possible up to -80 °C

Cat. No.	Description	Case
208003	96-well, 350 µl, 14.7 mm high, PP, flat bottom, elevated rim	100
208103	Same as 208003 but **sterile** and packed individually	100 x 1
209003	96-well, 270 µl, 14.7 mm high, PP, round bottom, elevated rim	100
209103	Same as 209003 but **sterile** and packed individually	100 x 1
210003	96-well, 220µl, 14.7 mm high, PP, V-bottom, elevated rim	100
210103	Same as 210003 but **sterile** und packed individually	100 x 1
219002^O	96-Deep well, 1 ml, 42 mm high, PP, round wells, elevated rim	50
219002FP ^{O}	→ Complete palette of 219002 (34 x 50)	34 x 50
219012^O	96-Deep well, 1 ml, 42 mm high, PP, round wells, elevated rim, **sterile**	50
219037^O	96-Deep well, 1 ml, 42 mm high, PP, round wells, rimless	50
219037FP^O	→ Complete palette of 219037 (34 x 50)	34 x 50
219412^O	96-Deep well, 1 ml, 42 mm high, PP, round wells, elevated rim, **black**	34 x 50
219042	EVA sealing mat, round wells, sterile, suitable for 219012	50
219044	Pierceable sealing mat, round wells, suitable for 219002	50

96-well, stackable low profile plates

- 27 mm high stackable 96-well plate
- Up to 0.5 ml working volume
- V-bottom and round wells
- High chemical and temperature resistance from -196 °C to +120 °C
- DNase- and RNase-free
- Manufactured from Polypropylen
- Autoclavable and possible to centrifuge (4,800 x *g*)
- Designed to stack for easy storage and to work with automatic systems
- Conform to ANSI/SLAS standards
- Elevated well rim for easy sealing with heat sealers

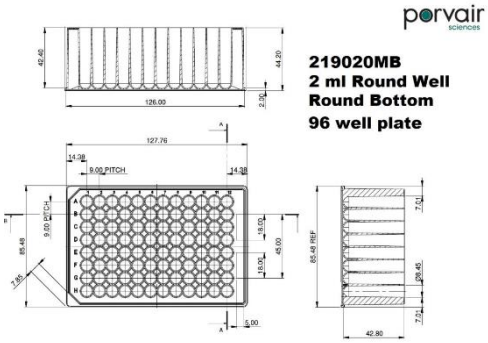
Cat. No.	Description	Case
219007	96-well, 500 µl, 27 mm high, PP, V-bottom, low profile, stackable	80
219007FP	→ Complete palette of 219007 (34 x 80)	34 x 80
219017	Same as 219007 but **sterile**	80
219017FP	→ Complete palette of 219017 (34 x 80)	34 x 80

96-well plates, round wells, low profile

- Only 27 mm high
- 1.1 ml wells with a working volume of 1 ml
- Designed to stack for easy storage

Cat. No.	Description	Case
219250	96-well plates, 1.1 ml, 27 mm high, PP, round wells	50

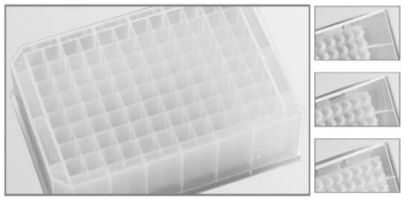
Innovative 96-well plate with round wells and actual 2 ml volume



- Total volume 2.075 ml, working volume 1.85 ml, only 45 mm high
- From ultra-pure PP, storage at -80 °C possible
- Round bottom for easy removal of liquids
- Easy to seal with suitable seal or mat
  (please ask for our separate price list "Sealers and Seals")
- DNase- and RNase-free
- Packed in sealed sleeves of 5 plates
- Alphanumeric grid-referencing

Cat. No.	Description	Case
219020MB	96-well, 2 ml, 45 mm high, PP, round wells, 2 ml / well	50
219020MBFP	→ Complete palette (34 x 50)	34 x 50
219021MB	Same as 219020, but **sterile**	50
219021MBFP	→ Complete palette (34 x 50)	34 x 50
500179	Silicon sealing mat for 219020MB and 219021MB	50

96-well plates, square wells



- One geometry - 3 different working volumes: 350 µl, 1 ml, 2 ml
- 44 mm high with V-bottom for total removal of liquid
- Raised well rims to improve heat sealing
- Partly DNase- and RNase-free^{O}
- Designed to work in automation, conform to ANSI/SLAS standards
- No inner edges to allow better collection of magnetic beads
- Suitable sealing mat available – see below and in our separate price list "Sealers and Seals"

Cat. No.	Description	Case
219006	96-well, 350 µl, 44 mm high, PP, square wells	50
219006FP	→ Complete palette (34 x 50)	34 x 50
219008	96-well, PP, 1 ml, 44 mm high, PP, square wells	50
219008FP	→ Complete palette (34 x 50)	34 x 50
219009	96-well, PP, 2 ml, 44 mm high, PP, square wells	50
219009FP	→ Complete palette (34 x 50)	34 x 50
219027	Same as 219009, but **sterile**	50
219027P	→ Complete palette (34 x 50)	34 x 50
219030	96-well, 2 ml, 44 mm high, PP, square wells (also see p. 10)	50

(continued on page 8)

(continued from page 7)

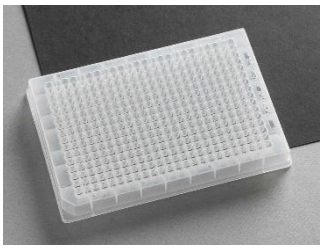
Cat. No.	Description	Case
219031	Same as 219030, but **sterile** (also see p. 10)	50
219033	PP-sealing mat, square wells for 219030 and 219031	50
219004	EVA-sealing mat, square wells for 219009, 219027, 219030 and 219031	50
219019	EVA-sealing mat, square wells, sterile for 219027	50
360010	Pierceable Santoprene-sealing mat for 219006, 219008 and 219009, square wells	100

96-well plate, square wells, storage plate

- 700 µl working volume/square well
- 19 mm high with flat bottom
- Combined reaction/storage plate

Cat. No.	Description	Case
360015	Storage/reaction plate	50

384-well plates, square wells



- Working volume of 58 µl or 300 µl
- From ultrapure PP, storage at -80 °C possible
- Conform to ANSI/SLAS standards
- Designed to allow almost total removal of liquid sample
- Partly DNase- and RNase-free^{O}
- Extra flat - allows sealing

Cat. No.	Description	Case
224001	384-Well, 58 µl, 14 mm high, PP, square wells, round bottom	60
219040°	384-Well, 300 µl, 30 mm high, PP, square wells, V-bottom	48
219040FP°	→ Complete palette (34 x 48)	34 x 48
219041°	Same as 219040, but **sterile**	48

Deep-well plates with low profile for high throughput applications

- Raised well rims for reliable closing with heat sealing
- Easy stacking, conform to ANSI/SLAS standards
- Low profile is ideal for automation e. g. applications with liquid handling systems
- Good centrifugation stability up to 6.000 x *g* for faster protocols
- DNase- and RNase-free without plasticizers, slip agents or biozides
- Autoclavable
- Optional available with barcoding → Contact us for further information.
- Suitable sealing mats available - see below and in our separate price list “Sealers and Seals”

Cat. No.	Description	Case
500285-090	96-Well, 1 ml, 24.4 mm high, PP, square wells, round bottom	90
219004	EVA sealing mat, for 96-well plates with square wells for plates 219006, 219008, 219009, 219026, DNase- / RNase-free, packed individually	50
219036	EVA sealing mat for 96-well plates with round wells DNase- / RNase-free	50

Large volume deep well plates

- For transport of high volumes. Conform to ANSI/SLAS standards
- 24- or 48-well
- Working volume of 5 to 10 ml
- 44 or 68 mm high
- Fits to universal lid (see page 11)

Cat. No.	Description	Case
360013	24-well, 10 ml, 44 mm high, PP, square wells, V-bottom	25
360115	Same as 360013, but **sterile**, individually packed	25
360080	Same as 360013, but **sterile**, with lid and barcode	25

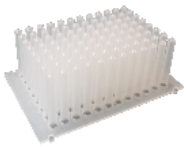
(continued on page 9)

(continued from page 8)

Cat. No.	Description	Case
360117	24-Well, 10 ml, 44 mm high, PP, square wells, round bottom	25
360096	48-Well, 4.8 ml, 44 mm high, PP, square wells, V-bottom	25
360002	48-Well, 5 ml, 44 mm high, PP, rectangular wells, V-bottom	25
360004	48-Well, 7 ml, 68 mm high, PP, rectangular wells, V-bottom	15
360014	48-well pierceable Santoprene-sealing mat for 360013	100

96-Well Consumables for Thermo Scientific™ KingFisher™ Systems

219013



219015

219018

- **96 Deep-Well Microplate** with 2 ml volume/well, V-bottom for maximum liquid uptake, working volume 50 µl - 1000 µl
- **Magnetic Comb Tips** are fully compatible for easy and secure insertion of 96-well magnetic probes, designed for high quality recovery of magnetic beads
- **96-well Elution Plate**, 200 µl, V-bottom for maximum liquid uptake
- All 96-well consumables for Thermo Scientific™ KingFisher™ Systems are compatible with KingFisher™ Purification Systems (Duo Prime, Flex, Apex and Presto)
- High chemical and temperature resistance from -196 °C to +120 °C, autoclavable
- Manufactured from PP for low affinity binding of biomolecules
- Free from DNase, RNase and human DNA
- Raised rim for heat sealing with automatic heat sealers, especially the new “Ultraseal™ Pro”

Cat. No.	Description	Case
219013	96 Deep Well Plate, 2 ml square well, V-bottom for KingFisher™ Purification Systems (10 x 5), not sterile, PP	50
219013FP	→ Complete palette (34 x 50)	34 x 50
219015	96 Magnetic Comb Tips for deep well magnets, **sterile**	50
219018	200 µl Elution plate compatible with KingFisher™ systems, **sterile,** 96-wells round	50

Plates for special applications

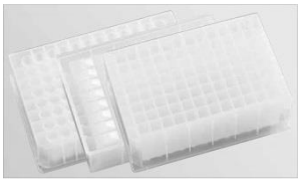
Plant Genomics Plates

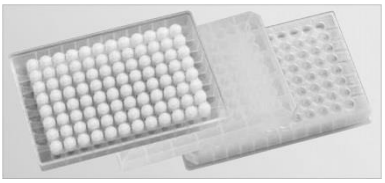
- Ideal for determination of genomic profile of food and commercial crops
- For extraction of plant DNA
- Especially solid and stable plates due to reinforced walls and supporting ribs on the underside of the plate
- Toughened Polypropylene for grinding of seeds and leaves
- Withstands bead beating up to 1,750 rpm for 4 minutes with a 6 mm steel ball
- Working volume of 1.90 ml
- 44 mm high
- Also available **sterile**
- DNase- and RNase-free
- Also suitable for analysis of THC/CBD content of cannabis plants

Cat. No.	Description	Case
219030	96-well, 2 ml, PP, square wells	50
219030FP	→ Complete palette (34 x 50)	34 x 50
219031	Same as 219030, but **sterile**	50
219031FP	→ Complete palette (34 x 50)	34 x 50
219033	Pierceable sealing mat, PP, square wells for plates 219030 and 219031	50
219004	EVA sealing mat, for 96-well plates with square wells for plates 219030/31, 219027, 219009 DNase- / RNase-free, packed individually	50

Filtration Plates

Filtration plates are used for removal of particulate matter from liquid, for example cell harvesting, DNA separations, isolation of plasmids or binding studies. Either the particulate matter or the filtrate is needed for further study. The filter plates from Porvair Sciences are suitable to use with standard manifolds and of course with the vacuum manifolds from Porvair.





Filter materials:

- Glass fibre
- PES
- PVDF
- PP
- UHMW PE

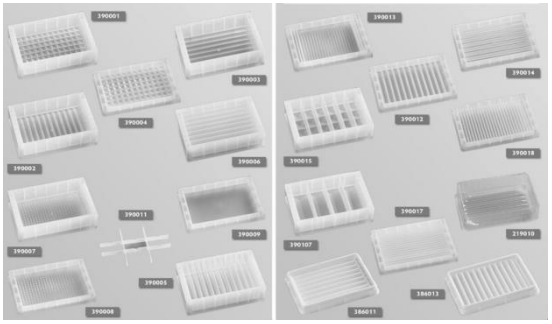
Specifications:

- 48-, 96- or 384-well
- 300 µl - 7.5 ml
- Polypropylen (PP) filterplates
- Long and short drip directors
- Each well has an individual drip for 100 % transfer of the sample
- From ultra pure polypropylen polymer
- Conform to ANSI/SLAS standards
- Suitable for automatic systems
- For vacuum manifolds (also available from Porvair, see page 15 and 16)

Cat. No.	Description (pore size in µm)	Case
360053	**48-well, 7.5 ml, PP**, long drip, PE Filter, 25 µm	15
360008	48-well, 5 ml, PP, PE Filter, 10-20 µm	25
360047	**96-well, 300 µl, PP,** short drip, UHMW PE, 25 µm	50
360052	96-well, 300 µl, PP, short drip, glass fibre, 0.7 µm	50
360046	96-well, 300 µl, PP, long drip, glass fibre, 0.7 µm	50
360045	96-well, 300 µl, PP, long drip, glass fibre, 1.0 µm	50
360066	96-well, 300 µl, PP, long drip, glass fibre, 3.0 µm	50
360049	96-well, 300 µl, PP, short drip, hydrophilic PVDF, 0.45 µm	50
360043	96-well, 300 µl, PP, long drip, hydrophilic PVDF, 0.45 µm	50
360044	96-well, 300 µl, PP, long drip, PP, 0.45 µm	50
360035	**96-well, 400 µl, PP,** short drip, UHMW PE, 25 µm	25
360026	96-well, 400 µl, PP, long drip, UHMW PE, 25 µm	25
360037	96-well, 400 µl, PP, short drip, hydrophilic PVDF, 0.45 µm	25
360027	96-well, 400 µl, PP, long drip, hydrophilic PVDF, 0.45 µm	25
360038	96-well, 400 µl, PP, short drip, PP, 0.45 µm	25
360020	96-well, 400 µl, PP, long drip, PP, 0.45 µm	25
360062	96-well, 400 µl, PP, short drip, PES, 30 kD, 0.004 µm	25
360029	**96-well, 800 µl, PP**, short drip, UHMW PE, 25 µm	25
360025	96-well, 800 µl, PP, long drip, glass fibre, 0.7 µm	25
360033	96-well, 800 µl, PP, short drip, glass fibre, 1.0 µm	25
360024	96-well, 800 µl, PP, long drip, glass fibre, 1.0 µm	25
360030	96-well, 800 µl, PP, short drip, glass fibre, 1.2 µm	25
360031	96-well, 800 µl, PP, short drip, hydrophilic PVDF, 0.45 µm	25
360023	96-well, 800 µl, PP, long drip, hydrophilic PVDF, 0.45 µm	25
360032	96-well, 800 µl, PP, short drip, PP, 0.45 µm	25
360019	96-well, 800 µl, PP, long drip, PP, 0.45 µm	25
360011	96-well, 800 µl, PP, long drip, PE, 10-20 µm	25
360056	**96-well, 2 ml, PP,** long drip, UHMW PE, 25 µm	25
360057	96-well, 2 ml, PP, long drip, glass fibre, 0.7 µm	25
360058	96-well, 2 ml, PP, long drip, PP, 0.45 µm	25
360059	96-well, 2 ml, PP, long drip, hydrophilic PES, 0.45 µm	25
360021	96-well, 2 ml, PP, long drip, PE, 25 µm	25
360073	**384-well, 140 µl, PP**, long drip, glass fibre, 0.7 µm	10
360108	384-well, 140 µl, PP, long drip, glass fibre, 5.0 µm	10
360082	384-well, 140 µl, PP, long drip, UHMW PE, 25.0 µm	10

Reservoirs for Automation and Universal Lids

- For use with automatic liquid handling systems
- Pyramidic bottom (V) for minimizing dead volume or flat bottom (F)
- Wide range
- Robot friendly
- Chemical and heat resistant (PP)
- Autoclavable
- Gamma irridiation possible
- Conform to ANSI/SLAS standards



Cat. No.	Description	Height in mm	Bottom	Volumes			Case
				Partial in ml	Max. in ml	Dead in µl	
390009	Without subdivision	19	F	-	85	-	25
391003	2 columns	44	V	-	288	<270	25
391006	4 columns, partitioned, **sterile**	44	V	-	300	<540	25
390107	4 columns, partitioned	44	V	-	300	<540	25
390015	6 columns, partitioned	44	V	47	282	<82/Sp	25
390002	12 columns	44	V	-	290	<540	25
391004	12 columns, **sterile**	44	V	-	252	<54	25
391001	12 columns, with outer channel	25,6	V	-	170	<500	25
390005	12 columns, partitioned	44	V	21	252	<54/Sp	25
391008	12 columns, partitioned, **sterile**	44	V	21	252	<54/Sp	25
390012	12 columns, partitioned	19	V	7	84	<54/Sp	25
390018	2 x 12 columns, partitioned	19	V	3.5	84	<110/Sp	25
390108	24 columns, partitioned	19	V	3.5	78	<250	25
390111	4 rows, partitioned	44	V	73	292	<500	25
390003	8 rows	44	V	-	300	<82	25
390006	8 rows, partitioned	44	V	32	256	<82	25
391005	8 rows, partitioned	44	V	-	256	<82	25
390014	8 rows, partitioned	19	F	10.6	84	<82/R	25
390017	16 rows, partitioned, low rim	19	V	4.9	78	<18	25
390115	24-well, square	44	V	10	240	-	25
390001	96-well	44	V	-	300	<64	25
390004	96-well	19	V	-	86	<64	25
391002	96-well, **black**	44	V	-	380	<64	25
390101	96-well, **sterile**	44	V	-	240	<64	25
390007	384-well	44	V	-	282	<7	25
390008	384-well	19	V	-	92	<7	25
390019	384-well	23	V	-	155	<7	25
390016	384-well, 2 controls partitioned row 1	38	V	-	282	<7	25
390013	384-well, 4 controls rows 1, 2, 23, 24 separately	19	V	-	49.3	<120	25
390109	384-well, 4 controls rows 1, 2 partitioned	23	V	-	155	<7	25
219010	Single-use reservoir, **PC**, to use with Porvair Manifolds, **not** autoclavable						25
229125	**Universal Lid**, **PS**, for all 96-well plates in ANSI/SLAS format, transparent						100
229225	**Universal Lid**, **PS**, for all 96-well plates in ANSI/SLAS format, transparent, **sterile**						100
229126	**Universal Lid**, **PS**, for all 96-well plates in ANSI/SLAS format, **black**						100

Microlute® – a complete 96-well sample preparation system from Porvair Sciences

Components of the Microlute® system:

- Filterplate
- Vacuum Manifold
- Deep well block or other reservoir
- Optional: Microlute® P^3-plate

Fields of application:

- Purification of biological samples
- Protein precipitation
- Removal of phospholipids
- Removal of proteins

Optimal combined with the evaporators* from Porvair Sciences:

- Ultravap® MINI (manual)
- Ultravap® Gemini (manual with two positions for evaporation)
- Ultravap® Levante (fully automatic)
- Ultravap® Mistral (fully automatic and robot compatible)

Advantages of the Microlute® system:

- Manifold from clear acryl for easy handling
- Plates from 100 % polypropylene prevent contamination
- 3 standard sizes (350 µl, 1 ml and 2 ml) for optimal recovery
- Standardised height of reservoirs

* Separate evaporator brochure available

→ Further information on the following pages.

Solid Phase Extraction – SPE

Porvair offers a wide range of products for Solid Phase Extraction (SPE). The solved sample can be purified and concentrated to be eluted and then analysed by LC-MS.

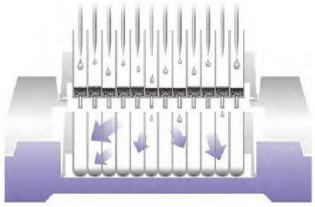
P³ Protein Microlute®

Protein 'crashes' out of solution and precipitates directly in each well when acetonitrile is added, thus solving all common problems associated with the CRASH technique of protein clean-up.

- Pre-filter frit at 100 µm traps flocculant particles >100 µm
- Secondary frit traps fine protein particles at <10µm
- The frits are hydrophobic and oleophobic. This retains sample/acetonitrile in the well to allow precipitation of proteins until vacuum is applied
- Chemically inert filter material minimizes adsorption of samples
- Frit structure prevents breakthrough of protein particles
- PPLR frit consists of co-sintered plastic with chromatography medium. The hydrophobic top frit prevents that during mixing samples are thrown into the medium.

Cat. No.	Description	Case
240100	**P³** Protein Precipitation Plate	1
240200	**P³** Protein Precipitation Plate (bulk package of 5 pieces)	5
240010	**High efficiency P³** Protein Precipitation Plate, with untreated frits, for samples which are mixed with acetonitrile before added to the plate	1
PPLR0251-100	Microlute® PLR, 25 mg bed weight, 1 ml cartridge	100
PPLR025P-001	Microlute® PLR, 25 mg bed weight, 96-well plate	1

Microlute® for viscous liquids



Diatomaceous-Earth is known for its big pore size and a high pore volume as well as high pH-resistance (1 - 13). These characteristics allow to separate viscous liquids with high amounts of protein and phospholipids.

For purification of blood, plasma or serum before LC/MS analysis, environment and nutrition analysis as well as extraction of small amounts of water from hydrophobic solvents.

Cat. No.	Description	Case
PSLE2003-050	Microlute® SLE, 200 mg bed weight, 3 ml cartridge	50
PSLE200P-001	Microlute® SLE, 200 mg bed weight, 96-well plate	1
PSLE4003-050	Microlute® SLE, 400 mg bed weight, 3 ml cartridge	50
PSLE400P-001	Microlute® SLE, 400 mg bed weight, 96-well plate	1

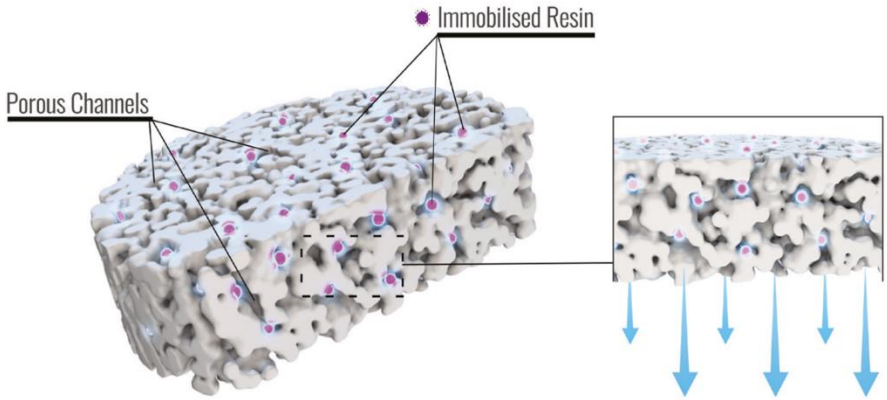
Microlute® Accessories

Cat. No.	Description	Case
219010	Single-use reservoir, PC, collection of disposables	25
219004	Sealing mat, square wells, for upper plate side, 96-well	50
219005	Drain cap mat, seals plate bottom, 96-well	25

NEW! Microlute® CSi and coming soon * Microlute® CP

Microlute® CSi and CP take SPE to a new level of performance by enhancing the **reproducibility** of analyte extraction and **recovery** from biological, environmental and chemical samples.

Unlike traditional loose-filled SPE methods, Microlute® CSi and CP use a hybrid structure, a solid interconnected network of evenly distributed pores combined with the retentive media (see image below). This design enhances the flow-through of samples to maximise interactions between analytes and the solid phase to deliver a reproducible SPE method that excels in performance, cleanliness and sensitivity.



Product range: C18, HLB, SCX and SAX

Format: 96-well plates

Bed Weight: 2 mg or 10 mg each well

Analysis: UHPLC, HPLC, GC, LCMS, GCMS

Applications: Drug research, ADME tox, metabolism, forensic labs, clinical studies

Advantages: Improved flow, greater reproducibility, less solvent use, faster processing and increased confidence

C18/HLB: Retention of neutral compounds through hydrophobic interaction with some retention of polars.

Strong Cation Exchange (SCX): Sulphonic acid functional group on a polymeric base with a pK_A of <1 provides a wide pH range for cationic exchange.

Strong Anion Exchange (SAX): Quarternary ammonium chemistry on a polymeric base with a pK_A >18 which is ideal for the capture of acidic analytes.

Product Range	Cat. No.	Description	Chemistry	Format	Cs.
Microlute® CSi	SC18010P-001	10 mg C18	Silica	96-well plate	1
Microlute® CSi	SC18002P-001	2 mg C18	Silica	96-well plate	1
Microlute® CSi	SSCX010P-001	10 mg SCX	Silica	96-well plate	1
Microlute® CSi	SSCX002P-001	2 mg SCX	Silica	96-well plate	1
Microlute® CSi	SSAX010P-001	10 mg SAX	Silica	96-well plate	1
Microlute® CSi	SSAX002P-001	2 mg SAX	Silica	96-well plate	1
Microlute® CP	PHLB010P-001	10 mg HLB	Polymeric	96-well plate	1
Microlute® CP	PHLB002P-001	2 mg HLB	Polymeric	96-well plate	1
Microlute® CP	PSCX010P-001	10 mg SCX	Polymeric	96-well plate	1
Microlute® CP	PSCX002P-001	2 mg SCX	Polymeric	96-well plate	1
Microlute® CP	PSAX010P-001	10 mg SAX	Polymeric	96-well plate	1
Microlute® CP	PSAX002P-001	2 mg SAX	Polymeric	96-well plate	1

* = Please contact us to receive further information.

Combinatorial Microlute®

Combinatorial Microlute® allows to use customized sorbents which conform to the requirements of the separation.

- Up to 2 ml sample volume possible
- Low dehydration and support of frits
- 10 mg up to 100 mg sorbent/well compressed
- Up to 4 times faster than classic filter separation
- Plate design ideal for automation, conforms to ANSI/SLAS standards
- Long drips at the wells prevent contamination and ensure to hit the collection plate exactly
  Also available with customized sorbents → Please contact us for further information!

Cat. No.	Description	Case
240002	Combinatorial - Microlute® plate, uncompressed, with PE-bottom frits, pore size 36 µm	1
600033	Same as 240002 but as bulk package	20
240054	Combinatorial – Microlute® plate, uncompressed, with PE-bottom frits, pore size 10 µm	1
240011	Empty 96-well Microlute® chamber without top or bottom frits	40

Manifolds for SPE, Filter Plates and Automation

Vacuum manifolds are used to suck liquid during solid phase extraction or use of simple filterplates into special collection plates or deep well plates.

Microlute® Manifold (Acryl)

- Machined from crystal clear acrylic (top plate) and acetal polymer (plenum chamber)
- Suitable for most filterplates in ANSI/SLAS standard with long drip directors and for SPE plates, i. e. Microlute® (see pages 12 - 15)
- Valve controlling knob (on-off) for precise control of vacuum
- Compatible with deep well collecting plates with square wells of 350 µl, 1 ml or 2 ml and plates with a height up to 44 mm
- Airtight sealing through O-ring, removable cover plate
- Medium resistance to alcohols and weak acids

Cat. No.	Description	Case
228008	Standard Microlute® Manifold for 96-well collecting plates	1
228010	Spacer Insert, PP, 1 ml, for use of round well PP plates (219002, see page 7), optional	1
219010	Disposable reservoir tray, PC	25

Universal Robotic Manifold

- Designed to be easily assembled and disassembled by robotic manipulators
- Compatible with any filterplate type with short, medium or long drip directors (adapter available)
- Automated purification of SPE or DNA clean-up procedures
- Integrated valve for vacuum to provide complete control of vacuum pressure
- Fully compatible with most commercial robotic liquid handling systems
- Able to accommodate collection plates of 14 mm - 44 mm in height
- Chemically resistant

Cat. No.	Description	Case
228020	Universal Robotic Manifold, compatible with 96-deep well collection plates	1
228021	Adaptor 1 for medium skirt/drip plates (for use with 228020)	1
228022	Adaptor 2 for short skirt/long drip plates (for use with 228020)	1

NEW!

UltraPPM LITE Manifold

- Positive pressure device
- Ideal for viscous and difficult to handle solutions
- Consistent pressure for reproducible results
- Simple to set up and use
- Only gas source required
- Precise control of gas and sample flow
- Applications are microplate-based filtrations such as SPE, SLE, PLR and protein precipitation.

Cat. No	Description
250-10083	**UltraPPM LITE** manifold for viscous samples
150-10083-001	UltraPPM LITE 96 Well Processing Head
150-10083-002	UltraPPM LITE 384 Well Processing Head
150-10083-003	UltraPPM LITE 48 Well Processing Head
150-10083-004	UltraPPM LITE 24 Well Processing Head

Cap Mat*) Applicators

Ultraseal™ CAP-LITE

Cat. No.	Description
229078	**Ultraseal™ CAP-LITE**, applicator for storage and assay plates as well as tube racks

- Produces an accurate and tight seal on shallow and deep well PP plates
- Needs minimal pressure for capping, reduces fatigue and Repetitive Strain Injury
- Special across plate pressure system ensures perfect seal time after time
- Also works with 2D barcoded glass tube racks and their closure mats
- Powder coated to resist chemical spillage
- Anti-slip base and fixing holes for securing to bench
- EVA or silicone mats are reusable with care

Ultraseal™ CAP-PRO

Cat. No.	Description
500246	**Ultraseal™ CAP-PRO,** electrically operated mat capper for storage plates and vial racks

- Designed to apply friction to sealing mats*) or septum sealing caps to SLAS/ANSI-format tube racks
- Consistent even pressure is applied to the mat to ensure each tube or well is tightly sealed
- More reproducible, quicker and less likely to cause a strain injury than trying to do this manually
- Small compact design allows it to place the device on all laboratory benches
- Just requires power supply of 220 V
- Three pressure settings:
  - Low – 100 kg max force
  - Medium – 180 kg max force
  - High – 250 kg max force
- Compatible with most commercially available septum cap mats, 2D-coded and uncoded tubes and SLAS/ANSI-format racks (24-, 48- and 96-tube plates).

➔ ***) Sealing mats can be found in our "Sealers" brochure**

Abbreviations:

COP:	Cyclo-Olefin-Polymer	PC:	Polycarbonate
PE:	Polyethylene	PVDF:	Polyvinylidene fluoride
PES:	Polyether sulfone	SPE:	Solid phase extraction
PP:	Polypropylene	TC:	Tissue Culture
PS:	Polystyrene	TPE:	Thermoplastic Elastomer
PTFE:	Polytetrafluorethylene	UHMW:	Ultra high molecular weight