

TELOS MICROPLATE™

The Versatile 96-well Plate for Small Volume Biological Fluid Samples

- Versatile 96-well format for small volume biological fluid samples
- Optimised well geometry for 5 and 10mg sorbent mass
- 50µl elution volume for minimal sample dilution and reduced evaporation time
- Populated plates and loose wells
- Compatible with vacuum and positive pressure
- Automation compatible

Developments in LC-MS/MS detection levels have seen biological fluid sample volumes reduced to an extent that conventional SPE formats are not always suitable, or provide considerable analyte dilution and extended evaporation times. When extracting from sample volumes of less than 100µl, it is important the elution volumes and the sample preparation format are fully compatible with the original sample volumes being processed.



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The new TELOS MicroPlate™ is optimised for the sample processing and extraction of small volume biological fluids. The internal diameter, frit design and sorbent allow biological fluid samples to be processed. The TELOS MicroPlate is a modular design, allowing for flexibility in sample numbers. Full or partially populated plates can be processed using vacuum or positive pressure. In addition, the well outlet design ensures good collection plate penetration, removing any possibility of well to well cross contamination.

Sorbents

The TELOS MicroPlate is available in 5 and 10mg sorbent masses, packed with five TELOS *neo* SPE Sorbents - PRP, PCX, WCX, PAX and WAX.

Well Design

The individual well of the TELOS MicroPlate is designed to both allow maximum interaction between the analyte and sorbent and ensure elution volumes are kept to a minimum. This is particularly important for sample volumes of 100µl and less, and ensures minimal evaporation times prior to analysis by LC-MS/MS.

The optimised well and frit design (see Figure 1) of the TELOS MicroPlate provide an overall bed volume of 10 - 15µl. A well packed with 5mg sorbent allows analytes to be eluted in as little as 50µl (see Table 1).

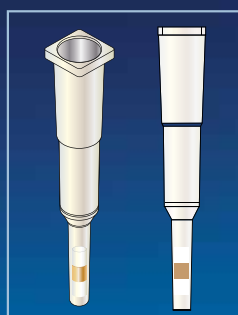


Figure 1: TELOS MicroPlate well design

Populated Plates and Loose Wells

The TELOS MicroPlate is available as either populated plates or loose wells. This allows the product to be used for both high throughput assays (populated plate) and assays where the sample numbers vary, populating the base plate with the required number of wells. When using vacuum, the unrequired ports on the base plate can be sealed.

The individual wells can be removed or added very easily, with a secure “click” when the wells are added to the base plate. A well removing tool facilitates the easy removal of individual wells.



Vacuum and Positive Pressure

The TELOS MicroPlate is compatible with both vacuum and positive pressure manifolds. The well outlets extend beyond the plate “shelf” and ensure they fully penetrate the collection plate.

Recovery and Elution Volumes

The TELOS MicroPlate 5mg plate allows elution volumes of 50µl. The following recovery data and elution volumes are for two β-blockers, Metoprolol and Propranolol, when extracted from human plasma (50µl) using a TELOS *neo* PRP 5mg MicroPlate.

ANALYTE	CONCENTRATION	MEAN RECOVERY (%)	RSD (%)
Metoprolol	0.5ng/ml	86.8	3.93
	2.5ng/ml	92.6	3.12
	10ng/ml	93.9	2.21
Propranolol	1ng/ml	88.1	3.54
	5ng/ml	90.2	2.03
	20ng/ml	95.6	3.17

Table 1: Recoveries for Metoprolol and Propranolol using 50µl elution

Ordering Information

The TELOS MicroPlate is available as either populated plates or loose wells.

TELOS MicroPlate: Populated Plates

PART NUMBER	DESCRIPTION	PACK SIZE
TELOS neo PRP		
600-005-096MP	TELOS neo PRP MicroPlate, 5mg (populated plate)	Each
600-010-096MP	TELOS neo PRP MicroPlate, 10mg (populated plate)	Each
TELOS neo PCX		
620-005-096MP	TELOS neo PCX MicroPlate, 5mg (populated plate)	Each
620-010-096MP	TELOS neo PCX MicroPlate, 10mg (populated plate)	Each
TELOS neo WCX		
640-005-096MP	TELOS neo WCX MicroPlate, 5mg (populated plate)	Each
640-010-096MP	TELOS neo WCX MicroPlate, 10mg (populated plate)	Each
TELOS neo PAX		
660-005-096MP	TELOS neo PAX MicroPlate, 5mg (populated plate)	Each
660-010-096MP	TELOS neo PAX MicroPlate, 10mg (populated plate)	Each
TELOS neo WAX		
680-005-096MP	TELOS neo WAX MicroPlate, 5mg (populated plate)	Each
680-010-096MP	TELOS neo WAX MicroPlate, 10mg (populated plate)	Each

TELOS MicroPlate: Populated Plates

PART NUMBER	DESCRIPTION	PACK SIZE
TELOS neo PRP		
600-005-096LW	TELOS neo PRP MicroPlate, 5mg (loose wells)	100
600-010-096LW	TELOS neo PRP MicroPlate, 10mg (loose wells)	100
TELOS neo PCX		
620-005-096LW	TELOS neo PCX MicroPlate, 5mg (loose wells)	100
620-010-096LW	TELOS neo PCX MicroPlate, 10mg (loose wells)	100
TELOS neo WCX		
640-005-096LW	TELOS neo WCX MicroPlate, 5mg (loose wells)	100
640-010-096LW	TELOS neo WCX MicroPlate, 10mg (loose wells)	100
TELOS neo PAX		
660-005-096LW	TELOS neo PAX MicroPlate, 5mg (loose wells)	100
660-010-096LW	TELOS neo PAX MicroPlate, 10mg (loose wells)	100
TELOS neo WAX		
680-005-096LW	TELOS neo WAX MicroPlate, 5mg (loose wells)	100
680-010-096LW	TELOS neo WAX MicroPlate, 10mg (loose wells)	100

TELOS MicroPlate: Method Development Kit

PART NUMBER	DESCRIPTION	PACK SIZE
000-010-096LW	TELOS MicroPlate Method Development Kit, 10mg (loose wells)*	100

*contains 20 x 10mg wells of TELOS neo PRP, PCX, WCX, PAX and WAX, a base plate, base plate sealing strips and well removing tool.

TELOS MicroPlate: Accessories

PART NUMBER	DESCRIPTION	PACK SIZE
000-0000-096BP	TELOS MicroPlate Base Plate	5
000-0000-096SS	TELOS MicroPlate Base Plate Sealing Strips	25
000-0000-096WT	Well Removing Tool	1

Additional Information

Further product information is available on the TELOS *neo* Sorbents for generic SPE. Please request the Product Sheet from your local Kinesis Representative or Distributor.

Kinesis presented scientific posters at The 6th European Bioanalytical Forum (*Barcelona, Spain*) and Eastern Analytical Symposium (*EAS, Somerset, NJ*) in 2013. To request a copy of the poster please contact your local Kinesis Representative or Distributor.

Related Kinesis Products for the Processing and Analysis of Biological Fluid Samples

TELOS HPLC AND UHPLC COLUMNS

- Comprehensive range of high density bonded phases producing robust results
- Wide range of intermediate affinity bonded phases from C₈, C₁₈, C₁₈ Acid Base, Diethylsilol and C₁₈ Polar phases to Silica HPLC and Elysia
- Unique selectivities of Phenyl Hexyl and Penta Fluor Phenyl
- Low bleed Penta Fluor Phenyl and mono spacer optimised C₁₈
- XQA C4 for peptides and proteins

Kinesis has developed a range of TELOS HPLC and UHPLC Columns. Available in high density silica columns, silica or modification, high density bonding technology and column packing technology (as monoliths). Features high quality materials and processes to give high performance. TELOS HPLC columns, bonded phases, particle sizes, retention and permeability and increased selectivity.

TELOS HPLC & UHPLC Columns are available packed with a variety of bonded and unmodified materials, and application column geometries for U.S. & Euro market needs.

Kinesis
Scientific Experts

TELOS neo
Polymeric Solid Phase
Extraction Columns

Kinesis
Scientific Experts

Deep Well Plates and Sealing Mats

The full range of plates and mats from Kinesis is available for a wide range of applications including high throughput screening, in vitro growth chambers, compound storage and sample collection in the natural and synthetic and small molecule research.

Deep Well Plates

- Manufactured from 100% virgin polystyrene
- Manufactured to comply with ANSI/SBS dimensions
- Excellent chemical resistance and temperature stability
- White, clear and translucent tint
- Light sensitive plates available
- Ideal for LC-MS applications

The full range of 96 and 384 well plates are designed for use in compound storage, liquid handling and assay. These plates are used in many applications for general high-throughput screening. The well used in research (the commonly 96-well, 384-well) plates are available in a variety of configurations, including white, clear and translucent tint, and are available in a variety of well volumes and well depths.

96-well plates are compatible with assays, including plate reader and liquid handling applications. 384-well plates are used for high-throughput screening and are available in a variety of well volumes and well depths.

Silicone Sealing Mats

- Prevents cross contamination by effectively sealing each well
- All well 96-well format for both round and square wells
- Pre-sterilized format

Plates 96 and 384 well format available in standard and special configurations. Plates are available in a variety of well volumes and well depths. Plates are available in a variety of well volumes and well depths. Plates are available in a variety of well volumes and well depths.

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