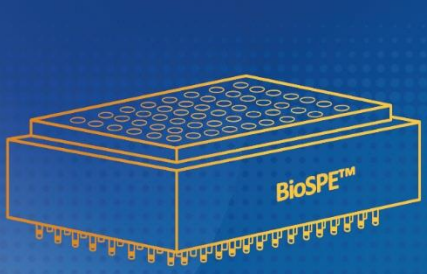
affinisep

The Art of making
sample preparation easier

PROTEOMICS
METABOLOMICS
BIOLOGICAL APPLICATIONS



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SPE Membrane

Our latest innovation for microelution in proteomics and biomolecular applications

Our innovative SPE membranes are made of very small sorbent beads tightly embedded, thus leading to **thin, dense, soft and uniform membranes** with **high capacity** for extraction/separation, purification and concentration of molecules.

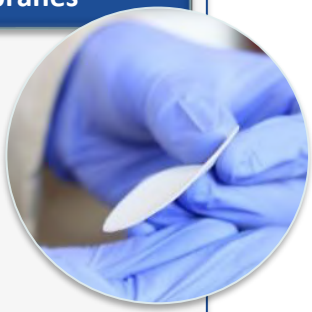
Thanks to their unique advantage, our SPE membranes are useful for purification of very small sample volumes in proteomics, genomics, metabolomics, bioanalysis, biomarker discoveries and biological applications. They are applied for spinnable, automatable, high throughput microelution and nano elution.

These SPE membranes offer outstanding sample preparation efficiency and reproducibility of results. Since the diffusion distance between particles is minimized, adsorption is more efficient, and extraction can be accomplished using **very low sorbent mass.**

These properties are giving to our SPE membranes a significant improvement of mass transfer kinetics compared to traditional packed SPE particles. As monoliths, our SPE membranes are self stand and require no frits for immobilizing the column bed (unlike traditional SPE products), allowing 100% recovery of the original sample volume.

Advantages of SPE membranes

- **No need to frits or filters**
- **Reduced dead volume**
- **Small elution volumes**
- **High sample recovery**
- **Reduced time for eluate evaporation**
- **Higher throughput**
- **Channeling effects eliminated**
- **Excellent reproducibility**
- **Concentration of the sample**



SPE membrane technology for microelution

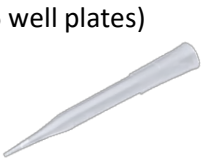
Our SPE membranes can be used to miniaturize SPE for small operating volume of fluid samples. **4 formats** are **available** for microelution**.** Thanks to the use of the SPE membranes for all formats, **the change of format or the scale up of the process is easy.**

Capacity of molecules of interest increases

Concentration of molecules of interest increases

❑ StageTips (SPE tips) and 96 StageTips well plates for microelution

µSPE columns designed by immobilizing a uniform membrane inside a pipette tip (StageTips per unit or as 96 well plates)



❑ 96 SPE Well Plates

SPE 96 well plates designed by immobilizing a uniform membrane

❑ SPE Spin Columns

SPE columns designed by immobilizing a uniform membrane inside a centrifuge SPE tube

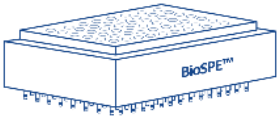
❑ SPE Cartridges

SPE cartridges designed by immobilizing a uniform membrane

StageTips or SPE Tips, SPE Spin columns, 96 SPE well plates and **SPE cartridges** are tools for proteomic, genomic and bioanalysis (small molecules cleanup). In order to give the most exhaustive applications, they are proposed with a large variety of formats and capacities.

SPE Tips
StageTips

SPE Spin columns



96 SPE well plates for microelution

SPE Cartridges

Advantages of SPE membrane tools

- **Remove interfering contaminants** — significantly reduce signal suppression and improve signal-to-noise ratios and sequence coverage
- **Simplify optimization** — processing yields high-quality spectra and is effective for a variety of reverse-phase-compatible contaminates
- **Robust** — work with a wide variety of load volumes and concentrations; no need to reduce sample volume before application
- **Convenient** — easy to handle and require no special equipment to process multiple samples simultaneously (unlike tip-driven systems that require one sample to be processed at a time)
- **Sensitive** — special resins allow excellent recovery percentages, even at low (sub-picomole) sample loads

Capacity

Each format is available with **different capacities**, that is to say different layer thicknesses of the SPE membrane immobilized inside the microelution tool, to better adapt to your needs. For a more reproducible product, each tool contains only **ONE** layer of SPE membrane.

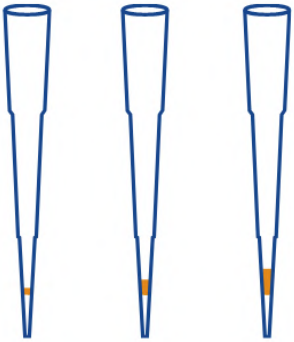
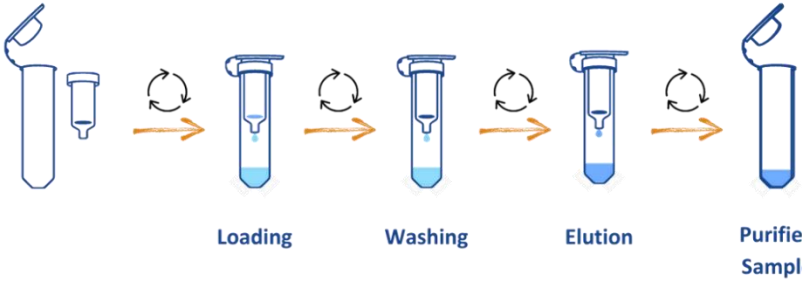


Illustration of the different capacities available for our SPE Tips

As manufacturers of our own SPE membranes, we can offer **custom-made solutions** for complex applications (e.g. stacking of several sorbents with different capacities). Contact us for more information.

Use of SPE membrane microelution tools

SPE Tips or StageTips, SPE Spin columns and **96 SPE well plates** are easily spinnable tools.



96 SPE well plates and **SPE cartridges** can be used with positive pressure and/or vacuum manifolds and are compatible with SPE automates.

DID YOU KNOW?

96 SPE well plates can also be used by centrifugation. Partial use is possible, without consequences for the unused wells.

Elution of samples from our **SPE Tips** can be performed by **centrifugation** (with adapted devices) or with the use of a positive pressure or vacuum manifold. **SPE Tips** can also be used with automates, with a refilling by the top of the tips.

Our **SPE Tips** **were not developed for a use by pipetting**. Thus, we **strongly recommend** to use our **SPE Tips** by **centrifugation**.

Our product ranges for proteomics and biomolecular applications

Affinisep offers **two ranges of products** for proteomics and biomolecular applications, **both based on our innovative SPE membrane technology**.

BioSPE™

A new range of **ready-to-use kits** specially developed and designed for **various applications in top-down proteomics** (peptide desalting, peptide fractionation, removal of magnetic beads after SP3 procedure, enrichment of glycans or glycopeptides), **bottom-up proteomics** (purification of intact proteins) or **metabolomics** (purification of small molecules).

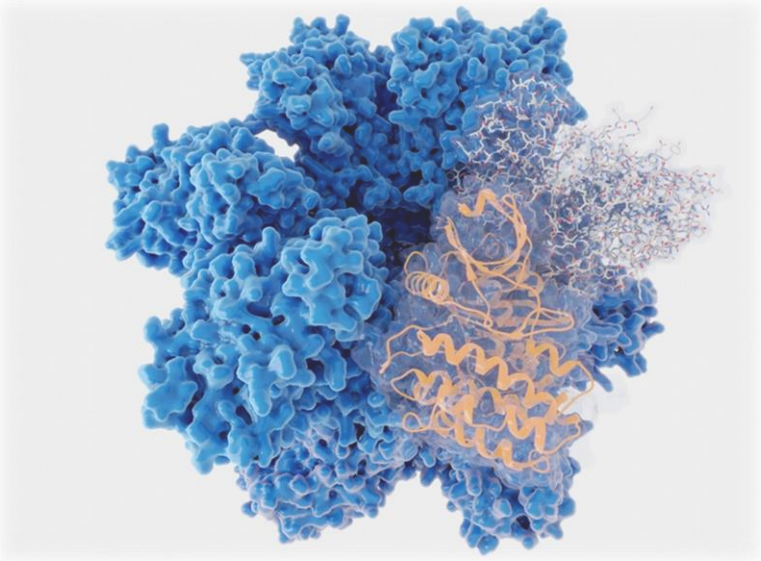
BioSPE™ is the perfect product range if you are looking for **turnkey SPE solutions** for **well-defined applications!**

AttractSPE®Disks

A comprehensive product range based on sorbent chemistries, with a **wide variety of silica-based and polymeric sorbents**, for extraction and purification of analytes in biological samples such as urine, plasma, serum, saliva....

AttractSPE®Disks is the perfect product range if you are looking for **SPE solutions with specific sorbent chemistries** or for **complex applications!**

BioSPE™



Ready-to-use kits

for

Peptide desalting
Peptide fractionation
Intact protein purification
Glycopeptide enrichment
Magnetic beads removal
Metabolite purification

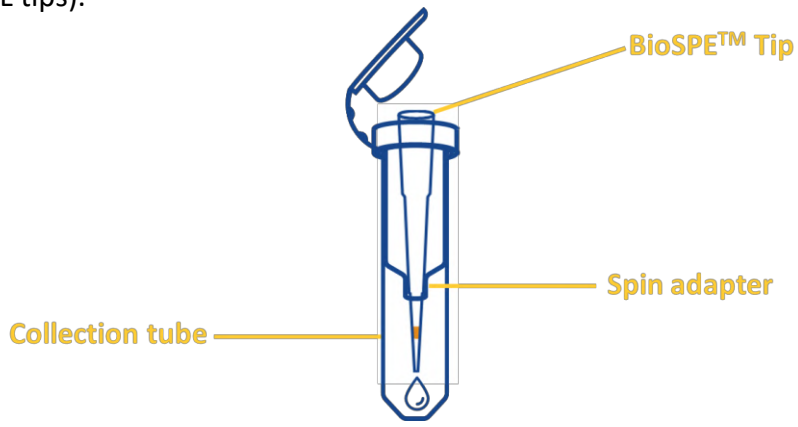
BioSPE™ product range consists of **ready-to-use kits** for the most common applications in proteomics and metabolomics workflows.

Supplied as **turnkey solutions**, these kits are composed of:

- ❑ SPE columns for desalting, enrichment, fractionation…
- ❑ Instructions of use and detailed protocol specific to a given application
- ❑ Adapters and/or collection tools (each kit contains collection tools for the conditioning/loading/washing fractions and for the elution fraction)
- ❑ Some reagents

BioSPE™ 96 well plates are supplied with **1mL collection plates and BioSPE™ Spin columns** are supplied with 2mL collection tubes.

BioSPE™ Tips are supplied with **spin adapters and collection tubes** for their centrifugation. Very easy to use, these adapters are compatible with any 1.5 and 2mL centrifugation tube (in the case of 10µL and 200µL tips) and 15mL centrifugation tube (in the case of 1mL tips).



Products from the BioSPE™ range are available with **two different capacities, which are referred S (Standard) and H (High)** in the product designations. This designation refers to the layer thickness of SPE membrane. For a more reproducible product, each tool contains only **ONE** layer.

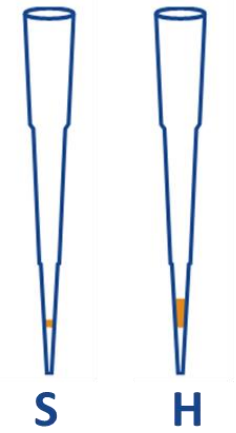
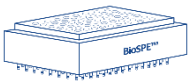


Illustration of the two capacities available for our BioSPE™ Tips

Following references (p17 to p22) will have XX indications, which have to be replaced by the capacity you require (S or H).

To help you select the formats that are the most adapted to your applications based on your sample amounts, the following table lists the **loading capacities** (maximal peptide/protein/metabolite amounts that can be retained) of our different **BioSPE™** formats available.

Products		Capacity (µg)	
		Standard (S)	High (H)
	BioSPE™ Tips - 10µL	7	25
	BioSPE™ Tips - 200µL	15	50
	BioSPE™ Tips - 1mL	35	105
	BioSPE™ 96 well plate for microelution	35	105
	BioSPE™ 96 well plate 1mL	500	1500
	BioSPE™ Spin - Micro	200	600
	BioSPE™ Spin - Mini	300	900
	BioSPE™ Spin - 15mL	1500	4500
	BioSPE™ Spin - 50mL	3000	9000
	BioSPE™ Cartridges – 1mL	250	750
	BioSPE™ Cartridges – 3mL	700	2100
	BioSPE™ Cartridges – 6mL	1500	4500

Application: **Clean-up** of **peptide mixtures** after **enzymatic digestion** in bottom-up proteomics to **remove salts** that can interfere with peptide ionization/detection and damage mass spectrometers

Advantages

- **Up to 97% proteins identified** after desalting of HeLa digest on **BioSPE™ PurePep**
- **Good recovery of peptides on the whole polarity range**
- **Excellent repeatability (RSD < 3%)**

DID YOU KNOW?

For desalting of the **most hydrophilic peptides**, we recommend the use of **BioSPE™ PurePep Broad**.

Advantages

- **Efficient retention of small polar peptides**
- **Stable under extreme pH conditions (pH 0-14)**
- **BioSPE™ PurePep Broad can run dry** during SPE process

Designation	#/box	Reference**
BioSPE™ PurePep – Tips 10µL Single Cell & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep.SC.10.96
BioSPE™ PurePep – Tips 10µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep.XX.10.96
BioSPE™ PurePep – Tips 200µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep.XX.200.96
BioSPE™ PurePep – Tips 1mL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep.XX.1000.96
BioSPE™ PurePep – Micro Spin	50/pk + collection tubes (100/pk)	µSpin-PurePep.XX.50
BioSPE™ PurePep – Mini Spin	50/pk + collection tubes (100/pk)	Spin-PurePep.XX.50
BioSPE™ PurePep – Spin 15mL	50/pk + collection tubes (50/pk)	Spin15-PurePep.XX.25
BioSPE™ PurePep – Spin 50mL	50/pk + collection tubes (50/pk)	Spin50-PurePep.XX.25
BioSPE™ PurePep – 96 plate for microelution & collection plates	1/pk + collection plates (2/pk)	KT-Coll-µ96W-PurePep.XX.1
BioSPE™ PurePep – 96 plate 1mL & collection plates	1/pk + collection plates (2/pk)	KT-Coll-96W-PurePep.XX.1
BioSPE™ PurePep – Cartridges 1mL	50/pk	CAR1-PurePep.XX.50
BioSPE™ PurePep – Cartridges 3mL	50/pk	CAR3-PurePep.XX.50
BioSPE™ PurePep – Cartridges 6mL	50/pk	CAR6-PurePep.XX.50

**Replace XX by the capacity (S or H, see p15) of your choice. *e.g.: KT-Adapt-Tips-PurePep.S.200.96*

BioSPE™ PurePep Broad for peptide desalting on broad pH range

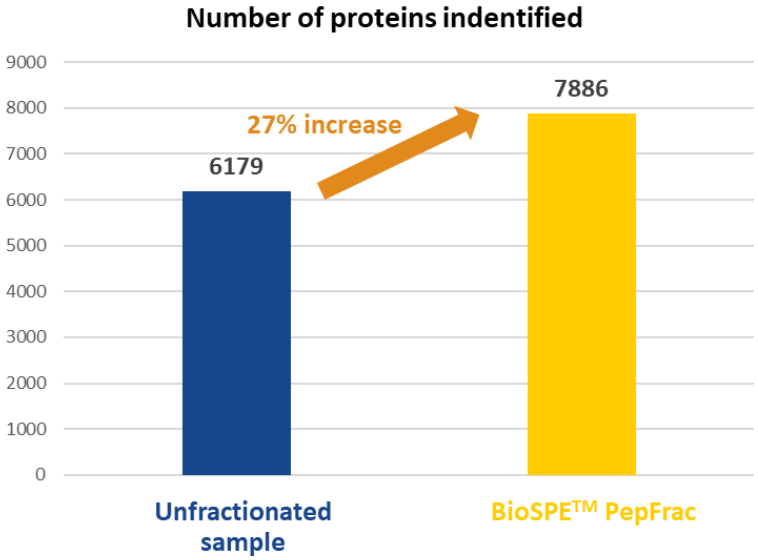
Designation	#/box	Reference**
BioSPE™ PurePep Broad – Tips 10µL Single Cell & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep-Broad.SC.10.96
BioSPE™ PurePep Broad – Tips 10µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep-Broad.XX.10.96
BioSPE™ PurePep Broad – Tips 200µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep-Broad.XX.200.96
BioSPE™ PurePep Broad –Tips 1mL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PurePep-Broad.XX.1000.96
BioSPE™ PurePep Broad – µSpin	50/pk + collection tubes (100/pk)	µSpin-PurePep-Broad.XX.50
BioSPE™ PurePep Broad – Spin	50/pk + collection tubes (100/pk)	Spin-PurePep-Broad.XX.50
BioSPE™ PurePep Broad – Spin 15mL	50/pk + collection tubes (50/pk)	Spin15-PurePep-Broad.XX.25
BioSPE™ PurePep Broad – Spin 50mL	50/pk + collection tubes (50/pk)	Spin50-PurePep-Broad.XX.25
BioSPE™ PurePep Broad – 96 plate for microelution & collection plates	1/pk + collection plates (2/pk)	KT-Coll-µ96W-PurePep-Broad.XX.1
BioSPE™ PurePep Broad – 96 plate 1mL & collection plates	1/pk + collection plates (2/pk)	KT-Coll-96W-PurePep-Broad.XX.1
BioSPE™ PurePep Broad – Cartridges 1mL	50/pk	CAR1-PurePep-Broad.XX.50
BioSPE™ PurePep Broad – Cartridges 3mL	50/pk	CAR3-PurePep-Broad.XX.50
BioSPE™ PurePep Broad – Cartridges 6mL	50/pk	CAR6-PurePep-Broad.XX.50

**Replace XX by the capacity (S or H, see p15) of your choice. *e.g.: Spin-PurePep-Broad.S.50*

Application: **Reduction of sample complexity with peptide fractionation at basic pH** for deep proteome sequencing and quantitative analysis

Advantages

- **Increased number of identified proteins**
- **Minimized fraction overlapping and good distribution of peptides in all fractions**
- **No storage constraints (dry at room temperature)**



BioSPE™ PepFrac ready-to-use kits are supplied with **0.1% triethylamine (TEA) solution**. Up to 8 fractions can be performed thus the kits are supplied with **nine collection tools** (one for conditioning/loading/washing fractions and one for each of the eight fractions).

Designation	#/box	Reference**
BioSPE™ PepFrac – Tips 10µL Single Cell & Spin adapters	96/pk + adapters (96/pk) + collection tubes (864/pk) + 0.1% TEA (100mL)	KT-Adapt-Tips-PepFrac.SC8.10.96
BioSPE™ PepFrac – Tips 10µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (864/pk) + 0.1% TEA (100mL)	KT-Adapt-Tips-PepFrac.XX8.10.96
BioSPE™ PepFrac – Tips 200µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (864/pk) + 0.1% TEA (100mL)	KT-Adapt-Tips-PepFrac.XX8.200.96
BioSPE™ PepFrac – Tips 1mL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (864/pk) + 0.1% TEA (200mL)	KT-Adapt-Tips-PepFrac.XX8.1000.96
BioSPE™ PepFrac – Micro Spin	50/pk + collection tubes (450/pk) + 0.1% TEA (100mL)	µSpin-PepFrac.XX8.50
BioSPE™ PepFrac – Mini Spin	50/pk + collection tubes (450/pk) + 0.1% TEA (100mL)	Spin-PepFrac.XX8.50
BioSPE™ PepFrac – Spin 15mL	25/pk + collection tubes (225/pk) + 0.1% TEA (100mL)	Spin15-PepFrac.XX8.25
BioSPE™ PepFrac – Spin 50mL	25/pk + collection tubes (225/pk) + 0.1% TEA (100mL)	Spin50-PepFrac.XX8.25
BioSPE™ PepFrac – 96 plate for microelution & collection plates	1/pk + collection plates (9/pk) + 0.1% TEA (200mL)	KT-Coll-µ96W-PepFrac.XX8.1
BioSPE™ PepFrac – 96 plate 1mL & collection plates	1/pk + collection plates (9/pk) + 0.1% TEA (200mL)	KT-Coll-96W-PepFrac.XX8.1
BioSPE™ PepFrac – Cartridges 1mL	50/pk + 0.1% TEA (100mL)	CAR1-PepFrac.XX8.50
BioSPE™ PepFrac – Cartridges 3mL	50/pk + 0.1% TEA (200mL)	CAR3-PepFrac.XX8.50
BioSPE™ PepFrac – Cartridges 6mL	25/pk + 0.1% TEA (200mL)	CAR6-PepFrac.XX8.25

**Replace XX by the capacity (S or H, see p15) of your choice. *e.g.: KT-Adapt-Tips-PepFrac.H8.200.96*

BioSPE™ PureProt for intact protein purification

Application

Salts and interferents removal from protein mixture in top-down proteomics

Advantages

- **Purification and desalting of intact proteins and large peptides (MW > 10kDa)**
- **Compatible with biological matrices or food matrices (milk…)**
- **High recovery yields (> 90%)**

Designation	#/box	Reference**
BioSPE™ PureProt – Tips 10µL Single Cell & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PureProt.SC.10.96
BioSPE™ PureProt – Tips 10µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PureProt.XX.10.96
BioSPE™ PureProt – Tips 200µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PureProt.XX.200.96
BioSPE™ PureProt – Tips 1mL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-PureProt.XX.1000.96
BioSPE™ PureProt – Micro Spin	50/pk + collection tubes (100/pk)	µSpin-PureProt.XX.50
BioSPE™ PureProt – Mini Spin	50/pk + collection tubes (100/pk)	Spin-PureProt.XX.50
BioSPE™ PureProt – Spin 15mL	25/pk + collection tubes (50/pk)	Spin15-PureProt.XX.25
BioSPE™ PureProt – Spin 50mL	25/pk + collection tubes (50/pk)	Spin50-PureProt.XX.25
BioSPE™ PureProt – 96 plate for microelution & collection plates	1/pk + collection plates (2/pk)	KT-Coll-µ96W-PureProt.XX.1
BioSPE™ PureProt – 96 plate 1mL & collection plates	1/pk + collection plates (2/pk)	KT-Coll-96W-PureProt.XX.1
BioSPE™ PureProt – Cartridges 1mL	50/pk	CAR1-PureProt.XX.50
BioSPE™ PureProt – Cartridges 3mL	50/pk	CAR3-PureProt.XX.50
BioSPE™ PureProt – Cartridges 6mL	50/pk	CAR6-PureProt.XX.50

**Replace XX by the capacity (S or H, see p15) of your choice. *e.g.: µSpin-PureProt.S.96*

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BioSPE™ GlycaClean for glycopeptide enrichment

Application

Selective enrichment of N-glycans or glycopeptides in glycoproteomics

Advantages

- **Same sorbent can be used to enrich both glycopeptides or N-glycans (labelled or not)**
- **High recovery yields**

Designation	#/box	Reference**
BioSPE™ GlycaClean – Tips 10µL Single Cell & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-GlycaClean.SC.10.96
BioSPE™ GlycaClean – Tips 10µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-GlycaClean.XX.10.96
BioSPE™ GlycaClean – Tips 200µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-GlycaClean.XX.200.96
BioSPE™ GlycaClean – Tips 1mL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (192/pk)	KT-Adapt-Tips-GlycaClean.XX.1000.96
BioSPE™ GlycaClean – Micro Spin	50/pk + collection tubes (100/pk)	µSpin-GlycaClean.XX.50
BioSPE™ GlycaClean – Mini Spin	50/pk + collection tubes (100/pk)	Spin-GlycaClean.XX.50
BioSPE™ GlycaClean – Spin 15mL	25/pk + collection tubes (50/pk)	Spin15-GlycaClean.XX.25
BioSPE™ GlycaClean – Spin 50mL	25/pk + collection tubes (50/pk)	Spin50-GlycaClean.XX.25
BioSPE™ GlycaClean – 96 plate for microelution & collection plates	1/pk + collection plates (2/pk)	KT-Coll-µ96W-GlycaClean.XX.1
BioSPE™ GlycaClean – 96 plate 1mL & collection plates	1/pk + collection plates (2/pk)	KT-Coll-96W-GlycaClean.XX.1
BioSPE™ GlycaClean – Cartridges 1mL	50/pk	CAR1-GlycaClean.XX.50
BioSPE™ GlycaClean – Cartridges 3mL	50/pk	CAR3-GlycaClean.XX.50
BioSPE™ GlycaClean – Cartridges 6mL	50/pk	CAR6-GlycaClean.XX.50

**Replace XX by the capacity (S or H, see p15) of your choice. *e.g.: Spin-GlycaClean.H.96*

Order on
www.affinisep.com

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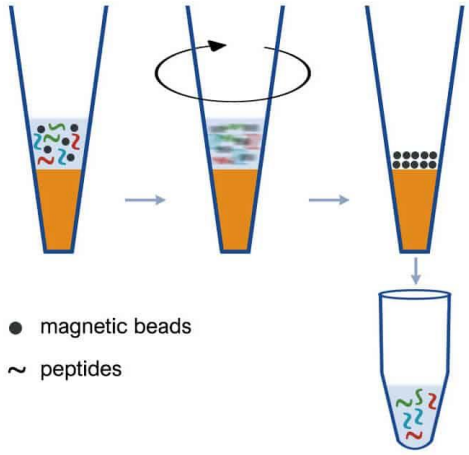
BioSPE™ BeadRem is used to easily and quickly filter-out magnetic beads remaining in peptide or protein samples after Single-Pot, Solid-Phase enhanced Sample Preparation (SP3) procedure, and that could plug the chromatographic column during LC-MS/MS analysis.

BioSPE™ BeadRem is available in two different versions, depending on the nature of your sample:

- **BioSPE™ BeadRem Aqua** for aqueous samples
- **BioSPE™ BeadRem Orga** for samples containing organic solvents

Advantages

- **Efficient removal** of **magnetic beads** as small as **1µm diameter**
- **Fast and easy 3-step pass-through process**
- **High peptide/protein recovery**
- Possibility to **filter-out non magnetic beads** such as **agarose beads**



Application

Removal of magnetic beads from aqueous samples containing **up to 5% organic solvent**

Designation	#/box	Reference
BioSPE™ BeadRem Aqua – Tips 10µL & Spin adapters	96/pk + adapters(96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-BeadRem-Aqua.S.10.96
BioSPE™ BeadRem Aqua – Tips 200µL & Spin adapters	96/pk + adapters(96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-BeadRem-Aqua.S.200.96
BioSPE™ BeadRem Aqua – Tips 1mL & Spin adapters	96/pk + adapters(96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-BeadRem-Aqua.S.1000.96
BioSPE™ BeadRem Aqua – Micro Spin	50/pk + collection tubes (50/pk)	µSpin-BeadRem-Aqua.S.50
BioSPE™ BeadRem Aqua – Mini Spin	50/pk + collection tubes (50/pk)	Spin-BeadRem-Aqua.S.50
BioSPE™ BeadRem Aqua – Spin 15mL	25/pk + collection tubes (25/pk)	Spin15-BeadRem-Aqua.S.25
BioSPE™ BeadRem Aqua – Spin 50mL	25/pk + collection tubes (25/pk)	Spin50-BeadRem-Aqua.S.25
BioSPE™ BeadRem Aqua – 96 plate for microelution & collection plate	1/pk + collection plate (1/pk)	KT-Coll-µ96W-BeadRem-Aqua.S.1
BioSPE™ BeadRem Aqua – 96 plate 1mL & collection plate	1/pk + collection plate (1/pk)	KT-Coll-96W-BeadRem-Aqua.S.1
BioSPE™ BeadRem Aqua – Cartridges 1mL	50/pk	CAR1-BeadRem-Aqua.S.50
BioSPE™ BeadRem Aqua – Cartridges 3mL	50/pk	CAR3-BeadRem-Aqua.S.50
BioSPE™ BeadRem Aqua – Cartridges 6mL	50/pk	CAR6-BeadRem-Aqua.S.50

Application

Removal of magnetic beads from aqueous samples containing **at least 50% organic solvent**

Designation	#/box	Reference
BioSPE™ BeadRem Orga – Tips 10µL & Spin adapters	96/pk + adapters(96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-BeadRem-Orga.S.10.96
BioSPE™ BeadRem Orga – Tips 200µL & Spin adapters	96/pk + adapters(96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-BeadRem-Orga.S.200.96
BioSPE™ BeadRem Orga – Tips 1mL & Spin adapters	96/pk + adapters(96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-BeadRem-Orga.S.1000.96
BioSPE™ BeadRem Orga – Micro Spin	50/pk + collection tubes (50/pk)	µSpin-BeadRem-Orga.S.50
BioSPE™ BeadRem Orga – Mini Spin	50/pk + collection tubes (50/pk)	Spin-BeadRem-Orga.S.50
BioSPE™ BeadRem Orga – Spin 15mL	25/pk + collection tubes (25/pk)	Spin15-BeadRem-Orga.S.25
BioSPE™ BeadRem Orga – Spin 50mL	25/pk + collection tubes (25/pk)	Spin50-BeadRem-Orga.S.25
BioSPE™ BeadRem Orga – 96 plate for microelution & collection plate	1/pk + collection plate (1/pk)	KT-Coll-µ96W-BeadRem-Orga.S.1
BioSPE™ BeadRem Orga – 96 plate 1mL & collection plate	1/pk + collection plate (1/pk)	KT-Coll-96W-BeadRem-Orga.S.1
BioSPE™ BeadRem Orga – Cartridges 1mL	50/pk	CAR1-BeadRem-Orga.S.50
BioSPE™ BeadRem Orga – Cartridges 3mL	50/pk	CAR3-BeadRem-Orga.S.50
BioSPE™ BeadRem Orga – Cartridges 6mL	50/pk	CAR6-BeadRem-Orga.S.50

Choose the perfect BioSPE™ product for your proteomic application

The following table will help you select the **BioSPE™** references that are the most adapted to your **proteomic applications**, depending on your sample volume (< 800µL) and protein/peptides amount. Please replace the **SB** in the given references by the sorbent you need for your application (e.g. KT-Adapt-Tips-PurePep.S.200.96).

Protein/peptide amount	Sample volume: Up to 10µL	Up to 200µL	Up to 400µL	Up to 800µL
Up to 5µg	KT-Adapt-Tips-SB.SC.10.96	KT-Adapt-Tips-SB.S.200.96	KT-Adapt-Tips-SB.S.1000.96 KT-Coll-µ96W-SB.S.1	KT-Adapt-Tips-SB.S.1000.96
Up to 7µg	KT-Adapt-Tips-SB.S.10.96			
Up to 15µg	KT-Adapt-Tips-SB.H.10.96			
Up to 25µg		KT-Coll-µ96W-SB.S.1		
Up to 35µg	KT-Coll-µ96W-SB.S.1	KT-Adapt-Tips-SB.H.200.96		
Up to 50µg	KT-Coll-µ96W-SB.H.1	KT-Adapt-Tips-SB.H.200.96	KT-Adapt-Tips-SB.H.1000.96 KT-Coll-µ96W-SB.H.1	KT-Adapt-Tips-SB.H.1000.96
Up to 100µg		KT-Coll-µ96W-SB.H.1		
Up to 200µg	µSpin-SB.S.50	µSpin-SB.S.50	µSpin-SB.S.50	µSpin-SB.S.50
Up to 300µg	Spin-SB.S.50	Spin-SB.S.50	Spin-SB.S.50	Spin-SB.S.50
Up to 600µg	µSpin-SB.H.50	µSpin-SB.H.50	µSpin-SB.H.50	µSpin-SB.H.50
Up to 900µg	Spin-SB.H.50	Spin-SB.H.50	Spin-SB.H.50	Spin-SB.H.50

Choose the perfect BioSPE™ product for your proteomic application

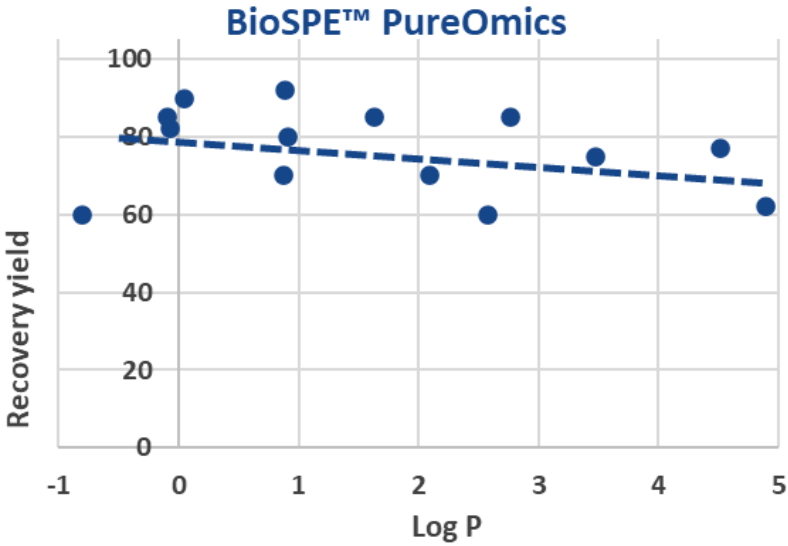
The following table will help you select the **BioSPE™** references that are the most adapted to your **proteomic applications**, depending on your sample volume (> 800µL) and protein/peptides amount. Please replace the **SB** in the given references by the sorbent you need for your application (e.g. KT-Adapt-Tips-PurePep.S.1000.96).

		Sample volume				
		Up to 1mL	**Up to 3mL**	**Up to 4mL**	**Up to 6mL**	**Up to 22mL**
Protein/peptide amount	**Up to 35 µg**	KT-Adapt-Tips-SB.S.1000.96	CAR3-SB.S.50	Spin15-SB.S.25 CAR6-SB.S.50	CAR6-SB.S.50	Spin50-SB.S.25
	Up to 100µg	KT-Adapt-Tips-SB.H.1000.96				
	Up to 250µg	CAR1-SB.S.50				
	Up to 500µg	KT-Coll-96W-SB.S.1				
	Up to 700µg	CAR1-SB.H.50				
	Up to 1.0mg	96W-SB.T2.1	Spin15-SB.S.25			
	Up to 1.5mg	KT-Coll-96W-SB.H.1				
	Up to 2.0mg	CAR3-SB.H.50	CAR3-SB.H.50	Spin15-SB.H.25 CAR6-SB.H.50	Spin50-SB.S.25	
	Up to 3.0mg	Spin50-SB.S.25	Spin50-SB.S.25			
	Up to 4.5mg	CAR6-SB.H.50 Spin15-SB.H.25	CAR6-SB.H.50 Spin15-SB.H.25		CAR6-SB.H.50	Spin50-SB.H.25
	Up to 9.0 mg	Spin50-SB.H.25	Spin50-SB.H.25	Spin50-SB.H.25	Spin50-SB.H.25	

Application: **Extraction and purification of metabolites and small molecules**

Advantages

- **Desalting and concentration** of small molecules from **different matrices (urine, plasma, culture medium…)**
- **High recovery yields on a broad polarity range**
- **BioSPE™ PureOmics can run dry during SPE process**



Designation	#/box	Reference
BioSPE™ PureOmics – Tips 10µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-PureOmics.H.10.96
BioSPE™ PureOmics – Tips 200µL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-PureOmics.H.200.96
BioSPE™ PureOmics – Tips 1mL & Spin adapters	96/pk + adapters (96/pk) + collection tubes (96/pk)	KT-Adapt-Tips-PureOmics.H.1000.96
BioSPE™ PureOmics – Micro Spin	50/pk + collection tubes (100/pk)	µSpin-PureOmics.H.50
BioSPE™ PureOmics – Mini Spin	50/pk + collection tubes (100/pk)	Spin-PureOmics.H.50
BioSPE™ PureOmics – Spin 15mL	25/pk + collection tubes (50/pk)	Spin15-PureOmics.H.25
BioSPE™ PureOmics – Spin 50mL	25/pk + collection tubes (50/pk)	Spin50-PureOmics.H.25
BioSPE™ PureOmics – 96 plate for microelution & collection plates	1/pk + collection plates (2/pk)	KT-Coll-µ96W-PureOmics.H.1
BioSPE™ PureOmics – 96 plate 1mL & collection plates	1/pk + collection plates (2/pk)	KT-Coll-96W-PureOmics.H.1
BioSPE™ PureOmics – Cartridges 1mL	50/pk	CAR1-PureOmics.H.50
BioSPE™ PureOmics – Cartridges 3mL	50/pk	CAR3-PureOmics.H.50
BioSPE™ PureOmics – Cartridges 6mL	50/pk	CAR6-PureOmics.H.50

Choose the perfect BioSPE™ product for your metabolomic application

The following table will help you select the **BioSPE™ PureOmics** formats and references that are the most adapted to your metabolomic applications, depending on your sample volume.

<table>
<tr><th colspan="2" rowspan="2"></th><th colspan="4">Format</th></tr>
<tr><th>SPE Tips</th><th>SPE Spin Columns</th><th>96 SPE Well Plates</th><th>SPE Cartridges</th></tr>
<tr><td rowspan="10">Sample volume</td><td>Up to 10µL</td><td>KT-Adapt-Tips-PureOmics.H.10.96</td><td rowspan="5">µSpin-PureOmics.H.50

Spin-PureOmics.H.50</td><td rowspan="4">KT-Coll-µ96W-PureOmics.H.1</td><td rowspan="6">CAR1-PureOmics.H.50</td></tr>
<tr><td>Up to 200µL</td><td>KT-Adapt-Tips-PureOmics.H.200.96</td></tr>
<tr><td>Up to 400µL</td><td rowspan="3">KT-Adapt-Tips-PureOmics.H.1000.96</td></tr>
<tr><td>Up to 800µL</td><td rowspan="2">KT-Coll-96W-PureOmics.H.1</td></tr>
<tr><td>Up to 1mL</td><td rowspan="4">Spin15-PureOmics.H.25</td></tr>
<tr><td>Up to 3mL</td><td rowspan="4">-</td><td rowspan="4">-</td><td>CAR3-PureOmics.H.50</td></tr>
<tr><td>Up to 4mL</td><td rowspan="2">CAR6-PureOmics.H.50</td></tr>
<tr><td>Up to 6mL</td><td rowspan="2">Spin50-PureOmics.H.25</td></tr>
<tr><td>Up to 22mL</td><td>-</td></tr>
</table>

AttractSPE®Disks

Spinnable, Automatable
High throughput HTS
Micro-SPE for microelution

Proteins / Peptides / DNA / Small molecules
Bioanalysis

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- A **broad variety of sorbents**
- **Various formats**: tips, spins, 96 well plates, SPE cartridges
- **One sorbent –** several capacities
- **Several sorbents - stacking** for complex applications

Silica-based sorbents	Polymeric sorbents
C18 and **C18 Wide Pore** for the wider interaction spectrum (hydrophobic - hydrophilic) with compounds / peptides	**SDB**: polystyrene-divinylbenzene (PS-DVB) copolymer
End-capped C18 (C18 EC) for the most hydrophobic compounds/peptides	**HLB**: SDB with hydrophilic moieties
Not end-capped C18 (C18 NEC) with the best combination - large spectrum of interaction - capacity	**SDB – RPS**: Sulfonic modified SDB sorbent
C8	**SAX**: Strong anion exchange SDB
C4 wide pore	**SCX**: Strong cation exchange SDB
HILIC	**WAX**: Weak anion exchange SDB
Silica	**WCX**: Weak cation exchange SDB

AttractSPE®Disks tools capacity

Each product from the AttractSPE®Disks range is available with **three different capacities, which are referred as T1, T2 or T3** in the product designations. This designation refers to the layer thickness of SPE membrane. For a more reproducible product, each tool contains only **ONE** layer.

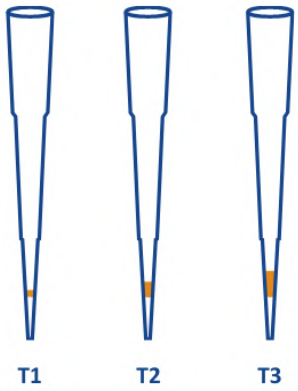
Following references (p34 to p45) will have XX indications, which have to be replaced by the capacity you require (T1, T2 or T3).

- **T1** is **A layer** having a capacity equivalent to the **thickness of ONE layer of SPE disks** (around 0.6mm)

- **T2** is **A layer** having a capacity equivalent to the **thickness of TWO layers of SPE disks** (around 1.2mm)

- **T3** is **A layer** having a capacity equivalent to the **thickness of THREE layers of disks** (around 1.8mm)

T1 and T2 are recommended for protein/peptide/DNA purification
T3 is recommended for small molecules extraction such as drugs in urine



Example

Capacity for 200µL tips

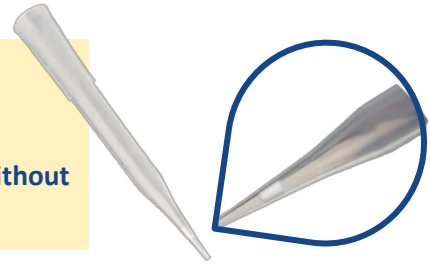
- T1: capacity up to 15µg
- T2: capacity up to 30µg
- T3: capacity up to 50µg

NEW! 10µL AttractSPE®Disks Tips, with **a lower amount of sorbent (T0 capacity)**, for **single cell-like analysis (see page 30)!**

AttractSPE®Disks Tips – StageTips 200µL and 1mL

Advantages

- **Several sorbents and stackings** available
- Available as **10µL, 20µL, 200µL and 1mL**
- Easy and fast process by **centrifugation without manual pipetting constraints**

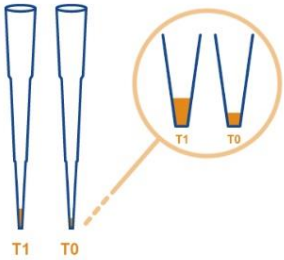


Designation	Description	200µL tips – 96/pk	1mL tips – 96/pk
AttractSPE® Tips C18	C18 membrane	Tips-C18.XX.200.96	Tips-C18.XX.1000.96
AttractSPE® Tips C18 Wide Pore	Wide pore C18 membrane	Tips-C18WP.XX.200.96	Tips-C18WP.XX.1000.96
AttractSPE® Tips C18 EC	End-capped C18 membrane	Tips-C18EC.XX.200.96	Tips-C18EC.XX.1000.96
AttractSPE® Tips C18 NEC	Not end-capped C18 membrane	Tips-C18NEC.XX.200.96	Tips-C18NEC.XX.1000.96
AttractSPE® Tips C4 Wide Pore	Wide pore C4 membrane	Tips-C4.XX.200.96	Tips-C4.XX.1000.96
AttractSPE® Tips C8	C8 membrane	Tips-C8.XX.200.96	Tips-C8.XX.1000.96
AttractSPE® Tips SDB	PS-DVB membrane	Tips-DVB.XX.200.96	Tips-DVB.XX.1000.96
AttractSPE® Tips SDB – RPS	SDB-RPS membrane	Tips-RPS-M.XX.200.96	Tips-RPS-M.XX.1000.96
AttractSPE® Tips HLB	HLB membrane	Tips-HLB.XX.200.96	Tips-HLB.XX.1000.96
AttractSPE® Tips SAX	SAX membrane	Tips-SAX.XX.200.96	Tips-SAX.XX.1000.96
AttractSPE® Tips SCX	SCX membrane	Tips-SCX.XX.200.96	Tips-SCX.XX.1000.96
AttractSPE® Tips C18-SCX	Stacking C18-SCX membranes	Tips-C18-SCX.XX.200.96	Tips-C18-SCX.XX.1000.96
AttractSPE® Tips C18-SCX-C18	Stacking C18-SCX-C18 membranes	Tips-C18-SCX-C18.XX.200.96	Tips-C18-SCX-C18.XX.1000.96
AttractSPE® Tips Silica	Silica membrane	Tips-Si.XX.200.96	Tips-Si.XX.1000.96

**Replace XX by the capacity (T1, T2, T3, see p37) of your choice. *e.g.: Tips-C18.T1.200.96*

Advantage

- **T0 capacity** for **single cell-like analysis**



Designation	Description	10µL tips – 96/pk **
AttractSPE® Tips C18	C18 membrane	Tips-C18.XX.10.96
AttractSPE® Tips C18 Wide Pore	Wide pore C18 membrane	Tips-C18WP.XX.10.96
AttractSPE® Tips C18 EC	End-capped C18 membrane	Tips-C18EC.XX.10.96
AttractSPE® Tips C18 NEC	Not end-capped C18 membrane	Tips-C18NEC.XX.10.96
AttractSPE® Tips C4 Wide Pore	Wide pore C4 membrane	Tips-C4.XX.10.96
AttractSPE® Tips C8	C8 membrane	Tips-C8.XX.10.96
AttractSPE® Tips SDB	PS-DVB membrane	Tips-DVB.XX.10.96
AttractSPE® Tips SDB – RPS	SDB-RPS membrane	Tips-RPS-M.XX.10.96
AttractSPE® Tips HLB	HLB membrane	Tips-HLB.XX.10.96
AttractSPE® Tips SAX	SAX membrane	Tips-SAX.XX.10.96
AttractSPE® Tips SCX	SCX membrane	Tips-SCX.XX.10.96
AttractSPE® Tips C18-SCX	Stacking C18-SCX membranes	Tips-C18-SCX.XX.10.96
AttractSPE® Tips C18-SCX-C18	Stacking C18-SCX-C18 membranes	Tips-C18-SCX-C18.XX.10.96
AttractSPE® Tips Silica	Silica membrane	Tips-Si.XX.10.96

**Replace XX by the capacity (T0, T1, T2, T3, see p37) of your choice. *e.g.: Tips-C18.T0.10.96*

Save money while saving the planet with our new Eco packaging!

Advantages

- **Bags of 960 tips in bulk** to considerably reduce our packaging **(90% less plastic)** and limit our environmental impact
- **Packaging 100% recyclable made from 50% recycled plastic**
- **Reduction of more than 30%** compared to the price of 10 boxes of 96 tips

Designation	10µL tips – 960/pk	200µL tips - 960/pk	1mL tips – 960/pk
AttractSPE® Tips C18	Tips-C18.XX.10.960	Tips-C18.XX.200.960	Tips-C18.XX.1000.960
AttractSPE® Tips C18 Wide Pore	Tips-C18WP.XX.10.960	Tips-C18WP.XX.200.960	Tips-C18WP.XX.1000.960
AttractSPE® Tips C18 EC	Tips-C18EC.XX.10.960	Tips-C18EC.XX.200.960	Tips-C18EC.XX.1000.960
AttractSPE® Tips C18 NEC	Tips-C18NEC.XX.10.960	Tips-C18NEC.XX.200.960	Tips-C18NEC.XX.1000.960
AttractSPE® Tips C4 Wide Pore	Tips-C4.XX.10.960	Tips-C4.XX.200.960	Tips-C4.XX.1000.960
AttractSPE® Tips C8	Tips-C8.XX.10.960	Tips-C8.XX.200.960	Tips-C8.XX.1000.960
AttractSPE® Tips SDB	Tips-DVB.XX.10.960	Tips-DVB.XX.200.960	Tips-DVB.XX.1000.960
AttractSPE® Tips SDB – RPS	Tips-RPS-M.XX.10.960	Tips-RPS-M.XX.200.960	Tips-RPS-M.XX.1000.960
AttractSPE® Tips HLB	Tips-HLB.XX.10.960	Tips-HLB.XX.200.960	Tips-HLB.XX.1000.960
AttractSPE® Tips SAX	Tips-SAX.XX.10.960	Tips-SAX.XX.200.960	Tips-SAX.XX.1000.960
AttractSPE® Tips SCX	Tips-SCX.XX.10.960	Tips-SCX.XX.200.960	Tips-SCX.XX.1000.960
AttractSPE® Tips C18-SCX	Tips-C18-SCX.XX.10.960	Tips-C18-SCX.XX.200.960	Tips-C18-SCX.XX.1000.960
AttractSPE® Tips C18-SCX-C18	Tips-C18-SCX-C18.XX.10.960	Tips-C18-SCX-C18.XX.200.960	Tips-C18-SCX-C18.XX.1000.960
AttractSPE® Tips Silica	Tips-Si.XX.10.960	Tips-Si.XX.200.960	Tips-Si.XX.1000.960

**Replace XX by the capacity (T0, T1, T2, T3, see p37) of your choice. *e.g.: Tips-C18.T1.200.960*
T0 capacity only available for 10µL Tips

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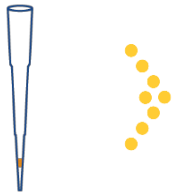
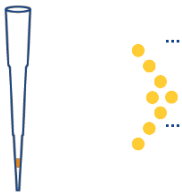
To help you select the **AttractSPE®Disks Tips** that are the most suitable for your biological applications based on your sample volume, the following table lists the maximum **loading volume** and the **elution volumes** of our different StageTips. Please note that these volumes, especially the elution volumes, are given as indicative values and depend on your applications and/or protocols.

Products	Loading volume	Elution volume
 AttractSPE®Disks Tips - 10µL	Up to 10µL	10µL
AttractSPE®Disks Tips - 200µL	Up to 200µL	10 to 50µL
AttractSPE®Disks Tips - 1mL	Up to 1mL	Up to 200µL

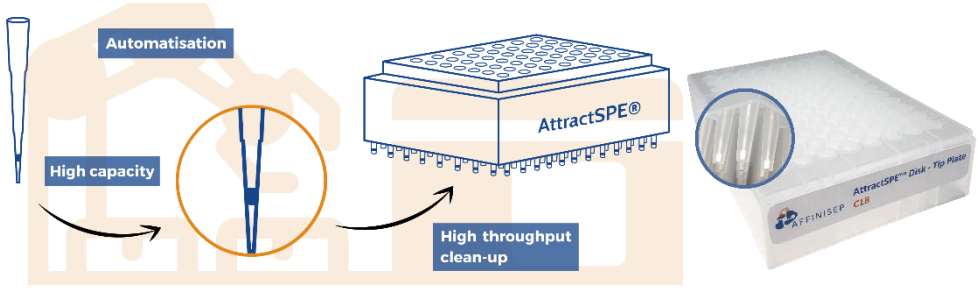
To help you select the **AttractSPE®Disks Tips** that are the most suitable for your biological applications based on your sample amount, the following table lists the **loading capacities** (maximal analytes quantities that can be retained) of our different products.

Products	Capacity* (µg)			
	T0	T1	T2	T3
 AttractSPE®Disks Tips - 10µL	3	7	15	25
AttractSPE®Disks Tips - 200µL	-	15	30	50
AttractSPE®Disks Tips - 1000µL	-	35	70	105

*Please note that these capacities are given as indicative values, since they are determined for C18 sorbents and are therefore expected to be higher for polymeric sorbents. T0 capacity only available for 10µL tips.

AttractSPE®Disks 96 well plates for microelution

AttractSPE® Disks 96 plate for microelution is a 96 plate with wells similar to stagetips for a high throughput clean-up combined with microelution volumes.



Designation	Description	Reference – 1/pk **
AttractSPE®Disks 96 plate C18	C18 membrane	µ96W-C18.XX.1
AttractSPE®Disks 96 plate C18 Wide Pore	Wide pore C18 membrane	µ96W-C18WP.XX.1
AttractSPE®Disks 96 plate C18 EC	End-capped C18 membrane	µ96W-C18EC.XX.1
AttractSPE®Disks 96 plate C18 NEC	Not end-capped C18 membrane	µ96W-C18NEC.XX.1
AttractSPE®Disks 96 plate C4 Wide Pore	Wide pore C4 membrane	µ96W-C4.XX.1
AttractSPE®Disks 96 plate C8	C8 membrane	µ96W-C8.XX.1
AttractSPE®Disks 96 plate SDB	PS-DVB membrane	µ96W-DVB.XX.1
AttractSPE®Disks 96 plate SDB – RPS	SDB-RPS membrane	µ96W-RPS-M.XX.1
AttractSPE®Disks 96 plate HLB	HLB membrane	µ96W-HLB.XX.1
AttractSPE®Disks 96 plate SAX	SAX membrane	µ96W-SAX.XX.1
AttractSPE®Disks 96 plate SCX	SCX membrane	µ96W-SCX.XX.1
AttractSPE®Disks 96 plate C18-SCX	Stacking C18 & SCX membranes	µ96W-C18-SCX.XX.1
AttractSPE®Disks 96 plate C18-SCX-C18	Stacking C18 & SCX & C18 membranes	µ96W-C18-SCX-C18.XX.1
AttractSPE®Disks 96 plate Silica	Silica membrane	µ96W-Si.XX.1

**Replace XX by the capacity (T1, T2, T3, see p40) of your choice. *e.g.: µ96W-C18.T1.1*

AttractSPE®Disks 96 well plates – 1mL

AttractSPE® Disks 96 Plate is a plate with 1mL SPE wells containing immobilized SPE membrane that enables a high throughput clean-up with the simultaneous preparation of 96 samples. Thanks to this small sorbent amount and a high efficiency, almost 100% of the original sample is recovered.

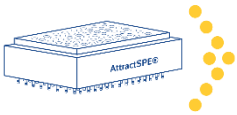
Advantages

- All **sorbents available** on catalog or on demand
- Easy handling with **automates** or **liquid handling robots** – **spinnable**

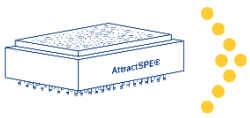
Designation	Description	Reference – 1/pk**
AttractSPE®Disks 96 plate C18	C18 membrane	96W-C18.XX.1
AttractSPE®Disks 96 plate C18 Wide Pore	Wide pore C18 membrane	96W-C18WP.XX.1
AttractSPE®Disks 96 plate C18 EC	End-capped C18 membrane	96W-C18EC.XX.1
AttractSPE®Disks 96 plate C18 NEC	Not end-capped C18 membrane	96W-C18NEC.XX.1
AttractSPE®Disks 96 plate C4 Wide Pore	Wide pore C4 membrane	96W-C4.XX.1
AttractSPE®Disks 96 plate C8	C8 membrane	96W-C8.XX.1
AttractSPE®Disks 96 plate SDB	PS-DVB membrane	96W-DVB.XX.1
AttractSPE®Disks 96 plate SDB – RPS	SDB-RPS membrane	96W-RPS-M.XX.1
AttractSPE®Disks 96 plate HLB	HLB membrane	96W-HLB.XX.1
AttractSPE®Disks 96 plate SAX	SAX membrane	96W-SAX.XX.1
AttractSPE®Disks 96 plate SCX	SCX membrane	96W-SCX.XX.1
AttractSPE®Disks 96 plate C18-SCX	Stacking C18 & SCX membranes	96W-C18-SCX.XX.1
AttractSPE®Disks 96 plate C18-SCX-C18	Stacking C18 & SCX &C18 membranes	96W-C18-SCX-C18.XX.1
AttractSPE®Disks 96 plate Silica	Silica membrane	96W-Si.XX.1

**Replace XX by the capacity (T1, T2, T3, see p40) of your choice. *e.g.: 96W-C18.T1.1*

To help you select the **AttractSPE®Disks 96 well plates** that are the most suitable for your biological applications based on your sample volume, the following table lists the maximum **loading volume** and the **elution volumes** of our different 96 well plates. Please note that these volumes, especially the elution volumes, are given as indicative values and depend on your applications and/or protocols.

Products		Loading volume	Elution volume
	AttractSPE®Disks 96 well plate for microelution	Up to 400µL	50 to 200µL
	AttractSPE®Disks 96 well plate 1mL	Up to 1mL	200 to 500µL

To help you select the **AttractSPE®Disks 96 well plates** that are the most suitable for your biological applications based on your sample amount, the following table lists the **loading capacities** (maximal analytes quantities that can be retained) of our different 96 well plates.

Products		Capacity* (µg)		
		T1	T2	T3
	AttractSPE®Disks 96 well plate for microelution	35	70	105
	AttractSPE®Disks 96 well plate 1mL	500	1000	1500

*Please note that these capacities are given as indicative values, since they are determined for C18 sorbents and are therefore expected to be higher for polymeric sorbents.

Accessories for 96 well plates

Affinisep supplies accessories for the use of **AttractSPE®Disks 96 well plates**: sealing film and collection plates (1mL or 2mL).

Designation	Description*	Reference
Sealing film	Sealing film, 100/pk	96W-SEAL-100
96 well collection plate 1mL	96 round collection plate – U bottom – 1mL – 1/pk	96W-COLL-1ML-1
96 well collection plate 1mL	96 round collection plate – U bottom – 1mL – 10/pk	96W-COLL-1ML-10
96 well collection plate 1mL	96 round collection plate – U bottom – 1mL – 100/pk	96W-COLL-1ML-100
96 well collection plate 2mL	96 round collection plate – U bottom – 2mL – 1/pk	96W-COLL-2ML-1
96 well collection plate 2mL	96 round collection plate – U bottom – 2mL – 10/pk	96W-COLL-2ML-10
96 well collection plate 2mL	96 round collection plate – U bottom – 2mL – 100/pk	96W-COLL-2ML-100

Advantages

- **4 spin sizes available** : micro and mini-spin, 15mL and 50mL spin tubes
- **Fast and easy** extraction process by **centrifugation**
- **High throughput purification**
- Micro and mini-spins supplied with **2mL centrifuge tubes compatible with any benchtop microcentrifuge**

Micro spin

Mini spin

Designation	Description	Reference micro spin – 96/pk**	Reference mini spin – 96/pk**
AttractSPE® Spin C18	C18 membrane	µSpin-C18.XX.96	Spin-C18.XX.96
AttractSPE® Spin C18 Wide Pore	Wide pore C18 membrane	µSpin-C18WP.XX.96	Spin-C18WP.XX.96
AttractSPE® Spin C18 EC	End-capped C18 membrane	µSpin-C18EC.XX.96	Spin-C18EC.XX.96
AttractSPE® Spin C18 NEC	Not end-capped C18 membrane	µSpin-C18NEC.XX.96	Spin-C18NEC.XX.96
AttractSPE® Spin C4 Wide Pore	Wide pore C4 membrane	µSpin-C4.XX.96	Spin-C4.XX.96
AttractSPE® Spin C8	C8 membrane	µSpin-C8.XX.96	Spin-C8.XX.96
AttractSPE® Spin SDB	PS-DVB membrane	µSpin-DVB.XX.96	Spin-DVB.XX.96
AttractSPE® Spin SDB – RPS	DVB-RPS membrane	µSpin-RPS-M.XX.96	Spin-RPS-M.XX.96
AttractSPE® Spin HLB	HLB membrane	µSpin-HLB.XX.96	Spin-HLB.XX.96
AttractSPE® Spin SAX	SAX membrane	µSpin-SAX.XX.96	Spin-SAX.XX.96
AttractSPE® Spin SCX	SCX membrane	µSpin-SCX.XX.96	Spin-SCX.XX.96
AttractSPE® Spin C18-SCX	Stacking C18 & SCX membranes	µSpin-C18-SCX.XX.96	Spin-C18-SCX.XX.96
AttractSPE® Spin C18-SCX-C18	Stacking C18 & SCX &C18 membranes	µSpin-C18-SCX-C18.XX.96	Spin-C18-SCX-C18.XX.96
AttractSPE® Spin Silica	Silica membrane	µSpin-Si.XX.96	Spin-Si.XX.96

**Replace XX by the capacity (T1, T2, T3, see p44) of your choice. *e.g.: µSpin-C18.T1.96*

AttractSPE® Spin columns of 15mL and 50mL are the perfect tools to scale up your process thanks to a high area of SPE disks.

Designation	Description	Reference 15mL spin tube – 50/pk**	Reference 50mL spin tube – 50/pk**
AttractSPE® Spin C18	C18 membrane	Spin15-C18.XX.50	Spin50-C18.XX.50
AttractSPE® Spin C18 Wide Pore	Wide pore C18 membrane	Spin15-C18WP.XX.50	Spin50-C18WP.XX.50
AttractSPE® Spin C18 EC	End-capped C18 membrane	Spin15-C18EC.XX.50	Spin50-C18EC.XX.50
AttractSPE® Spin C18 NEC	Not end-capped C18 membrane	Spin15-C18NEC.XX.50	Spin50-C18NEC.XX.50
AttractSPE® Spin C4 Wide Pore	Wide pore C4 membrane	Spin15-C4.XX.50	Spin50-C4.XX.50
AttractSPE® Spin C8	C8 membrane	Spin15-C8.XX.50	Spin50-C8.XX.50
AttractSPE® Spin SDB	PS-DVB membrane	Spin15-DVB.XX.50	Spin50-DVB.XX.50
AttractSPE® Spin SDB – RPS	SDB-RPS membrane	Spin15-RPS-M.XX.50	Spin50-RPS-M.XX.50
AttractSPE® Spin HLB	HLB membrane	Spin15-HLB.XX.50	Spin50-HLB.XX.50
AttractSPE® Spin SAX	SAX membrane	Spin15-SAX.XX.50	Spin50-SAX.XX.50
AttractSPE® Spin SCX	SCX membrane	Spin15-SCX.XX.50	Spin50-SCX.XX.50
AttractSPE® Spin C18-SCX	Stacking C18 & SCX membranes	Spin15-C18-SCX-XX.50	Spin50-C18-SCX.XX.50
AttractSPE® Spin C18-SCX-C18	Stacking C18 & SCX &C18 membranes	Spin15-C18-SCX-C18.XX.50	Spin50-C18-SCX-C18.XX.50
AttractSPE® Spin Silica	Silica membrane	Spin15-Si.XX.50	Spin50-Si.XX.50

**Replace XX by the capacity (T1, T2, T3, see p44) of your choice. *e.g.: Spin15-C18.T3.50*

To help you select the **AttractSPE®Disks Spin columns** that are the most suitable for your biological applications based on your sample volume, the following table lists the maximum **loading volume** and the **elution volumes** of our different Spin columns. Please note that these volumes, especially the elution volumes, are given as indicative values and depend on your applications and/or protocols.

Products	Loading volume	Elution volume
AttractSPE®Disks Micro Spin	Up to 800µL	100 to 400µL
AttractSPE®Disks Mini Spin	Up to 800µL	100 to 400µL
AttractSPE®Disks Spin - 15mL	Up to 4mL	Up to 2mL
AttractSPE®Disks Spin - 50mL	Up to 22mL	Up to 10mL

To help you select the **AttractSPE®Disks Spin columns** that are the most suitable for your biological applications based on your sample amount, the following table lists the **loading capacities** (maximal analytes quantities that can be retained) of our different Spin columns.

Products	Capacity* (µg)		
	T1	T2	T3
AttractSPE®Disks Micro Spin	200	400	600
AttractSPE®Disks Mini Spin	300	600	900
AttractSPE®Disks Spin - 15mL	1500	3000	4500
AttractSPE®Disks Spin - 50mL	3000	6000	9000

*Please note that these capacities are given as indicative values, since they are determined for C18 sorbents and are therefore expected to be higher for polymeric sorbents.

AttractSPE®Disks Cartridges

Advantages

- **1, 3 and 6mL** formats
- **Large loading** volume with a **minimal elution volume**
- **High extraction capacity**
- **Broad range of sorbents** or **sorbent combinations**

Designation	Reference – 1mL – 50/pk**	Reference – 3mL – 50/pk**	Reference – 6mL – 50/pk**
AttractSPE®Disks Cartridge C18	CAR1-C18.XX.50	CAR3-C18.XX.50	CAR6-C18.XX.50
AttractSPE®Disks Cartridge C18 Wide Pore	CAR1-C18WP.XX.50	CAR3-C18WP.XX.50	CAR6-C18WP.XX.50
AttractSPE®Disks Cartridge C18 EC	CAR1-C18EC.XX.50	CAR3-C18EC.XX.50	CAR6-C18EC.XX.50
AttractSPE®Disks Cartridge C18 NEC	CAR1-C18NEC.XX.50	CAR3-C18NEC.XX.50	CAR6-C18NEC.XX.50
AttractSPE®Disks Cartridge C4 Wide Pore	CAR1-C4.XX.50	CAR3-C4.XX.50	CAR6-C4.XX.50
AttractSPE®Disks Cartridge C8	CAR1-C8.XX.50	CAR3-C8.XX.50	CAR6-C8.XX.50
AttractSPE®Disks Cartridge SDB	CAR1-DVB.XX.50	CAR3-DVB.XX.50	CAR6-DVB.XX.50
AttractSPE®Disks Cartridge SDB – RPS	CAR1-RPS-M.XX.50	CAR3-RPS-M.XX.50	CAR6-RPS-M.XX.50
AttractSPE®Disks Cartridge HLB	CAR1-HLB.XX.50	CAR3-HLB.XX.50	CAR6-HLB.XX.50
AttractSPE®Disks Cartridge SAX	CAR1-SAX.XX.50	CAR3-SAX.XX.50	CAR6-SAX.XX.50
AttractSPE®Disks Cartridge SCX	CAR1-SCX.XX.50	CAR3-SCX.XX.50	CAR6-SCX.XX.50
AttractSPE®Disks Cartridge C18-SCX	CAR1-C18-SCX.XX.50	CAR3-C18-SC.XX.50	CAR6-C18-SCX.XX.50
AttractSPE®Disks Cartridge C18-SCX-C18	CAR1-C18-SCX-C18.XX.50	CAR3-C18-SCX-C18.XX.50	CAR6-C18-SCX-C18. XX.50
AttractSPE®Disks 96 Cartridges Silica	CAR1-Si.XX.50	CAR3-Si.XX.50	CAR6-Si.XX.50

**Replace XX by the capacity (T1, T2, T3, see p46) of your choice. *e.g.: CAR1-C18.T2.50*

To help you select the **AttractSPE®Disks cartridges** that are the most suitable for your biological applications based on your sample volume, the following table lists the maximum **loading volume** and the **elution volumes** of our different cartridges. Please note that these volumes, especially the elution volumes, are given as indicative values and depend on your applications and/or protocols.

Products	Loading volume	Elution volume
AttractSPE®Disks Cartridges - 1mL	Up to 1mL	100 to 200µL
AttractSPE®Disks Cartridges - 3mL	Up to 3mL	200 to 400µL
AttractSPE®Disks Cartridges - 6mL	Up to 6mL	Up to 1mL

To help you select the **AttractSPE®Disks cartridges** that are the most suitable for your biological applications based on your sample amount, the following table lists the **loading capacities** (maximal analytes quantities that can be retained) of our different cartridges.

Products	Capacity* (µg)		
	T1	T2	T3
AttractSPE®Disks Cartridges - 1mL	250	500	750
AttractSPE®Disks Cartridges - 3mL	700	1400	2100
AttractSPE®Disks Cartridges - 6mL	1500	3000	4500

*Please note that these capacities are given as indicative values, since they are determined for C18 sorbents and are therefore expected to be higher for polymeric sorbents.

Frequently asked questions about

AttractSPE®Disks

and

BioSPE™

Questions about the choice of format

Q. What is the difference between mini spin and micro spin columns?

The difference between mini spin and micro spin columns is the diameter of the SPE membrane immobilized in the column (7.5mm for mini spin and 5mm for micro spin). Thus, capacities are higher for mini spin columns than for micro spin columns.

Q. What is the difference between 96 plates for microelution and 1mL 96 plates?

96 plates for microelution are plates for which the SPE wells have the shape of tips, and the volume of the wells is 400µL. 1mL 96 plates are classical plates, with SPE wells having a volume of 1mL and higher capacities than 96 well plates for microelution.

Q. What are the advantages of the spin columns compared to the SategTips?

Spin columns present a simplicity of use since they can directly be centrifuged, without requiring adapters. Moreover, the centrifugation tubes supplied with the spin columns have lids, therefore the spins columns can be closed. The micro and mini spin columns are also compatible with any 2mL or 1.5mL centrifugation tube on the market. Finally, you can treat higher sample volumes with the micro and mini Spin columns (loading volume up to 800µL), than with the StageTips (loading volume up to 200µL for the most used StageTips).

Questions concerning applications

Q. Which product can I use to purify peptides after enzymatic digestion?

For peptide purification and desalting, we recommend using BioSPE™ PurePep or BioSPE™ PurePep Broad sorbents.

Q. Which product can I use to purify large peptides and/or proteins?

For desalting large peptides and proteins, we recommend using BioSPE™ PureProt sorbent.

Q. Which product should I use for single cell like analysis?

We supply 10µL StageTips with a reduced amount of sorbent ideal for low input material and single cell-like analysis. For AttractSPE®Disks Tips, the corresponding capacity indicated in the product reference is T0. For BioSPE™ Tips, the corresponding capacity indicated in the product reference is SC.

Q. What product is recommended for the extraction of small molecules from biological samples?

BioSPE™ PureOmics is recommended to extract metabolites and small molecules such as drugs from biological matrices (urine, plasma, blood…).

Q. I use magnetic beads for SP3 protocols, what can I use to remove them before mass spectrometry analysis of my sample?

Removal of magnetic beads or non-magnetic beads prior to MS analysis can be performed using BioSPE™ BeadRem, which is used as a filter to retain beads while proteins/peptides pass through the sorbent.

Questions regarding the use of our products

Q. Can I elute my sample from AttractSPE®Disks and BioSPE™ 96 well plates under vacuum?

Yes, elution from 96 well plates for microelution and 1mL 96 well plates can be achieved under vacuum, positive pressure or by centrifugation.

Q. Can I use the AttractSPE®Disks and BioSPE™ 96 well plates partially?

Yes, you can use only some wells of the AttractSPE®Disks and BioSPE™ 96 well plates for microelution and 1mL 96 well plates to perform your experiments, without consequences on the unused wells. You will just have to cover the unused wells before using the plate.

Q. Can AttractSPE®Disks and BioSPE™ Tips be used by pipetting?

To obtain optimal results, we strongly recommend to use AttractSPE®Disks and BioSPE™ Tips by centrifugation or with a positive pressure manifold or with automates (refilling by the top of the tips).

Q. Are the BioSPE™ Tips supplied with adapters for centrifugation and collection tubes?

The BioSPE™ Tips are supplied as ready-to-use kits with spin adapters and collection tubes.

Q. Is there any protocol of use for AttractSPE®Disks and BioSPE™ products?

BioSPE™ products are ready-to-use kits supplied with detail instruction sheets for a given application (peptide desalting, fractionation…).
For AttractSPE®Disks products, the protocols supplied are very general to cover a wide range of applications.

Questions about Affinisep technologies

Q. What are the performances of your technology compared to other SPE products on the market?

C18 AttractSPE®Disks Tips have been compared to two brands of StageTips available on the market and showed similar or better results for the purification of tryptic digests. The results are presented in an application note on our website (**AttractSPE®Disks Tips for an efficient protein cleanup – Comparison with competitor products**).

Q. What is the protein recovery ratio with the AttractSPE®Disks technology?

Thanks to their multiple advantages, the AttractSPE®Disks membranes allow the recovery of up to 100% of the samples, with low elution volumes. A recent application note, available on our website (**Estimation of the working range on the AttractSPE®Disks Tips C18 – T1**), has demonstrated that, for proteins amounts as low as 10ng, the recoveries were close to 100% with RSD inferior to 3%, after desalting on 200µL AttractSPE®Disks Tips C18. Moreover, no loss of performance was observed for the purification of 10µg of peptides on the AttractSPE®Disks Tips C18 T1, meaning that this StageTips can be used for much higher quantities of peptides.

Questions about your specific project

Q. Is it possible to buy custom-made products that are not on Affinisep catalog?

Yes, Affinisep can provide custom products that are the most adapted to your applications. Contact out technical service at **contact@affinisep.com** to describe your needs and we will try our best to offer you a product that meets your criteria.

Q. I have questions regarding the use of your products, how can I contact the technical support?

You can contact our technical support team by email at **tech.support@affinisep.com**. You can also fill the request service on our website to describe your issue or your project.

Other products for biological applications

AttractSPE®LipRem

SilactSPE Double fritted & Single fritted

AttractFiltra membrane filter

Powder-based SPE cartridges and plates

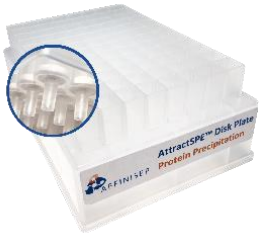
AttractSPE® LipRem

AttractSPE®LipRem is used for the removal of phospholipids from plasma.

Format	#/box	Reference
1mL cartridge	100	LipRem-100.S.1.20
3mL cartridge	50	LipRem-50.S.3.50
6mL cartridge	50	LipRem-50.S.6.100
96 well plate	1	LipRem-1.96W.20
Reversible, 0.7mL	25	LipRem-25.REV.1.F
	50	LipRem-50.REV.1.F

AttractFiltra Protein Precipitation plate

Easy and fast removal of plasma and serum proteins by precipitation and filtration on a spinnable 96 well plate compatible with SPE automates, for the recovery of small molecules.



Designation	#/box	Reference
AttractFiltra Protein precipitation	1	PPT-1.96W
	5	PPT-5.96W

SilactSPE Double fritted & SilactSPE™ Single fritted

SilactSPE Double fritted & **SilactSPE Single fritted** are cartridges with respectively one or two 20µm PE frits.

Cartridge volume	SilactSPE Double fritted 100 cartridges	SilactSPE Single fritted 100 cartridges
1mL	0-100.S.1.2F	0-100.S.1.1F
3mL	0-100.S.3.2F	0-100.S.3.1F
6mL	0-100.S.6.2F	0-100.S.6.1F
15mL	0-100.S.15.2F	0-100.S.15.1F
25mL	0-100.S.25.2F	0-100.S.25.1F
96 well plate – 1 unit	0-1.96W.2F	0-1.96W.1F

AttractFiltra membrane filter cartridges, spin tubes and 96 well plates

AttractFiltra is a filtration tool based on the use of a membrane to filtrate and remove particles with vaccuum/positive pressure manifolds, SPE automates or by centrifugation before LC analysis.

Available formats are 3 and 6mL cartridges, spin tubes and 96 microfilter plates.

AttractFiltra PVDF with a PVDF membrane (hydrophobic, wide chemical compatibility, temperature resistance) for the filtration of protein digests.
AttractFiltra PTFE with a PTFE membrane (hydrophobic, wide chemical compatibility, temperature resistance) for the filtration of aggressive solutions.
AttractFiltra PES with a PES membrane (hydrophilic, low protein binding) for water filtration.
AttractFiltra Nylon with a Nylon membrane (hydrophilic, high protein, RNA & DNA binding, high surface area) for a wide range of biological preparations.
AttractFiltra CA with a Cellulose Acetate membrane (hydrophilic, low protein binding) for protein filtration.

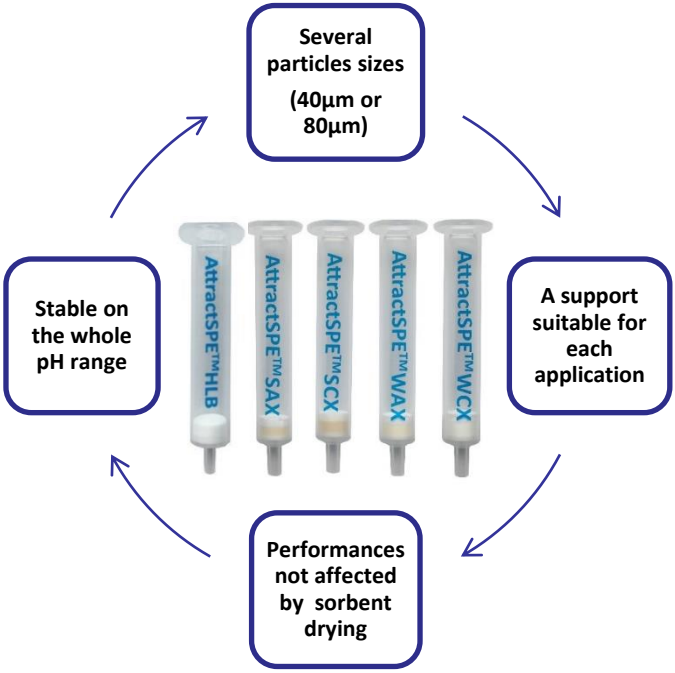
Designation	Membrane	Pore size* (µm)	3mL Cartridges (100/pk)	6mL Cartridges (100/pk)	Spin tubes (100/pk)	96 filter plate (1/pk)
AttractFiltra PVDF	PVDF	0.45	PVDF-100.S.3.45	PVDF-100.S.6.45	PVDF-100.SPIN.45	PVDF-1.96W.45
AttractFiltra PTFE	PTFE	0.45	PTFE-100.S.3.45	PTFE-100.S.6.45	PTFE-100.SPIN.45	PTFE-1.96W.45
AttractFiltra PES	PES	0.45	PES-100.S.3.45	PES-100.S.6.45	PES-100.SPIN.45	PES-1.96W.45
AttractFiltra Nylon	Nylon	0.45	NY-100.S.3.45	NY-100.S.6.45	NY-100.SPIN.45	NY-1.96W.45
AttractFiltra CA	Cellulose acetate	0.45	CA-100.S.3.45	CA-100.S.6.45	CA-100.SPIN.45	CA-1.96W.45

*Porosity of 0.22µm also available, please contact us for more references.

AttractSPE® Polymeric-based SPE

Advantages

- **1, 3, 6, 10, 12 and 20mL cartridges** (10mg-2g of sorbent)
- **1 or 2mL 96 well plates** (10-60mg of sorbent)
- A **broad range of sorbents** (HLB, SAX, SCX, DVB, WAX, WCX)



Sorbent*	Format, sorbent amount*	#/box	40µm particles
AttractSPE® HLB	1mL cartridge, 10mg	100	HLB-100.S.1.10
	3mL cartridge, 60mg	50	HLB-50.S.3.60
	96 well plate, 10mg	1	HLB-1.96W.10
	96 well plate, 30mg	1	HLB-1.96W.30
	96 well plate, 60mg	1	HLB-1.96W.60
AttractSPE® SAX	1mL cartridge, 10mg	100	SAX-100.S.1.10
	3mL cartridge, 60mg	50	SAX-50.S.3.60
	96 well plate, 10mg	1	SAX-1.96W.10
	96 well plate, 30mg	1	SAX-1.96W.30
	96 well plate, 60mg	1	SAX-1.96W.60

*Other formats, sorbents and sorbent amounts available, please contact us.

SilactSPE Inorganic-based SPE

SilactSPE products are silica-based and alumina-based sorbents available in different formats including SPE cartridges, spin columns and 96 well plates.

Advantages

- **1, 3, 6, 10, 12mL cartridges** (50mg-2g of sorbent)
- **96 well plates** (50-100mg of sorbent)
- A **broad range of sorbents** (C18, C18 300Å, C8, C4 Wide Pore, Silica, SiSCX, SiSAX, Florisil, Phenyl, Cyano, SiWAX, SiWCX)

Sorbent*	Format, sorbent amount*	#/box	Reference
SilactSPE C4 Wide Pore	3mL cartridge, 200mg	50	C4WP-50.S.3.200
	6mL cartridge, 500mg	50	C4WP-50.S.6.500
	96 well plate, 50mg	1	C4WP-1.96W.50
SilactSPE C18	1mL cartridge, 50mg	100	C18-100.S.1.50
	3mL cartridge, 200mg	50	C18-50.S.3.200
	96 well plate, 50mg	1	C18-1.96W.50
SilactSPE C18 Wide Pore	1mL cartridge, 50mg	100	C18WP-100.S.1.50
	3mL cartridge, 200mg	50	C18WP-50.S.3.200
	96 well plate, 50mg	1	C18WP-1.96W.50
SilactSPE C8	1mL cartridge, 50mg	100	C8-100.S.1.50
	3mL cartridge, 200mg	50	C8-50.S.3.200
	96 well plate, 100mg	1	C8-1.96W.100
SilactSPE Amine (SiWAX)	1mL cartridge, 50mg	100	NH2-100.S.1.50
	3mL cartridge, 200mg	50	NH2-50.S.3.200
	96 well plate, 100mg	1	NH2-1.96W.100

*Other formats, sorbents and sorbent amounts available, please contact us.

affinisep

THE ART OF MAKING SAMPLE PREPARATION EASIER

ABOUT

Affinisep develops and manufactures sample preparation kits to solve bioanalytical scientists' challenges and to impact life, environment and health with science. Affinisep manufactures sample preparation kits for proteomics, metabolomics and bioanalysis, water monitoring, food quality control…

Affinisep R&D and production facilities are located in Normandy. All of our products are developed and manufactured in France.

affinisep

ORDERING INFORMATION

For any order, please choose one of the following ways:

- **On our website** : **www.affinisep.com**

Find all our references and benefit from a **FAST** and **SIMPLE** process!

- **By email**: **contact@affinisep.com**

Information about new products or new matrices:

- **Newsletters**

Stay up-to-date on AFFINISEP's latest innovations by subscribing to our newsletter, delivering new information straight to your inbox! Register on our website.