

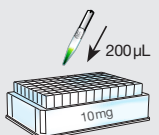



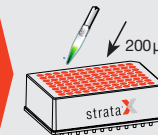

# Easy and Quick Microelution Sorbent Selection for Peptides and Small Molecules


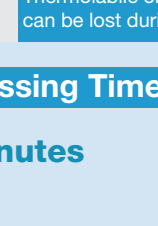
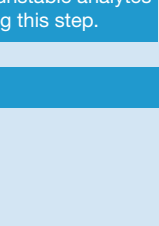

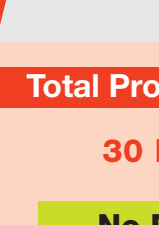
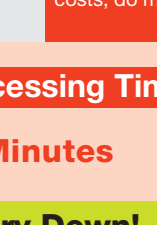
- Test different SPE chemistries using a single 96-well plate
- No dry down required
- Increase sensitivity



# A Faster SPE Solution

Save 30 or more minutes per 96-well plate by eliminating lengthy dry down and reconstitution steps.

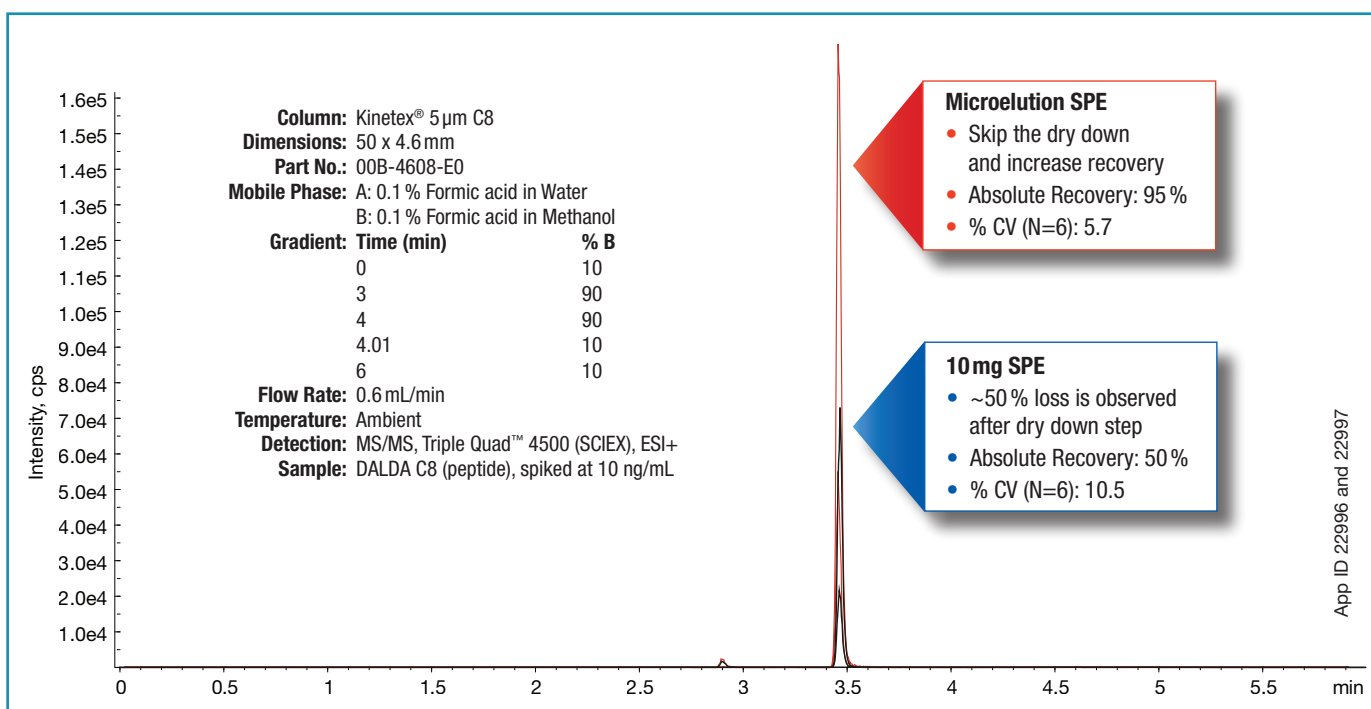
Traditional 10mg SPE		
<b>Step 1</b>		Condition
<b>Step 2</b>		Equilibrate
<b>Step 3</b>		Load Sample
<b>Step 4</b>		Wash
<b>Step 5</b>		Elute Concentration of target analytes is diluted.
<b>Step 6</b>		Dry Down and Reconstitute Dry down is required to increase sensitivity, adding time and cost. Thermolabile or unstable analytes can be lost during this step.
<b>Total Processing Time</b>		
<b>60 Minutes</b>		
<b>Throughput (in 8 hours)</b>		
<b>768 Samples</b>		

Strata-X Microelution SPE		
<b>Step 1</b>		Condition
<b>Step 2</b>		Equilibrate
<b>Step 3</b>		Load Sample
<b>Step 4</b>		Wash
<b>Step 5</b>		Elute At least 8x more sensitive than traditional 10 mg SPE!
<b>Step 6</b>		Dry Down and Reconstitute Save 30 or more minutes per 96-well plate! Save on labor costs, do more in less time.
<b>Total Processing Time</b>		
<b>30 Minutes</b>		
<b>No Dry Down!</b>		
<b>Throughput (in 8 hours)</b>		
<b>1,536 Samples</b>		
<b>DOUBLE Your Throughput! REDUCE Cost per Sample!</b>		

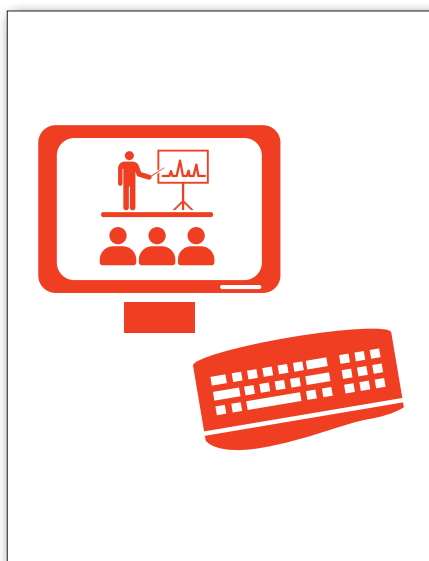
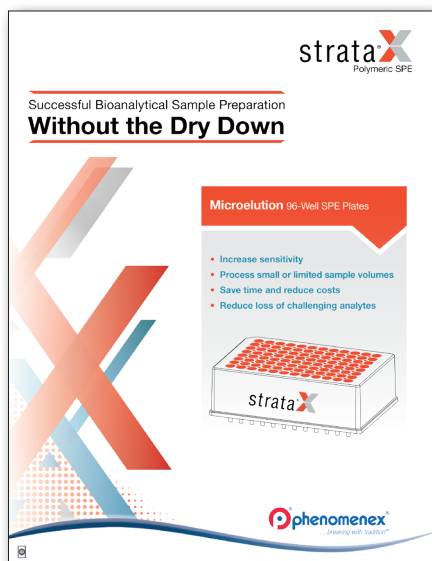
# A More Sensitive SPE Solution

Many target analytes such as peptides and thermolabile compounds can be lost during dry down steps. Stop risking analyte loss and skip the dry down step without losing sensitivity.

	Strata-X 96-Well SPE Plate, 10 mg/well	Strata-X Microelution 96-Well SPE Plate, 2mg/well
<b>Condition</b>	400 µL Methanol	200 µL Methanol
<b>Equilibrate</b>	400 µL Water	200 µL Water
<b>Load</b>	400 µL diluted serum (200 µL serum diluted 1:1 with 4 % Phosphoric acid in water)	400 µL diluted serum (200 µL serum diluted 1:1 with 4 % Phosphoric acid in water)
<b>Wash 1</b>	400 µL 2 % Formic acid in water	200 µL 2 % Formic acid in water
<b>Wash 2</b>	400 µL 20 % Acetonitrile in water	200 µL 20 % Acetonitrile in water
<b>Elute</b>	2x 175 µL TFA/Acetonitrile/Water (1:74:25)	2x 25 µL TFA/Acetonitrile/Water (1:74:25)
<b>Dry Down</b>	Dry down under a gentle stream of Nitrogen and reconstitute in 50 µL Trifluoroacetic acid/ Acetonitrile/Water (1:74:25)	<b>NOT REQUIRED</b>
<b>Inject</b>	10 µL	10 µL



1. CNS Delivery and Pharmacokinetic Evaluations of DALDA Analgesics Peptide Analog Administered in Nano-Sized Oil-in-Water Emulsion Formation. Shah L., Gattacceca F. and Amiji MM. Pharm Res (2014) 31:1315-1324.
2. Analgesic Efficacy and Safety of DALDA Peptide Analog Delivery to the Brain using Oil-in-Water Nanoemulsion Formation. Shah L., Kulkarni P., Ferris C., and Amiji MM. Pharm Res. (2014) 31:2724-2734.



## Applications, Webinars, or LiveChat with an Expert

Find it all and more at:

[www.phenomenex.com/microelution](http://www.phenomenex.com/microelution)



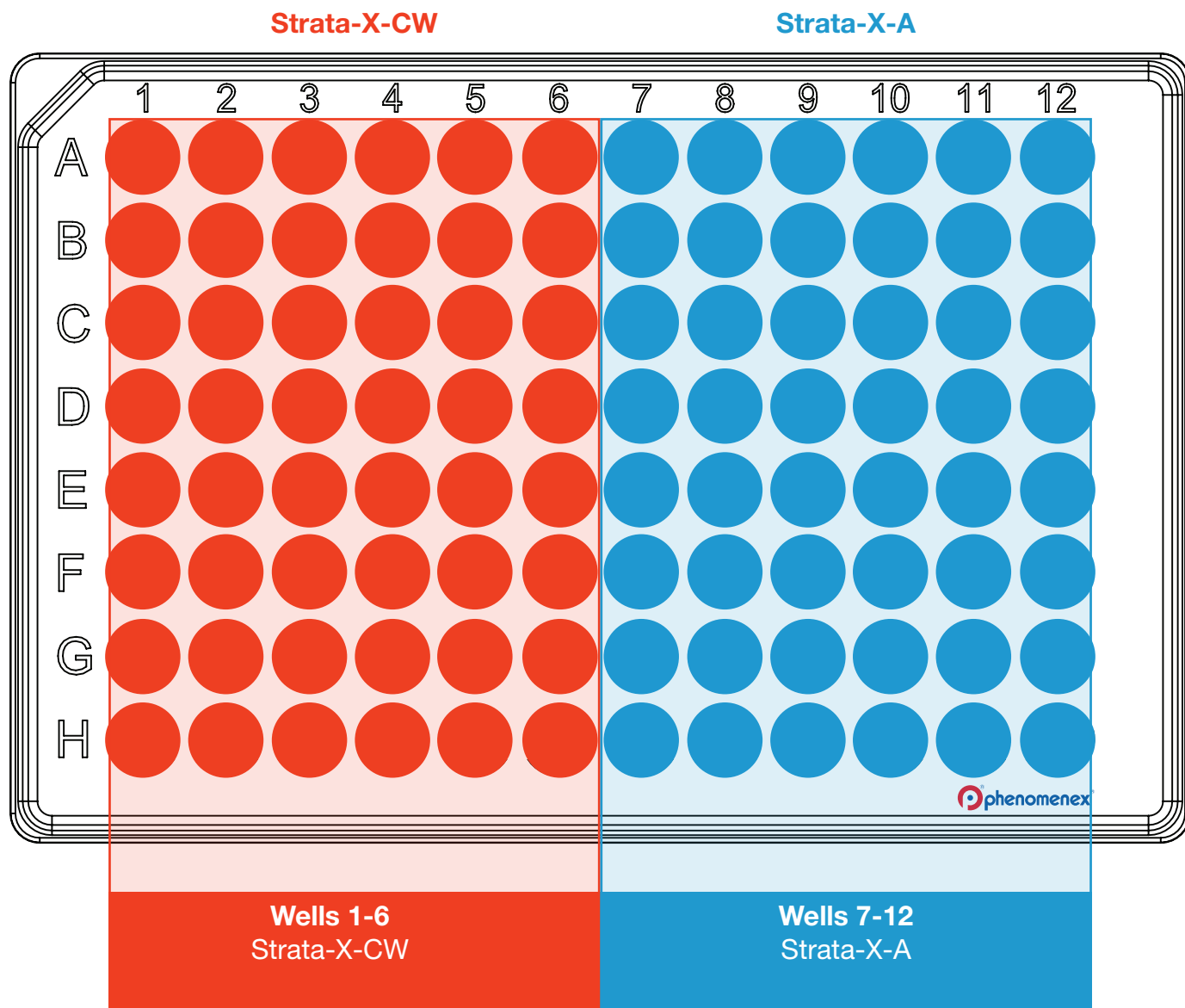
## Need Additional Method Development Help?

Find it in 2 easy steps using our on-line tool:

1. Enter you analyte and sample matrix information
2. Request a FREE sample of Strata or Strata-X SPE

[www.phenomenex.com/mdtool](http://www.phenomenex.com/mdtool)

# Strata-X Peptide Screening Microelution 96-Well Plate



## Peptide Screening Protocol

**Condition:** 200  $\mu$ L Methanol

**Equilibrate:** 200  $\mu$ L Water

**Load:** Sample

**Wash 1:** 200  $\mu$ L 5 % Ammonium hydroxide ( $\text{NH}_4\text{OH}$ ) in Water

**Wash 2:** 200  $\mu$ L 20 % Acetonitrile in Water

**Elute\*:** 2x 50  $\mu$ L TFA/Acetonitrile/Water (1:74:25)

**Analyze:** Directly transfer to vial and inject (no dilution)

\* We recommend screening with 2x 50  $\mu$ L, however this volume can be scaled down in most cases to 2x 25  $\mu$ L

Analyze recovery to determine the ideal Strata-X sorbent for your unique peptides and adjust the starting method if necessary.

guarantee

If Strata-X Microelution 96-Well SPE Plates do not perform as well or better than your current Microelution 96-Well SPE Plate, send in your comparative data within 45 days for a FULL REFUND.

# Strata-X Method Development Microelution 96-Well Plate



## Wells 1-6 Method Development Protocol

<b>Condition:</b> 200 $\mu$ L Methanol
<b>Equilibrate:</b> 200 $\mu$ L Water
<b>Load:</b> Sample
<b>Wash 1:</b> 200 $\mu$ L 1% Formic acid in Water
<b>Wash 2*:</b> 200 $\mu$ L Methanol
<b>Dry:</b> Five minutes at full vacuum
<b>Elute**:</b> 2x 50 $\mu$ L 5% $\text{NH}_4\text{OH}$ in Methanol
<b>Analyze:</b> Depending on analytical method, eluent can either be directly injected or diluted with 2-3 parts Mobile Phase A

## Wells 7-12 Method Development Protocol

<b>Condition:</b> 200 $\mu$ L Methanol
<b>Equilibrate:</b> 200 $\mu$ L Water
<b>Load:</b> Sample
<b>Wash 1:</b> 200 $\mu$ L 5% $\text{NH}_4\text{OH}$ in Water
<b>Wash 2*:</b> 200 $\mu$ L Methanol
<b>Dry:</b> Five minutes at full vacuum
<b>Elute**:</b> 2x 50 $\mu$ L 5% Formic acid in Methanol
<b>Analyze:</b> Depending on analytical method, eluent can either be directly injected or diluted with 2-3 parts Mobile Phase A

\* This fraction should be collected and analyzed for neutrals

\*\* We recommend screening with 2x 50  $\mu$ L, however this volume can be scaled down in most cases to 2x 25  $\mu$ L

My Target Analytes Are:	Your Strata-X Microelution Product and Sorbent Chemistry	Part No.
<b>Strong Bases</b> ( $pK_a > 10$ )	<b>Strata-X-CW 33 <math>\mu</math>m Polymeric Weak Cation-Exchange Microelution 96-Well Plate, 2 mg/well</b> Weak Cation-Exchange $\pi$ - $\pi$ Bonding      Hydrophobic Interaction 	8M-S035-4GA
	<b>Strata-X-C 33 <math>\mu</math>m Polymeric Strong Cation-Exchange Microelution 96-Well Plate, 2 mg/well</b> Strong Cation-Exchange $\pi$ - $\pi$ Bonding      Hydrophobic Interaction 	8M-S029-4GA
	<b>Strata-X 33 <math>\mu</math>m Polymeric Reversed Phase Microelution 96-Well Plate, 2 mg/well</b> $\pi$ - $\pi$ Bonding      Hydrogen Bonding Dipole-Dipole Interactions      Hydrophobic Interaction 	8M-S100-4GA
<b>Weak Acids</b> ( $pK_a$ 2-4)	<b>Strata-X-A 33 <math>\mu</math>m Polymeric Strong Anion-Exchange Microelution 96-Well Plate, 2 mg/well</b> Strong Anion-Exchange $\pi$ - $\pi$ Bonding      Hydrophobic Interaction 	8M-S123-4GA
	<b>Strata-X-AW 33 <math>\mu</math>m Polymeric Weak Anion-Exchange Microelution 96-Well Plate, 2 mg/well</b> Weak Anion-Exchange $\pi$ - $\pi$ Bonding      Hydrophobic Interaction 	8M-S038-4GA

## Strata-X Microelution Method Development 96-Well Plates

Part Number	Description	Unit
KSO-9528	<b>Strata-X Peptide Screening Microelution Plate</b> Strata-X-CW 2 mg/well (6 rows) Strata-X-A 2 mg/well (6 rows)	ea
KSO-9529	<b>Strata-X Method Development Microelution Plate</b> Strata-X-C 2 mg/well (3 rows) Strata-X-AW 2 mg/well (3 rows) Strata-X-CW 2 mg/well (3 rows) Strata-X-A 2 mg/well (3 rows)	ea

## Collection Plates (deep well, polypropylene)

Part Number	Description	Unit
AHO-7192	350 $\mu$ L/well, Square	50/pk
AHO-7193	1 mL/well, Square	50/pk
AHO-7279	1 mL/well, Round/Round Bottom, 7 mm	50/pk
AHO-7194	2 mL/well, Square	50/pk
AHO-8635	2 mL/well, Square/Round-Conical Bottom	50/pk
AHO-8636	2 mL/well, Round/Round Bottom, 8 mm	50/pk

## Sealing Mats (silicone)

Part Number	Description	Unit
AHO-8633	Pierceable, 96-Round Well 8 mm	50/pk

## Verex™ Vials

Type	Finish	Material	Total Volume	Residual Volume	Available as
Insert Vial $\mu$ Vial i3 (Qsert)	11 mm Snap or 9-425 Screw Thread	Glass	475 $\mu$ L	< 2 $\mu$ L	Convenience Kits (certified and regular)

Description	100/pk	1000/pk
Vial Kit, Snap, $\mu$ Vial i3 (Qsert), Clear w/ Patch + PTFE/Silicone	ARO-9671-12	ARO-9671-13
Vial Kit, Snap, $\mu$ Vial i3 (Qsert), Clear w/ Patch + PTFE/Silicone, preSlit	ARO-9672-12	ARO-9672-13
Vial Kit, 9 mm, $\mu$ Vial i3 (Qsert) Clear w/ Patch + PTFE/Silicone	ARO-9973-12	ARO-9973-13
Vial Kit, 9 mm, $\mu$ Vial i3 (Qsert) Clear w/ Patch + PTFE/Silicone, preSlit	ARO-9974-12	ARO-9974-13
Cert+ Vial Kit, 9 mm, $\mu$ Vial i3 (Qsert) Clear w/ Patch + PTFE/Silicone, preSlit cap*	ARO-9974-12-C	ARO-9974-13-C

\* Bonded-In Septa

## 96-Well Plate Vacuum Manifold

Part Number	Description	Unit
AHO-8950	96-Well Plate Manifold, Universal w/ vacuum gauge	ea



strata<sup>®</sup>X  
Polymeric SPE

## Easy and Quick Microelution Sorbent Selection for Peptides and Small Molecules

- Test different SPE chemistries using a single 96-well plate
- No dry down required
- Increase sensitivity

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