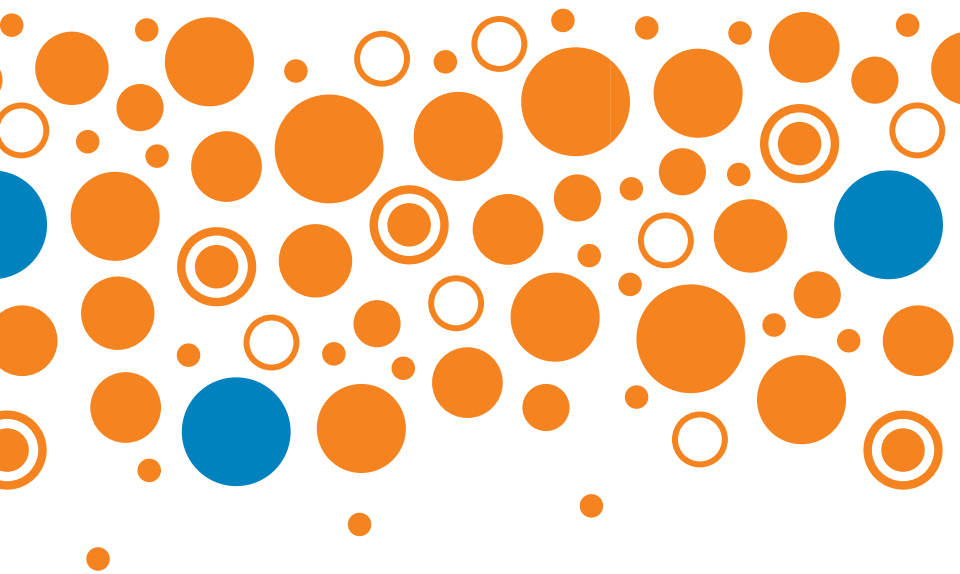




User Guide



PATENT PENDING

www.phenomenex.com/Novum

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General Protocol

1. Sample Pre-treatment

Prior to loading onto the Novum™ SLE sorbent, dilute samples at least 1:1 (v/v) with aqueous buffer to the recommended loading volume (see Recommended Buffers and Loading Volumes below). For example, if 50 µL of sample is available, then 250 µL of diluent would be added if using the MINI 96-well plate. **It is important that target analytes be loaded onto the Novum SLE sorbent in their non-ionized form.**

Recommended Buffers

Acidic Analytes <i>i.e.</i> -COOH	1 % aqueous Formic acid
Neutral Analytes	Water
Basic Analytes <i>i.e.</i> -NH ₂	0.5 M Ammonium hydroxide (NH ₄ OH)

Recommended Loading Volumes

Plus MINI 96-Well Plate	300 µL (sample plus diluent)
Plus MAX 96-Well Plate	400 µL (sample plus diluent)
1 cc Tube	200 µL (sample plus diluent)
3 cc Tube	400 µL (sample plus diluent)
6 cc Tube	1 mL (sample plus diluent)
12 cc Tube	2 mL (sample plus diluent)

The capacity stated is the expected loadability for most samples however it may be possible to load more than the stated capacity without breakthrough of your sample.

2. Load Sample

Place the Novum SLE tube or plate onto a suitable vacuum manifold, ensuring that a collection tube or plate is positioned below the Novum SLE product. Load the diluted sample onto the Novum SLE sorbent. Apply 5" Hg vacuum to initiate loading (approximately 10 seconds however more viscous samples may require more vacuum). Ensure that the sample has completely entered the sorbent bed. Once the sample is completely soaked into the sorbent, wait 5 minutes.

3. Elute

Apply preferred elution solvent to the sorbent and allow it to completely elute from the sorbent via gravity. Some elution solvents, such as hexane, may require vacuum to completely elute from the sorbent bed. Apply 5" Hg vacuum for 10-60 seconds to finish the extraction.

Recommended Elution Solvents

Ethyl Acetate (EtOAc)
Methyl tert-butyl ether (MTBE)
Dichloromethane (methylene chloride or DCM)

Recommended Elution Volumes

MINI 96-Well Plate	1x 1 mL
MAX 96-Well Plate	2x 900 µL
1 cc Tube	2x 600 µL
3 cc Tube	2x 900 µL
6 cc Tube	2x 2.5 mL
12 cc Tube	2x 5 mL

Tip: In most cases, using Ethyl Acetate (EtOAc) as the elution solvent will result in clean extracts with acceptable recoveries.

Access applications, videos, webinars, and more at www.phenomenex.com/Novum

Novum™ SLE Frequently Asked Questions

Moving a Liquid-Liquid Extraction to Simplified Liquid Extraction (SLE)

If you are already performing a liquid-liquid extraction, you may use the same buffers and solvents you are using in your liquid-liquid extraction to perform SLE.

Elution Solvent Selection

In most cases, using ethyl acetate as an elution solvent results in an excellent balance between cleanup and recovery.

If you are using DCM as an elution solvent and see low recovery of target analytes (particularly fluorinated analytes or those that have a negative logP value), recovery may be improved by adding 10-20% Ethyl acetate to the DCM during the elution step.

Elution Volumes

If desired, you may apply multiple aliquots of elution solvent. For example, 3x 600 μ L of elution solvent may be used instead of 2x 900 μ L on the Novum SLE MAX 96-well plate.

Boosting Analyte Recovery

The Novum SLE sorbent relies on mass transfer to help partition target analytes out of the aqueous sample and into the organic elution solvent. See Recommended Loading Volumes in the General Protocol to determine the total load volume (sample plus diluent) for each Novum SLE product.

It may also be possible to boost analyte recoveries by increasing the amount of elution solvent applied to the sorbent.

If vacuum must be applied, it is recommended that the vacuum pressure applied results in drop wise elution of the extraction solvent.

For more information about Phenomenex sample preparation products, visit www.phenomenex.com/sampleprepinfo

Tip



Ordering Information

Novum™ Simplified Liquid Extraction (SLE)

Part No.	Description	Unit
8E-S539-FGA	Novum PRO SLE MINI, 96-Well Plate	1/Box
8E-S539-5GA	Novum PRO SLE MAX, 96-Well Plate	1/Box
8E-S138-FGA	Novum SLE MINI, 96-Well Plate	1/Box
8E-S138-5GA	Novum SLE MAX, 96-Well Plate	1/Box
8B-S138-FAK	Novum SLE 1 cc Tubes	100/pk
8B-S138-5BJ	Novum SLE 3 cc Tubes	50/pk
8B-S138-JCH	Novum SLE 6 cc Tubes	30/pk
8B-S138-KDG	Novum SLE 12 cc Tubes	20/pk



Accessories

Collection Plates (deep well, polypropylene)		Unit
AH0-7192	96-Well Collection Plate, 350 µL/well Conical	50/pk
AH0-7193	96-Well Collection Plate, 1 mL/well Conical	50/pk
AH1-7022	96-Well Collection Plate, 2 mL/well Conical	50/pk
AH0-8636	96-Well Collection Plate, 2 mL Round/Round, 8 mm	50/pk
AH1-7025	96-Well Collection Plate, 1 mL/well Round, 7 mm	50/pk
Sealing Mats		
AH0-8597	Sealing Mats, Pierceable, 96-Square Well, Silicone	50/pk
AH0-8598	Sealing Mats, Pre-Slit, 96-Square Well, Silicone	50/pk
AH0-7362	Sealing Tape Pad	10/pk
Vacuum and Positive Pressure Manifolds		
AH0-8950	96-Well Plate Manifold, Universal with Vacuum Gauge	ea
VM12	12-Position Vacuum Manifold Set	ea
VM24	24-Position Vacuum Manifold Set	ea
AH1-7033	Presston 1000 Positive Pressure Manifold, 96-Well Plate	ea

Phenomenex warrants the Presston 1000 Positive Pressure Manifold against defects in materials and workmanship under normal installation, use, and maintenance for a period of 12 months following delivery. Please visit www.phenomenex.com/presstonwarranty for complete warranty information.

Terms and Conditions

Subject to Phenomenex Standard Terms and Conditions, which may be viewed at www.phenomenex.com/TermsAndConditions.

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Novum is patent pending.

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