

Instructions:

ISOLUTE® SLE+

Supported Liquid Extraction Plates and Columns

This method card provides recommended conditions for using ISOLUTE® SLE+ Supported Liquid Extraction Plates and Columns.

1. Sample Pre-treatment

To promote even flow, biological fluid samples should be diluted 1:1 (v/v) with aqueous buffer prior to loading. For ionizable analytes, extraction efficiencies can be enhanced by the use of pH control to suppress ionization. See reverse QC specifications.

IMPORTANT: Maximum aqueous capacity

ISOLUTE SLE+ Supported Liquid Extraction plates and columns contain sufficient media to analyze volumes shown below. It is important that the total aqueous load volume (biological fluid plus diluent) does not exceed the recommended volume for each product.

Product	Maximum Aqueous Load
ISOLUTE SLE+ 200 Supported Liquid Extraction Plate	200 µL
ISOLUTE SLE+ 400 Supported Liquid Extraction Plate	400 µL
ISOLUTE SLE+ 200 2 mL Array Wells	200 µL
ISOLUTE SLE+ 400 2 mL Array Wells	400 µL
ISOLUTE SLE+ 1 mL Sample Volume	1 mL
ISOLUTE SLE+ 2 mL Sample Volume	2 mL
ISOLUTE SLE+ 5 mL Sample Volume	5 mL
ISOLUTE SLE+ 10 mL Sample Volume	10 mL

2. Sample Load

- Place the ISOLUTE SLE+ Plate on a suitable sample processing manifold, with collection plate in position.
- Apply aqueous sample to each well. Sample may percolate through the frit at this stage.
- Apply vacuum or positive pressure (-15" Hg / -0.5 bar) for 5-15 seconds to initiate loading.
- Sample should be fully loaded within 1 minute, depending on sample viscosity.

Note: There should be no sample breakthrough at the sample load stage. The entire aqueous volume is absorbed onto the support.

3. Sample Soak

Once loaded wait 5 minutes for sample to completely absorb.

4. Analyte Elution

Ensure collection plate is in place.

Some elution solvents (e.g. MTBE) will flow immediately under gravity. Others (e.g. hexane) will require vacuum or positive pressure to complete elution. We recommend the following procedure for all solvents:

Product	Elution
ISOLUTE SLE+ 200 µL 96wp	1 x 1 mL using gravity flow for 5 minutes followed by -15" Hg / 0.5 bar for 2 minutes.
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ISOLUTE SLE+ 400 µL 96wp	2 x 900 µL or 3 x 700 µL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.
ISOLUTE SLE+ 200 µL Array	2 x 600 µL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.
ISOLUTE SLE+ 400 µL Array	3 x 750 µL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.

ISOLUTE SLE+ 1 mL	2 x 2.5 mL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.
ISOLUTE SLE+ 2 mL	2 x 5 mL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.
ISOLUTE SLE+ 5 mL	3 x 8 mL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.
ISOLUTE SLE+ 10 mL	2 x 20 mL using gravity flow for 5 minutes. For maximum recovery apply a vacuum of -15" Hg / -0.5 bar for 2 minutes after each aliquot.

Evaporate and reconstitute as necessary for analysis.

Recommended dilution factor*

To promote even flow we recommend that samples are diluted 1:1 (v/v) with aqueous buffer prior to loading.

**To increase the amount of biological fluid sample loaded, a lower dilution factor may be used. However, samples of increased viscosity may not flow evenly across the plate.*

Additional Information

For enhanced recovery of acidic drugs: Dilute sample (1:1 v/v) with 1% aqueous formic acid to give an approximate plasma pH of 3.2. Mix thoroughly before loading.

For enhanced recovery of basic drugs: Dilute sample (1:1 v/v) with 0.5 M NH₄OH to give an approximate plasma pH of 10.5. Mix thoroughly before loading.

Minimum sample volume: The minimum practical volume of sample per well (i.e. biological fluid and diluent) is 150 µL.

Additional support material: For further method development assistance please download "ISOLUTE SLE+ Method Selection Guide" from www.biotage.com

Ordering Information

Description	Qty.	Part No.
ISOLUTE SLE+ 200 µL Supported Liquid Extraction Plate	1	820-0200-P01
ISOLUTE SLE+ 400 µL Supported Liquid Extraction Plate	1	820-0400-P01
ISOLUTE SLE+ 200 µL Supported Liquid Extraction Array Columns	100	820-0200-T
ISOLUTE SLE+ 400 µL Supported Liquid Extraction Array Columns	100	820-0400-T
ISOLUTE SLE+ 1 mL sample Supported Liquid Extraction Columns, 6 mL cartridge	30	820-0140-C
ISOLUTE SLE+ 2 mL sample Supported Liquid Extraction Column, 15 mL cartridge	20	820-0290-D
ISOLUTE SLE+ 5 mL Supported Liquid Extraction Column, 25 mL cartridge	20	820-0690-E
ISOLUTE SLE+ 10 mL Supported Liquid Extraction Column, 70 mL cartridge	10	820-1420-F

For further information visit

www.biotage.com

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