For Research Use Only. NOT for Use in Diagnostic Procedures.

ISOLUTE® SLE+

Supported Liquid Extraction Plates and Columns

Improve Productivity and Maximize Analyte Recovery

ISOLUTE® SLE+ Supported Liquid Extraction plates and columns combine simplicity with high performance sample preparation. Using the load-wait-elute procedure, ISOLUTE SLE+ provides high analyte recoveries, eliminates emulsion formation and reduces sample preparation time by half.

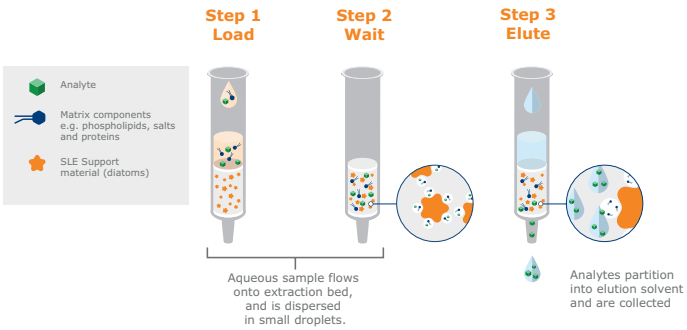

Figure 1. Typical ISOLUTE® SLE+ procedure.

Efficient Extraction

Supported-liquid extraction mechanisms are very efficient, delivering higher analyte recoveries and cleaner extracts than the equivalent LLE method.

No Emulsion Formation

Emulsions cannot form because the sample and water immiscible extraction solvent are never in direct contact, preventing contamination and maximizing analyte recovery.

Easy to Automate

ISOLUTE SLE+ plates and columns provide an easy-toautomate alternative to traditional liquid-liquid extraction. No manual 'off-line' steps (capping/mixing/centrifuge/decapping) required. All procedural steps can be fully automated with no manual intervention necessary.

Higher Productivity

Using 96-well plates, up to 96 samples can be prepared in approximately half the time needed for liquid-liquid extraction as shown in Table 1. Additionally, the rapid methodology, which simply consists of loading sample, waiting 5 minutes and eluting the analytes, reduces sample preparation time regardless of format.

Table 1. Using the Quadra-96™ liquid handling system, standard ISOLUTE® SLE+ generic procedure vs. equivalent LLE procedure.

Technique	Time for Processing 96 Samples
ISOLUTE® SLE+ 12.5 min	12.5 min.
LLE 22.5 min	22.5 min.

Good Flow Characteristics

ISOLUTE SLE+ plates and columns are packed with a highly processed, homogenous form of diatomaceous earth, providing reproducible flow characteristics from sample to sample. Aqueous samples and extraction solvents load evenly, an important feature when using automated sample preparation procedures, where well blockage can lead to loss of valuable samples.

ISOLUTE® SLE+ Extraction Mechanism

When the aqueous biological fluid sample is applied to an ISOLUTE SLE+ column or plate, it spreads over the surface of the support and is absorbed. The analytes remain on the surface of the support forming the interface for the extraction; equivalent to the phase interface in LLE. When the water immiscible extraction solvent is applied, analytes are efficiently desorbed, and the solvent is collected.

Higher Analyte Recoveries

High extraction efficiency and elimination of emulsions provides higher analyte recoveries and lower detection limits compared with LLE as seen in Figure 2.

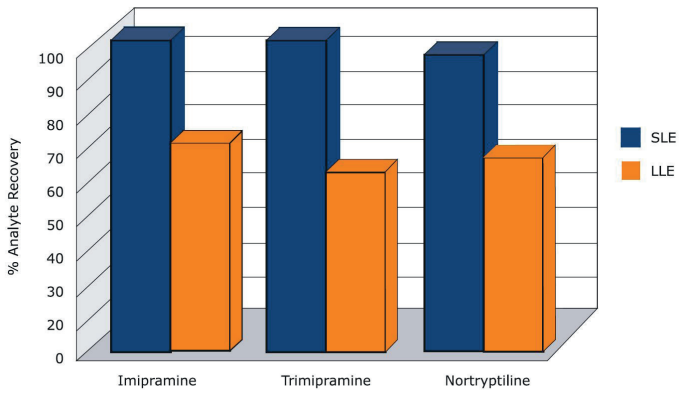

Figure 2. Comparison of analyte recovery by ISOLUTE SLE+ and LLE.

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Transferable Methods

The water immiscible extraction solvents used in LLE can also be used for ISOLUTE® SLE+ procedures. Sample pretreatment conditions are also the same, meaning existing LLE methods are easily transferable to ISOLUTE SLE+.

ISOLUTE SLE+ is available in formats suitable for processing from 200 µL to 10 mL.

ISOLUTE® SLE+ Well Plates and Columns

Part Number	Description	Pack Qty.
820-0200-P01	ISOLUTE SLE+ 200 µL Supported Liquid Extraction Plate	1
820-0400-P01	ISOLUTE SLE+ 400 µL Supported Liquid Extraction Plate	1
820-1000-Q01	ISOLUTE SLE+ 1 mL Supported Liquid Extraction Plate, 48-well	1
820-0200-T	ISOLUTE SLE+ 200 µL Array Wells	100
820-0400-T	ISOLUTE SLE+ 400 µL Array Wells	100
820-0055-B	ISOLUTE SLE+ 400 µL Sample Volume Columns	50
820-0055-B-500	ISOLUTE SLE+ 400 uL Sample Volume Columns, Bulk Pack	500
820-0055-BG	ISOLUTE SLE+ 400 µL Sample Volume Columns (tabless)	50
820-0140-C	ISOLUTE SLE+ 1 mL Sample Volume Columns	30
820-0055-BG-500	ISOLUTE SLE+ 400 uL Sample Volume Columns (tabless), Bulk Pack	500
820-0140-C-1000	ISOLUTE SLE+ 1 mL Sample Volume columns, Bulk Pack	1000
820-0140-CG	ISOLUTE SLE+ 1 mL Sample Volume Columns (tabless)	30
820-0140-CG-1000	ISOLUTE SLE+ 1 mL Sample Volume Columns (tabless), Bulk Pack	1000
820-0290-D	ISOLUTE SLE+ 2 mL Sample Volume Columns	20
820-0290-D-1000	ISOLUTE SLE+ 2 mL Sample Volume columns, Bulk Pack	1000
820-0690-E	ISOLUTE SLE+ 5 mL Sample Volume Columns	20
820-1420-F	ISOLUTE SLE+ 10 mL Sample Volume Columns	16

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