

How to Process ISOLUTE® SLE+ Plates and Columns with Biotage® PRESSURE+ 96 and 48 Positive Pressure Manifolds



Biotage® PRESSURE+ manifolds deliver positive pressure, parallel processing for 96-well plates and column formats. The systems utilize a consistent, uniform flow of positive pressure to move both low and high viscosity liquids through solid phase extraction (SPE) and supported liquid extraction (SLE) plates and columns.

ISOLUTE® SLE+ Supported Liquid Extraction plates and columns offer an efficient alternative to traditional liquid-liquid extraction (LLE) for bioanalytical sample preparation, providing high analyte recoveries, no emulsion formation and greatly matrix effects associated with biofluid analysis.

Processing ISOLUTE® SLE+ Plates on the Biotage® PRESSURE+ 96 Positive Pressure Manifold

1. Before you start, turn the adjustable flow control to zero. It is important that no pressure is in the system when the gasket comes into contact with the plate.
2. Load the collection plate and the ISOLUTE® SLE+ plate onto the tray. Ensure that the extraction and collection plates are correctly aligned.
3. Load aqueous sample onto the extraction plate using a pipette.
4. Slide the tray under the manifold.
5. Lower the manifold onto the plates by pressing the two rocker switches, on either side of the unit, simultaneously for 3 seconds.
6. Turn on the gas supply by turning central flow control switch to the left.
7. Increase pressure using the adjustable flow control to 1–2 psi to initiate sample loading.
8. Once the samples start to load turn off gas supply and reset the adjustable flow to zero.
9. Wait 5 minutes.
10. Lift the manifold and slide the sample tray out. Apply the elution solvent to the plate and wait 5 minutes.
11. Slide the tray back under the manifold.
12. Lower the manifold on to the plates by pressing the 2 rocker switches simultaneously for 3 seconds.
13. Turn on the gas supply by turning the central flow control switch to the left.
14. Increase pressure and initiate flow using the adjustable flow switch, setting pressure at 1–2 psi until the elution solvent begins to flow.
15. Once elution solvent flow has stopped, turn off gas supply and reset adjustable flow to zero.
16. If using multiple elution steps (as is sometimes required with supported liquid extraction procedures depending on sample size and format) repeat steps 10 to 15.

Processing ISOLUTE® SLE+ Columns on the Biotage® PRESSURE+ 48 Positive Pressure Manifold

1. Before you start, turn the adjustable flow control to zero. It is important that no pressure is in the system when the gasket comes into contact with the columns.
2. Load collection tubes and ISOLUTE® SLE+ columns onto the rack.
3. Load aqueous sample onto the column using a pipette.
4. Slide the tray under the manifold.
5. Lower the manifold onto the columns by pressing the 2 rocker switches on either side of the unit simultaneously for 3 seconds.
6. Turn on the gas supply by turning the central flow control switch to the left.
7. Increase pressure using the adjustable flow control to 1–2 psi to initiate sample loading.
8. Once the sample starts to load turn off the gas supply and reset the adjustable flow to zero.
9. Wait 5 minutes.
10. Lift the manifold and slide out of the sample tray. Apply the elution solvent to the columns and wait 5 minutes.
11. Slide the tray back under the manifold.
12. Lower the manifold onto the columns by pressing the 2 rocker switches simultaneously for 3 seconds.
13. Turn on the gas supply by turning the central flow control switch to the left.
14. Increase pressure and initiate flow using the adjustable flow switch, setting pressure at 1–2 psi until elution solvent begins to flow.
15. Once elution solvent flow has stopped, turn off the gas supply and reset adjustable flow to zero.
16. If using multiple elution steps (as is sometimes required with supported liquid extraction procedures depending on sample size and format) repeat steps 10 to 15.

Features and Advantages of the Biotage® PRESSURE+ Positive Pressure Manifold

- » Highly uniform flow from sample to sample for SPE, Protein Precipitation and Supported Liquid Extraction
- » Improved reproducibility, accuracy and extraction efficiency, even with viscous samples
- » Parallel processing for increased sample throughput
- » Easy to set-up and use with just a gas source
- » Universal designs accommodate all 96- and -48 well plates, or 1 mL, 3 mL and 6 mL SPE columns
- » Built-in safety features ensure ease of use and safe operation

Ordering Information

Part Number	Description	Quantity
820-0200-P01	ISOLUTE® SLE+ 200 µL Supported Liquid Extraction Plate	1
820-0400-P01	ISOLUTE® SLE+ 400 µL Supported Liquid Extraction Plate	1
820-0140-C	ISOLUTE® SLE+ 1 mL Sample Volume Columns	30
PPM-96	Biotage® PRESSURE+ 96 Positive Pressure Manifold 96 Well. Includes 1 x 1 mL 96 well collection plate, 1 x 2 mL 96 well collection plate, 1 x 10 mL 24 well collection plate (waste plate), 96- column sealing gasket, gas supply adapter kit (6' of 1/8" i.d. polyethylene tubing and 1/8" and 1/4" NPT connectors), User Manual CD	1
PPM-48	Biotage® PRESSURE+ 48 Positive Pressure Manifold 48 Well. Includes Sealing gasket 48 position, gas supply adapter kit(6' of 1/8" i.d. polyethylene tubing and 1/8" and 1/4" NPT connectors), Waste bin rack, Waste bin inserts, User Manual CD. Racks must be ordered separately.	1

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Literature Number: AN747.V.1

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