PREPLINC

Gel Permeation Chromatography Cleanup Solutions Catalog

2011 Edition

J2 SCIENTIFIC

Automating Sample Preparation with J2 Scientific and the PrepLinc System

At **J2 Scientific** it is our goal to make your sample prep lab operate more efficiently by providing the most cutting edge, robust and cost effective automated equipment on the market. In creating the **PrepLinc™ Platform** we were striving to design a system that is scalable for the growing lab, is as flexible as necessary for the lab that does a bit of everything and is still simple to maintain and operate. We believe the PrepLinc embodies all these things.

With modules available for automating Solid Phase Extraction, Gel Permeation Chromatography Cleanup and Concentration the PrepLinc can take the sample after extraction and process through to analysis. Combine SPE with Concentration, combine GPC Cleanup with SPE, even concentrate a sample between two processes. The combination of these technologies gives the user flexibility and options to significantly decrease sample handling while increasing data quality and productivity. High powered software utilizes the features of each module to make the PrepLinc™ a complete sample prep solution.

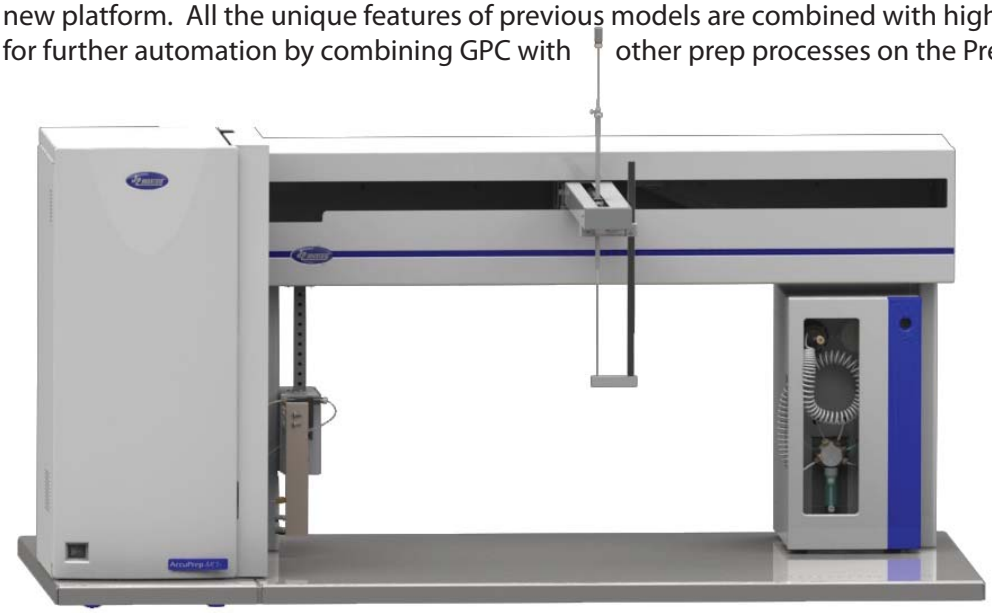
In this catalog you will find the details about our offerings for

Gel Permeation Chromatography Cleanup

For more information about other PrepLinc products ask your sales representative for the following catalogs:

Solid Phase Extraction Solutions
SPE Water Extraction Solutions
Concentration Solutions

The **PrepLinc™ GPC Cleanup System** performs cleanup of a wide range of sample matrices including foods, tissues, grains, plants and environmental samples such as soil, sludge, and hazardous waste. Using our experience with GPC Cleanup, J2 Scientific has perfected it on this new platform. All the unique features of previous models are combined with high-powered software and the ability for further automation by combining GPC with other prep processes on the PrepLinc™.



- Meets guidelines for USEPA, USFDA, USDA, USGS, Centers for Disease Control (CDC), CLP, EN 1528, EN12393, L 00.0034, AOAC, DFG S19 and Canadian Food Inspection Agency (CFIA) Methods for GPC clean-up.
- Integrates with other PrepLinc™ modules for:
  Inline Concentration
  Pre or Post cleanup with SPE
  Dual-purpose GPC & SPE System

Septum Piercing
A standard feature on all PrepLinc™ systems. Allows both sample and collect vials to be capped to eliminate contamination and evaporation.

Direct Inject
Injecting the entire sample onto the column eliminates data factoring and is essential for lowering detection limits

Probe Control
Probe depths that are user programmable and probe Smart Track keep contact with the sample to a minimum. Programmable rinse volumes and solvents eliminate cross-contamination.

GPC Columns
The system is compatible with Traditional Glass columns and high pressure GPC Cleanup columns from many manufacturers.

Tray Options
A variety of sample and collect trays are available. Collecting into the vial you will concentrate in reduces sample transfer and increases recoveries.

Ordering

PrepLinc GPC Cleanup System

PL9000*	**PrepLinc AS4 Autosampler with Fluidics module, Hub control module and probe wash station**
PL9105*	**PrepLinc GPC Cleanup Module, Direct Inject with column-bypass valve;** includes sample loops for 2.5mL and 5.0mL injections
PL9991*	**PrepLinc Software Full License** (Details on Page 4)
PS020X*	Surge Protector, 6-pos, Laboratory Grade, 15 amp
Install*	Onsite Installation & Training
Columns	**See page 5**
Options	**See page 6**
Trays	**See page 7**

*required

PrepLinc Software

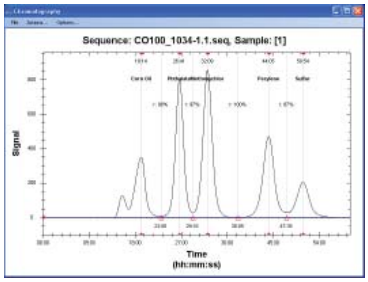
Powerful software is what makes the PrepLinc GPC Cleanup System rise above the competition. A Windows-based program, it is easy to install, operate and update. Programming for all PrepLinc modules is included with the software but you only see information and options specific to the modules installed with your system. Intuitive hardware set-up wizards and common default values make for quick mastery of the software. The ability to save an endless number of methods, sequences and reports makes compliance a snap.

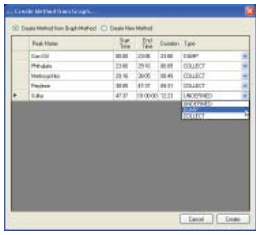
GPC Cleanup Method Editor

A GPC Cleanup method editor that can integrate operation with SPE and AccuVap inline evaporation. A chromatography module that logs column calibrations and method compliance.

Create GPC Method Directly from Calibration File

The powerful PrepLinc™ software gives the user to create a method directly from the GPC Column calibration file. Not only does this save time, but also eliminates method entry errors and that saves samples!





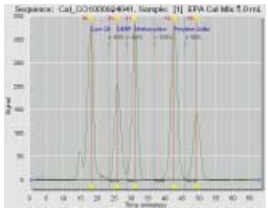
PrepLinc™ Sequence Editor

- Sequences are not limited to one method, one module or one "Linc" method
- User can customize sequence as laboratory flow dictates
- Choose sample and collect tray and location for first sample; sequentially copies for additional samples, but can be edited for unique situations
- Choose priority samples
- Programmable solvent addition/dilution prior to injection
- Use a different pump flow rate during equilibration time
- Dual-pump wash station with user-defined rinses
- Multiple injections can be taken from the same vial for ease in splitting samples
- Re-arrange, add and delete unprocessed samples after run has begun
- Change method and tray information for unprocessed samples after run has begun

GPC Cleanup Columns

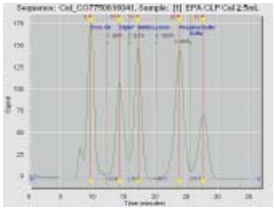
The PrepLinc GPC System houses a solvent pump that works for all GPC Cleanup Column types, even high-pressure prep columns.

Traditional Glass Low-Pressure GPC Cleanup Column



The column referenced in EPA SW-846 Method 3640A. Packed with BioBeads S-X3 resin, the traditional column provides enough resolution to meet CLP requirements. Up to one gram of lipid per sample can be loaded onto the column, making it useful for most matrices. Movable plungers and a simple design make repacking easy and economical. While methylene chloride is the referenced solvent system, others are available for labs trying to limit chlorinated solvent waste.

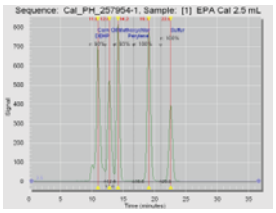
Express™ Performance GPC Cleanup Column



The Express™ column provides a faster run time and less solvent consumption compared to the traditional column. This smaller, repackable column still operates at low pressures. The Express™ column removes the bulk of lipid in fatty matrices prior to GC analysis. Up to 0.5 grams of lipid can be loaded per sample. By reducing time and solvent by one half, the Express™ column makes adding GPC cleanup to the prep routine cost effective.

GPC Cleanup Columns *(continued)*

EnviroSep-ABC High Pressure GPC Cleanup Column



The EnviroSep-ABC high pressure GPC Cleanup column offers faster run time and less solvent usage like the Express™ column, but can be solvent switched for use with many applications. The EnviroSep can separate up to 0.5 grams of lipid per injection.

Ordering Packed Columns

Traditional	Express	Description
CO100	CO775	100 % Methylene Chloride Packed Column
CO101	CO776	Guard Column, 100% Methylene Chloride
CO105	CO780	50/50 Methylene Chloride/Cyclohexane Column
CO110	CO770	70/30 Ethyl Acetate/Cyclopentane Column
CO115	CO785	50/50 Ethyl Acetate/Cyclohexane Column
CO120	*(CO742)*	15/85 Methylene Chloride/Cyclohexane Column
CO125	CO742/CO747	Special Pack, customer defines solvent system
CO130	CO790	50/50 Methylene Chloride/Hexane
(CO125)	CO765	20/80 Acetone/Cyclohexane Column
(CO125)	CO795	70/30 Ethyl Acetate/Cyclohexane Column

EnviroSep-ABC

PH-KIT1	High Efficiency Column Kit, Replacement; includes Prep column, Guard Column and pre-column frit; customer specifies solvent system
PH-KIT2	High Efficiency Column Kit, Full; includes Prep Column, Guard Column, tubimng and pre-column frit assembly; customer specifies solvent system

Ordering Spare Parts

Traditional	Express	Description
CO150	CO740/CO745	Unpacked Column; incl. all fittings & tubing; requires BioBeads
CO151	------	Unpacked Guard Column; incl. all fittings & tubing; requires BioBeads
CO160	CO170	Plunger Assy, incl. all fittings & Tubing; 2 per column
CO636	CO706	Column Bed Support, Threaded; 2 per column
CO637	CO707	Bed Support Frit Lok; 2 per column
CO638	CO708	Washer, Bed Support, PTFE; 2 per column
FR507	FR346	Frit, SS, 20um; 2 per column
CO408A	CO410	O-Ring; 2 per column
CO422A	CO710	Seal, PTFE; 2 per column
CO432A	CO732	Cone, Compression; 2 per column
CO405	CO415	Collar, Flanged; 2 per column
CO300A	CO700	Plunger; 2 per column
CO401/CO402	CO403/CO404	Column Barrel Flanged; 1 per column

CO501	Bed Support Frit Lok Tool; for both Traditional & Express Columns
CO070G	BioBeads, 70 grams
CO060G	BioBeads, 60 grams
ST077-1	CLP GPC Calibration Mix, 0.2-250 mg/mL in 1mL DCM, dilute to 10 mL

GPC Cleanup Options

A019	**5-Column Selector Valve** - Connect up to 5 GPC Cleanup columns to the valve and choose between them in the software. Can use multiple columns in the same sequence if they use the same mobile phase. Or add the 5-Solvent Selector (A026) to use methods that use different columns and solvents in the same sequence.
A026	**5-Solvent Selector Valve** - for use with the 5-Column Selector Valve. Use up to 5 different solvent systems in the same sequence.
PL3801	**High Pressure Pump Option** - for operating pressures up to 5500 psi. Replaces standard pump which operates at pressures up to 2500 psi
SR400X	**Solvent Bottle Level Sensor** - monitors solvent level in the mobile phase bottle and signals the user when level falls below the sensor. If the level is not replenished before the end of the current sample, the system will pause to allow for replenishment before the next sample starts.
Various	**Sample Loops**, GPC Module; standard loops included with system: TB564K2.5SS, TB564K3.5SS, TB564K5-SS, TB564K6SS; other sizes available upon request.

Detectors

DT0002X	UV Detector, 254nm Fixed Wavelength, Semi-Prep, Internal; mounts inside the GPC module chassis to save space and minimize flow path.
DT0003X	UV Detector, 254nm Fixed Wavelength, Semi-Prep, External; locate near the GPC module; cables provided.
DT0006X	UV Detector, Variable Wavelength, 180-940nm, External; located near the GPC module; cables provided.

PrepLinc Trays

The user should select trays to hold sample vials and trays to hold collect vials as required per their method. The autosampler can sample out of or collect into any of the vials that are recommended for the trays listed below. Vials are determined based on the volume of the sample and collect fractions. It can also be helpful to choose a sample tray that holds a vial from the prep process prior to GPC Cleanup and to choose a collect tray that holds a vial that will be used in the next prep process after GPC Cleanup (usually concentration).

Part No.	Description	Vials offered by J2 Scientific
RK1401	Tray, PL, 16mm OD, 60-Position	for use with BV16100T-CS, BV16114-CS and BV16150-CS
RK1402	Tray, PL, 25mm OD, 30-Position	for use with BV25200-PK and BV25140
RK1404	Tray, PL, 38mm OD, 14-Position	for use with BV38200 and BV38140
RK1406	Tray, PL, TurboVap 200mL Tube, 10-Position	for use with BV45817X-Ea
RK1407	Tray, PL, TurboVap 60mL Tube, 24-Position	
RK1408	Tray, PL, 50mL Centrifuge Tube, Tapered, 24-Position	
RK1409	Tray, PL, 60mm OD, 24-Position	for use with BV60140
RK1410	Tray, PL, Boiling Flask, 250mL, 29mm Joint, 6-Position	
RK1411	Tray, PL, Boiling Flask, 1 Liter, 29mm Joint, 4-Position	
RK1412	Tray, PL, Boiling Flask, 1 Liter, 32mm Joint, 4-Position	
RK1413	Tray, PL, Boiling Flask, 250mL, 32mm Joint, 6-Position	
RK1414	Tray, PL, 17mm OD, 65-Position	
RK1415	Tray, PL, Round Bottle, 250mL, 8-Position	for use with BV044
RK1416	Tray, PL, Round Bottle, 125mL, 10-Position	
RK1340	Tray, PL, 40mL ASE/TV Tube, 24-Position	
RK1351	Tray, PL, 1 Liter Bottle, 3-Position	
RK1353	Tray, PL, IChem, 27-Position	for use with BV060
RK1332	Tray & Stand, GC Vial, 36-Position	for use with BV023 and BV023-A
RK1281	Tray & Stand, GC Vial, 72-Position	for use with BV023 and BV023-A

GPC Cleanup Options

Vials/Glassware

BV16100T-CS	Vial,Disposable,Threaded, 16 x 100	Case of 1000
BV16114-CS	Vial, 16x114mm, Tapered	Case of 125
BV16150-CS	Vial, 16x150mm Culture Tube	Case of 1000
BV20125-CS	Sample Vial, 20x125mm	Case of 500
BV25200-PK	Vial, 25 x 200 mm	Pack of 48
BV25140	Vial, 25 x 140 mm, Conical	Each
BV38200	Vial, 38x200mm, Collect	Each
BV38140	Vial, 38 x 140 mm, Conical	Each
BV45817X-EA	TurboVap Tube, 200mL, 1mL tip	Each
BV60140	Vial, 60 x 140 mm, 300mL, Conical	Each
BV044	Bottle, 125 mL, Amber	Pack of 12
BV023	Vial, 2ml, 12 X 32 mm,Snap Ring	Pack of 100
BV023-A	Vial, 2ml, 12x32 mm,Snap, Amber	Pack of 100
BV060	Vial, I-Chem, 60mL	Case of 72
BV1L	Bottle,Glass,1Liter, Safety Coated	Each
BV960mL	Bottle, Boston Round, 960 mL	Case of 12

Caps/Septa

BV016	Cap, Open Top, 16mm, Pack of 144	for use with BV16100T-CS, BV16114-CS, BV16150-CS
BV020	Cap, Open Top, 20mm, Pack of 144	for use with BV20125-CS
BV022	Cap, Snap-On, 2mL, Pack of 100	for use with BV023 & BV023-A
BV026	Cap, Snap-On, Pre-Slit, 2mL, Pack of 100	for use with BV023 & BV023-A
BV015	Septa, PTFE/Silicone, 13mm, Pack of 100	for use with BV016
BV016T-PK	Septa, PTFE Disc, 13mm, Pack of 100	for use with BV016
BV021T-PK	Septa, PTFE Disc, 20mm, Pack of 100	for use with BV020
BV024T-PK	Septa PTFE/Silicone, 24mm Cap, Pack of 100	for BV060 and BV044
BV007	Cap with Probe Hole, 38mm	for use with BV38200 & BV38140
BV008	Cap with Probe Hole, 25mm	for use with BV25200 & BV25140
BV009	Cap with Probe Hole, 60mm	for use with BV60140

Recommended Spare Parts

TB011K	Restrictor, UV Detector, for DT0002X, DT0003X and DT0006X; recommend 1
SP105	Pump Seal Kit, Series 1 Pump; recommend 1
SP101	Inlet Check Valve, Solvent Pump; recommend 1
SP102	Outlet Check Valve, Solvent Pump; recommend 1
PR1137X	Probe, AS4; recommend 1
BV8010	Syringe, 5mL, ZDV, recommend 1

System Options

PC-KT-IPC-01	**Internal PC** for PrepLinc Software Operation; mounts in PrepLinc HUB module to save benchspace; includes a 17" (minimum) flat-panel monitor, keyboard and mouse. Fully networkable.
PC-KT-DPC-01	**Desktop PC** for PrepLinc Software Operation; includes CPU, flat-panel monitor (17" minimum), key board and mouse.
SP600	**Solvent Degasser**, Inline, 4-channel; may be necessary if lab elevation is above 3000ft and/or lab temperature is unstable and reaches temperatures above 70 degrees F.
PL0800	**Accessory Tray**; mounts on top of autosampler to provided additional space for module and solvent bottles.
PS2200X	**Uninterruptible Power Supply** for PrepLinc with Smart Shutdown control, 2200VA, 110V
AK015	**PrepLinc Tubing and Fitting Kit**; a variety of extra supplies for your system
PL-Manuals	**Manual Set**, Hardcopy in binder; Hardware Installation and Software Installation & Operation Users Guides for all PrepLinc Modules and Options. E-copies of manuals are included at no charge.
PL-Toolkit	**User Tool Kit**, set of tools necessary for basic maintenance on any PrepLinc Module

PrepLinc GPC Jr Dual Loop Manual System

The **PrepLinc ™ GPC Jr Dual Loop Manual Gel Permeation Chromatography Cleanup System** meets the needs of labs with few GPC Cleanup samples to process.

This manual version of our popular PrepLinc™ GPC shares many of the features of its big brother! Jr boasts a unique dual-loop design that allows continuous processing without an interruption between samples like most manually loaded systems. By sounding an audible alert, PrepLinc ™ GPC Jr lets the user know when the next sample can be loaded, without interrupting the current sample that is processing.

The PrepLinc ™ GPC Jr is controlled via intuitive software. An integrated PC is included with the system, giving all the benefits of Windows-based software without adding a PC to your bench top. Easy-to-navigate screens, make programming method data simple. Methods are saved for repeated runs. The solvent pump is controlled for flow rate and automatic shut-down at the end of the sample run.

The PrepLinc ™ GPC Jr Dual-Loop GPC Cleanup System is compatible with all standard GPC Cleanup columns, including the traditional low-pressure glass columns and high-pressure stainless steel columns. The Jr version can also be easily upgraded to the standard high-capacity, fully automated PrepLinc™ GPC to grow with your laboratory.

Injection
- Manual injection with syringe.
- 2.5mL or 5.0mL sample loops are standard.
- Loop Over-Fill, Partial Loop or Direct Inject

Solvent Pump
Integrated high-pressure solvent pump.
- 0-2500 psig
- 0 - 9.9 mL/min

UV Detector
An internal fixed wavelength detector is available with a 254nm or 280nm lamp. Or use an existing external detector.

Ordering

PrepLinc GPC Jr Manual GPC System

PL9120	**PrepLinc GPC Jr System; includes internal PC, low pressure pump and column bypass valve.**
PL9992-01	**PrepLinc GPC Jr Software (included)**

Columns **See page 5** **Options** **See page 6**

Instrument Services

Decrease the time to get your system fully integrated into your lab routine and protect your investment long-term with these recommended service from J2 Scientific

Installation/Training	Highly recommended on each automated system; at your site; includes training
Extended Warranty	Extends the standard 1 year manufacturers warranty an extra year
Service Contracts	Protect your investment from year 3 and beyond; includes discounts on parts and onsite labor. Labor at J2 is free!
PM/Service Visit	Pre-purchase Preventive Maintenance visits to ensure your systems performance. Substitue the PM visit for a service call, if necessary.

Call Customer Care for an Quote/Estimate for any of the above.

PrepLinc GPC with AccuVap

Adding an **AccuVap™ Concentration Module** to your PrepLinc™ GPC Cleanup System eliminates the need for a separate bulk evaporation step after collection. Choose from two models: AccuVap™ Inline or AccuVap™ FLX. Both offer concentration of solvent directly from another process (GPC or SPE), but the FLX also allows offline concentration.

Unlike other semi-automated evaporation systems, the AccuVap™ will automatically solvent exchange and quantitatively transfer your sample to a GC vial ready for analysis. Powerful software controls heat and vacuum at every stage of the process to protect analyte recoveries. Programmable heated rinses eliminate carryover.

- Save time and improve results.
- Free up lab technicians and decrease sample handling.
- Adding the AccuVap™ to your PrepLinc™ system will really automate your world!

Evaporation Chamber
Enclosed evaporation chamber with three programmable zones for heat and vacuum.

Vacuum Control
Control vacuum settings for each chamber zone, and for each stage to fine tune evaporation of solvent mixes

Endpoint
Choose momentary dryness or adjustable endpoint as the concentration endpoint. Add a standard or a keeper solution.

Exchanges
Program multiple solvent exchanges, adjusting heat and vacuum as the mix of solvent changes.

Transfer
Transfer portion of sample if quantitated in chamber or entire sample with rinses. Air purge of transfer lines.

See the PrepLinc Concentration Solutions Catalog for Ordering Information

PrepLinc GPC with SPEi Modules

The combination of PrepLinc™ **GPC Cleanup** and **SPEi modules** creates the ultimate sample cleanup and prep system. This configuration gives the user cleanup options for any matrix/analyte situation. The powerful PrepLinc software allows programming for GPC Only, GPC with inline SPE and SPE Only methods.

- S19 / §64 LFGB Method
- Dioxin Cleanup (Method 1613)
- GPC Cleanup collect fraction inline with florisil, silica and alumina SPE columns
- Cleanup with SPE column prior to injecting on GPC column
- GPC Cleanup collect fraction concentrated on AccuVap™ and eluted through an SPE column

Septum Piercing
A standard feature on all PrepLinc™ systems. Allows both sample and collect vials to be capped to eliminate contamination and evaporation.

Direct Inject
Injecting the entire sample onto the column eliminates data factoring and is essential for lowering detection limits

Probe Options
Probe depths that are user programmable and probe Smart Track keep contact with the sample to a minimum. Programmable rinse volumes and solvents eliminate cross-contamination.

Cartridges Compatibility
Uses cartridges from 1 mL to 15 mL, plus many specialty and flash columns.

Positive Pressure
The use of positive pressure sample injection and solvent elutions is precise and repeatable. Pressure monitoring protects samples & equipment.

See the PrepLinc SPE Cleanup Solutions Catalog for Ordering Information

Contact J2 Scientific

For sales information and quotes

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