



# EZ Prep

FLASH AND PREPARATIVE  
HPLC CHROMATOGRAPHY

# COMBIFlash EZ PREP

## Performance Meets Simplicity

### Standard System Features

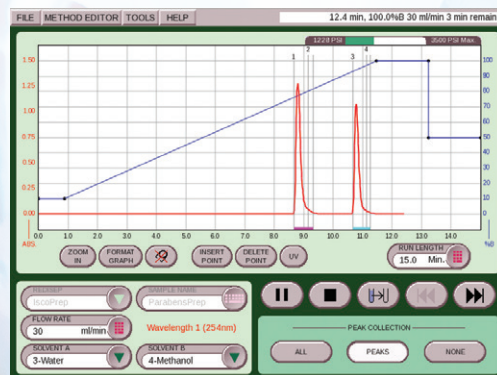
- Up to 3,500 psi (240 bar) and 200 mL/min
- Run Prep HPLC columns up to 50 mm in diameter (including 5 µm particle diameter)
- Flash purification for 10 milligram to 33 grams followed by final compound purification on high performance columns
- UV, UV-Vis, ELSD and MS detection options available
- Switch between normal and reverse phase solvents automatically, without user interaction

The CombiFlash® EZ Prep system from Teledyne ISCO is a dual function purification system that enables the user to perform both Flash and Preparative (Prep) purifications on the same instrument. Eliminating the need for two separate systems, the EZ Prep system provides the flexibility to seamlessly switch between Flash and Prep HPLC modes without compromising performance.

The intuitive user interface of the PeakTrak® software minimizes any learning curve, enabling the user to efficiently complete their purification, saving time and solvent consumption. The simple, single screen control of critical operating parameters and detection modes is finally available in Prep HPLC. PeakTrak software is easy to use, yet powerful enough to offer the control needed to purify compounds. The same PeakTrak software platform for both Flash and Prep HPLC allows anyone, regardless of their Prep HPLC experience, to easily complete a purification.

It's ideal for Flash users who occasionally need the resolving power provided by Prep HPLC and who need the ability to separate a wide range of diverse sample amounts. Meeting varying purity requirements using multiple detection options is something the EZ Prep is well suited for. These multiple detection options include: UV, UV-Vis, ELSD, and MS.

Whether you have a limited budget or limited lab space, the first choice for your purification needs is the EZ Prep.



Get two systems in less space than most single systems

The EZ Prep Flash and Prep HPLC chromatography system easily fits in a fume hood, while delivering the value of two systems.

Start a separation in seconds with our PeakTrak® software

Select a column to load default run, load your sample, and press play. The color coded screen tells you if the system is in Flash or Prep HPLC mode. You can easily change parameters during the run.

Error-free separation with active level sensing

Never run out of solvents, overflow the waste container, or damage Prep HPLC columns.

Achieve greatest purity with Prep HPLC capacity

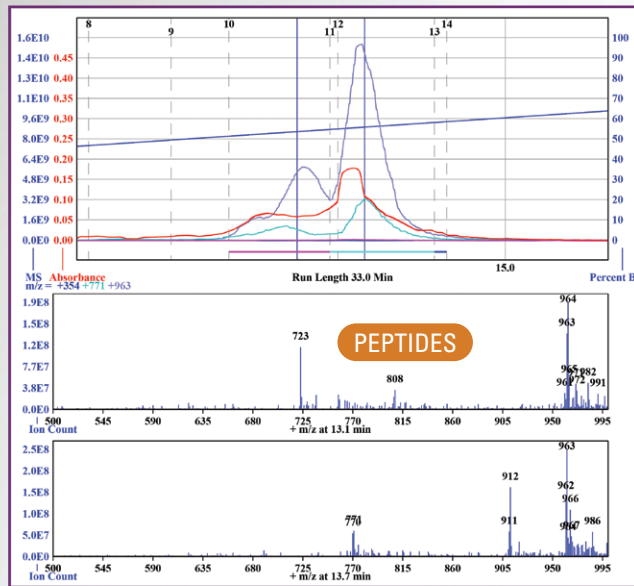
3500 psi pressure and 200 mL/min binary gradient allow you to run diverse types of Flash and Prep HPLC columns. Save time by running any Prep HPLC column faster with greater pressure capability.

Never lose your fraction

As soon as the collection rack is inserted in the system, the RFID (radio-frequency identification) tag instantly identifies the rack. Tagged racks ensure proper tube fill, enable rack exchange during separation, and viewing last run on detected rack.

Ensure safe operation and ideal methods with RFID tagged columns

With RFID Flash columns, PeakTrak automatically loads a proper method and exchanges solvents when needed. Safe operating pressures are set for both Flash and Prep HPLC columns.

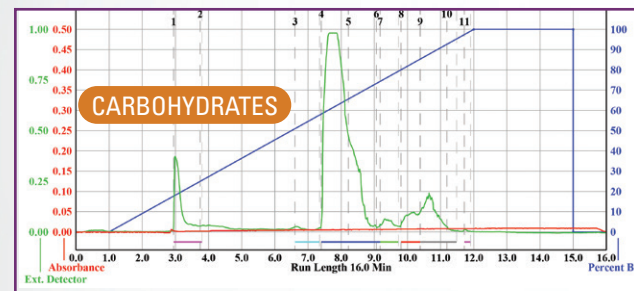


## High-resolution purification for a wide range of applications

The CombiFlash EZ Prep can be used in a variety of applications, including organic synthesis, drug discovery, natural products, food additives, dyes, small molecules, peptides, agrochemicals, inorganic ligands, and other research applications.

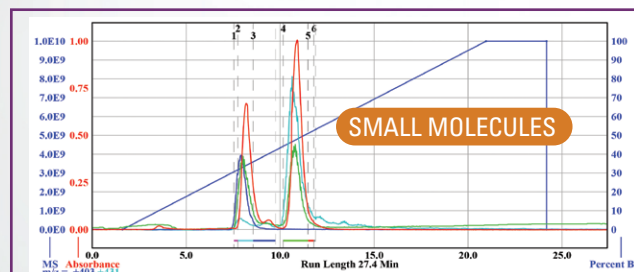
### Peptides

The EZ Prep with RediSep® Prep C8 column separated these peptides to 98% purity based on small differences in their structures. Although both peptides have the same molecular weight, the Purlon mass spectra fragmentation patterns show the compounds are different.



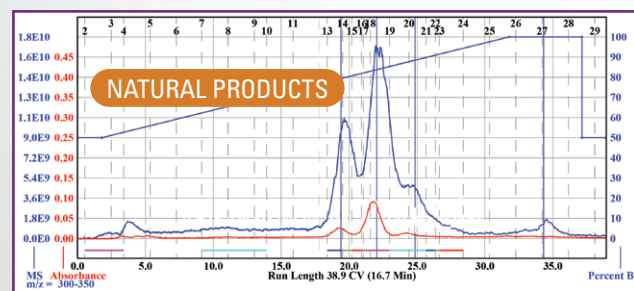
### Carbohydrates

Compounds without chromophores are easily seen with the optional built-in ELSD. Carbohydrates can be purified in either Flash or Prep HPLC mode of the EZ Prep. Refer to chromatography application note (AN80), "Evaporative Light Scattering Detectors as an Alternative Detection Method for Flash Chromatography".



### Small Molecules

Synthesized compounds are easily resolved using a Prep HPLC column with UV, ELSD or mass-directed fractionation, ensuring compounds are not missed. 3500 psi (241 bar) saves time with the ability to increase flow on your Prep HPLC column.



### Natural Products

Crude mixtures of natural products can be isolated with Flash, and a higher purity achieved with Prep HPLC. Capsaicins are purified on the RediSep Prep C18 column from fractions of an alumina Flash column.

For a complete listing of application notes and more information on the notes referenced above, refer to the Liquid Chromatography page of the Teledyne ISCO website, [www.teledyneISCO.com](http://www.teledyneISCO.com).

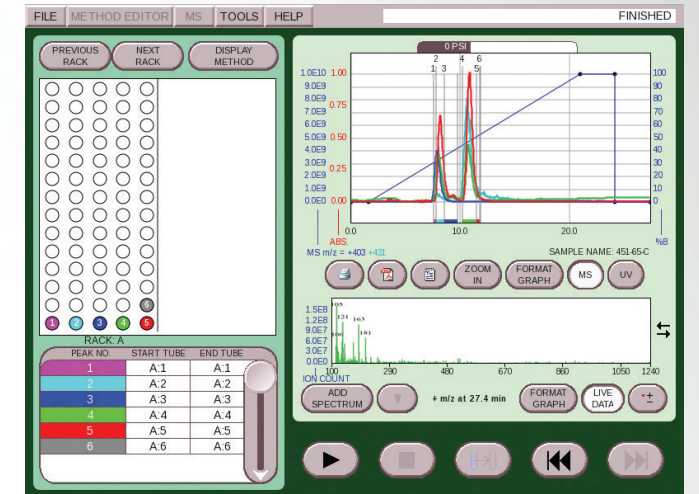
## Detection technology to meet your needs

### Photodiode Array (PDA) Detector (Standard)

- Detect with either UV (200-400 nm) or optional UV-Vis (200-800 nm)
- Fractionate peaks by slope, thresholds, time windows or changes in spectral purity to maximize purity and recovery
- Change sensitivity with multiple flow cells (optional) and PeakTrak gain settings

### Optional ELSD

- Detect compounds with no chromophore
- Integrate ELSD into PeakTrak software for ease of use
- Add to EZ Prep with no increase in footprint



## No Chromophore—No Problem with our ELSD and MS modules!

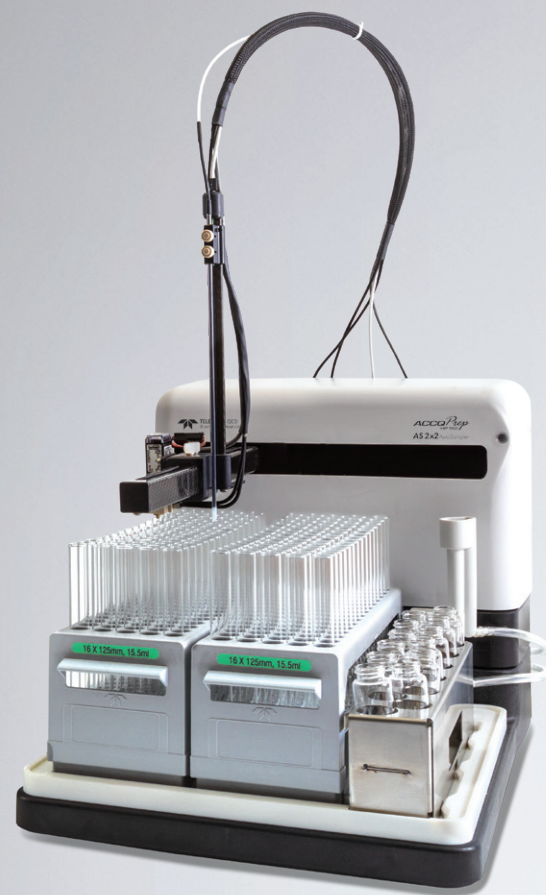
### Mass-Directed Preparative HPLC

The Purlon Mass Spectrometer is fully integrated with Teledyne ISCO's PeakTrak software. The ability to manually inject samples prior to purification and collecting based on mass(es), makes this Mass-directed EZ Prep system ideal for many applications.

- Using the Method Development screen, easily adjust loading and ionization settings before committing your valuable sample for purification.
- Use IonFinder to easily pick out more abundant MS-adducts of your unique compounds.
- Use Terminate on Target to shorten your separation after your desired mass is detected to save solvent and time.
- Collect on up to 4 masses or 3 masses and a mass range



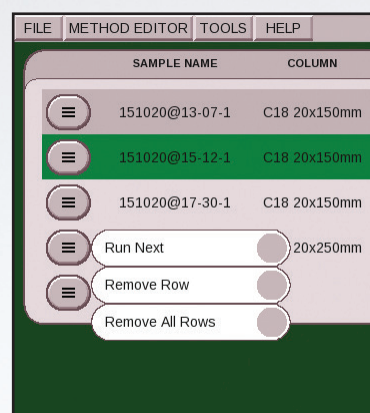
Maximize the throughput and flexibility of your **EZ Prep** system by adding **automation** for longer unattended operation.



### Unlimited rack swapping with AutoSampler

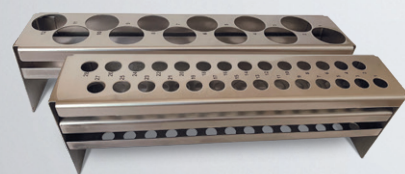
If you have several different samples to purify via Prep HPLC which may require multiple injections and different chromatographic conditions, the AutoSampler is the right product for you. Build a simple sample table in seconds, press start, and let the system do the rest. RFID identification on sample load and collection racks eliminates errors.

- Add new samples to the queue at any time
- The two rack 2x1 AutoSampler options allow different chromatographic conditions to be applied to a variety of different samples and doubles the fraction collection capabilities of the base system.
- Washes the probe between samples to eliminate



### Fraction Collection Racks

Fraction collection racks for the EZ Prep and the AS 2x1 autosampler range from 13 mm test tubes up to 480 mL bottles or unlimited funnel racks. Each rack position can be a different tube size and is immediately recognized by the EZ Prep. New racks can be inserted during a purification queue for endless collection capacity.



### Sample Racks

The 2x1 Autosampler can inject samples from 13 mm test tube or high recovery 28 mm scintillation vials. Reduce the health risk of DMSO and acetonitrile vapors in the lab and keep highly volatile samples from evaporating with capped vials and optional SS piercing probe.

## Accessories for everyday simplicity



### AutoInjector Module

The AutoInjector is designed for the user who needs to make multiple purification runs of the same sample. Simply input the volume of sample you have and the number of injections needed for purification.



### Column Selector Module

Define up to four columns and their respective position in the EZ Prep's configuration screen for fast set up. When you select the column needed for your purification, PeakTrak® switches the column selector valve to the correct position.



### RediSep® Flash Columns

Designed to consistently produce high purity compounds, you'll enjoy fast, easy purification and scale-up from milligram to hundreds of grams.

#### RediSep Gold® Columns

Precision-packed spherical media for high resolution and reproducibility

- 20–40µm Spherical
- Double the Loading
- High Purity
- Greener/Faster Separations

#### RediSep® Silver Columns

Economic alternative for your normal-phase separations

- 40–60µm Irregular
- Market Leader
- Industry Standard
- Reliable/Reproducible

#### RediSep Gold® Reverse Phase Columns

Go green with environmentally friendly solvents and these reusable columns.

- 20–40µm Spherical C18, C18Aq, or C8
- Medium to High-Polarity Compound Separations
- High Polar Compound
- Aqueous/Greener Solvents



## RediSep® Prep HPLC Columns

Maximize Your Preparative HPLC Performance

When you need the highest purity compound, your first choice should be to equip your EZ Prep with RediSep Prep columns.

Teledyne ISCO has built a quality reputation on the high performance of our flash purification columns. RediSep Prep columns are specifically designed for high performance liquid chromatography (Prep HPLC).

#### Features:

- Prep column diameters ranging 10 to 50 mm with lengths of 150 and 250 mm, all in 5 µm media.
- Available matching UPLC (2 x 50 mm, 2.8 µm) and analytical HPLC (4.6 x 150 mm, 5 µm) columns for method development.
- Available stationary phases include bare silica, C18, C18Aq and C8 chemistries. All matching available flash stationary phase chemistries.
- Protect your column investment with our 20 x 30 mm guard columns with matching stationary phase.

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**Teledyne ISCO**

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