

# PROCESS SEPARATIONS

## Foresight™ Prepacked Plates and Columns

- Prepacked, ready-to-use formats designed to save process development time
- Different experimental conditions to better define an operational window can be evaluated
- High-throughput experiments with minimal sample requirements can be performed
- Available in a variety of chromatography resin modes designed for large-scale bioprocess
- Compatible with robotic liquid handling workstations

### Speed and Convenience for Process Developers

#### Product Information

Foresight plates and columns are prepacked with a range of Bio-Rad's process chromatography resin (media), offering process scientists convenience and reliability for their high-throughput (HT) experimentation needs. Their robust design allows process scientists to use the prepacked formats through the entire purification development cycle, from HT resin screening to small-scale method development and scale-up optimization.

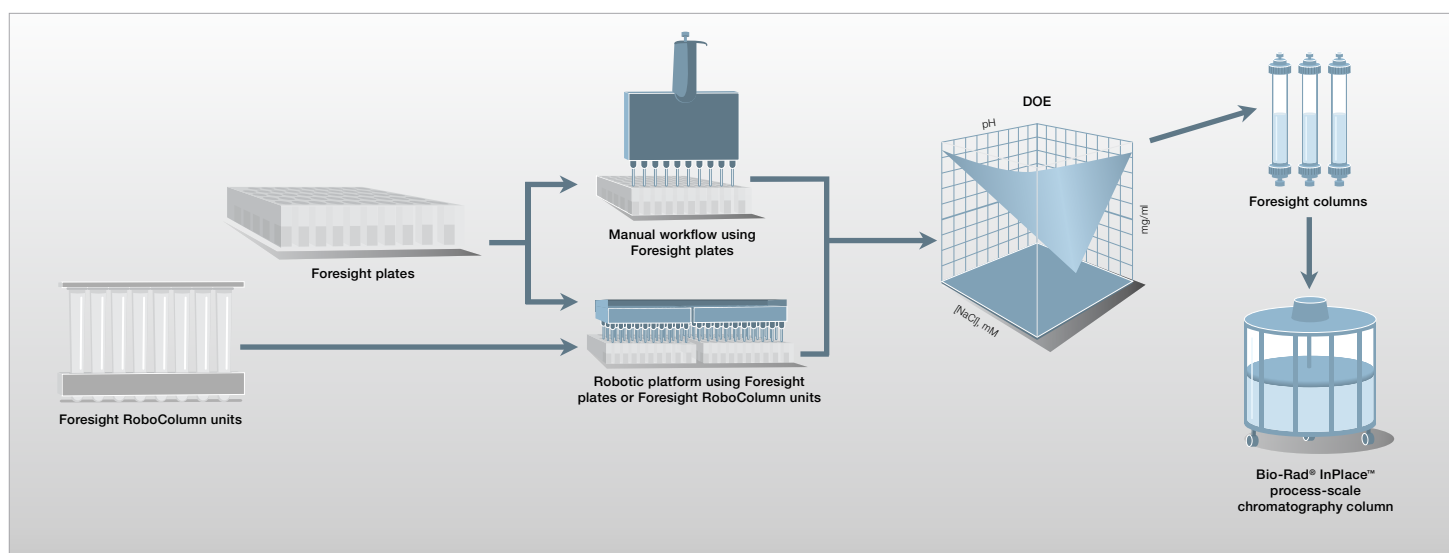
#### Foresight Plates

Foresight plates are 96-well filter plates prepacked with chromatography resin. These plates, with each well pre-filled with 20 µl of resin, can be used for HT evaluation of various binding, elution, or wash conditions for different chromatography resins. Foresight plates can be processed using manual

or automated robotic systems, and sample collection may be achieved through centrifugation or vacuum manifold techniques.

#### Foresight RoboColumn Units

Foresight RoboColumn units are prepacked microcolumns used for HT process development. Their design is fully compatible with robotic liquid handling systems, allowing process developers to perform automated HT parallel resin screening and/or small-scale method development. Foresight RoboColumn units are offered as single rows with each row containing eight columns. They are available in two volumes — 200 µl or 600 µl. Multiple rows up to 12 can be combined to form a 96-column array, allowing users to evaluate various chromatography resins and conditions in parallel.



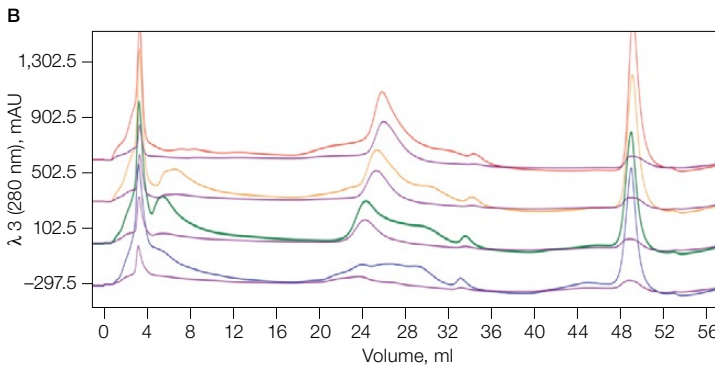
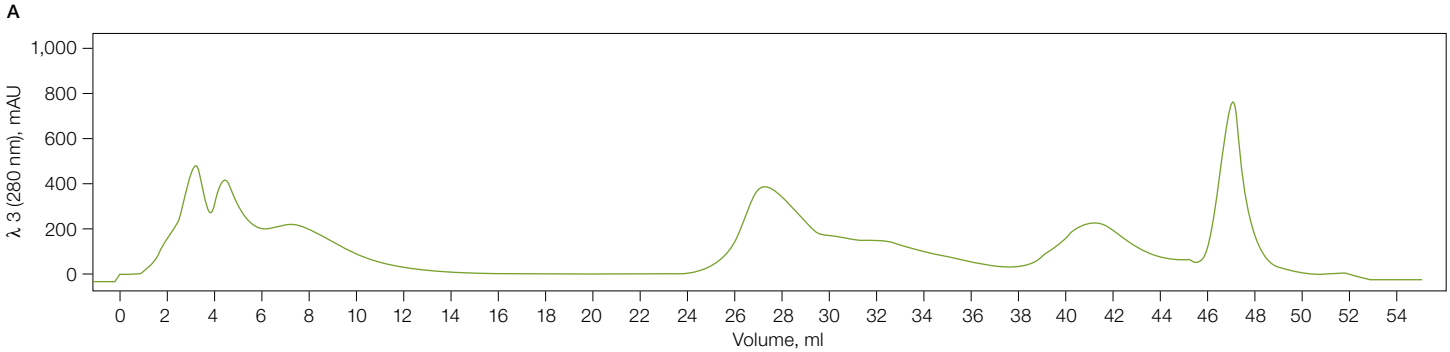
Purification scale-up workflow shows the use of HT screening and design of experiment (DOE) to define an operational window for biomanufacturing.



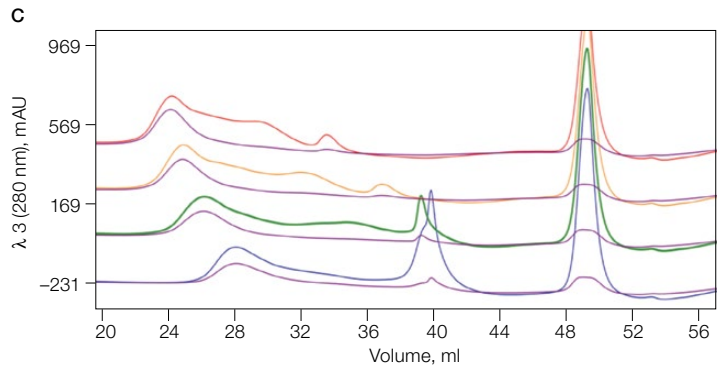
## Foresight Columns

Foresight columns, available in 1-ml or 5-ml formats, may be used for qualitative resin screening experiments and/or method development. Foresight columns have standard HPLC connections, which make them compatible with the NGC™ chromatography

systems and other liquid chromatography systems. These columns are ideal for confirming the operational window obtained through DOE in trials with Foresight plates and/or Foresight RoboColumn units.



■ λ 3 (280 nm) – pH 7.0      ■ λ 4 (525 nm) – pH 7.0  
■ λ 3 (280 nm) – pH 7.5      ■ λ 4 (525 nm) – pH 7.5  
■ λ 3 (280 nm) – pH 8.0      ■ λ 4 (525 nm) – pH 8.0  
■ λ 3 (280 nm) – pH 8.5      ■ λ 4 (525 nm) – pH 8.5



■ λ 3 (280 nm) – final %B 20      ■ λ 4 (525 nm) – final %B 20  
■ λ 3 (280 nm) – final %B 30      ■ λ 4 (525 nm) – final %B 30  
■ λ 3 (280 nm) – final %B 40      ■ λ 4 (525 nm) – final %B 40  
■ λ 3 (280 nm) – final %B 50      ■ λ 4 (525 nm) – final %B 50

**Foresight™ Nuvia™ Q column scouting.** **A**, chromatogram trace of a recombinant protein (rProtein) on Nuvia Q resin at 280 nm absorbance. **B**, offset chromatogram overlays of rProtein pH scouting runs. Total protein, 280 nm traces of pH 7.0 (■), 7.5 (■), 8.0 (■), and 8.5 (■) are overlaid with the rProtein absorbance trace at 525 nm (■). **C**, offset chromatogram overlays of rProtein %B scouting runs. Total protein, 280 nm traces of the 20 CV gradient elution to a final %B of 20% (■), 30% (■), 40% (■), and 50% (■) are overlaid with the rProtein absorbance trace at 525 nm (■).

## Applications and Regulatory Support

Regulatory support files and application notes are available upon request. Bio-Rad Laboratories is an ISO 9001 registered corporation.

## Chromatography Resin Available in Foresight Formats

Chromatography Resin	Mode
UNOsphere™ Q	Strong anion
UNOsphere S	Strong cation
UNOsphere Rapid S	Strong cation
UNOsphere SUPrA™	Affinity: recombinant protein A
Nuvia Q	Strong anion
Nuvia HR-S	High resolution, strong cation
Nuvia S	Strong cation
Nuvia™ cPrime™	Mixed-mode Hydrophobic: cationic
CHT™ Type I – 40 µm particle size	Mixed-mode Metal affinity: cationic
CHT Type II – 40 µm particle size	Mixed-mode Metal affinity: cationic
MPC™ Type I – 40 µm particle size	Mixed-mode Metal affinity: cationic

For more information about prepacked columns and plates, please visit [bio-rad.com/foresight](http://bio-rad.com/foresight)

## Ordering Information

Catalog # Description

### Foresight Plates\*

732-4714	Foresight UNOsphere Q Plates, 20 µl
732-4710	Foresight UNOsphere S Plates, 20 µl
732-4712	Foresight UNOsphere Rapid S Plates, 20 µl
732-4709	Foresight UNOsphere SUPrA Plates, 20 µl
732-4703	Foresight Nuvia Q Plates, 20 µl
732-4707	Foresight Nuvia HR-S Plates, 20 µl
732-4701	Foresight Nuvia S Plates, 20 µl
732-4705	Foresight Nuvia cPrime Plates, 20 µl
732-4716	Foresight CHT Type I Plates, 40 µm, 20 µl
732-4718	Foresight CHT Type II Plates, 40 µm, 20 µl
732-4785	Foresight MPC Type I Plates, 40 µm, 20 µl

### Foresight RoboColumn Units\*\*

732-4819	Foresight UNOsphere Q RoboColumn Units, 200 µl
732-4820	Foresight UNOsphere Q RoboColumn Units, 600 µl
732-4813	Foresight UNOsphere S RoboColumn Units, 200 µl
732-4814	Foresight UNOsphere S RoboColumn Units, 600 µl
732-4816	Foresight UNOsphere Rapid S RoboColumn Units, 200 µl
732-4817	Foresight UNOsphere Rapid S RoboColumn Units, 600 µl
732-4834	Foresight UNOsphere SUPrA RoboColumn Units, 200 µl
732-4835	Foresight UNOsphere SUPrA RoboColumn Units, 600 µl
732-4804	Foresight Nuvia Q RoboColumn Units, 200 µl
732-4805	Foresight Nuvia Q RoboColumn Units, 600 µl
732-4831	Foresight Nuvia HR-S RoboColumn Units, 200 µl
732-4832	Foresight Nuvia HR-S RoboColumn Units, 600 µl
732-4801	Foresight Nuvia S RoboColumn Units, 200 µl
732-4802	Foresight Nuvia S RoboColumn Units, 600 µl
732-4807	Foresight Nuvia cPrime RoboColumn Units, 200 µl
732-4808	Foresight Nuvia cPrime RoboColumn Units, 600 µl
732-4822	Foresight CHT Type I RoboColumn Units, 40 µm, 200 µl
732-4823	Foresight CHT Type I RoboColumn Units, 40 µm, 600 µl
732-4825	Foresight CHT Type II RoboColumn Units, 40 µm, 200 µl
732-4826	Foresight CHT Type II RoboColumn Units, 40 µm, 600 µl
732-4828	Foresight MPC Type I RoboColumn Units, 40 µm, 200 µl
732-4829	Foresight MPC Type I RoboColumn Units, 40 µm, 600 µl

### Foresight Columns

732-4732	Foresight UNOsphere Q Column, 1 ml
732-4752	Foresight UNOsphere Q Column, 5 ml
732-4730	Foresight UNOsphere S Column, 1 ml
732-4750	Foresight UNOsphere S Column, 5 ml
732-4731	Foresight UNOsphere Rapid S Column, 1 ml
732-4751	Foresight UNOsphere Rapid S Column, 5 ml
732-4729	Foresight UNOsphere SUPrA Column, 1 ml
732-4749	Foresight UNOsphere SUPrA Column, 5 ml
732-4721	Foresight Nuvia Q Column, 1 ml
732-4741	Foresight Nuvia Q Column, 5 ml
732-4723	Foresight Nuvia HR-S Column, 1 ml
732-4743	Foresight Nuvia HR-S Column, 5 ml
732-4720	Foresight Nuvia S Column, 1 ml
732-4740	Foresight Nuvia S Column, 5 ml
732-4722	Foresight Nuvia cPrime Column, 1 ml
732-4742	Foresight Nuvia cPrime Column, 5 ml
732-4735	Foresight CHT Type I Column, 40 µm, 1 ml
732-4755	Foresight CHT Type I Column, 40 µm, 5 ml
732-4736	Foresight CHT Type II Column, 40 µm, 1 ml
732-4756	Foresight CHT Type II Column, 40 µm, 5 ml
732-4737	Foresight MPC Type I Column, 40 µm, 1 ml
732-4757	Foresight MPC Type I Column, 40 µm, 5 ml

\* Package size: 2 x 96-well plates.

\*\* Package size: one row of eight columns.



### NGC Medium-Pressure Chromatography Systems and Modules

788-0001	NGC Quest™ 10 System
788-0003	NGC Quest 10 Plus System, 10 ml/min
788-4004	NGC Sample Pump 100 Module, 100 ml/min
788-4006	NGC Inlet Valve Module
788-4012	NGC Column Switching Valve Module, 10 ml
788-4011	NGC pH Valve Module
788-4010	NGC Buffer Blending Valve Module
788-5017	NGC Air Sensor Module
788-5063	NGC Scout™ Upgrade Kit
788-5064	NGC Discover™ Upgrade Kit



RoboColumn is a trademark of Atoll GmbH.



**Bio-Rad  
Laboratories, Inc.**

*Life Science  
Group*

**Web site** [www.bio-rad.com](http://www.bio-rad.com) **USA** 800 424 6723 **Australia** 61 2 9914 2800 **Austria** 01 877 89 01 **Belgium** 09 385 55 11 **Brazil** 55 11 3065 7550  
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