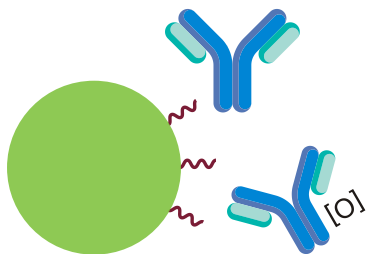
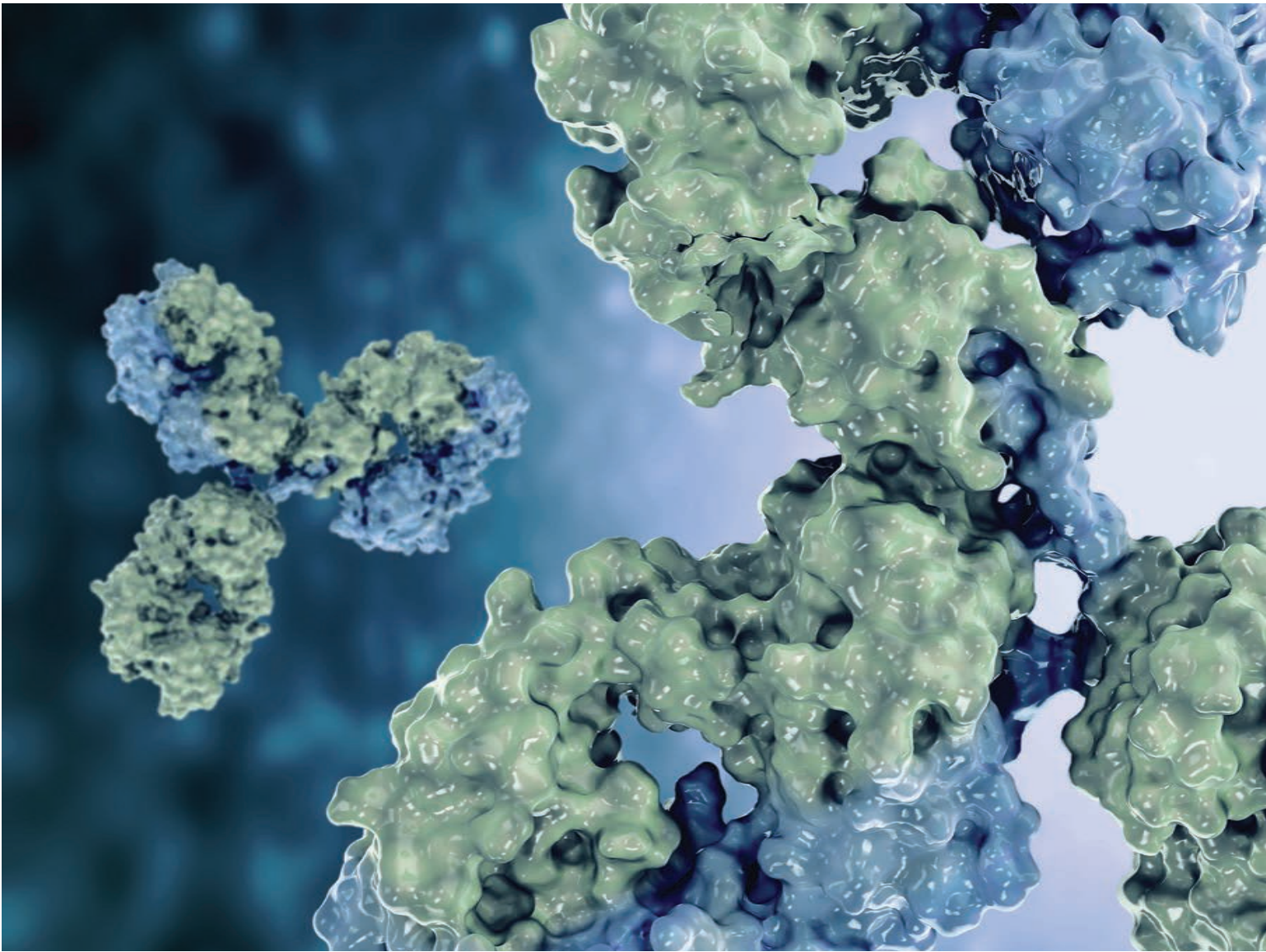


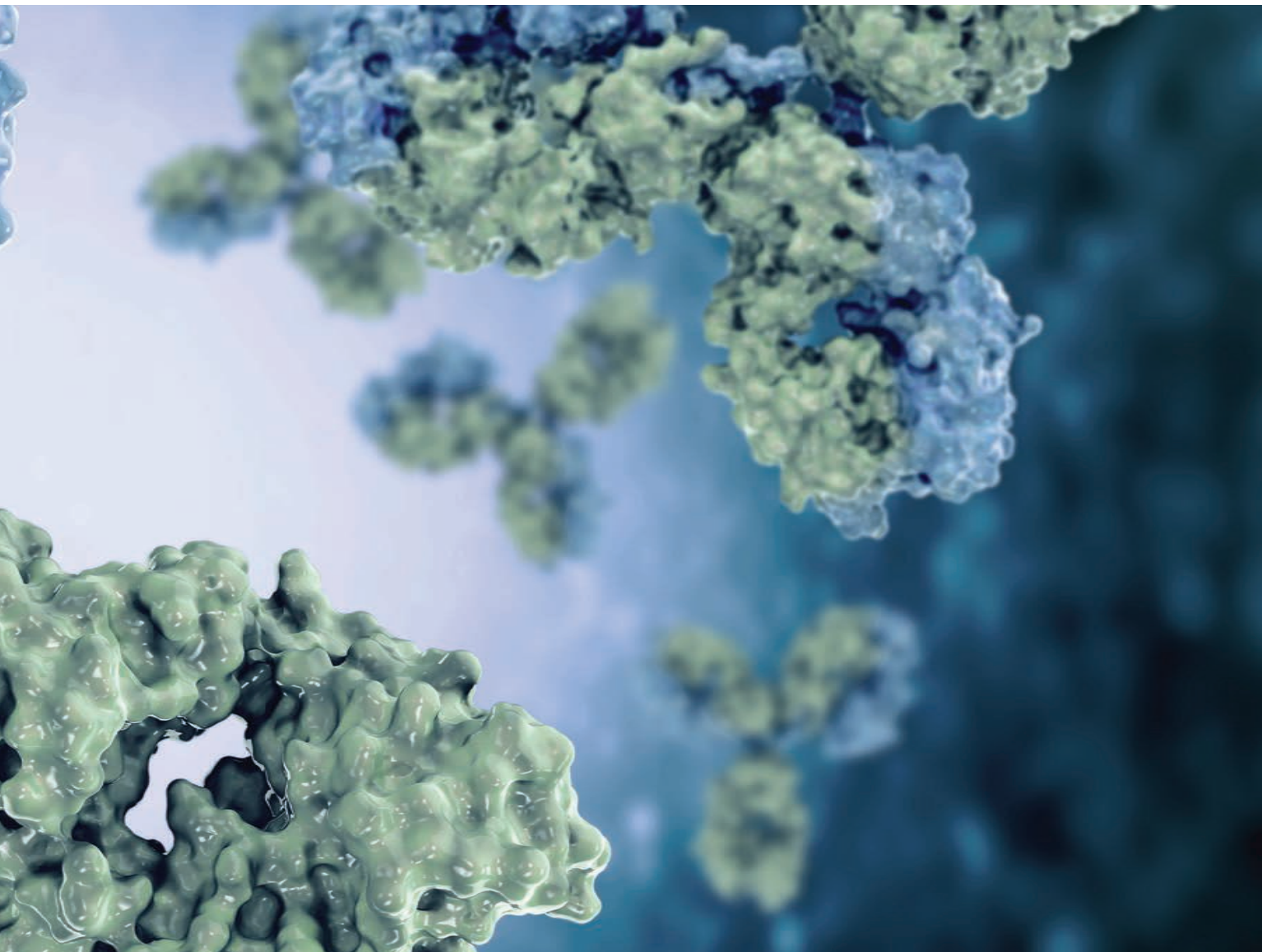
Robust Hydrophobic Interaction Chromatography of Intact Native Proteins

Agilent AdvanceBio HIC columns





Designed to Address the Separation of Challenging Biomolecules

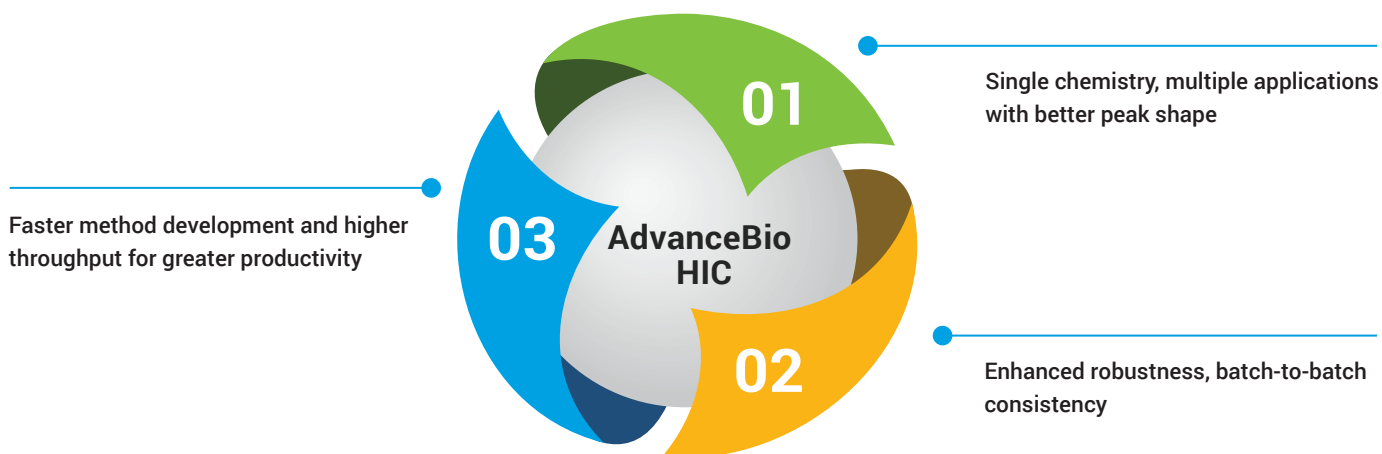


Hydrophobic interaction chromatography (HIC) is an invaluable tool for separating protein variants based on subtle differences in hydrophobicity. Unlike reversed-phase chromatography, which is performed under denaturing conditions, HIC is performed in aqueous eluents containing just salt and buffer, which keeps the protein in its native state.

That's what makes the latest addition to the AdvanceBio family so special.

High Performance Separations of Critical Quality Attributes (CQAs) of Native Proteins at the Intact Level

We developed this HIC column to address particularly challenging molecules, such as monoclonal antibodies (mAbs), antibody drug conjugates (ADCs), and other recombinant proteins.



Single chemistry

- Proprietary bonding technology eliminates the need for multiple column screening
- Optimized chemistry to provide better peak shape with lower back pressure

Enhanced robustness

- Stabilized chemistry process optimization
- Designed to provide consistent performance
- Improved column lifetime
- Tested to ensure packing efficiency

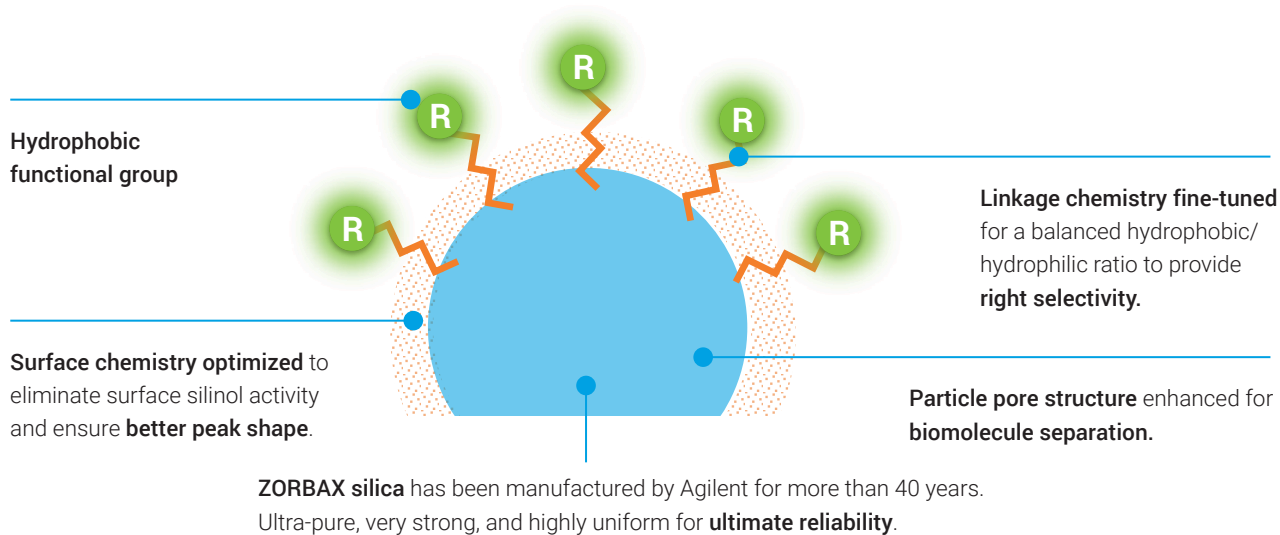
Greater productivity

- Faster analysis without compromising performance
- Short column length reduces overall analysis time
- Every batch of columns tested with NIST mAb standard for quality and dependability

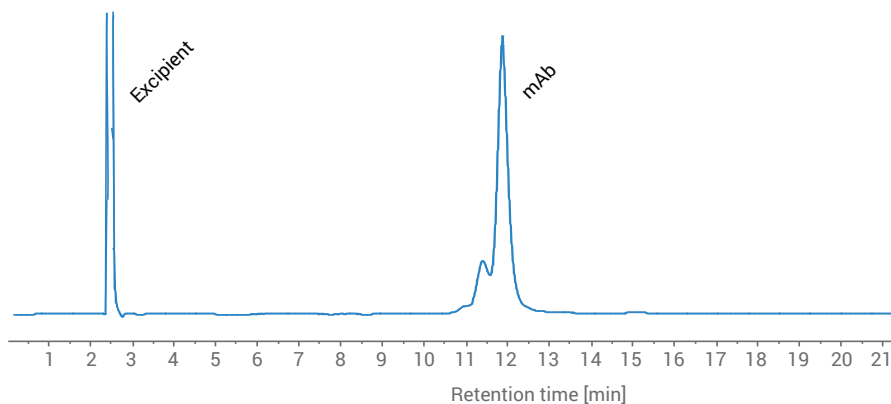
Single Chemistry, Multiple Applications

Built using the capabilities of the ZORBAX fully porous particles and proprietary bonding technology, the 450 Å pore size, 3.5 µm AdvanceBio HIC columns provide new levels of hydrophobicity and resolution.

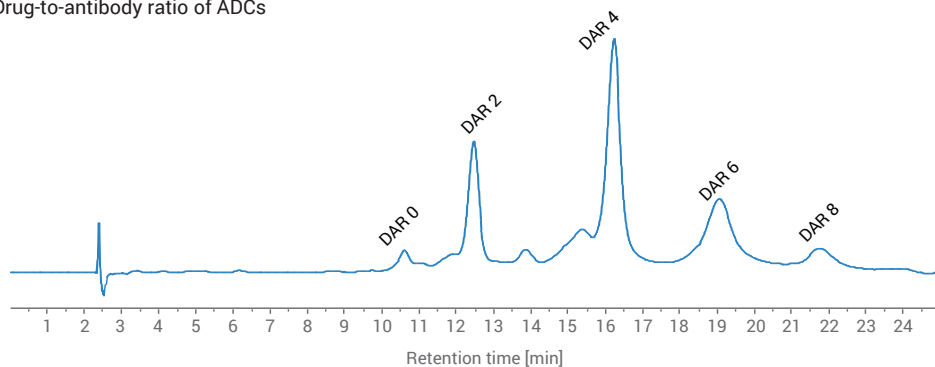
Novel hydrophobic interaction chemistry optimized to ensure best selectivity and robustness



Separation of an mAb and its oxidized variant



Drug-to-antibody ratio of ADCs



Enhanced Robustness to Meet Your Quality Control Needs



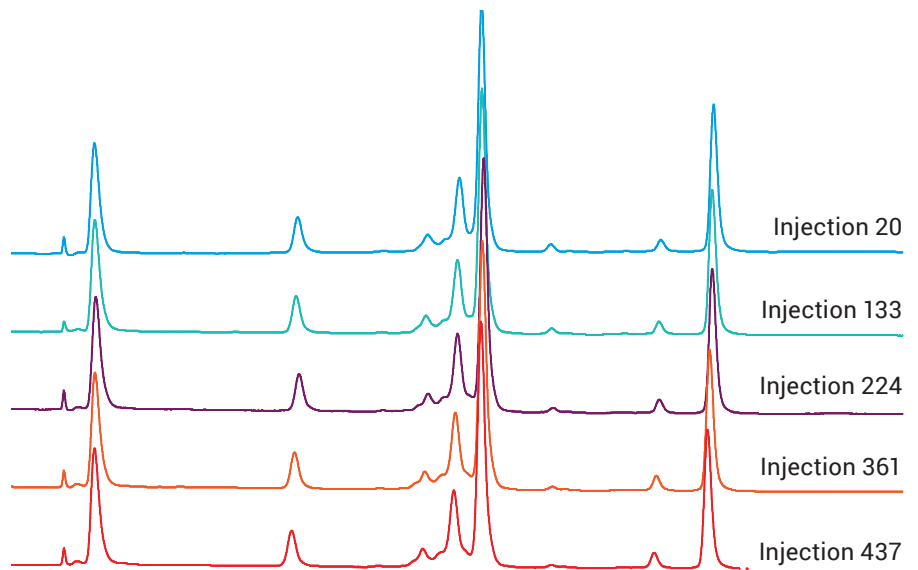
Manufactured by Agilent to deliver robust separations

Agilent research scientists design robustness into each stage of the column manufacturing process—particle design, bonding, and column packing. Testing is performed throughout the production process and final product QC ensures that each batch of media and each column produced will meet the stringent requirements of your analysis.



Run-to-run reproducibility

Consistent performance with excellent injection-to-injection reproducibility for over 400 injections



Batch-to-batch quality control

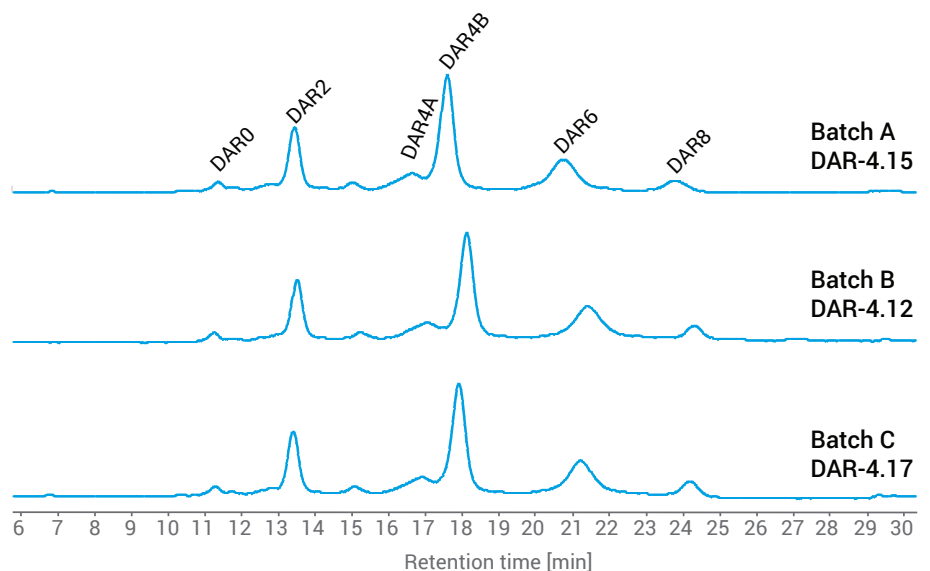
Proven performance, as every batch of media is tested with NIST mAb standard for quality and dependability

	Tailing factor	Peak width	RT ratio
Batch 1	1.04	0.390	1.959
Batch 2	1.04	0.379	1.891
Batch 3	1.08	0.402	1.866
Batch 4	1.10	0.403	1.859
Batch 5	1.01	0.406	1.792
% RSD	3.40	2.85	3.22

Note: RT ratio = IgG antibody/chymotrypsin tailing factor and peak width measured for IgG antibody

Application workflow

Combining Agilent's columns and consumables with our data analysis software and bio-inert instrumentation ensures ultimate performance



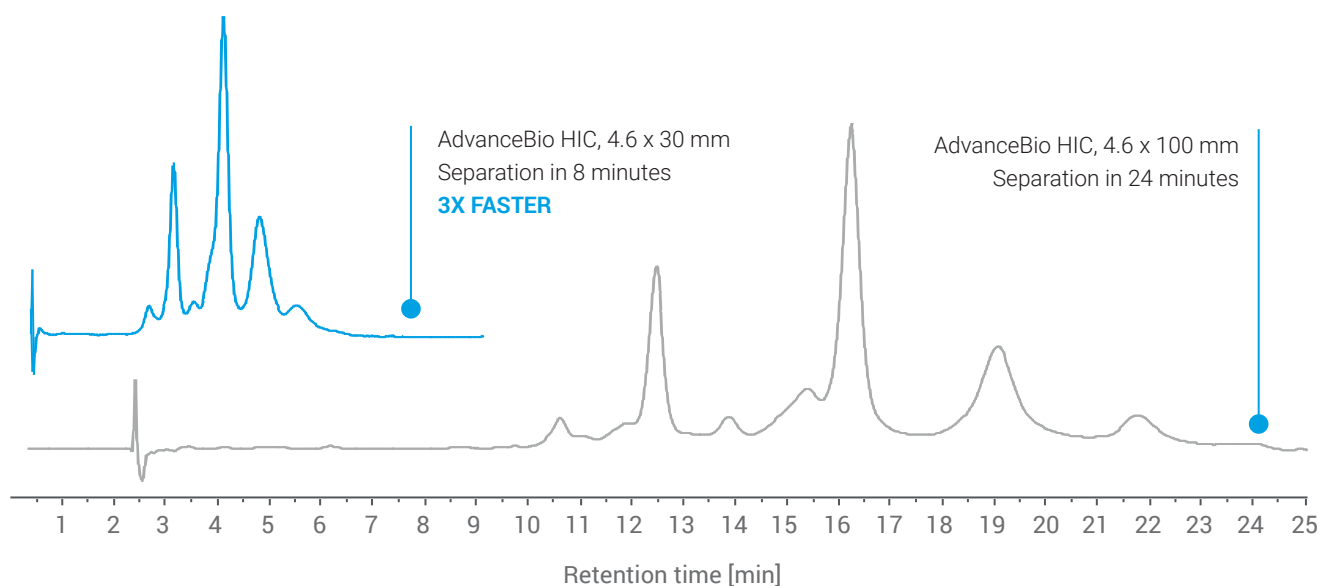
Greater Productivity



Column options to meet your analytical needs

Whether you are working in a fast-paced laboratory where your goal is to deliver data in time for those critical decisions to be made... or in a regulated laboratory where you use validated methods to always deliver precise data, there is an AdvanceBio HIC column that is right for you. Two column lengths are available: 100 mm for routine analytics and 30 mm for faster results.

Increase throughput with faster separations of ADCs



Column:	AdvanceBio HIC, 4.6 x 30 mm				AdvanceBio HIC, 4.6 x 100 mm				Instrument:	Agilent 1260 Infinity II Bio-inert LC System
Gradient:	Time (min)	%A	%B	%C	Time (min)	%A	%B	%C	Software:	Agilent OpenLab CDS
	0	50	45	5	0	50	45	5	Flow rate:	1.0 mL/min, 0.5 mL/min
	5	0	75	25	20	0	75	25	Eluent A:	2 M ammonium sulfate, 50 mM sodium phosphate, pH 7.0
	10	0	75	25	25	0	75	25	Eluent B:	50 mM sodium phosphate, pH 7.0
	15	50	45	5	30	50	45	5	Eluent C:	propan-2-ol
	20	50	45	5	40	50	45	5	Temperature:	30 °C
									Injection volume:	5 µL
									Detection:	UV, 220 nm

AdvanceBio HIC

Single chemistry

- Fewer columns
- Less screening

Robust chemistry

- Reduced batch-to-batch variability
- Right selectivity

Faster run times

- Increased throughput
- Lower costs

Longer column lifetime

- Less downtime
- Less revalidation

Ordering information

Agilent AdvanceBio HIC columns

Description	Part number
AdvanceBio HIC, 4.6 x 100 mm, 450 Å, 3.5 µm	685975-908
AdvanceBio HIC, 4.6 x 30 mm, 450 Å, 3.5 µm	681975-908

Learn more at

www.agilent.com/chem/advancebio-hic and look for the AdvanceBio HIC columns Quick Start Guide.





Complete Solutions

The Agilent InfinityLab family

AdvanceBio columns are part of the Agilent InfinityLab family—an optimized portfolio of liquid chromatography instruments, mass selective detectors, columns, and supplies designed to work together in perfect harmony.

InfinityLab products, combined with Agilent OpenLab software and Agilent CrossLab services, provide you with end-to-end solutions that make every day more productive.

InfinityLab instruments, columns, and supplies

The Agilent InfinityLab Bio-inert LC Solution combines with Agilent AdvanceBio columns (part of the InfinityLab family) to give you unmatched bioseparation power. Agilent InfinityLab Bio-inert supplies complete this solution for optimal performance and highest efficiency in your biomolecule analysis.

Learn more about the Agilent workflow or intact protein analysis

Agilent provides the systems, software, services, and supplies to give you complete confidence in the data you generate and to meet the deadlines of a rapidly moving marketplace.

For more information go to: www.agilent.com/chem/infinitylab



Services and support

Agilent CrossLab, the world leader in innovative laboratory services, software, and consumables, delivering vital, actionable insights to drive improved economic, operational, and scientific outcomes.

For more information go to: www.agilent.com/crosslab



Software and informatics

Controlled through Agilent OpenLab software, InfinityLab LC Series instruments support your efforts to optimize your bio-analysis LC workflows by reducing the time you spend on data processing, review, and reporting.

For more information go to: www.agilent.com/chem/openlab



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