

Be Agilent Sure in Your CQA Monitoring

Understanding the attributes of a biologic drug—and the processes used to create it—is critical to ensuring safety, efficacy, and pharmacokinetics. Agilent AdvanceBio columns deliver results you can be sure of when analyzing highly complex biotherapeutic molecules and monitoring their purity, potency, and other critical quality attributes (CQA).

Titer Determination

Affinity chromatography

Ideal for mAb titer determination during process development

BioMonolith Protein A and BioMonolith Protein G

Native Protein A or Protein G

Attribute	Advantage
Fast separation	Shorter method development times
High binding capacity	Greater application flexibility
Minimal clogging	Less system down time

Glycan Analysis

Hydrophilic interaction chromatography

Fast, high-resolution, reproducible glycan separation

AdvanceBio Glycan Mapping

An amide HILIC column

Attribute	Advantage
2.7 µm superficially porous particle	High resolution at low back pressure
1.8 µm totally porous particles	Maximum resolution
Fluorescence and MS compatible	Easy method transfer

Charge Variant Analysis

Ion exchange chromatography

Enhances the accuracy and speed of biomolecule characterization

Bio MAb

Ideal for monoclonal antibodies

Attribute	Advantage
Rigid, non-porous particles	High-efficiency separations
Hydrophilic, polymeric layer	Eliminates non-specific binding
High density WCX chemistry	High ion exchange capacity ideal for MABs

Bio IEX

Ideal for proteins and peptides

Attribute	Advantage
Rigid particles with hydrophilic coating	Eliminates non-specific binding
Strong/weak anion, cation chemistries	A column for every separation

Amino Acid and Cell Culture Analysis

Small molecule chromatography (<150 Å)

Delivers robust, high-resolution separations

AdvanceBio Amino Acid Analysis (AAA)

LC/UV or LC/FLD with sample derivatization

Attribute	Advantage
Exceptional resolution	More reliable results
High pH-resistant C18 stationary phase	Longer column lifetimes
HPLC and UHPLC compatible	Increased flexibility

AdvanceBio MS Spent Media

LC/MS without sample derivatization

Attribute	Advantage
HILIC LC separation/MS detection	One method for multiple metabolite classes
No sample derivatization needed	Use any LC/MS system
PEEK-lined stainless steel column hardware	Excellent peak shape and recovery

Peptide Mapping

Reversed-phase chromatography (<150 Å)

Reliably characterizes primary sequence and detects PTMs

AdvanceBio Peptide Mapping

Protein identification and PTM analysis

Attribute	Advantage
Endcapped C18 bonded phase	Good retention of hydrophilic peptides
Superficially porous particles	UHPLC-like efficiency at modest back pressure

AdvanceBio Peptide Plus

Ideal formic acid performance for MS detection

Attribute	Advantage
Sharp peaks with formic acid	Good MS sensitivity
High sensitivity	Identify critical low-level modifications
Charge surface chemistry	Preserve high performance with large sample loads
Unique selectivity	Resolve important PTMs such as deamidation

Aggregate/Fragment Analysis

Size exclusion chromatography

Accurate, precise quantitation for a broad range of biomolecule separations

AdvanceBio SEC

Versatile performance for routine and challenging applications

Attribute	Advantage
Hydrophilic polymer coating	Avoid secondary interactions
Increased analytical speed	Meet vital deadlines
Higher reproducibility	Reduce rework
Greater sensitivity	Quantitate aggregates, even at low levels

Bio SEC-3 and Bio SEC-5

Extra wide pore and scale-up options

Attribute	Advantage
Compatibility with most aqueous buffers	Method flexibility
Wide range of pore size options, including 1000 Å and 2000 Å	Options for everything from peptides to VLPs
Analytical and semi-prep dimensions	Easy scale up or down

Intact and Subunit Purity

Large molecule chromatography (>150 Å)

Selectivity options for every separation need

AdvanceBio RP-mAb

Ideal for monoclonal antibodies

Attribute	Advantage
450 Å pore, superficially porous particles	Optimum design for high-resolution mAb separations
Extended column lifetime	Lower operating costs
Broad range of chemistries	Flexible method development

ZORBAX RRHD 300 Å 1.8 µm

UHPLC separations

Attribute	Advantage
1200 bar maximum pressure	UHPLC-compatible
1.8 µm particles	Maximum resolution
Broad range of chemistries	Flexible method development

PLRP-S

Ideal formic acid performance for MS detection

Attribute	Advantage
Polymeric particle with no silanol interactions	Better peak shape, better recovery, and lower carryover
Durable, resilient particles	Reproducible results over longer lifetimes
Broad range of pore sizes	Separate small molecules, large complexes, oligonucleotides
Excellent peak shape with formic acid	No compromise between sensitivity and separation for MS detection



Every individual column is QC tested for high efficiency. All AdvanceBio columns have an additional application-specific QC test to ensure high performance.

Learn more about Agilent AdvanceBio columns
www.agilent.com/chem/advancebio



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Live webinars and recordings to play back at your convenience

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