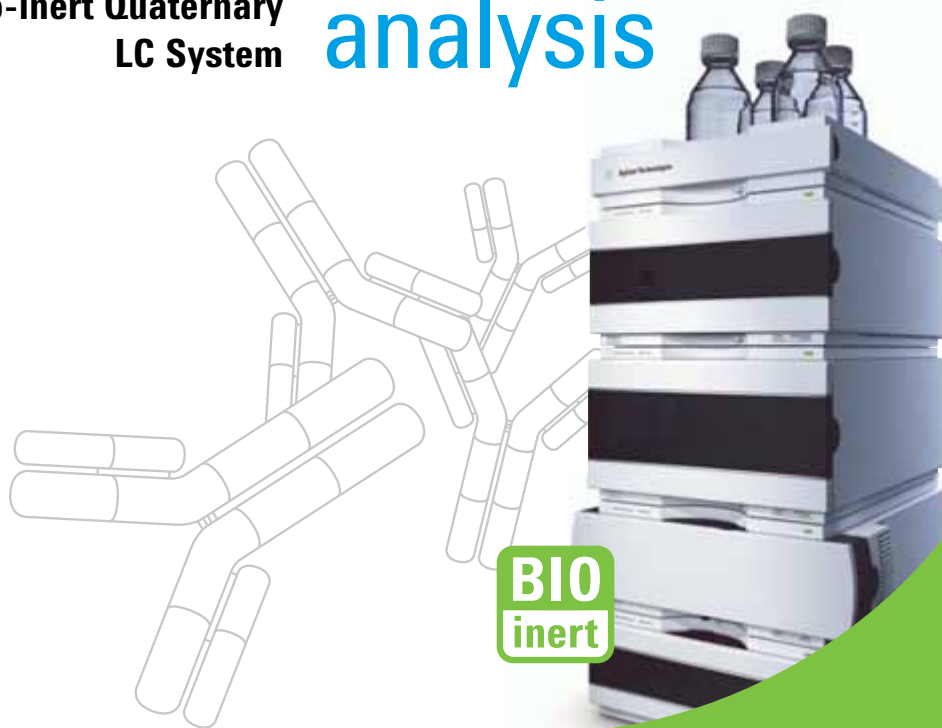




**Agilent 1260 Infinity
Bio-inert Quaternary
LC System**

Infinitely better for bio-molecule analysis

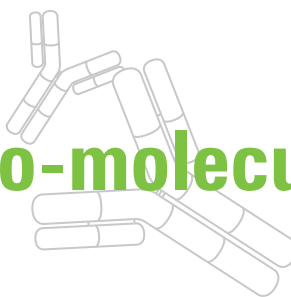


The Measure of Confidence



Agilent Technologies

Infinitely better for bio-molecule analysis.



The **Agilent 1260 Infinity Bio-inert Quaternary LC** sets new standards in performance, reliability and robustness for analysis of bio-molecules. Based on the proven technology of the 1200 Infinity Series liquid chromatography platform, the 1260 Infinity Bio-inert LC handles with ease the challenging solvent conditions commonly used for analysis of proteins and bio-therapeutics as well as minimizing problems associated with these molecules' non-specific tendencies to bind to surfaces. The 1260 Infinity Bio-inert LC is the best choice for your analytical and semi-preparative separations of proteins!

100 percent bio-inert

The entire flow path of the 1260 Infinity Bio-inert LC is bio-logically inert. All capillaries and fittings throughout the auto-sampler, column compartment and detectors are completely metal-free so that the bio-molecules in your sample come in contact only with ceramics or PEEK. This minimizes secondary interaction of proteins and peptides with metallic surfaces, which could cause peak tailing, low recovery and decreased column lifetime.

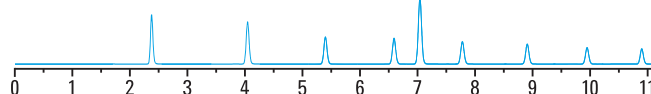
True UHPLC performance

The 1260 Infinity Bio-inert LC has a power range up to 600 bar and is capable of handling the higher pressures demanded by new emerging column technologies with smaller particles. This makes the 1260 Infinity Bio-inert LC a perfect match for all of your current SEC and IEX columns with particle sizes down to 1.7 μm . The 1260 Infinity Bio-inert LC is the only truly bio-inert LC with UHPLC capability.

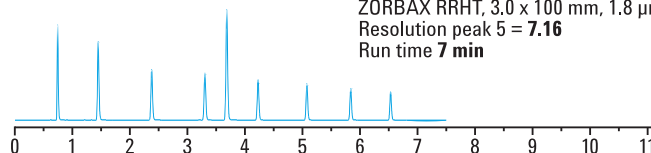
10 times higher sensitivity

The superior optofluidic waveguide technology of the bio-inert Agilent Max-Light cartridge cell in the new 1260 Infinity Diode Array Detector helps you to achieve up to 10 times higher detection sensitivity. This boost means you require smaller amounts of your precious protein samples, which is especially important for profiling of minor components in complex mixtures and for improved QC accuracy. As a result, you can perform more assays than ever before with the same amount of protein, saving time and money.

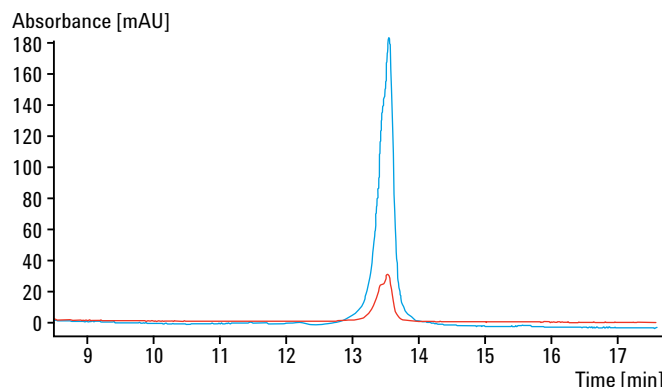
Conventional HPLC
ZORBAX 4.6 x 150 mm, 5 μm
Resolution peak 5 = **4.20**
Run time **11 min**



Resolution optimized
ZORBAX RRHT, 3.0 x 100 mm, 1.8 μm
Resolution peak 5 = **7.16**
Run time **7 min**



The 1260 Infinity Bio-inert LC gives you true UHPLC performance, increasing chromatographic resolution and sample throughput.



The bio-inert Max-Light cartridge cell with 60 mm path length can boost the detection sensitivity for protein antibody applications.



The Agilent 1260 Infinity Bio-inert LC solution

Robust – even under harshest conditions

Buffers with high salt concentrations such as 2 M NaCl or 8 M urea and extreme pH values of 1-13 are commonly used in the analysis of bio-molecules, posing a significant challenge for LC equipment. The dedicated design of the 1260 Infinity Bio-inert LC handles these harsh solvent conditions with ease. Corrosion-resistant titanium in the solvent delivery system and metal-free materials in the sample flow path create an extremely robust instrument – protecting not only your samples but also your investment.

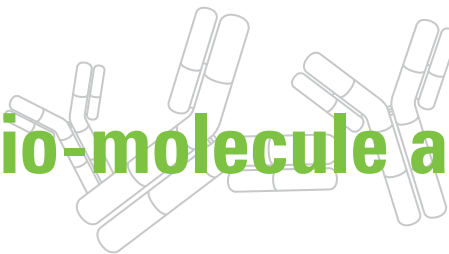
Flexible and modular for bio-analysis and bio-purification

The modularity of the 1260 Infinity Bio-inert LC gives you a high degree of flexibility.

- Quaternary solvent capability for online buffer mixing from up to four solvents
- Bio-compatible valves for even more options such as solvent selection or column switching – making method development an easy task
- Bio-inert flow cells for your choice of detector
- Flow rates up to 10mL/min in gradient operation and bio-inert fraction collection for automated bio-purification and semi-prep work with larger column dimensions
- Mix-and-match compatibility with existing Agilent systems for full flexibility to meet future requirements

To learn more about the Agilent 1260 Infinity Bio-inert LC, visit www.agilent.com/chem/1200BioLC

More confidence in bio-molecule analysis.



More resolution per time

The 1260 Infinity Bio-inert Quaternary Pump provides true UHPLC performance up to 600 bar, allowing you to run any current large bio-molecule application at high or low pressures. All solvent lines are titanium, making them completely corrosion resistant. Quaternary solvent mixing with integrated degassing and seal washing gives you superior functionality, robustness and performance.



1260 Infinity Bio-inert Quaternary Pump



More confidence in sample handling

The 1260 Infinity High-performance Bio-inert Autosampler handles vials and microtiter plates and enables you to inject volumes from 0.1 μ L to 100 μ L – extendable to 900 μ L. The ceramic needle, PEEK needle seat and wash, and stainless-steel-clad PEEK capillaries ensure highest injection accuracy and precision with minimum carryover. To protect labile compounds from degradation during analysis or storage, the autosampler is cold-room compatible or you can add a cooling module. The 1260 Infinity Bio-inert Manual Injector is available for single injections or larger injection volumes.



1260 Infinity Bio-inert High-performance Autosampler



More flexibility to optimize your chromatography

The 1290 Infinity Column Compartment includes bio-inert heating elements to pre-heat the solvent before it reaches the column. The column compartment houses either four short columns or two columns up to 30 cm in length. Agilent Quick-Change valves are available for more complex workflows such as column switching, column screening or method development.



1290 Infinity Column Compartment with bio-inert solvent heating elements



More sensitivity – wider dynamic range

Agilent offers a variety of detection options to address the requirements of protein research applications or of assays to assess the integrity of bio-therapeutic compounds. Bio-inert flow cells are available for the following detectors to meet your needs for highest sensitivity and widest dynamic range.

- 1260 Infinity Diode Array Detector (10x sensitivity, pH 1-12)
- 1260 Infinity Diode Array Detector VL (pH 1-14)
- 1260 Infinity Multiple Wavelength Detector
- 1260 Infinity Fluorescence Detector



1260 Infinity Diode Array Detector with bio-inert Max-Light cartridge cell



More flexibility in fraction collection

The 1260 Infinity Bio-inert Fraction Collector is the ideal extension to your system when you need to investigate your separated compounds further. It fits perfectly in Agilent's modular LC design and does not require extra benchspace. Like the autosampler, a cooling module is available to prevent degradation of thermally-labile bio-molecules.

Patented fraction delay calibration and time- or peak-triggered fraction collection facilitates superior recovery and purity. A wide range of collection vessels, including vials, microtiter plates or custom vessels, give you highest collection flexibility. With flow rates up to 10 mL/min possible, you can even run separations using columns with larger inside diameters.

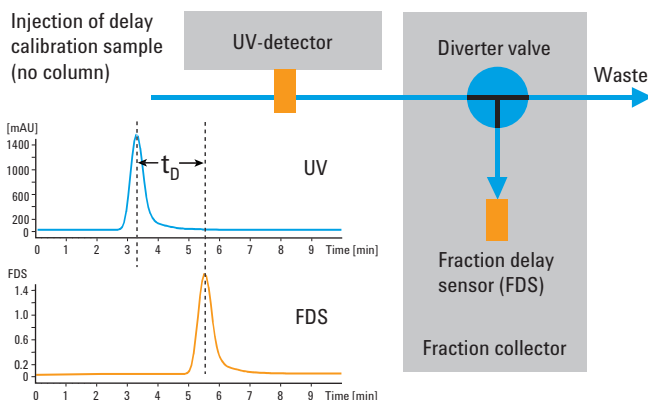


**1260 Infinity Bio-inert
Analytical-scale
Fraction Collector**

**BIO
inert**



**Extend your system
with the 1260 Infinity
Bio-inert Fraction
Collector for further
investigation of your
separated compounds**



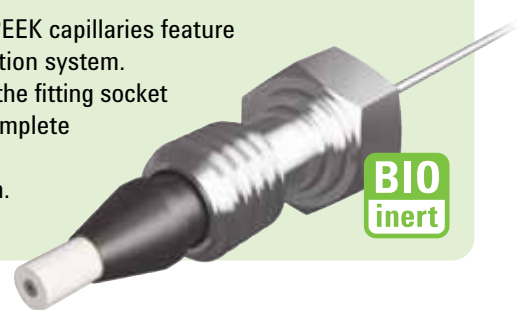
New capillary and fitting technology for robust and secure operation – day in, day out.

With the 1260 Infinity Bio-inert LC, Agilent introduces new capillary and fitting technology that facilitates the unique combination of metal-free bio-inertness and high pressure operation. Three different types of capillaries are deployed:

- Highly corrosion resistant titanium capillaries for the solvent delivery lines
- Metal-clad PEEK capillaries in the autosampler and column compartment

- PEEK capillaries in the low pressure parts of the system downstream of the separation column

The metal-clad PEEK capillaries feature a unique connection system. The front end of the fitting socket is ceramic for complete bio-inertness at every connection.



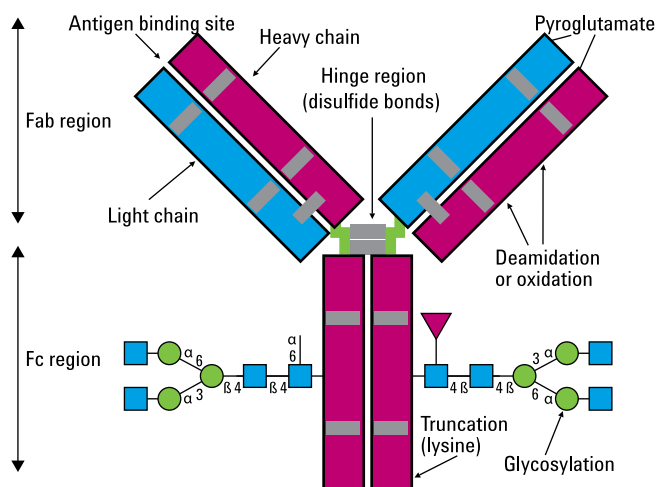
**BIO
inert**

To learn more about the Agilent 1260 Infinity Bio-inert LC, visit www.agilent.com/chem/1200BioLC

A complete solution for NBE analysis.

More confidence for your bio-analytical assays and workflows




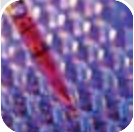



The physico-chemical characterization and identity confirmation of therapeutic monoclonal antibodies (MAbs) play an important role in the development and production workflow of a new biological entity (NBE). Agilent offers a broad spectrum of tools for all major assays that need to be performed to fulfill drug safety and efficacy requirements. The combination of Agilent's BioHPLC columns with the 1260 Infinity Bio-inert LC provide a superior solution to improve the performance, sensitivity, reliability and productivity of aggregation analysis, charge variant analysis, deamidation and peptide mapping. Instrument robustness and reliability combines with column performance to translate directly into faster, more confident results.

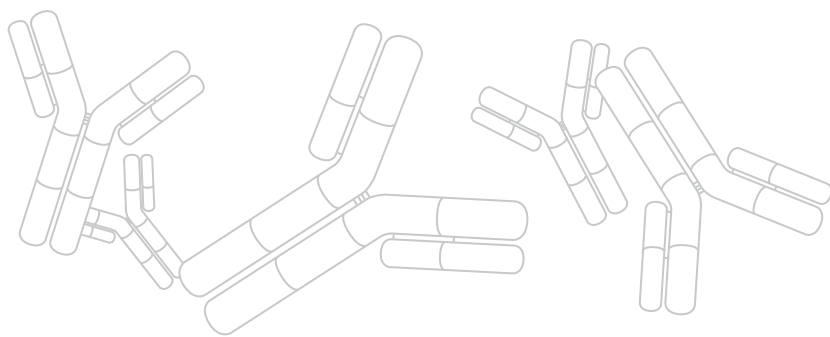


General structure of therapeutic antibodies.



The Agilent Bio MAb HPLC columns feature a unique resin specifically designed for high-resolution charge-based separations of monoclonal antibodies. Bio MAb columns are available in 1.7 μm , 3 μm , 5 μm and 10 μm sizes, providing higher resolution with the smaller particles.

Environmental Analysis	Food Safety/Quality	Chemical QA/QC	Drug Discovery	Drug Development	Drug Manufacturing & QA/QC	Proteomics
						
High pH applications	High pH applications	Multi-method applications	Therapeutic proteins	Characterization of biologics	Identity confirmation	Biomolecule characterization, offline 2D



Highest resolution for superior efficiency in size exclusion

The Agilent Bio SEC column portfolio features a new series of high performance porous silica columns with unique hydrophilic coating. The columns achieve high resolution, excellent lot-to-lot reproducibility and increased lifetime even under low salt conditions where other columns exhibit significant secondary interactions.

Agilent Bio SEC-3 HPLC Columns promote sharper peaks and faster size-based separations for bio-molecules and water-soluble polymers. Available in three different pore sizes (100 Å, 150 Å, 300 Å). These columns are the ideal choice for quantification of aggregation levels in antibody QA/QC.

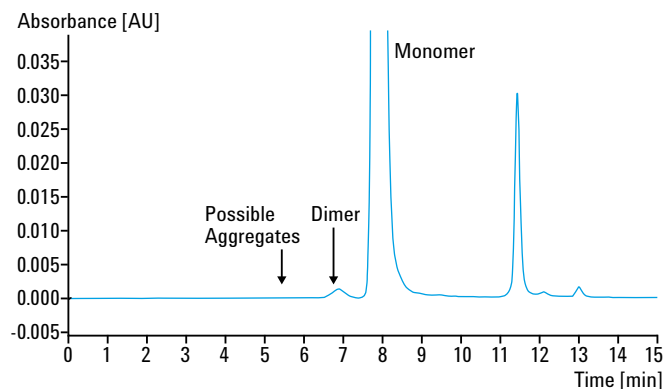
Agilent Bio SEC-5 HPLC Columns provide improved recovery for a wide range of molecular sizes. With a larger range of pore sizes, 100 Å, 150 Å, 300 Å, 500 Å, 1000 Å and 2000 Å, the Agilent Bio SEC-5 columns provide good recovery and column lifetime when characterizing bio-molecules over a broad size range.

Superior resolution and higher productivity for charge variants and deamidation

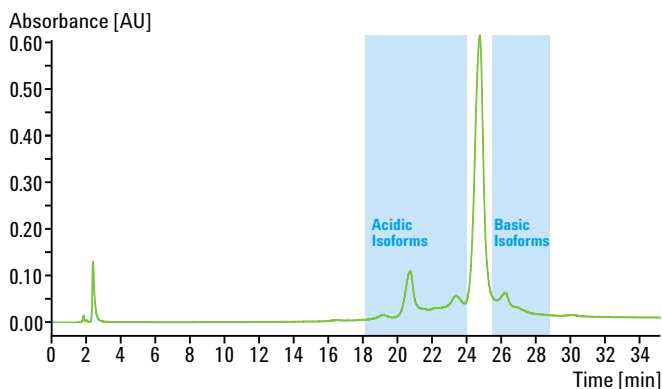
An essential part of monoclonal antibody characterization is the identification of acidic and basic isoforms. The unique design of Agilent Bio MAb non-porous PS/DVB particle with a stable and uniform weak cation exchange layer provides charged based separations with increasing efficiency and recoveries – rapid resolution of isoforms for enhanced identification.

Agilent Bio MAb HPLC Columns are specifically designed for high-resolution monoclonal antibody charge isoform separations. Also available in PEEK hardware with column particle size range from 1.7 µm to 10 µm.

Agilent Bio IEX HPLC Columns are designed for charged-based analytical separations of proteins and peptides. This family of ion exchangers is based on the same particle technology as the Agilent Bio MAb HPLC columns but with strong and weak anion and cation functionalities for the analysis of cationic and anionic bio-molecules.



High performance aggregation analysis using the Agilent Bio SEC-3 column 300 Å.



High resolution separation of acidic and basic charge variants using the Agilent Bio MAb NP10 column.

Agilent Value Promise – 10 years of guaranteed value

In addition to continually evolving products, we offer something else unique to the industry – our 10-year value guarantee. The Agilent Value Promise guarantees you at least 10 years of instrument use from your date of purchase, or we will credit you with the residual value of that system toward an upgraded model. Not only does Agilent ensure a safe purchase now, we help ensure your investment is as valuable to you in the long run.

Agilent Service Guarantee

Should your Agilent instrument require service while covered by an Agilent service agreement, we guarantee repair or we will replace your instrument for free. No other manufacturer or service provider offers this level of commitment to keeping your laboratory running at maximum productivity.



Further information

For full details of the Agilent 1200 Infinity Series LC systems and application-based LC solutions, ask for a brochure or visit our web site at www.agilent.com/chem/1200



**Agilent 1200 Infinity Series
Selection Guide**
Publication Number
5990-4333EN

**Agilent 1200 Infinity Series
Portfolio**
Publication Number
5990-3333EN

Learn more:

www.agilent.com/chem/1200BioLC

Buy online:

www.agilent.com/chem/store

Find an Agilent customer center in your country:

www.agilent.com/chem/contactus

U.S. and Canada

1-800-227-9770, agilent_inquiries@agilent.com

Europe

info_agilent@agilent.com

Asia Pacific

inquiry_lsca@agilent.com

© Agilent Technologies, Inc. 2010, 2011
Published in USA, July 1, 2011
Publication Number 5990-6220EN



Agilent Technologies