

Achieve Better Resolution for Large Biologics

Easy Efficiency Gains When Using bioZen WidePore C4 Core-Shell Particle

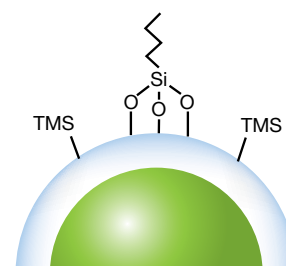
- Improved Sensitivity and Speed
- Better Separation
- Enhanced Peak Shape
- Better Resolution for Intact mAbs and Subunit Analysis

Advanced C4 Chemistry

bioZen 2.6 μm WidePore C4 is an intact core-shell reversed phase column that provides good peak shape and selectivity for both intact monoclonal antibodies (mAbs) and subunit analyses. Its robust surface grafting and optimal particle and pore size morphology ensures high reproducibility for analytical methods.

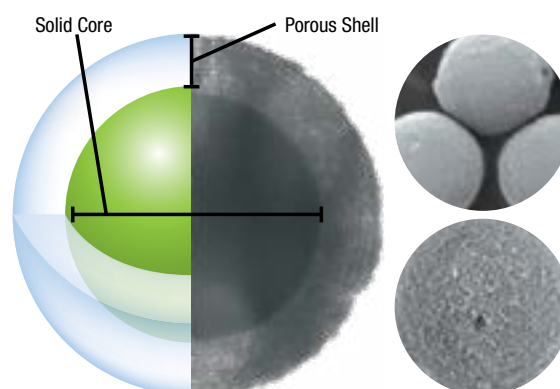
bioZen WidePore C4 is designed for better resolution of large biologics using:

- Core-Shell Advantage for High Efficiency
- Optimal Pore Size for Better Separation
- Bioinert BioTi™ Hardware for Improved Peak Shape
- Robust Surface Chemistry for Improved Column Stability

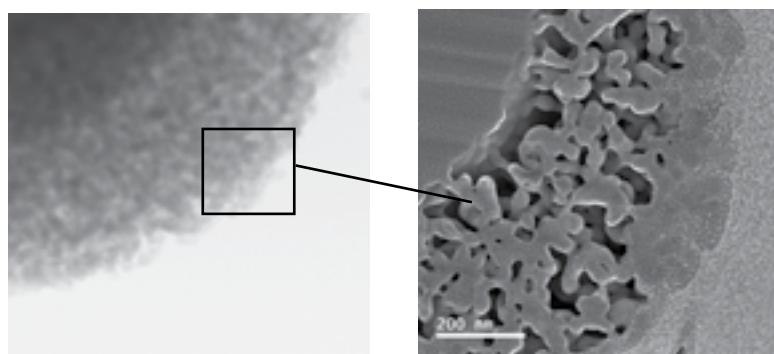


Core-Shell Advantage

For an **increase in resolution**, along with faster and **more consistent results**, our scientists create a durable, homogeneous spherical porous shell **uniformly** grown on a solid silica core.



Controlled Wide Pore Technology

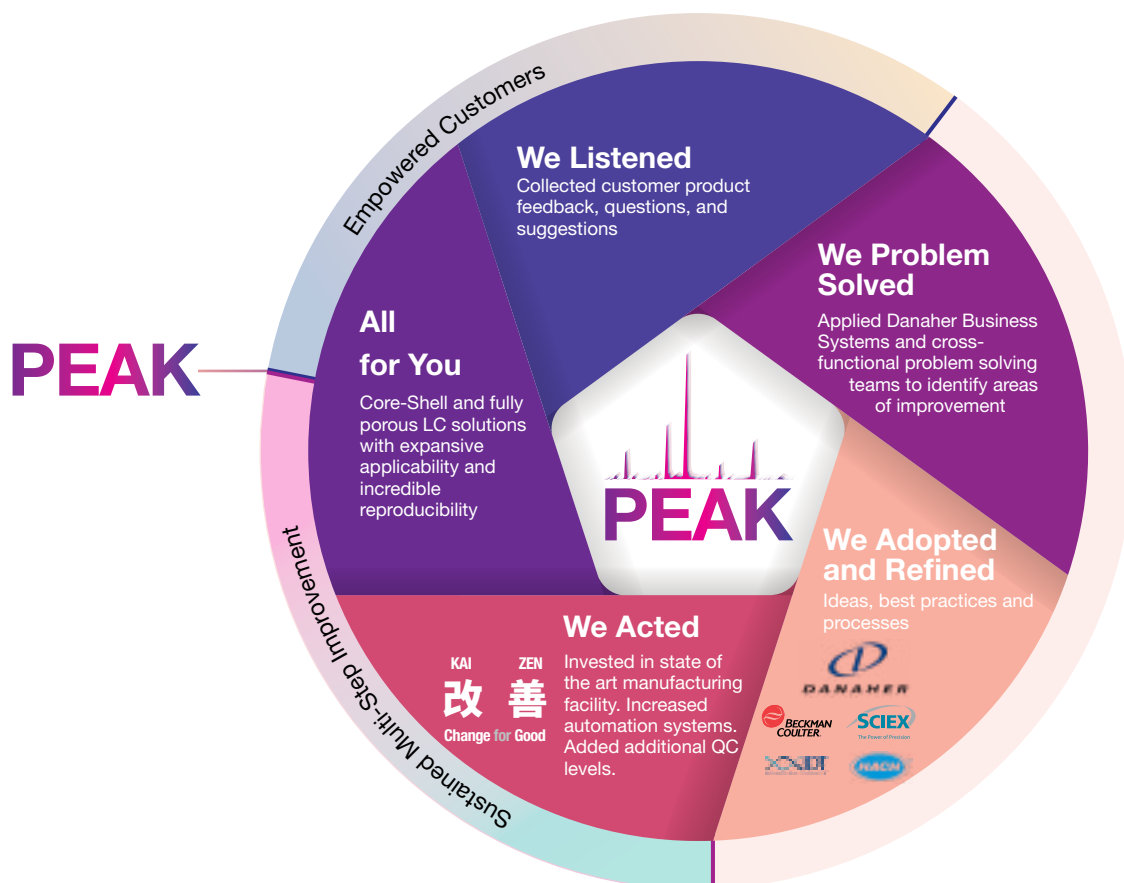


A **wider pore LC column (~400Å)** allows for better separation of large biologics and with a **controlled manufacturing process**, bioZen WidePore introduces a new solution for analyzing intact and subunit mAbs.

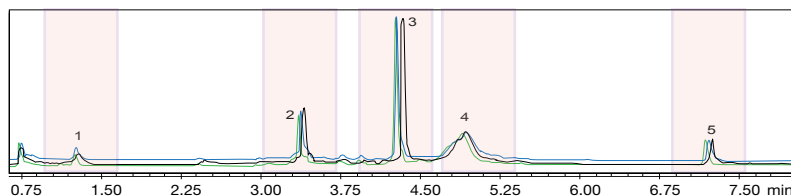


Generating the Next Level Of Reliability Through Advanced Process Optimization

Over the past three years, our scientists and engineers with the help of customers and Danaher colleagues, have optimized our processes to provide products that deliver very high levels of performance and newly achievable levels of reliability and reproducibility. This new advanced series of products and process optimization is called PEAK.



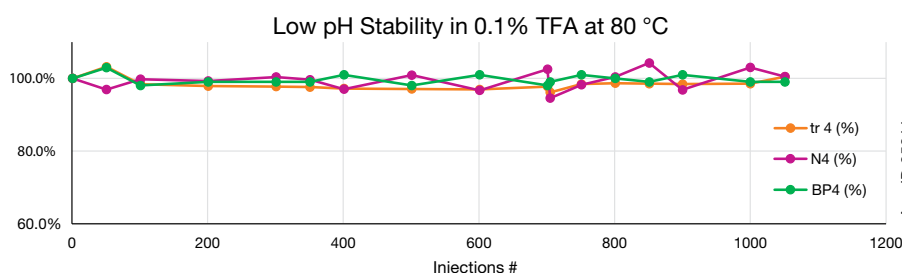
Excellent Batch-to-Batch Consistency



LC Conditions

Column: bioZen 2.6 μ m WidePore C4
Dimension: 100 x 2.1 mm
Part No.: OOD-4786-AN
Mobile Phase: A: 0.1 % TFA in Water
 B: 0.1 % TFA in Acetonitrile
Gradient: 25-60 % B in 5 minutes
Flow Rate: 0.3 mL/min
Temperature: 60 °C
Detection: UV @ 280 nm
Sample: 1. RNase A (13.7 kD)
 2. Cytochrome c (12 kD)
 3. Lysozyme (14.3 kD)
 4. Holotransferrin (76-81 kD)
 5. Apomyoglobin (16 kD)

Excellent Robustness



LC Conditions

Column: bioZen 2.6 μ m WidePore C4
Dimension: 100 x 2.1 mm
Part No.: OOD-4786-AN
Mobile Phase: A: 0.1 % TFA in Water
 B: 0.1 % TFA in Acetonitrile
Gradient: 15-55 % B in 10 minutes (total run time 20 minutes)
Flow Rate: 0.8 mL/min
Temperature: 80 °C
Detection: UV @ 280 nm
Sample: Trastuzumab



Have questions or want more details? We would love to help! We would love to help!
 Visit www.phenomenex.com/Chat to get in touch with one of our Technical Specialists

bioZen WidePore Applications

Impurity profiling and characterization of intact biologic fragments is a challenging undertaking because of the need to identify very small differences between variants. bioZen WidePore C4 columns contain skillfully manufactured large pore core-shell particles that provide narrower, taller peaks in conjunction with higher resolution between the target HC/LC, Fc/Fab, or iso-forms and are ideal for large biologics to optimize analysis.



[Optimization of Chromatography for Intact Mass Analysis of Monoclonal Antibodies Using bioZen™ WidePore C4 Columns](#)

[Effect of Flow Rate on Reversed Phase Separations of Monoclonal Antibodies](#)

[Effect of Temperature on Reversed Phase Separations of Monoclonal Antibodies](#)

[Method Optimization of Purity Analysis of a Fc-Fusion Protein by Reversed Phase HPLC](#)

[Analysis of IgdE Digested Monoclonal Antibody Fragments](#)

[Analysis of IgdS Digested Monoclonal Antibody Fragments](#)

[Purity Analysis for Intact Monoclonal Antibodies and Fragments](#)

[Tandem Digestion of Monoclonal Antibodies Using Novel Cysteine Proteases](#)

[A Simple Quantitative Method for Monoclonal Antibody Coformulations](#)

[Optimization of a Gradient Profile on Reversed Phase Separations of Monoclonal Antibodies](#)

[Method Optimization for Purity Analysis of IgG Isotypes and F-Fusion Proteins by Intact Reversed Phase](#)

[Assessment of Disulfide Variants of IgG2 Monoclonal Antibodies by Intact Reversed Phase](#)



Ordering Information

bioZen Products - Powered by Biocompatible Hardware

bioZen Columns (mm)	Columns							Biocompatible Guard Cartridges		
	50 x 2.1	100 x 2.1	150 x 2.1	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	for 2.1 mm	for 4.6 mm	Holder
								/3pk	/10pk	ea
bioZen 2.6 µm Glycan	00B-4773-AN	00D-4773-AN	00F-4773-AN	—	—	—	—	AJO-9800	—	AJO-9000
bioZen 1.6 µm Peptide PS-C18	00B-4770-AN	00D-4770-AN	00F-4770-AN	—	—	—	—	AJO-9803	—	AJO-9000
bioZen 3 µm Peptide PS-C18	00B-4771-AN	—	00F-4771-AN	00B-4771-E0	—	00F-4771-E0	—	AJO-7605	AJO-7606	KJO-4282
bioZen 1.7 µm Peptide XB-C18	00B-4774-AN	00D-4774-AN	00F-4774-AN	—	—	—	—	AJO-9806	—	AJO-9000
bioZen 2.6 µm Peptide XB-C18	00B-4768-AN	00D-4768-AN	00F-4768-AN	00B-4768-E0	—	00F-4768-E0	—	AJO-9806	AJO-9808	AJO-9000
bioZen 2.6 µm WidePore C4	00B-4786-AN	00D-4786-AN	00F-4786-AN	00B-4786-E0	00D-4786-E0	00F-4786-E0	00G-4786-E0	AJO-9816	AJO-9818	AJO-9000
bioZen 3.6 µm Intact XB-C8	00B-4766-AN	00D-4766-AN	00F-4766-AN	00B-4766-E0	—	00F-4766-E0	—	AJO-9812	AJO-9814	AJO-9000

bioZen Columns (mm)	Columns							Biocompatible Guard Cartridges			
	50 x 2.1	100 x 2.1	150 x 2.1	250 x 2.1	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	300 x 4.6	for 4.6 mm	Holder
										/3pk	ea
bioZen 1.8 µm SEC-2	00B-4769-AN	—	00F-4769-AN	—	—	—	00F-4769-E0	—	00H-4769-E0	AJO-9850	AJO-9000
bioZen 1.8 µm SEC-3	00B-4772-AN	—	00F-4772-AN	—	—	00D-4772-E0	00F-4772-E0	—	00H-4772-E0	AJO-9851	AJO-9000

bioZen Columns (mm)	Columns							Biocompatible Guard Cartridges			
	50 x 2.1	100 x 2.1	150 x 2.1	250 x 2.1	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	for 2.1 mm	for 4.6 mm	Holder
									/10pk	/10pk	ea
bioZen 6 µm WCX	00B-4777-AN	00D-4777-AN	00F-4777-AN	00G-4777-AN	00B-4777-E0	00D-4777-E0	00F-4777-E0	00G-4777-E0	AJO-9401	AJO-9400	KJO-4282

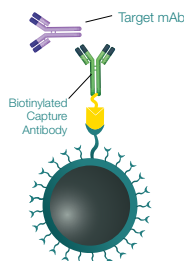
Sample Preparation

bioZen Solid Phase Extraction	Format	Sorbent Mass	Part Number	Unit
bioZen N-Glycan Clean-Up	Microelution 96-Well Plate	5 mg/well	8M-S009-NGA	1/box



bioZen MagBeads Streptavidin Coated

Formats	Part No.	Concentration	Bead Size
25 mg (≈50 samples)	KSO-9531	20 mg/mL	1.0 µm
50 mg (≈100 samples)	KSO-9532		
500 mg (≈1000 samples)	KSO-9533		



BE-HAPPY™
GUARANTEE

Your happiness is our mission. Take 45 days to try our products. If you are not happy, we'll make it right.
www.phenomenex.com/behappy

Available to Chat 24/7
for Method Development and Optimization



Chat Now

www.phenomenex.com/Chat

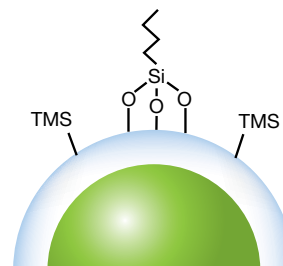


Have questions or want more details? We would love to help! We would love to help!
Visit www.phenomenex.com/Chat to get in touch with one of our Technical Specialists

bioZen WidePore C4

Increase your State of Zen

Core-shell particle with butyl stationary phase and optimal wide pore size distribution for better resolution of large biologics, including monoclonal antibodies and subunit analysis.



8 bioZen Particle Chemistries for:

- NEW Intact Analysis
- Peptide Mapping
- Charge Variant Analysis (IEX)
- Fragment Analysis
- Aggregate Analysis
- Drug Antibody Ratio
- Peptide Quantitation
- Immunocapture by Magnetic Beads
- Glycan Analysis
- Glycan Sample Prep (SPE)

3 UHPLC/HPLC Particle Platforms

Thermally Modified Fully Porous



Core-Shell Technology



Monosized Polymeric Non-Porous



8 Particle Chemistries

Size Exclusion (SEC)



bioZen SEC-2

1.8µm

Extremely inert, high density fully porous particle with high efficiency and low molecular weight (LMW) separation range of 1 k–450 kDa.

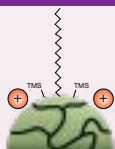


bioZen SEC-3

1.8µm

Extremely inert, high density fully porous particle with high efficiency and high molecular weight (HMW) separation range of 10k–700 kDa.

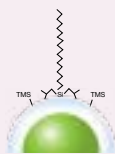
Peptide



bioZen Peptide PS-C18

1.6µm and 3µm

Excellent retention by combined positively charged surface ligand and C18 ligand.

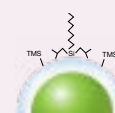


bioZen Peptide XB-C18

1.7µm and 2.6µm

Overall retention of both acidic and basic peptides through C18 stationary phase with di-isobutyl side chains.

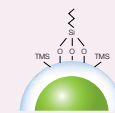
Intact/Subunit



bioZen Intact XB-C8

3.6µm

Large pore core-shell particle for fast intact and subunit biologic entry. C8 provides highly useful moderate hydrophobic selectivity.

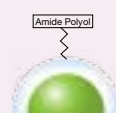


bioZen WidePore C4

2.6µm

Core-shell particle with butyl stationary phase and optimal wide pore size distribution for better resolution of large biologics, including monoclonal antibodies and subunit analysis.

Glycan

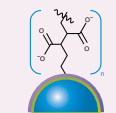


bioZen Glycan

2.6µm

Provides optimal combination of high efficiency and selectivity for released glycans.

Ion-Exchange



bioZen WCX

6µm

Monosized particles grafted with linear polycarboxylate chains to envelop and separate proteins from acidic/basic variants.

Terms and Conditions

Subject to Phenomenex Standard Terms & Conditions, which may be viewed at www.phenomenex.com/TermsAndConditions.

Trademarks

bioZen, BioTi, and BE-HAPPY are trademarks of Phenomenex.

FOR RESEARCH USE ONLY. Not for use in clinical diagnostic procedures.

© 2021 Phenomenex, Inc. All rights reserved.

