

Analysis of intact and reduced monoclonal antibodies are critical measurements for characterizing therapeutic proteins and understanding their efficacy and stability. Poor chromatographic separations can result in rework and even compromise the accuracy of the characterization.

To eliminate these problems, Agilent has developed a new reversed-phase column to optimize the performance of intact and reduced mAb analysis. The **Agilent AdvanceBio RP-mAb column** is based on Poroshell technology with unique engineering for pore size and bonded phases. The new column delivers higher resolution and faster run times to provide accurate, reproducible results when analyzing monoclonal antibodies for biopharma discovery, development, and QA/QC applications.

# The *only* reversed-phase columns focused on the unique challenges of monoclonal antibody characterization

Exclusive Agilent Poroshell technology, built into every AdvanceBio RP-mAb column, gives you the advantages of:

- Improved accuracy: Superficially porous particles (3.5 μm) with wide pores (450Å) increase mAb resolution while maintaining compatibility with all LC instruments
- **Speed:** Shorter analysis times compared to columns packed with fully porous particles of the same size
- **Lower costs:** The robust Poroshell packed bed and 2 µm inlet frit extend column lifetime by helping prevent inlet blockage
- Flexible method development: Range of chemistries SB-C8, C4, and diphenyl

And like *all* columns manufactured by Agilent, AdvanceBio RP-mAb columns undergo rigorous end-to-end QC testing to ensure reproducibility and performance.

# Big news for mAbs

#### New AdvanceBio RP-mAb columns

are part of the Agilent AdvanceBio family that delivers consistent performance for separating and characterizing peptides, proteins, antibodies, conjugates, new biological entities, and biopharmaceuticals.

For more details, go to:
agilent.com/chem/AdvanceBio RP

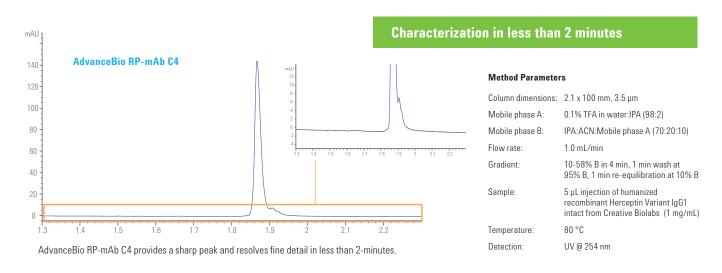




# EXCEPTIONAL SPEED AND CONFIDENCE FOR mAb SEPARATIONS

# Sharp peaks with fine detail for short runs

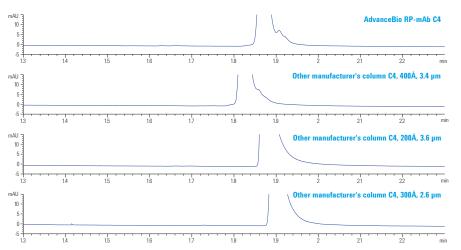
Here, an AdvanceBio RP-mAb C4 column delivered excellent peak shape and detailed resolution of intact humanized recombinant Herceptin IgG1



# Agilent AdvanceBio vs. the competition

Separation of intact humanized recombinant Herceptin IgG1 performed on an Agilent AdvanceBio RP-mAb C4 column and three competitive columns. The AdvanceBio column clearly provides better peak shape and resolution for intact protein separations.

### Superior to other protein columns



Specifically designed for mAb separations, AdvanceBio RP-mAb provides superior peak shape and resolution than other columns used for intact protein separations.

#### Method Parameters

Column dimensions: 2.1 x 100 mm, 3.5 µm

Mobile phase A: 0.1% TFA in water:IPA (98:2)

Mobile phase B: IPA:ACN:Mobile phase A (70:20:10)

Flow rate: 1.0 mL/min

Gradient: 10-58% B in 4 min, 1 min wash at

95% B, 1 min re-equilibration at 10% B

Sample: 5 µL injection of humanized recombinant Herceptin Variant IgG1

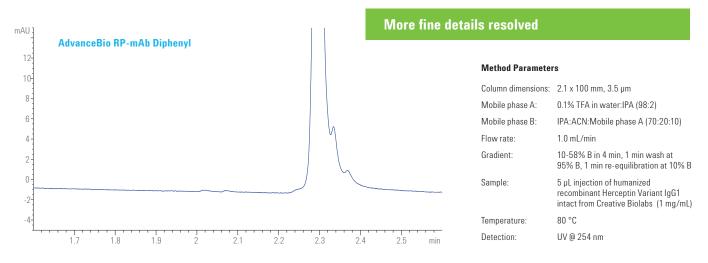
intact from Creative Biolabs (1 mg/mL)

Temperature: 80 °C

Detection: UV @ 254 nm

# **Selective diphenyl phase**

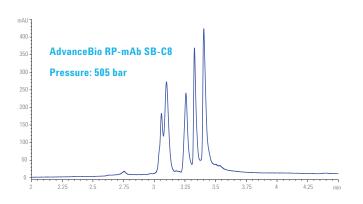
In this example, intact humanized recombinant Herceptin IgG1 was characterized using an AdvanceBio RP-mAb Diphenyl column. The unique diphenyl phase resolves even more fine detail.



The unique selectivity of AdvanceBio RP-mAb Diphenyl resolves even more fine detail.

# The Poroshell advantage

The wide-pore Poroshell technology of the AdvanceBio RP-mAb column delivers high efficiency, a short analysis time, and low pressure, at temperatures below  $80 \, ^{\circ}\text{C}$  - the typical temperature of many reversed-phase methods.



AdvanceBio RP-mAb columns perform well at temperatures below 80  $^{\circ}\text{C}.$ 

# High accuracy, low backpressure

#### **Method Parameters**

Column dimensions: 2.1 x 100 mm, 3.5 µm

Mobile phase A: 0.1% TFA in water

Mobile phase B: n-Propanol:ACN:Mobile phase A (80:10:10)

Flow rate: 0.8 mL/min

Gradient: 5-40% B in 5 min, 1 min wash at 95% B, 1 min re-equilibration

at 10% B

Sample: 1  $\mu L$  injection of Fc/Fab, papain-digested humanized recombinant

Herceptin Variant IgG1 from Creative Biolabs (2 mg/mL)

Temperature: 60 °C

Detection: UV @ 220 nm

To learn more, or order now, go to: agilent.com/chem/AdvanceBio\_RP

# ORDERING INFORMATION

### AdvanceBio RP-mAb columns

Part Number	Description
799775-904	C4, 2.1 x 50 mm, 3.5 µm
797775-904	C4, 2.1 x 75 mm, 3.5 µm
795775-904	C4, 2.1 x 100 mm, 3.5 µm
793775-904	C4, 2.1 x 150 mm, 3.5 µm
799975-904	C4, 4.6 x 50 mm, 3.5 µm
795975-904	C4, 4.6 x 100 mm, 3.5 µm
793975-904	C4, 4.6 x 150 mm, 3.5 µm
789775-906	SB-C8, 2.1 x 50 mm, 3.5 μm
787775-906	SB-C8, 2.1 x 75 mm, 3.5 μm
785775-906	SB-C8, 2.1 x 100 mm, 3.5 μm
783775-906	SB-C8, 2.1 x 150 mm, 3.5 μm
789975-906	SB-C8, 4.6 x 50 mm, 3.5 μm
785975-906	SB-C8, 4.6 x 100 mm, 3.5 μm
783975-906	SB-C8, 4.6 x 150 mm, 3.5 μm
799775-944	Diphenyl, 2.1 x 50 mm, 3.5 μm
797775-944	Diphenyl, 2.1 x 75 mm, 3.5 μm
795775-944	Diphenyl, 2.1 x 100 mm, 3.5 μm
793775-944	Diphenyl, 2.1 x 150 mm, 3.5 μm
799975-944	Diphenyl, $4.6 \times 50$ mm, $3.5 \mu m$
795975-944	Diphenyl, 4.6 x 100 mm, 3.5 μm
793975-944	Diphenyl, 4.6 x 150 mm, 3.5 μm

New Agilent A-Line Quick Connect fittings take the worry out of making a leak-free column connection. Just close the lever and get a perfect fitting every time, over and over again.

#### **Limited time offer:**

purchase your AdvanceBio RP-mAb column with new **Agilent A-Line Quick Connect fittings** for a special reduced price. Expires May 30, 2015.

Go to **agilent.com/chem/AdvanceBio\_RP** for more details.

To learn more, or order now, go to: agilent.com/chem/AdvanceBio\_RP

Or contact your Agilent Representative or Agilent Authorized Distributor at agilent.com/chem/contactus

This information is subject to change without notice.

© Agilent Technologies, Inc., 2014 Printed in the USA, November 14, 2014 5991-5160EN

