

**NEW****YMC  
AMERICA, INC.**

# BioPro HIC HT – Designed for High Throughput at High Pressure Hydrophobic Interaction Chromatography Column

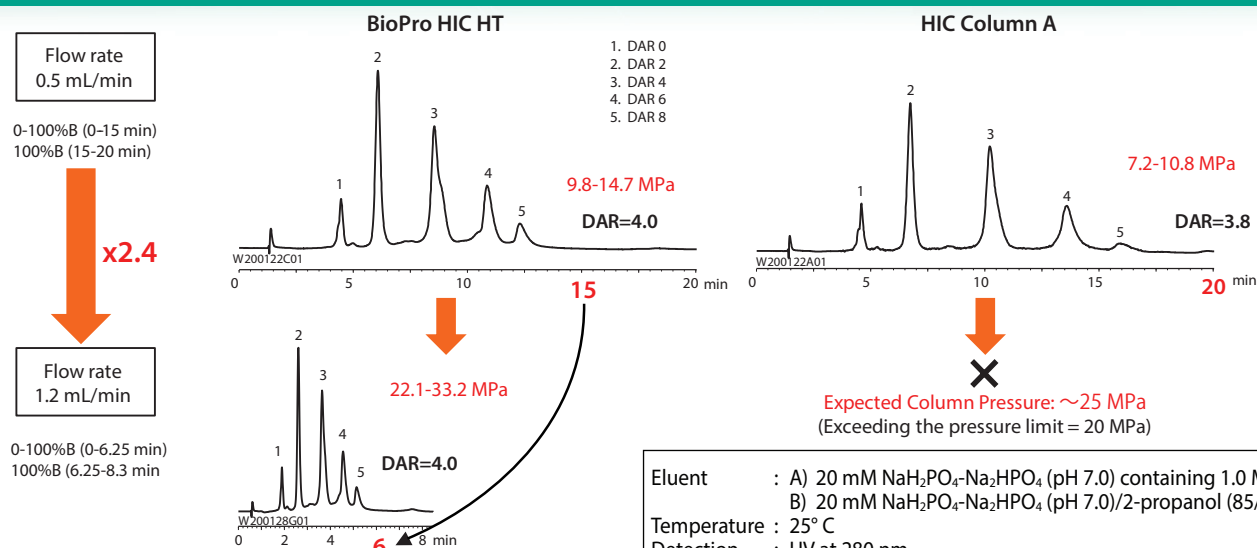
**Features**

- Suitable for analysis of biopharmaceuticals such as antibody-drug conjugates (ADCs)
- Tolerates high pressure → Higher usable flow rates → Faster analysis time
- Innovative surface chemistry leading to ideal drug-to-antibody ratio (DAR) analysis
- Excellent batch-to-batch reproducibility

**Specification**

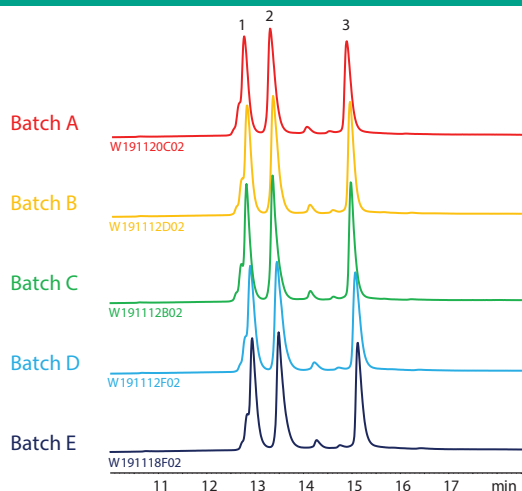
Matrix	: Hydrophilic non-porous polymer
Particle size	: 2.3 μm
Bonded phase	: Butyl group
Usable temp. range	: 10-60° C
Usable pH range	: 2-12
Pressure limit	: 40MPa

## High throughput by shortening analysis time under high flow rate conditions



YMC BioPro HIC HT is a hydrophobic interaction chromatography (HIC) column utilizing a butyl (C4) stationary phase bonded to non-porous 2.3μm hydrophilic polymer particles. It is specifically designed for fast, high-throughput, high resolution separations of proteins and biopharmaceutical drugs such as monoclonal antibodies (mAbs); and excels at drug-to-antibody ratio (DAR) analysis of antibody drug conjugates (ADCs). The unique surface chemistry exhibits virtually no carryover and the rigid 2.3μm base particle tolerates high pressure and flow.

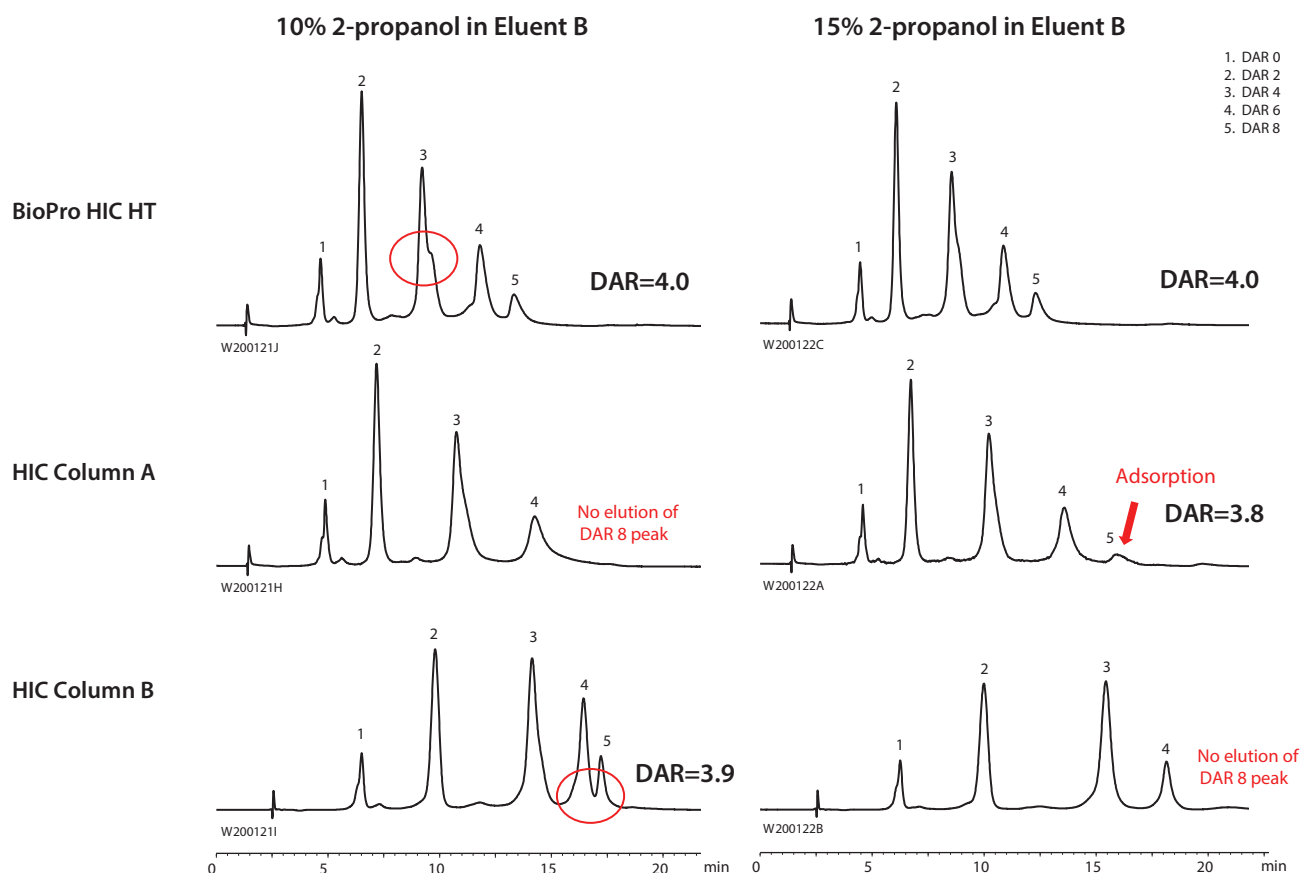
## Excellent batch-to-batch reproducibility



Column	: BioPro HIC HT 2.3 μm, 100 X 4.6 mm I.D.
Eluent	: A) 100 mM NaH <sub>2</sub> PO <sub>4</sub> -Na <sub>2</sub> HPO <sub>4</sub> (pH 7.0) containing 2.0 M (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> B) 100 mM NaH <sub>2</sub> PO <sub>4</sub> -Na <sub>2</sub> HPO <sub>4</sub> (pH 7.0)
Flow rate	: 0.5 mL/min
Temperature	: 25° C
Detection	: UV at 280 nm
Injection	: 15 μL
Sample	: 1. Adalimumab (0.5 mg/mL) 2. Trastuzumab (0.5 mg/mL) 3. Bevacizumab (0.5 mg/mL)

BioPro HIC HT exhibits excellent batch-to-batch reproducibility, making it ideally suitable for quality control analysis of biopharmaceuticals such as MABs.

# Innovative surface chemistry for drug-to-antibody ratio (DAR) analysis



DAR analysis, performed on BioPro HIC HT and two alternative columns, is shown above. Two gradient conditions were used, with a change in the concentration of 2-propanol in eluent B, as shown.

Column A demonstrated high hydrophobicity and did not elute peak #5 completely when the lower concentration of 2-propanol was used (column B showed a similar problem with the higher concentration of 2-propanol). Column B eluted all peaks with the 10% 2-propanol mobile phase condition, but exhibited poor separation between peaks #4 and #5. BioPro HIC HT eluted all peaks completely with good resolution, including an additional peak partially separated on peak #3.

It is noteworthy that the same DAR values were observed using either concentration of 2-propanol.

Column	: 100 X 4.6 mmI.D.
Eluent	: A) 100 mM NaH <sub>2</sub> PO <sub>4</sub> -Na <sub>2</sub> HPO <sub>4</sub> (pH 7.0) containing 1.0 M (NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub> B) 20 mM NaH <sub>2</sub> PO <sub>4</sub> -Na <sub>2</sub> HPO <sub>4</sub> (pH 7.0)/2-propanol (90/10) or (85/15) 0-100%B (0-15 min), 100%B (15-20 min), 0%B (20-35 min)
Flow rate	: 0.5 mL/min
Temperature	: 25° C
Detection	: UV at 280 nm
Injection	: 15 µL
Sample	: Brentuximab vedotin (2.5 mg/mL)

## 【Ordering information】

Particle size (µm)	Column size inner diameter X length (mm)	Product number
2.3	4.6 X 100	BHH00SQ3-1046PTH

Inquire about alternate column dimensions.

## Worldwide Availability

**YMC Co., LTD.**  
www.ymc.co.jp

**YMC Europe GmbH**  
www.ymc.de

**YMC Switzerland LLC**  
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