The Selectivity Company

HIC Columns for High Throughput Analyses

BioPro HIC HT

Features

- Ideal drug-to-antibody ratio (DAR) analysis due to novel surface chemistry
- High throughput by reducing analysis time
- Excellent batch-to-batch reproducibility

Excellent batch-to-batch reproducibility

1. Adalimumab
2. Trastuzumab
3. Bevacizumab

BioPro HIC HT exhibits an excellent batch-to-batch reproducibility making it the ideal choice for quality control analysis of biopharmaceuticals such as MAbs.
Faster analyses

High throughput by shortening analysis time using high flow rates

BioPro HIC HT

Flow rate
0.5 mL/min

0-100%B (0-15 min)
100%B (15-20 min)

× 2.4

Flow rate
1.2 mL/min

0-100%B (0-6.25 min)
100%B (6.25-8.3 min)

TSKgel Butyl-NPR

Column Pressure 10–15 MPa

DAR = 4.0

Column Pressure 22–33 MPa

(Exceeding the column pressure limit of 20 MPa)

BioPro HIC HT improves analysis throughput of ADCs by 2–3 times with an excellent Drug-to-Antibody Ratio (DAR). The rapid analysis is possible without loss of resolution. Competitor HIC columns fail under this conditions.

Excellent Recovery and Virtually No Carryover

Highly accurate quantification of ADCs and antibodies

1. DAR 0
2. DAR 2
3. DAR 4
4. DAR 6
5. DAR 8

Load amount
5.0 µg
2.5 µg
1.0 µg

No carry over!
BioPro HIC HT offers higher resolution than conventional HIC columns. Its surface modification suppresses excessive or too strong adsorption of ADCs and results in highly reliable quantification. With varying 2-propanol content, all peaks are completely eluted from the BioPro HIC HT column with high resolution. Another peak is partially separated from peak 3. Additionally, the same DAR values are observed at any content of 2-propanol.

BioPro HIC HT offers:
- Higher resolution than conventional HIC columns
- Highly reliable quantification
- Flexible method development
BioPro HIC HT offers excellent stability under high flow rates/high pressure conditions due to its unique rigid particle and optimised column packing technology.

Specifications

<table>
<thead>
<tr>
<th>Base particle</th>
<th>hydrophilic polymer (polymethacrylate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particle size</td>
<td>2.3 µm</td>
</tr>
<tr>
<td>Pore</td>
<td>non-porous</td>
</tr>
<tr>
<td>Functional group</td>
<td>butyl</td>
</tr>
<tr>
<td>pH range</td>
<td>2–12</td>
</tr>
<tr>
<td>Pressure limit</td>
<td>40 MPa / 400 bar</td>
</tr>
<tr>
<td>Temperature range</td>
<td>10–60 °C</td>
</tr>
</tbody>
</table>

Ordering Information

<table>
<thead>
<tr>
<th>Phase</th>
<th>Particle size [µm]</th>
<th>Column ID [mm]</th>
<th>Column Length [mm]</th>
<th>Part number</th>
<th>Precolumn filter 2 µm</th>
</tr>
</thead>
<tbody>
<tr>
<td>BioPro HIC HT</td>
<td>2.3</td>
<td>4.6</td>
<td>100</td>
<td>BHH00SQ3-1046PTH</td>
<td>XRPRCS35 (pack of 5)</td>
</tr>
</tbody>
</table>

Flow rate: 1.5 mL/min

Temperature: 25 °C

Detection: UV at 280 nm

Injection: 10 µL

Sample: Brentuximab vedotin (2.5 mg/mL)