Got Purification Troubles?
Get the Best HCP and Aggregate Clearance during mAb Purification

The Challenge
Are you unable to efficiently reduce process- and product-related impurities during your purification process? If you are performing flow-through purification, host cell protein (HCP) and aggregate removal could be poor in the flow-through fraction due to nonoptimal conditions, a nonideal resin, or both.

Purification Tip
Screening multiple resins helps you select the right one for your purification success.

Our Approach
We tested the efficiency of two commercial hydrophobic anion exchange mixed-mode chromatography resins for the purification of an antibody intermediate (pl 9.12) from a Protein A resin eluate containing HCP levels and aggregate as indicated in Figures 1A and B. Nuvia aPrime 4A Resin consistently demonstrated the best reduction of HCP and aggregates.

A. HCP clearance

B. Purity

<table>
<thead>
<tr>
<th>Resin</th>
<th>Remaining HCP Content, ng/mg</th>
<th>Purity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuvia aPrime 4A</td>
<td>159</td>
<td>97.8</td>
</tr>
<tr>
<td>Capto adhere</td>
<td>384</td>
<td>95.7</td>
</tr>
</tbody>
</table>

Fig. 1. Plots from the respective 1 ml columns with remaining HCP content indicated in the table at a loading concentration of 400 mg/ml. A, starting HCP content: 1,116 ng/mg. Flow-through conditions: Tris-based buffer system at pH 7.4. HCP content was measured by enzyme-linked immunosorbent assay. B, starting monomer: 94.8%. Purity was determined by ultra performance liquid chromatography. Figures 1A and B: Capto adhere Resin (—); Nuvia aPrime 4A Resin (—).

Data courtesy of AstraZeneca.
Innovative Products. Customized Solutions.

Nuvia aPrime 4A Resin

Nuvia aPrime 4A Resin delivers:
- A wide experimental design space
- Optimal product recovery
- Single-step removal of multiple impurities

Go to bio-rad.com/NuviaPrime4A and explore the various features of Nuvia aPrime 4A Resin!

Ordering Information
- Catalog # 12007397: Nuvia aPrime 4A Resin, 25 ml
- Catalog # 12007396: Nuvia aPrime 4A Resin, 100 ml
- Catalog # 12007379: Nuvia aPrime 4A Resin, 500 ml
- Catalog # 12007380: Nuvia aPrime 4A Resin, 5 L
- Catalog # 12007391: Nuvia aPrime 4A Resin, 10 L
- Catalog # 12007411: Foresight Nuvia aPrime 4A Plates, 20 µl
- Catalog # 12007392: Foresight Nuvia aPrime 4A Column, 1 ml
- Catalog # 12007393: Foresight Nuvia aPrime 4A Column, 5 ml
- Catalog # 12007394: Foresight Nuvia aPrime 4A RoboColumn Unit, 200 µl
- Catalog # 12007395: Foresight Nuvia aPrime 4A RoboColumn Unit, 600 µl

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Services and Support

We offer multiple service and support levels to deliver solutions tailored to your needs.
- Method development
- Process development
- Custom resins
- Column packing support
- Global technical support

Global Supplier

We are a global supplier of process resins with more than 80 support sites across six continents. Contact your regional Bio-Rad Process Chromatography Specialist at process@bio-rad.com or call our customer service at 1-800-4-BIORAD (1-800-424-6723). Connect with us for the latest product information.

Global Supplier Screen Our Process Resins Today

Go to bio-rad.com/ResinSample and request a sample today.

Screen Our Process Resins Today

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Nuvia aPrime 4A Resin is covered by U.S. Patent Number 9,669,402 and foreign counterparts.

BIO-RAD Laboratories, Inc.