

# Got Purification Troubles?

## Get the Best Monomer Recovery during Protein Purification



### The Challenge

Is your protein unable to bind efficiently to your resin? If you are performing flow-through (FT) purification, monomer recovery could be poor in the flow-through fraction due to nonoptimal conditions, a nonideal resin, or both.



### Purification Tip

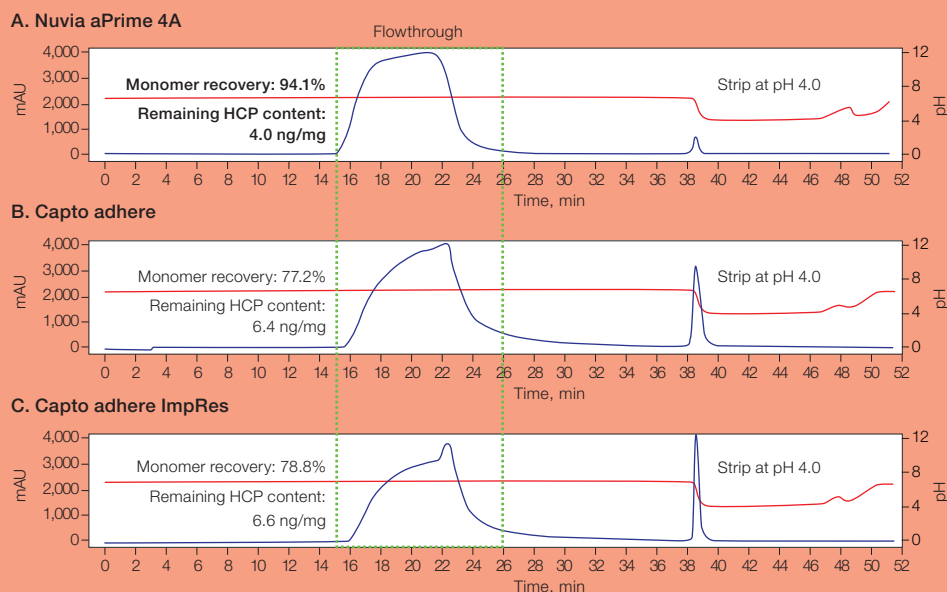
Performing a design of experiment (DOE) study of different pH, salt concentrations, and resins will help you select the best conditions and resin for your purification success.



### Our Approach

A DOE study showed that Nuvia aPrime 4A Resin offers better monomer recovery than both Capto adhere Media for the purification of a basic protein (approx. pI of 8.4) at the optimal FT operation pH of 6.5. Tailing of the FT peak was observed from both Capto adhere Columns but not the Nuvia aPrime 4A Column. A spike at 280 nm was also seen when the Capto adhere Columns were washed with additional equilibration buffer for recovering target protein monomer. Nuvia aPrime 4A Resin's superior performance is the result of its optimized pore structures and surface properties, which offer efficient mass transfer and minimal nonspecific interaction between biomolecules and this chromatography media (Figure 1).

**Fig. 1.**  
Chromatograms from the respective 1 ml columns with monomer recovery and remaining HCP content indicated. FT conditions: 99% monomer content in sample load, 150–200 ng/mg starting HCP content, 20 mM NaPi, 100 mM NaCl, pH 6.5. OD 280 (—); pH (—).



Go to [bio-rad.com/NuviaaPrime4A](https://www.bio-rad.com/NuviaaPrime4A) and explore the various features of Nuvia aPrime 4A!



# 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

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### Ordering Information

Catalog #	Description
12007397	Nuvia aPrime 4A, 25 ml
12007396	Nuvia aPrime 4A, 100 ml
12007379	Nuvia aPrime 4A, 500 ml
12007380	Nuvia aPrime 4A, 5 L
12007391	Nuvia aPrime 4A, 10 L
12007411	Foresight Nuvia aPrime 4A Plate, 20 $\mu$ l
12007392	Foresight Nuvia aPrime 4A Column, 1 ml
12007393	Foresight Nuvia aPrime 4A Column, 5 ml
12007394	Foresight Nuvia aPrime 4A RoboColumn, 200 $\mu$ l
12007395	Foresight Nuvia aPrime 4A RoboColumn, 600 $\mu$ l

## 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



Process purification bottles, columns, and plates.

## Global Supplier

We are a global supplier of process resins with more than 30 support sites across six continents. Contact your regional Bio-Rad Process Chromatography Specialist at [process@bio-rad.com](mailto: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.



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