

J.T.Baker® BAKERBOND® PROchievA™ recombinant protein A affinity chromatography resin

Enabled by a new, proprietary protein A derived ligand, J.T.Baker® BAKERBOND® PROchievA™ provides best-in-class purification performance for monoclonal antibodies, Fc-fusion proteins, and IgG antibody type molecules.

Designed and manufactured by Avantor to the high standards established by our J.T.Baker® brand, the BAKERBOND® PROchievA™ resin is designed for high performance in the critical affinity chromatography step of mAbs and Fc-fusion protein manufacturing. Its new ligand provides an independent chromatography resin supply alternative for protein A resins, delivered in a non-flammable storage solution through Avantor's global supply chain.

Used with Avantor's proven J.T.Baker® family of process chromatography buffers and additives, the BAKERBOND® PROchievA™ resin can provide biopharma operations with greater efficiencies and higher purity profiles within the affinity chromatography step.



RECOMBINANT PROTEIN A AFFINITY CHROMATOGRAPHY RESIN

Features

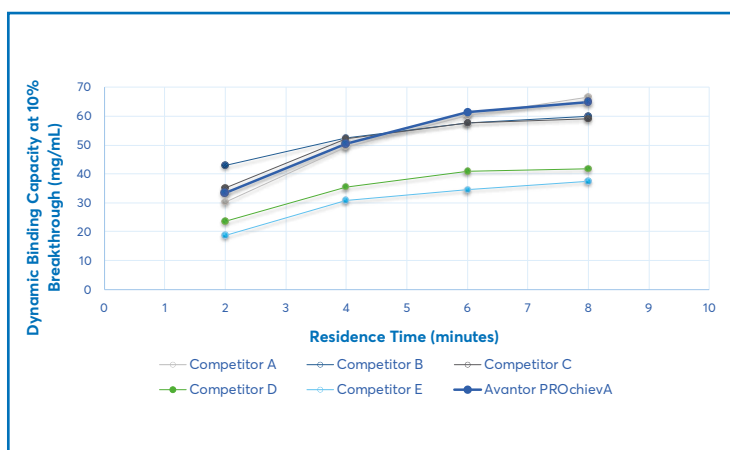
- Proprietary ligand developed exclusively by Avantor with demonstrated first-class dynamic binding capacity for mAbs and improved protein purification capability in other complex molecules
- Standard agarose backbone for ease-of-use and supply reliability
- Traditional particle size allows for use of established column packing procedures and operating protocols
- Delivery in a non-hazardous, non-flammable buffer solution to eliminate burdensome handling requirements

Proven dynamic binding capacity

Dynamic binding capacity is a primary driver to process intensification as it directly drives resin and buffer consumption, cycle time, and capital investment. BAKERBOND® PROchievA™ resin provides equivalent dynamic binding capacities as the best-in-class protein A resins on the market today and significantly higher performance relative to the most commonly used protein A resins on both the process development lab and manufacturing scale.

The high DBC and high column linear velocity offered by BAKERBOND® PROchievA™ affinity chromatography resins gives biopharma operations the ability to intensify downstream throughput while generating higher purity mAb products.

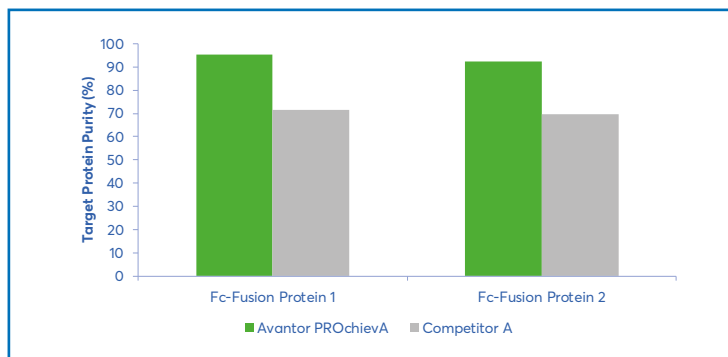
In addition, the porous 75µm particles and inherent lack of fines enable high flow rates to be used during purification, resulting in higher efficiency in downstream processing.



Using purified human IgG1.

Higher purity levels

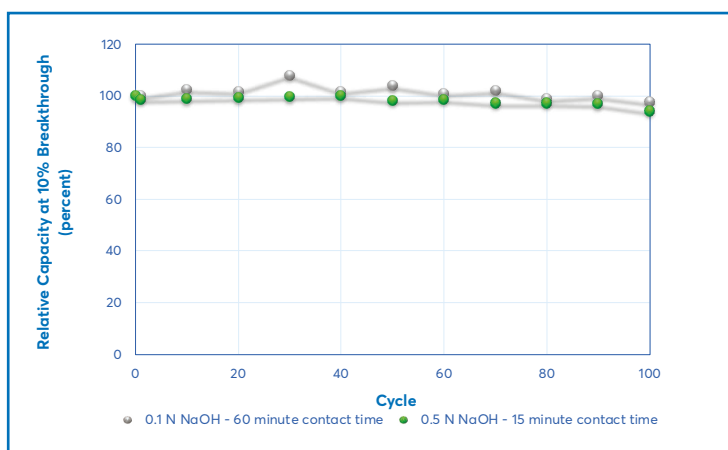
As biologic molecules become more complex, so will the demands on downstream processing. In several applications the BAKERBOND® PROchievA™ resin has been shown to deliver higher levels of protein purity, thus reducing the burden on subsequent purification operations. Several examples are shown in the emerging market for Fc-fusion proteins.



Testing performed on two different Fc-fusion proteins.

Alkaline stability

The proprietary ligand in the BAKERBOND® PROchievA™ resin has been engineered to be stable under alkaline conditions, so standard clean-in-place (CIP) procedures using sodium hydroxide can be performed. As a result, the BAKERBOND® PROchievA™ chromatography resin will retain its high dynamic binding capacity through several purification cycles, providing cost-effective means for performing multiple purifications.



Each cycle represents equilibration, load, wash, elute and CIP with 3CV NaOH.

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Convenient packaging

The BAKERBOND® PROchievA™ resin comes conveniently packaged in a non-hazardous/non-flammable storage buffer, eliminating many of burdensome shipping, handling, and storage requirements common among protein A resins.

Form	Size	Avantor Part Number	VWR North American Cat. No.	VWR EU/AMEA Cat. No.
Pre-Packed Lab Columns	1 mL column (box of 1)	C789-11	JTC789-11	C789-11
	1 mL column (box of 5)	C789-07	JTC789-07	C789-07
	5 mL column (box of 1)	C789-18	JTC789-18	C789-18
	5 mL column (box of 5)	C789-25	JTC789-25	C789-25
Resin	25 mL	7899-01	JT7899-01	7899-01
	100 mL	7899-02	JT7899-02	7899-02
	500 mL	7899-03	JT7899-03	7899-03
	1 L	7899-04	JT7899-04	7899-04
	5 L	7899-05	JT7899-05	7899-05

Process and applications support

Avantor has deep expertise in process chromatography optimization and can work with you to help ensure that the BAKERBOND® PROchievA™ affinity chromatography resin delivers the improved performance you need in your protein A purification step. Technical support from our scientists and application specialists is available from our multiple global research and innovation centers.

Key application information

Functionality	IgG antibody and Fc-fusion protein capture
Functional Group	Recombinant protein affinity ligand for IgG antibodies
Dynamic Binding Capacity	>65mg hIgG/mL at 8 minutes residence time ¹
Average Particle Size	70–80 µm
Binding Buffers	HEPES, PBS, Tris
Binding pH Range	7.0–8.0
Elution pH Range	3.0–4.4
Cleaning pH Range	11.0–14.0
Shipping Stability	200 mM sodium acetate, 2% alcohol, 2% benzyl alcohol, 2–8°C

¹ Dynamic binding capacity was determined at 10% breakthrough.



Contact your Avantor sales representative to learn more about J.T. Baker® BAKERBOND® PROchievA™ chromatography resin or other BAKERBOND® resins.

Setting science in motion to create a better world

Avantor® is a leading global provider of mission critical products and services to customers in the biopharma, healthcare, education & government, and advanced technologies & applied materials industries. We operate in more than 30 countries and deliver an extensive portfolio of products and services.