

ALBUPURE®



Premium product for albumin fusion purification



ALBUPURE PURIFICATION

- High-performance affinity capture adsorbent
- Designed for albumin fusion protein purification
- Cost effective purification platform technology
- Combine with albufuse® expression technology for a complete albumin fusion production and purification package



Human serum albumin (HSA) has a vast array of applications within the biopharmaceutical industry, including as a fusion partner to extend the half-life of a protein drug while maintaining its activity.

In order to support the rising production of a wide range of recombinant albumin fusion proteins, an affinity matrix has been developed that is highly stable, robust, non-toxic, and provides high binding capacity, recovery, and purity: **AlbuPure**.

AlbuPure, developed in collaboration with Novozymes and manufactured exclusively by ProMetic BioSciences Ltd (PBL), is produced in a controlled environment to ISO 9001 quality standard and is designed for use in cGMP manufacturing of biological molecules.

The AlbuPure adsorbent comprises a novel synthetic triazine ligand derived from PBL's Mimetic Ligand™ technology and coupled to PBL's proprietary PuraBead® 6HF base matrix.

This proven technology provides a stable ligand and attachment chemistry with excellent selectivity for albumin fusion proteins and is compatible with the use of 1 M NaOH for cleaning and sanitization.

KEY BENEFITS

- Proven Mimetic Ligand technology
- Excellent flow properties
- High dynamic binding capacities
- Robust and long-life adsorbent
- Sanitizable using sodium hydroxide
- Colorless ligand
- Rugged and easy to pack - PuraBead 6HF base matrix
- Manufactured to ISO 9001-accredited standard
- Single batches produced of up to 275 liters
- Supported with comprehensive regulatory support files

APPLICATIONS

Fusion partner	Approximate fusion partner MW
HIV peptides	5 kDa
IL-1ra	18 kDa
Endostatin	20 kDa
Prosaptide	2.5 kDa
Kunitz Domain	7 kDa
scFv	30 kDa
dAb	13 kDa
Nanobody	14 kDa
vNAR	13 kDa

PROPERTIES

Ligand	Synthetic triazine
Adsorbent appearance	White
Base matrix	Highly cross-linked 6% near monodisperse agarose (PuraBead 6HF)
Particle size	90 ± 10 µm
Binding capacity	> 35 g/L*
Packing conditions	Saline solution at a constant pressure of 1.5 bar (~ 22 psi)
Operational flow rate	Up to 600 cm/hr
Chemical stability	Stable in all commonly used buffers and solutions
Sanitization	0.5 to 1.0 M NaOH
Storage	2–30°C, 20% ethanol/80% 0.1M NaCl (v/v)

* Performed using scFv albumin fusion fermentation supernatant loading to 10% breakthrough at 240 cm/hr, pH 4.5.





ALBUPURE ADVANTAGES

PROVEN TECHNOLOGY

Sharing the same chemistry as PBL's proven Mimetic Ligand adsorbents, which are used extensively in commercial manufacturing processes, AlbuPure has been developed in collaboration with Novozymes for the purification of albumin fusion proteins.

ADSORBENT STABILITY

AlbuPure is stable across a very wide pH range from pH 2.0 (short term) to pH 14.0 and is resistant to most chemical treatments, including denaturants (urea, guanidine hydrochloride), detergents (Triton, SDS), and thiol-reducing agents and can be sterilized by autoclaving at neutral pH.

ADSORBENT RE-USE

The exceptional stability of AlbuPure enables routine use of NaOH (up to 1 M) for column cleaning and sanitization, allowing multiple process cycles.

OPERATIONAL FLEXIBILITY

PuraBead 6HF base matrix enables the operation of large-diameter process columns at high linear flow rates (up to 600 cm/hr).

BULK MANUFACTURE & SUPPLY

PBL supplies bulk adsorbents for developmental and regulated cGMP manufacturing applications in volumes sufficient to meet the requirements of the largest biomanufacturing processes.

Single batches of up to 275 liters are produced in PBL's controlled-environment manufacturing facility under an accredited ISO 9001 quality system and are supported by comprehensive regulatory support files.

PRODUCT AVAILABILITY

AlbuPure is available for use in a variety of product formats:

- ADSORBENT SLURRY
- PRE-PACKED COLUMNS
- PURAPLATE™ - high-throughput screening method development

TECHNICAL SUPPORT

PBL is a world leader in adsorbent and chromatography development and can provide full support and in-house training for the development of new applications and their implementation for biopharmaceutical manufacture.

ORDERING

ALBUPURE SLURRY FOR COLUMN PACKING

AlbuPure (25 ml)	3151-00025
AlbuPure (100 ml)	3151-00100
AlbuPure (500 ml)	3151-00500
AlbuPure (1,000 ml)	3151-01000

Please do not hesitate to contact us for more information on larger pack sizes.

ALBUPURE PREPACKED COLUMNS

(for attachment to chromatography workstations)

AlbuPure Column Kit (5 x 1 ml)	4151-00001
--------------------------------	------------

ALBUPURE PURAPLATE

(96-column plate for rapid screening and purification method development)

AlbuPure PuraPlate	2236
--------------------	------



SALES & TECHNICAL SUPPORT

For all sales and technical support, including manufacture and regulatory support information, please contact ProMetic BioSciences Ltd at - sales@prometicbiosciences.com.

For any inquiries regarding the albufuse expression technology and the application of AlbuPure, please contact Novozymes Biopharma at - biopharma@novozymes.com.

If you would like us to organize any in-house training sessions or seminars to learn more about AlbuPure in your area, please contact ProMetic BioSciences Ltd at - techsupport@prometicbiosciences.com.

NOVOZYMES BIOPHARMA

US SALES OFFICE (Reg. no. 01142208)

One Broadway · 14th Floor
Cambridge · MA 02142 · USA
Tel. +1 617 401 2500
Fax +1 617 401 2501

EU SALES OFFICE (CVR no. 29603537)

Krogshoejvej 36
2880 Bagsvaerd · Denmark
Tel. +45 4446 1566
Fax +45 4446 1080

SALES: biopharma@novozymes.com

www.biopharma.novozymes.com

PROMETIC BIOSCIENCES LTD

211 Cambridge Science Park
Milton Road
Cambridge · CB4 0WA · UK
Tel. +44 (0) 1223 420 300
Fax +44 (0) 1223 420 270

SALES: sales@prometicbiosciences.com

TECH SUPPORT: techsupport@prometicbiosciences.com

www.prometicbiosciences.com

PuraPlate™, Mimetic Ligand™, ProMetic BioSciences Ltd and the PBL logo are trademarks of ProMetic BioSciences Ltd. PuraBead® is registered with the U.S. Patent and Trademark Office. AlbuPure® and Albufuse® are registered trademarks of Novozymes Biopharma UK Ltd.

AlbuPure is sold under license exclusively for use in the purification of albumin fusion proteins with no warranty of merchantability or fitness for a particular purpose. For other applications, please feel free to contact us for further information.



The products and services described in this document are the responsibility of Novozymes Biopharma DK A/S, Krogshoejvej 36, 2880 Bagsvaerd, Denmark, (company registration no. 29603537), a wholly owned subsidiary of Novozymes A/S. The information in this document is based on data we believe to be reliable. They are offered in good faith, but without warranty, as conditions and methods of use of the products are beyond our control. Furthermore, laws, regulations, and/or third-party rights may prevent the recipient from using the information herein in a given manner. Thus, the information contained herein is provided "AS IS", and Novozymes makes no representation or warranty whatsoever with regard to said information, hereunder the accuracy, fitness for a particular purpose, noninfringement of intellectual property rights, or regulatory/legal compliance, unless otherwise agreed in writing.