



# BioPurification Quarterly

A Newsletter by ProMetic BioSciences

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## Greetings!

Welcome to the third edition of ProMetic BioSciences Ltd BioPurification Quarterly newsletter! We hope that, by reading this newsletter, you will be better informed of what's new at PBL. In each newsletter you'll find information on...

- New Products
- Special Offers
- Upcoming Events
- New Applications

Thanks again and we hope you enjoy the newsletter!

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## → PBL Pioneers Life-Saving Technology

In collaboration with the American Red Cross, PBL has developed an affinity material which is able to capture prion-protein (the infectious agent responsible for variant Creutzfeldt Jacobs Disease "vCJD") very specifically from blood and plasma. This technology forms the basis of the CE Mark approved P-CAPT® prion reduction filter, manufactured and marketed in partnership with French company Macopharma SA.



The P-CAPT® filter is designed to capture and remove prion infectivity from donated red cells and provides an effective means of preventing vCJD transmission by blood transfusion. In ongoing, independent trials conducted by the UK and Irish blood services, blood treated with the P-CAPT® filter has been found to be normal with no side effects.

An announcement is expected later this autumn regarding implementation of the PCAPT® filter to protect the UK population against the risk of contracting vCJD. In a related project, Swiss company Octapharma SA has adopted PBL's prion-reduction technology for solvent/detergent treated, virally-inactivated human plasma to provide enhanced protection against vCJD transmission by plasma transfusion.

[Click here to read the published article by Business Weekly](#)

[Click here for more information on PCAPT®](#)



Join our mailing list to be notified of special offers from ProMetic BioSciences Ltd!

### Upcoming Events



Come see us at the BioProcess International Conference & Exhibition!  
Date: October 13-15, 2009  
Venue: Raleigh Convention Center, Raleigh North Carolina  
Booth 420

[More about this event](#)  
[Make an appointment to speak with a representative from PBL](#)

### Win a Digital Music Player!



We are giving away and iPod Touch! Stop by booth 420 at the BioProcess International Conference & Exhibition and enter to win an iPod Touch!

[More about the BioProcess International Conference & Exhibition](#)

*iPOD and IPOD TOUCH are trademarks of Apple Inc., which is not affiliated with this promotion.*

Send to a Colleague

### → Chromatography Tips and Advice by Dr. Dev

Packing chromatography columns with PBL's PuraBead® beaded agarose adsorbents is relatively simple. However, the reproducible and consistent packing of laboratory scale columns is often seen as challenging and time consuming.



Here is a tip that will allow for the reproducible packing of such columns in a time efficient manner. Pack the column at maximum flow rate but not exceeding the recommended pressure for the particular adsorbent. Most modern highly cross-linked beaded agarose chromatography adsorbents can withstand a maximum pressure limit of 3 bar (0.3 MPa) and laboratory columns are designed to withstand a maximum pressure limit of up to 5 bar (0.5 MPa). As the packing progresses, continue monitoring the pressure and if it approaches the maximum pressure limit, lower the flow rate maintaining the pressure to just below the maximum pressure limit of 3 bar until a steady bed height is obtained. Stop the flow and quickly lower the top adapter to the packed bed height of the adsorbent. Done.

[Have a question about packing chromatography columns?](#)  
[For more information on PBL's chromatography resins, click here](#)

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### → PBL Offers the Most Comprehensive Line of HIC Adsorbents - 10% Discount Offer

Hydrophobic interaction chromatography (HIC) is an established technique for the purification of proteins based upon differences in relative hydrophobicity. PBL offers the most comprehensive series of adsorbents currently being utilized in manufacturing scale processes worldwide:

- Butyl Agarose 6XL
- Hexyl Agarose 6XL
- Octyl Agarose 6XL
- Phenyl Agarose 6X
- Decyl Agarose 6XL



This range, of increasing hydrophobicity, enables selection of a HIC adsorbent with the correct hydrophobicity for the protein to be purified and avoids the need for excessive amounts of salt for protein binding, or the use of organic co-solvents to assist with

## PBL's Custom Adsorbent Development Program



Want to develop an affinity capture step for your difficult to purify protein?

PBL's Custom Adsorbent Development Program enables the development of Mimetic Ligand™ adsorbents tailored to suit almost any target biomolecule by use of Intelligent Combinatorial Chemistry™ which comprises automated synthesis and screening of ligand libraries against the target biomolecule of interest.

These programs are conducted by PBL in-house and we work closely with the sponsor throughout.

[Click here for more information on this program](#)

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elution. PBL's comprehensive range of HIC adsorbents are produced using a cross-linked agarose support matrix and epoxy-bonded HIC groups which provides robust and alkali resistant adsorbents for use in a wide range of protein purification applications.

Selection of the most appropriate PBL HIC adsorbent is made easier with the Hydrophobic A6XL Screening Column Kit, a kit comprising of pre-packed 1 ml columns (other columns sizes are available on request) - containing each adsorbent type. Similarly, method development is also made easier with the Hydrophobic A6XL Column Kit. These individual kits comprise of 5 x pre-packed 1ml columns (other column sizes are available on request) - containing the same adsorbent type. Also, the 96-column-block format Puraplate™ is also available (each plate containing a single or multiple HIC adsorbent types).

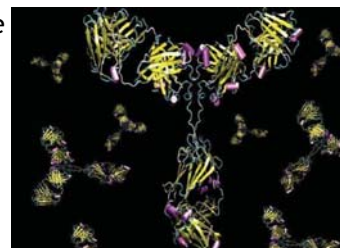
For a limited time only ProMetic BioSciences is offering 10% off all website orders for our HIC adsorbents! In order to take advantage of this opportunity an order must be placed with a valid credit card via PBL's new online shop anytime between October 1st and December 15th, 2009.

[Click here to learn more about PBL's line of HIC Adsorbents Shop for HIC Adsorbents now to take advantage of our product offer!](#)

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## → Turnabout Is Fair Play

PBL's MAbsorbent® A2P is an attractive alternative to Protein A as an affinity capture method for the isolation and purification of IgG from plasma, serum, or ascites fluid. This is because MAbsorbent®, a synthetic ligand, is much less expensive than Protein A and can be cleaned and reused much more extensively than Protein A. These attributes lead to greater column longevity and much lower operating costs for MAbsorbent® as the affinity step in an antibody purification process. Unfortunately, some scientists working with monoclonal antibodies have considered these advantages unavailable to their DSP efforts, primarily because of the interference with binding of certain culture media components such as Pluronic® F68. There are, however, ways around this problem, enabling cell-derived monoclonal processes to take advantage of MAbsorbent®.



One solution is to re-position the affinity step in the process. Consider using cation exchange as the capture step in the process, with MAbsorbent® as the second step. Under the appropriate conditions, the antibody will bind to the column and the interfering components will be cleared in the flow through. The antibody can then be desorbed under elution conditions that are also the binding conditions for MAbsorbent®, without the need for buffer adjustments. Many monoclonal purification schemes use an affinity

(Protein A) step and a CEX (S or SP) step already. Simply reversing their order will allow for longer column longevity, more reliable column sanitization, and significantly lower operational costs.

ProMetic BioSciences Ltd and a major pharmaceutical company compared a process combining CEX and MAbsorbent® to an existing process utilizing Protein A in an application note posted to PBL's website.

[Click here to view the Application Note](#)  
[Learn more about PBL's antibody capture resins](#)  
[Shop for Mabsorbent® A2P now!](#)



*Pluronic is a registered trademark of BASF Corporation.*

Again thank you for reading our newsletter, we hope you enjoyed it! If you have any suggestions on content or how we can make the newsletter better please [click here](#) to send us an email.

P.S.

- Stop by booth 420 at the BPI Conference and Exhibition and enter to win an iPod Touch!
- Save 10% by purchasing an HIC adsorbent online via our new web shop!

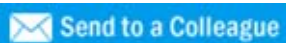
Sincerely,

The ProMetic BioSciences Ltd Team

**Save  
10%**

For a limited time only ProMetic BioSciences is offering 10% off all website orders for our HIC adsorbents exclusive to our Newsletter readers! In order to take advantage of this opportunity an order must be placed with a valid credit card via PBL's new online shop anytime between October 1st and December 15th, 2009. This coupon is transferable! Please click "send to a colleague" to share this coupon with a colleague.

[Click here to take advantage of this limited time offer!](#)



Offer Expires: December 15th, 2009

ProMetic BioSciences Ltd is a private company limited by shares, incorporated in the Isle of Man with registered number 034251C. The company is also registered as a foreign company at Companies House in the UK, with registration number FC027128. ProMetic BioSciences UK is the branch name of ProMetic BioSciences Ltd, and is registered as a Branch in England & Wales with registration number BR009067. The registered office of ProMetic BioSciences UK and ProMetic BioSciences Ltd is Freeport, Ballasalla, Isle of Man, IM9 2AP, British Isles. The liability of the members of ProMetic BioSciences Ltd is limited.

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