UNOsphere™ Chromatography Resins Publications List

Process Separations

Bulletin 6867

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UNOsphere Q Anion Exchange

Leal AR et al. (2016).
Enzymatic properties, evidence for in vivo expression, and intracellular localization of shewasin D, the pepsin homolog from *Shewanella denitrificans*.
Sci Rep 6, 23869.

Nääv Å et al. (2015).
A1M ameliorates preeclampsia-like symptoms in placenta and kidney induced by cell-free fetal hemoglobin in rabbit.
PLoS One 10, e0125499.

Cao H et al. (2014).
Characterization of a soluble phosphatidic acid phosphatase in bitter melon (*Momordica charantia*).
PLoS One 9, e106403.

Kumar P et al. (2014).
Kafirin adsorption on ion-exchange resins: isotherm and kinetic studies.
J Chromatogr A 1356, 105–116.

Zhao P et al. (2013).
A bipartite molecular module controls cell death activation in the basal cell lineage of plant embryos.
PLoS Biol 11, e1001655.

Boccardi C et al. (2012).
An automated plasma protein fractionation design: high-throughput perspectives for proteomic analysis.
BMC Res Notes 5, 612.

Tan L et al. (2012).
Yeast expressed foldable quadrivalent Aβ15 elicited strong immune response against Aβ without Aβ-specific T cell response in wild C57BL/6 mice.
Hum Vaccin Immunother 8, 1,090–1,098.

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UNOsphere Q Anion Exchange (continued)

Tooth DJ et al. (2012).
An economical high-throughput protocol for multidimensional fractionation of proteins.
Int J Proteomics 2012, 735132.

Carvalho Figueiredo A et al. (2011).
Crystallization and preliminary crystallographic characterization of three peptidic inhibitors in complex with α-thrombin.
Acta Crystallogr Sect F Struct Biol Cryst Commun 67, 54–58.

Phan TT et al. (2011).
Purification and characterization of novel fibrinolytic proteases as potential antithrombotic agents from earthworm *Perionyx excavatus*.
AMB Express 1, 26.

Watters K and Palmenberg AC. (2011).
Differential processing of nuclear pore complex proteins by rhinovirus 2A proteases from different species and serotypes.
J Virol 85, 10,874–10,883.

Yabe T et al. (2011).
A peptide found by phage display discriminates a specific structure of a trisaccharide in heparin.
J Biol Chem 286, 12,397–12,406.

Chan YA and Thomas MG. (2010).
Recognition of (2S)-aminomalonyl-acyl carrier protein (ACP) and (2R)-hydroxymalonyl-ACP by acyltransferases in zwittermicin A biosynthesis.
Biochemistry 49, 3,667–3,677.

Zhu L et al. (2010).
Triclosan resistance of *Pseudomonas aeruginosa* PAO1 is due to FabV, a triclosan-resistant enoyl-acyl carrier protein reductase.
Antimicrob Agents Chemother 54, 689–698.

Ogata H et al. (2009).
Crystallization and preliminary X-ray analysis of the small subunit (R2F) of native ribonucleotide reductase from *Corynebacterium ammoniagenes*.
Acta Crystallogr Sect F Struct Biol Cryst Commun 65, 878–880.

Tugcu N et al. (2008).
Maximizing productivity of chromatography steps for purification of monoclonal antibodies.
Biotechnol Bioeng 99, 599–613.

Wang L et al. (2008).
Overexpression and purification of *Escherichia coli* holo-acyl carrier protein and synthesis of acyl carrier protein.
Wei Sheng Wu Xue Bao 48, 963–969.

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UNOsphere Q Cation Exchange (continued)

Kolkenbrock S et al. (2006).
N-acetylanthranilate amidase from *Arthrobacter nitroguajacolicus* Rü61a, an alpha/beta-hydrolase-fold protein active towards aryl-acylamides and -esters, and properties of its cysteine-deficient variant.
J Bacteriol 188, 8,430–8,440.

UNOsphere S Cation Exchange

Bhanushali PB et al. (2016).
Development of glycan specific lectin based immunoassay for detection of prostate specific antigen.
Int J Biol Macromol 86, 468–480.

Pérez de los Santos AI et al. (2016).
Improvement of catalytical properties of two invertases highly tolerant to sucrose after expression in *Pichia pastoris*. Effect of glycosylation on enzyme properties.
Enzyme Microb Technol 83, 48–56.

Cao H et al. (2014).
Characterization of a soluble phosphatidic acid phosphatase in bitter melon (*Momordica charantia*).
PLoS One 9, e106403.

Li X et al. (2014).
Cloning, expression and characterization of a pectate lyase from *Paenibacillus* sp. 0602 in recombinant *Escherichia coli*.
BMC Biotechnol 14, 18.

Shi YH et al. (2013).
Yeast-based production, purification and bioactivity assay of rainbow trout LECT2.
Dongwuxue Yanjiu 34, 33–38.

Boccardi C et al. (2012).
An automated plasma protein fractionation design: high-throughput perspectives for proteomic analysis.
BMC Res Notes 5, 612.

Nakajima M et al. (2012).
A novel glycosylphosphatidylinositol-anchored glycoside hydrolase from *Ustilago esculenta* functions in β-1,3-glucan degradation.
Nucleic Acids Res 15, 1,965–1,977.

Pan J et al. (2012).
Crystallization and preliminary X-ray diffraction analysis of the SOD-TAT fusion protein.
Acta Crystallogr Sect F Struct Biol Cryst Commun 68, 543–546.

Pérez Almodóvar EX et al. (2012).
Multicomponent adsorption of monoclonal antibodies on macroporous and polymer grafted cation exchangers.
J Chromatogr A 1264, 48–56.

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UNOsphere S Cation Exchange (continued)

Tao Y et al. (2012).
Modeling multicomponent adsorption of monoclonal antibody charge variants in cation exchange columns.
AIChE J 58, 2,503–2,511.

Williams PD et al. (2012).
Preclinical safety and pharmacokinetic profile of 3K3A-APC, a novel, modified activated protein C for ischemic stroke.
Curr Pharm Des 18, 4,215–4,222.

Gagnon P et al. (2011).
Minibodies and multimodal chromatography methods: A convergence of challenge and opportunity.
Bioprocess Int 8, 26–35.

Pérez Almodóvar EX et al. (2011).
Protein adsorption and transport in cation exchangers with a rigid backbone matrix with and without polymeric surface extenders.
Biotechnol Prog 27, 1,264–1,272.

Tao Y et al. (2011).
Adsorption kinetics of deamidated antibody variants on macroporous and dextran-grafted cation exchangers. III. Microscopic studies.
J Chromatogr A 1218, 8,027–8,035.

Tao Y et al. (2011).
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J Chromatogr A 1218, 1,530–1,537.

Wang Z et al. (2011).
Secreted factors from *Bifidobacterium animalis* subsp. *lactis* inhibit NF-κB-mediated interleukin-8 gene expression in Caco-2 cells.
Appl Environ Microbiol 77, 8,171–8,174.

Rocchiccioli S et al. (2010).
A gel-free approach in vascular smooth muscle cell proteome: perspectives for a better insight into activation.
Proteome Sci 8, 15.

Schmoeger E et al. (2009).
Matrix-assisted refolding of autoprotease fusion proteins on an ion exchange column.
J Chromatogr A 1216, 8,460–8,469.

Seth A et al. (2008).
Probiotics ameliorate the hydrogen peroxide-induced epithelial barrier disruption by a PKC- and MAP kinase-dependent mechanism.
Am J Physiol Gastrointest Liver Physiol 294, G1,060–G1,069.

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UNOsphere S Cation Exchange (continued)

Tugcu N et al. (2008).
Maximizing productivity of chromatography steps for purification of monoclonal antibodies.
Biotechnol Bioeng 99, 599–613.

Yan F et al. (2007).
Soluble proteins produced by probiotic bacteria regulate intestinal epithelial cell survival and growth.
Gastroenterology 132, 562–575.

El Khattabi M et al. (2006).
Llama single-chain antibody that blocks lipopolysaccharide binding and signaling: Prospects for therapeutic applications.
Clin Vaccine Immunol 13, 1,079–1,086.

UNOsphere SUPrA™ Affinity Chromatography

Bolton GR and Mehta KK (2016).
The role of more than 40 years of improvement in Protein A chromatography in the growth of the therapeutic antibody industry.
Biotechnol Prog [published online ahead of print July 8, 2016]. Accessed October 21, 2016.

Nian R et al. (2016).
Advance chromatin extraction improves capture performance of Protein A affinity chromatography.
J Chromatogr A 1431, 1–7.

Miethe S et al. (2015).
Development of human-like scFv-Fc neutralizing botulinum neurotoxin E.
PLoS One 10, e0139905.

Gagnon P et al. (2014).
Nonspecific interactions of chromatin with immunoglobulin G and Protein A, and their impact on purification performance.
J Chromatogr A 1340, 68–78.

Jäger V et al. (2013).
High level transient production of recombinant antibodies and antibody fusion proteins in HEK293 cells.
BMC Biotechnol 13, 52.

Lee YH et al. (2013).
Construction and characterization of functional anti-epiregulin humanized monoclonal antibodies.
Biochem Biophys Res Commun 441, 1,011–1,017.

Carta G (2012).
Predicting protein dynamic binding capacity from batch adsorption tests.
Biotechnol J 7, 1,216–1,220.

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UNOsphere SUPrA™ Affinity Chromatography (continued)

Mader A and Kunert R (2012).
Evaluation of the potency of the anti-idiotypic antibody Ab2/3H6 mimicking gp41 as an HIV-1 vaccine in a rabbit prime/boost study.
PLoS One 7, e39063.

Arnold M et al. (2011).
Antibody purification by affinity chromatography based on small molecule affinity ligands identified by SPR-based screening of chemical microarrays.
J Chromatogr A 1218, 4,649–4659

Palmberger D et al. (2011).
Insect cells for antibody production: evaluation of an efficient alternative.
J Biotechnol 153, 160–166.

Carta G and Pérez Almodóvar EX (2010).
Productivity considerations and design charts for biomolecule capture with periodic countercurrent adsorption systems.
Separation Science and Technology 45, 149–154.

Ng PK et al. (2010).
Development of fluoroapatite chromatography for the purification of monoclonal antibody.
J Sep Sci 33, 2,762–2,767.

Pérez Almodóvar EX and Carta G (2009).
IgG adsorption on a new Protein A adsorbent based on macroporous hydrophilic polymers II. Pressure–flow curves and optimization for capture.
J Chromatogr A 1216, 8,348–8,354.

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