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Agilent PLRP-S for Biomolecules

A collection of citations to advance your research

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Biologics and biosimilars

[Detection and identification of a serine to arginine sequence variant in a therapeutic monoclonal antibody](#)

Journal of Chromatography B, **879**, 2877-2884
(2011)
Diya Ren *et al.*

Tags
ZORBAX 300SB-C8, PLRP-S, 1200 Infinity Series,
biologics and biosimilars

Abstract

Reduced proteins were separated and characterized using Agilent PLRP-S and ZORBAX 300SB-C8 columns fitted to an Agilent 1200 Infinity Series. Published by Elsevier B. V.

Environmental

[On-line solid phase extraction of pesticide residues in natural water, coupled with liquid chromatography and UV detection, using various sorbents](#)

Journal of Liquid Chromatography & Related Technologies, **25**, 1779-1790 (2002)
Z. L. Chen, M. Megharaj, R. Naidu

Tags
Bond Elut ENV, PLRP-S, environmental, water
analysis

Abstract

A technique that couples on-line solid phase extraction with liquid chromatography has been developed for the determination of nine trace pesticide residues (simazine, atrazine, diuron, propazine, linuron, molinate, premetryne, malathion, and fenitrothion) in natural water samples. Five commercially available sorbents (C₈, C₁₈, PRP-1, PLRPs, and Bond Elut ENV) were evaluated for their suitability for on-line solid phase extraction of the trace pesticides. High recoveries of all pesticides were obtained using C₁₈, PRP-1, PLRPs with good reproducibility and peak shape. C₁₈ sorbent allowed the enrichment of up to 100 mL of water spiked with 2 µg/L of pesticides. Recoveries of the tested pesticides ranged from 60.4 to 98.3% (*n*=5) with relative standard deviations better than 6.9%. Detection limits as low as 0.01 µg/L were achieved when 100 mL of sample was enriched. The method was used to determine pesticide residues in natural water with increased reliability and sensitivity, as well as shorted analysis time, when compared to off-line solid-phase extraction. © 2002 Taylor and Francis.

[Determination of Tetrachloroethene, Trichloroethylene, and Their Metabolites at Trace Levels in Ground Waters by On-Line Solid Phase Extraction/HPLC](#)

Journal of Liquid Chromatography & Related Technologies, **27**, 885-896 (2004)
Z. L. Chen, M. Megharaj, R. Naidu

Tags
Bond Elut ENV, PLRP-S, environmental, emerging contaminants

Abstract

A technique that couples on-line solid phase extraction with liquid chromatography has been developed for the determination of nine trace pesticide residues (simazine, atrazine, diuron, propazine, linuron, molinate, premetryne, malathion, and fenitrothion) in natural water samples. Five commercially available sorbents (C₈, C₁₈, PRP-1, PLRPs, and Bond Elut ENV) were evaluated for their suitability for on-line solid phase extraction of the trace pesticides. High recoveries of all pesticides were obtained using C₁₈, PRP-1, PLRPs with good reproducibility and peak shape. C₁₈ sorbent allowed the enrichment of up to 100 mL of water spiked with 2 µg/L of pesticides. Recoveries of the tested pesticides ranged from 60.4 to 98.3% (*n*=5) with relative standard deviations better than 6.9%. Detection limits as low as 0.01 µg/L were achieved when 100 mL of sample was enriched. The method was used to determine pesticide residues in natural water with increased reliability and sensitivity, as well as shorted analysis time, when compared to off-line solid-phase extraction. © 2004 Taylor and Francis.

Food testing and agriculture

[RP-HPLC lipophilicity studies for some \(hetero\)acrylamides derived from 2-amino 4,6-dimethyl pyridine: introduction of an hydrogen-bond descriptor](#)

Journal of Liquid Chromatography & Related Technologies, **34**, 1356-1366 (2011)
Khalid Fikri *et al.*

Tags
PLRP-S, food testing and agriculture, food authenticity

Abstract

RP-HPLC measurements (in water + 60% v/v acetonitrile, on a porous polystyrene column) lead to a linear calibration between the retention factor log_k and the lipophilicity logP for a series of 9 OECD standards. Introduction of a variable indicator D for hydrogen-bond donors enhances the goodness of fit. From experimental retention factors, estimated values of logP are given for 23 substituted (hetero)arylcarboxamides derived from 2-amino 4,6-dimethyl pyridine, whose anti-inflammatory behavior and anti-cholinesterase activity were previously characterized. From the logP versus log_k relationship, a family-dependent indicator variable D is attributed to each compound. © 2011 Taylor & Francis.

Proteomics and protein sciences

[Protein Glycoengineering Enabled by the Versatile Synthesis of Aminoxy Glycans and the Genetically Encoded Aldehyde Tag](#)

Journal of the American Chemical Society , **133**,
16127-16135 (2011)

Jason E. Hudak, Helen H. Yu, Carolyn R. Bertozzi

Tags

PLRP-S, proteomics and protein sciences,
glycan and glycoprotein analysis

Abstract

Homogeneously glycosylated proteins are important targets for fundamental research and for biopharmaceutical development. The use of unnatural protein–glycan linkages bearing structural similarity to their native counterparts can accelerate the synthesis of glycoengineered proteins. Here we report an approach toward generating homogeneously glycosylated proteins that involves chemical attachment of aminoxy glycans to recombinantly produced proteins via oxime linkages. We employed the recently introduced aldehyde tag method to obtain a recombinant protein with the aldehyde-bearing formylglycine residue at a specific site. Complex aminoxy glycans were synthesized using a new route that features N-pentenoyl hydroxamates as key intermediates that can be readily elaborated chemically and enzymatically. We demonstrated the method by constructing site-specifically glycosylated variants of the human growth hormone. Reprinted with permission from *Journal of the American Chemical Society*. © 2011 American Chemical Society.

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