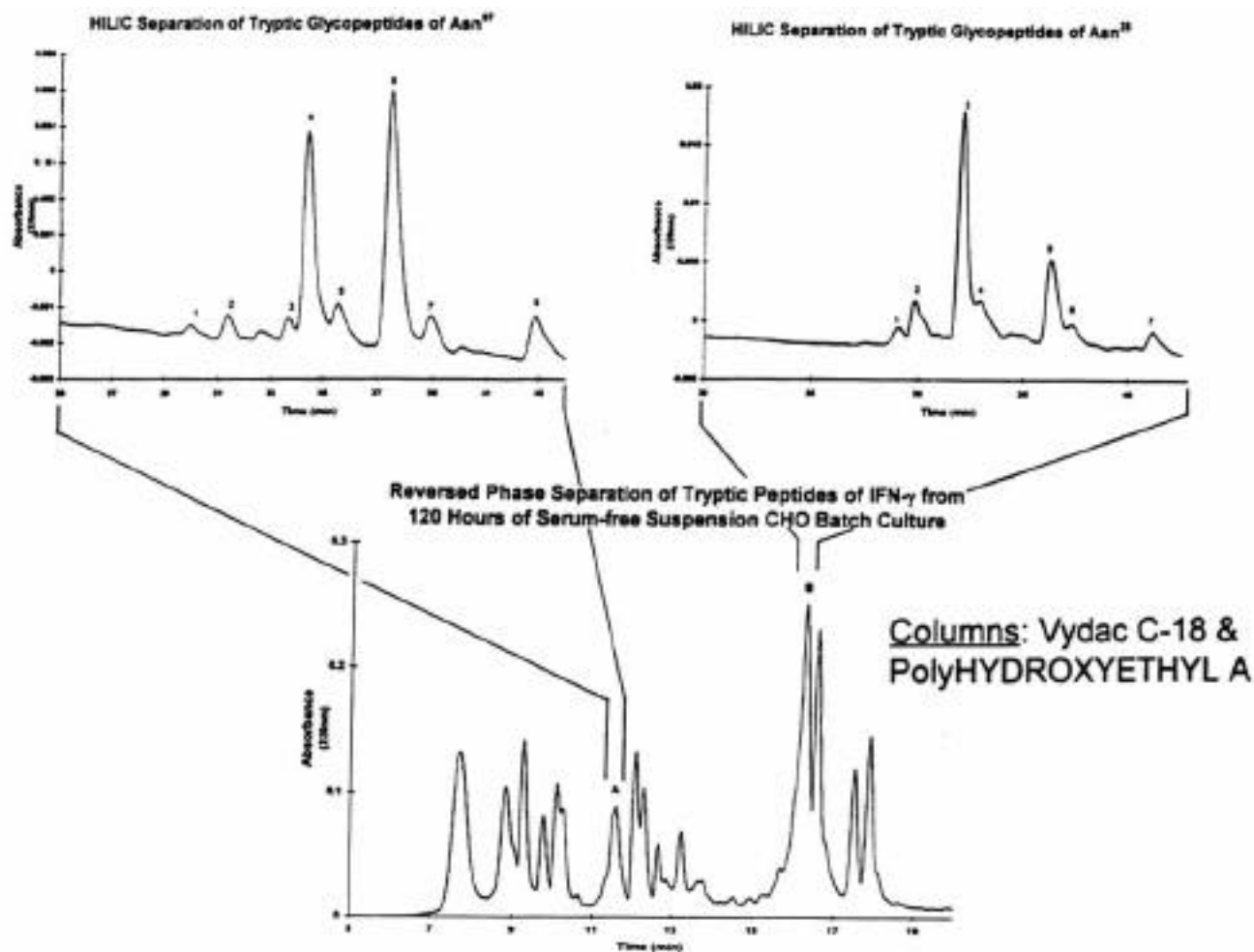


HYDROPHILIC INTERACTION CHROMATOGRAPHY

RPC/HILIC Purification of Glycopeptides from a Tryptic Digest of γ -Interferon



The two glycopeptide peaks in the RPC run were collected and rerun via HILIC. Each peak proved to consist of a family of peptides, all with the same peptide sequence but differing by a single carbohydrate residue from neighboring peptides. This is an example of the exceptional selectivity of HILIC for variations involving polar residues.

Data courtesy of J. Zhang & D. Wang (MIT)

The Nest Group, Inc.

TEL# 800-347-6378 or TEL# 508-481-6223

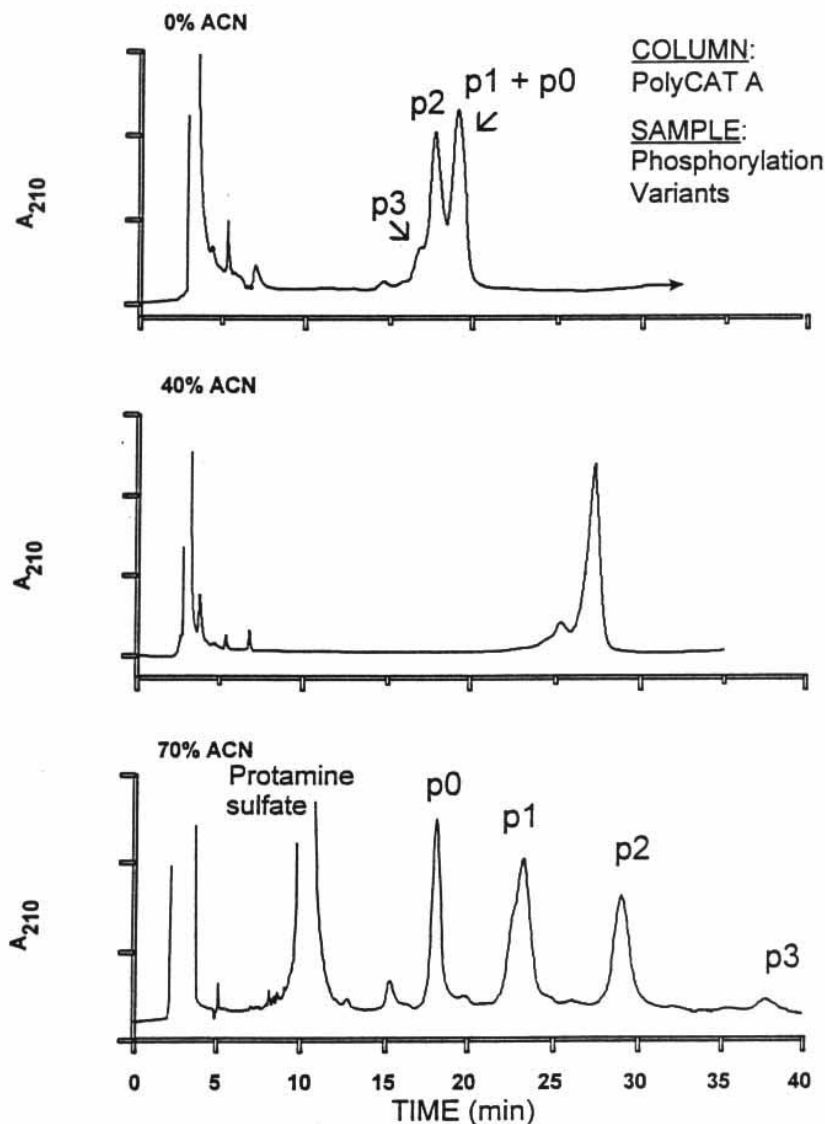
FAX# 508-485-5736

45 Valley Road, Southboro, MA 01772

WWW URL <http://world.std.com/~nestgrp>

email: nestgrp@world.std.com

Phosphorylation Variants of Histone H1.1 Via CEX-HILIC



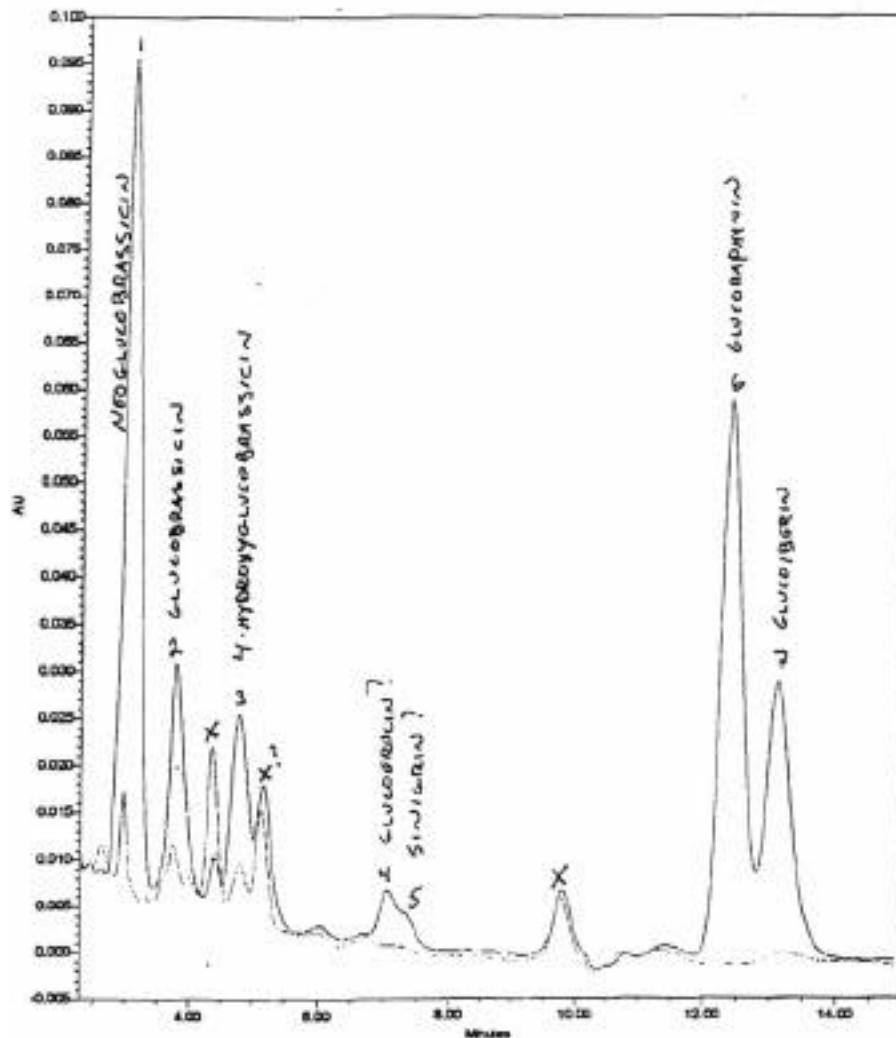
(TOP: pure cation-exchange) With a regular salt gradient, the forms with more phosphate elute earlier, due to electrostatic repulsion of the stationary phase.

(BOTTOM: cation-exchange + HILIC) With 70% acetonitrile (ACN) in both mobile phases, hydrophilic interactions dominate the chromatography. While electrostatic repulsion is still present, the polarity of phosphate groups is great enough to cause a net increase in retention. This affords an extraordinarily good separation, with inversion of the order of elution.

(MIDDLE) An intermediate case. With 40% ACN, electrostatic repulsion and hydrophilic interaction are balanced, and all forms coincide.

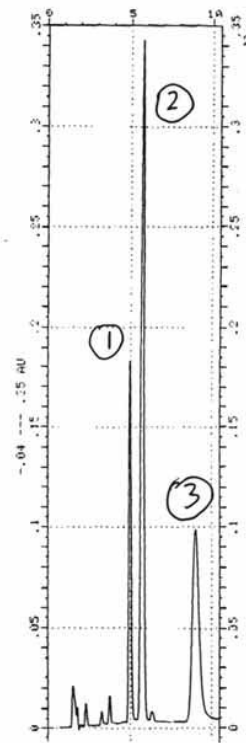
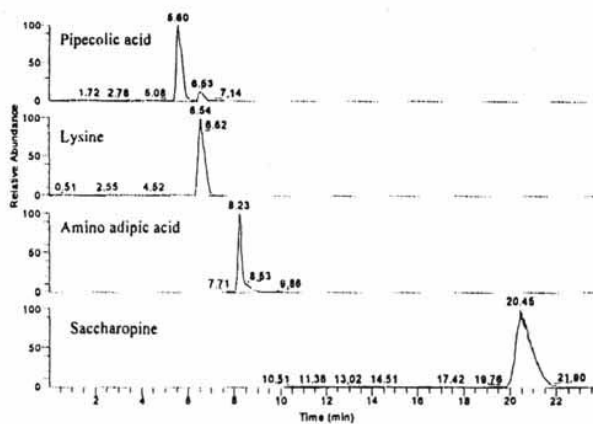
Data courtesy of H. Lindner (Univ. of Innsbruck)

HILIC of Glucosinolates



Some Small Molecule Applications of HILIC On PolyHYDROXYETHYL A 100Å

Components of High-Lysine Corn
(mass spec detection)



Cosmetics
Components

- 1) Urea
- 2) Allantoin
- 3) Lysidone

Detection:
200 nm

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