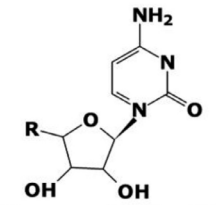
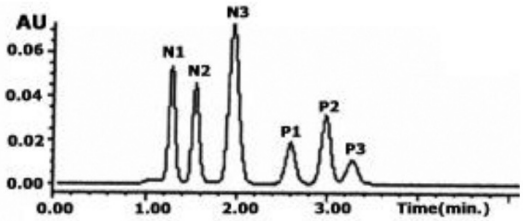
Nucleoside Analogs

Anticancer Prodrugs



Compounds N1 - N3



Notes: Nucleoside analogue anticancer "pro" drugs are difficult to retain on conventional HPLC columns because of their highly polar natures. With other HPLC Columns, ion pair reagents normally are used in order to achieve sufficient retention. These additives interfere with MS detection and are not preferred. With the Cogent UDC-Cholesterol column, you can have sufficient retention with a MS compatible mobile phase.

Method Conditions

Column: Cogent UDC Cholesterol™, 4µm, 100Å

Catalog No.: 69069-7.5P

Dimensions: 4.6 x 75 mm

Mobile Phase: A: 60% Acetonitrile/ 40% DI H_2O/ 0.5% formic acid

Injection vol.: 5µL

Flow rate: 1 mL/min

Detection: UV 270 nm – Diode Array

Sample: Proprietary Drugs. N1-N3 nucleoside analogues. P1-P3 other more hydrophobic proprietary compounds with polar functional groups. 1 mg/L of each dissolved in the mobile phase

Discussion

Cholesterol HPLC Columns are able to retain polar and nonpolar compounds in a single isocratic run. Adjustment of the aqueous to organic ratio can be used to make either the polar or more hydrophobic compounds elute first. In the example presented the more hydrophobic compounds are retained longer but retention and separation of the polar constituents is still achieved.

If greater retention of the polar compounds is desired then a higher percentage of acetonitrile is required.

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