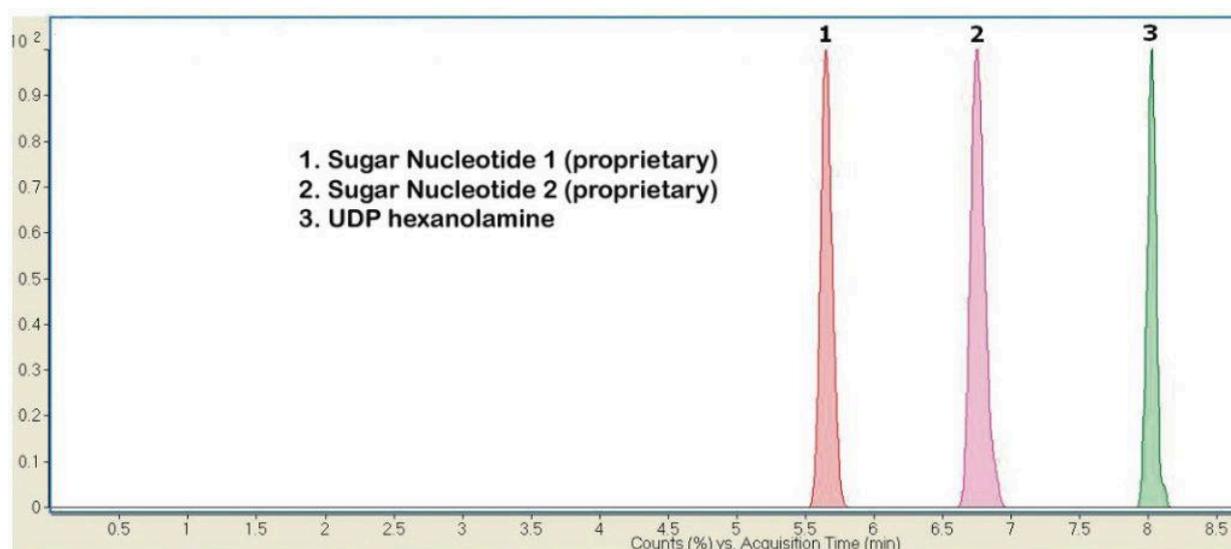


Nucleotide UDP and CDP Sugars Analyzed with LC-MS MS - AppNote

Separating UDP and CDP Sugars with ANP and Increased Sensitivity

This Method can be used to analyze UDP and CDP Sugars using UDP-Hexanolamine (*a metabolite*) as an Internal standard. The Sugar Nucleotides used in this Application Note are a mixture of compounds that occur in plants and their structure is proprietary.

A potentially powerful tool for profiling Sugar Nucleotides in Metabolomic studies, this Method uses an Inverse Gradient (*HILIC like*); the Mobile Phase uses high organic component which enhances Mass Spec response and assures lower detection limits.



Method Conditions

Column: Cogent Diamond Hydride™, 4 μm, 100 Å

Catalog No.: [70000-15P-2](#)

Dimensions: 2.1 x 150 mm

Mobile Phase:

A: DI Water / 0.1% Ammonium Formate (*pH* 7.2)

B: 90% Acetonitrile / 10% DI Water / 0.1% Ammonium Formate (*pH* 6)

Gradient:

Time (minutes)	%B
0	95

10	75
12	75
12.1	95
15	95

Post Time: 5 minutes

Flow rate: 0.3 mL / minute

Detection: ESI – neg – Agilent 6410 Triple Quadrupole Mass Spectrometer

Mass Data:

- 1. Compound 1 - the monitored MRM transitions were m/z 535 to m/z 323
- 2. Compound 2 - the monitored MRM transitions were m/z 564 to m/z 322
- 3. UDP Hexanolamine (*internal standard*) - the monitored MRM transitions were m/z 502 to m/z 258 (*MRM = multiple reaction monitoring in LC/MS/MS*)

Notes: Sugar Nucleotides among other metabolites are an important group of compounds to be analyzed when one is trying to understand cellular response to genetic or environmental perturbations.



Attachment No 61 Sugar Nucleotides Analyzed with LCMS/MS pdf 0.2 Mb [Download File](#)

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