

# Analysis of Nucleotides - AppNote

## ATP & AMP Separated in Aqueous Normal Phase (ANP)

The chromatogram below shows an example of the separation possible with this Method for three Adenosine analytes using an Aqueous Normal Phase (ANP) Gradient.



#### Peaks:

Adenosine-3',5'-Cyclic Monophosphate
 Adenosine 5'-Monophosphate (AMP)
 Adenosine 5'-Triphosphate (ATP)

### **Method Conditions**

Column: Cogent Diamond Hydride<sup>™</sup>, 4µm, 100Å Catalog No.: <u>70000-10P-2</u> Dimensions: 2.1 x 100mm Mobile Phase: A: DI Water / 0.1% Ammonium Formate

B: 90% Acetonitrile / 10% DI Water / 0.1% Ammonium Formate

### Gradient:

 Time (minutes)
 %B

 0
 95

 10
 70

Post Time: 5 minutes Injection vol.: 2µL Flow rate: 0.3mL / minutes Detection: UV @ 254nm Sample Preparation: 0.3mg of each Nucleotide in 50% Acetonitrile / DI Water +12% Ammonia

**Notes:** Nucleotides are important Phosphate-containing compounds that are found in living cells and are associated with a broad array of metabolic and biological processes. They have significant roles in the synthesis of DNA and RNA, are involved in signal transduction pathways, function as coenzymes in biosynthetic pathways and serve as energy reservoirs in biological systems.



#### Attachment

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