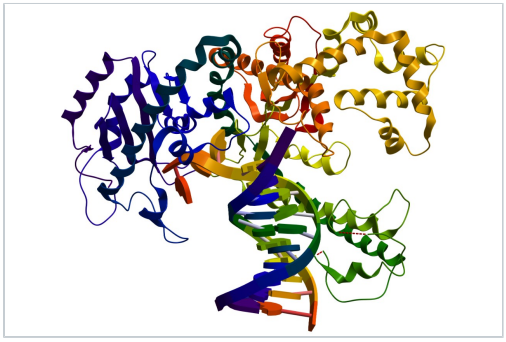
Waters™

Application Note

Separation of Nucleotide Phosphates on ACQUITY UPLC BEH Amide

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief describes the separation of nucleotide phosphates on ACQUITY UPLC BEH Amide column.

Introduction

The nucleotide phosphates used in this study are-

1. Adenosine monophosphate (AMP)
2. Uridine monophosphate (UMP)
3. Adenosine diphosphate (ADP)
4. Uridine diphosphate (UDP)
5. Adenosine triphosphate (ATP)
6. Uridine triphosphate (UTP)

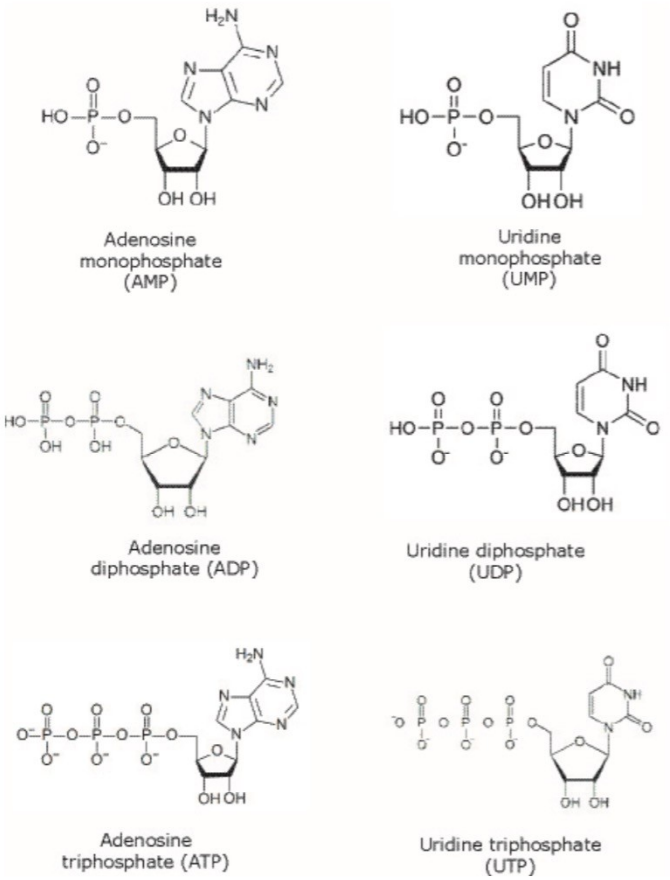


Figure 1. Structures of the compounds used in this study.

Experimental

Test conditions

Column:	ACQUITY UPLC BEH Amide, 2.1 x 100 mm, 1.7 µm
Part Number:	186004801
Isocratic Mobile Phase:	70/30 ACN/H_2O with 27 mM KH_2PO_4, pH 4.5
Flow Rate:	0.5 mL/min
Injection Volume:	5 µL (PLNO)
Sample Concentration:	shown on chromatogram
Sample Diluent:	80/20 ACN/H_2O
Column Temperature:	25 °C
Weak Needle Wash:	95/5 ACN/H_2O
Instrument:	Waters ACQUITY UPLC with ACQUITY PDA
Detection:	UV 260 nm
Sampling Rate:	20 Hz
Time Constant:	0.1 s

Results and Discussion

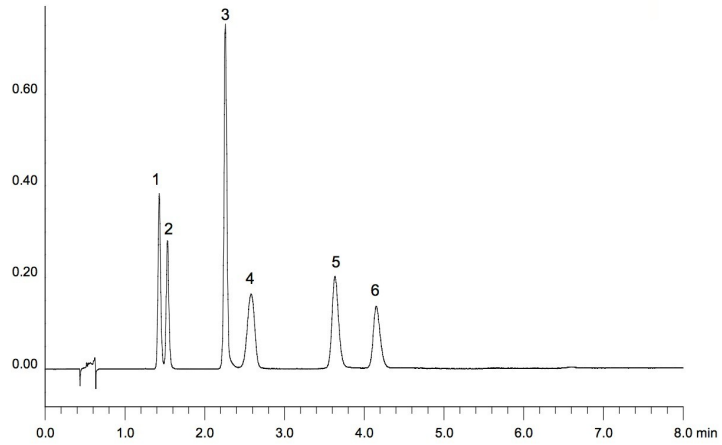


Figure 2. Sample Concentration

1- AMP (50 µg/mL), 2- UMP (50 µg/mL), 3- ADP (100 µg/mL), 4- UDP (100 µg/mL), 5- ATP (100 µg/mL), 6- UTP (100 µg/mL)

Featured Products

ACQUITY UPLC System

ACQUITY UPLC PDA Detector

WA64069, August 2009