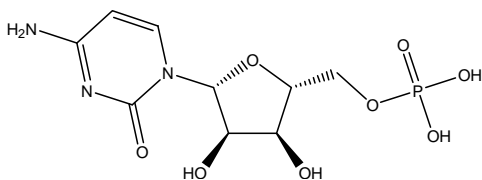


## ヌクレオチド

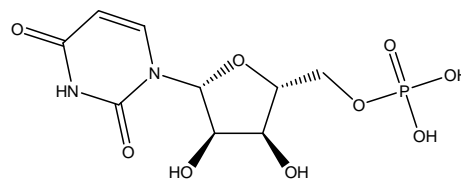
## Nucleotides

ヌクレオチドは、ヌクレオシド（塩基に糖が結合した化合物）にリン酸基が結合した化合物です。ヌクレオチドは非常に極性が高く、移動相に有機溶媒を含む逆相モードでは保持・分離が困難です。水系 100 %の移動相が使用可能なコアシェル型充填剤を充填したカラム CAPCELL CORE AQ S2.7 (2.1 mm i.d. x 100 mm) を用いた 5 種のヌクレオチドの分析例を示します。3 分以内に良好なピーク形状で分離されました。

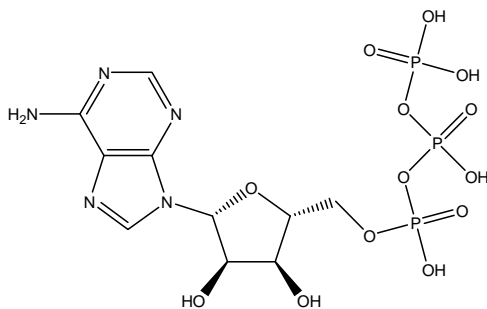
Nucleotides consist of a nucleoside (a base and a ribose bonded together) and phosphates. They are extremely polar and difficult to retain in reversed-phase mode with an organic-containing mobile phase. CAPCELL CORE AQ S2.7 (2.1 mm i.d. x 100 mm) allows the use of 100% aqueous mobile phases, and could separate five nucleotides efficiently within three minutes.



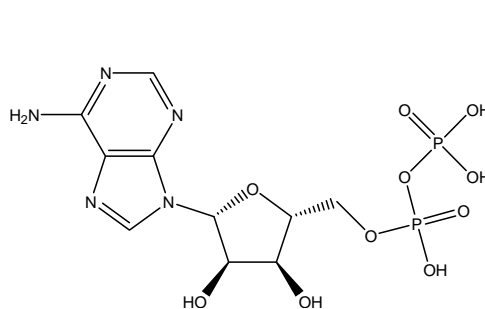
1. シチジーンリン酸 (50  $\mu\text{g/mL}$ )  
Cytidine monophosphate (M.W. 323.2)



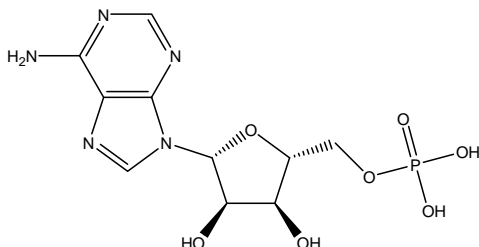
2. ウリジンリン酸 (50  $\mu\text{g/mL}$ )  
Uridine monophosphate (M.W. 324.2)



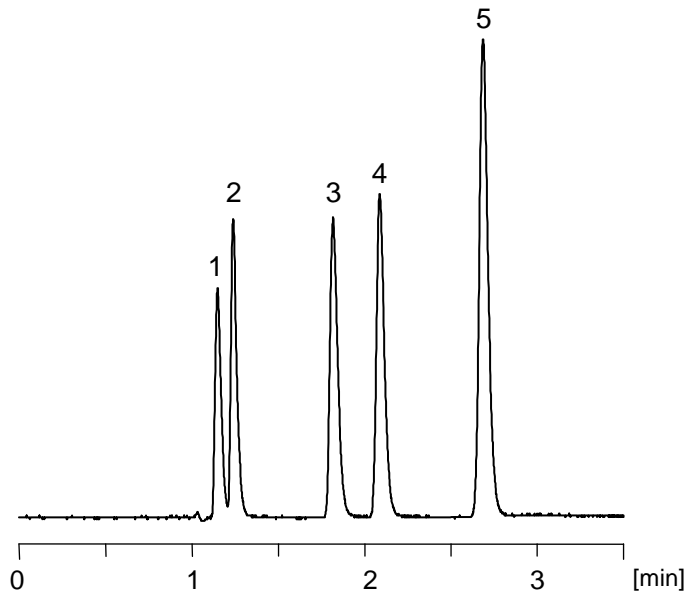
3. アデノシン三リン酸 (50  $\mu\text{g/mL}$ )  
Adenosine triphosphate (M.W. 507.2)



4. アデノシン二リン酸 (50  $\mu\text{g/mL}$ )  
Adenosine diphosphate (M.W. 427.2)

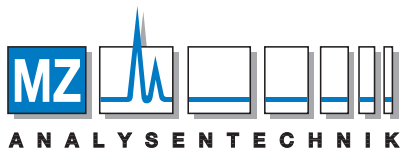


5. アデノシンリン酸 (50  $\mu\text{g/mL}$ )  
Adenosine monophosphate (M.W. 347.2)



**【HPLC Conditions】**

Column : CAPCELL CORE AQ S2.7 ; 2.1 mm i.d. x 100 mm  
Mobile phase : 50 mmol/L  $\text{KH}_2\text{PO}_4$  / 50 mmol/L  $\text{Na}_2\text{HPO}_4$  = 50 / 50 (pH 7.0)  
Flow rate : 200  $\mu\text{L}/\text{min}$   
Temperature : 40  $^\circ\text{C}$   
Detection : UV 260 nm  
Inj. vol. : 1  $\mu\text{L}$   
Sample dissolved in :  $\text{H}_2\text{O}$



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