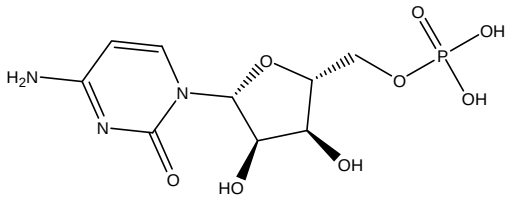
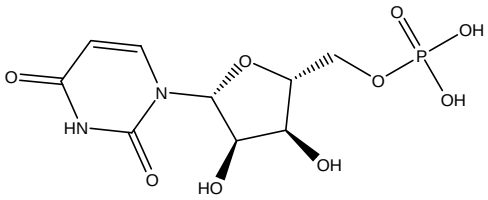
ヌクレオチド　Nucleotides

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，一般的な C_{18} カラムでの保持・分離は困難です．ここでは，アダマンチル基を導入した表面極性の高いカラム，CAPCELL PAK ADME S5（4.6 mm i.d. x 250 mm）を用いて，4 種のヌクレオチドを分析しました．これらはリン酸基をもつ化合物ですが，良好なピーク形状で保持と分離を達成しています．

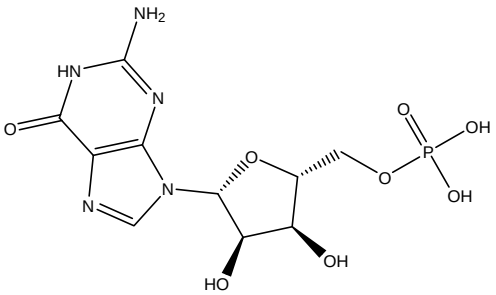
Nucleotides are compounds with structure of nucleosides (bases bound by saccharic structure) bound by phosphoric acid group. They are high polar, enhance not easy to be retained under C18 column. Shown here is a chromatogram of 4 nucleotides obtained with CAPCELL PAK ADME S5 (4.6 mm i.d. x 250 mm), a novel high-polar column by introducing the Adamantyl function group. Although nucleotides are compounds with polar phosphoric acid group, separation with excellent peak profile was reached.



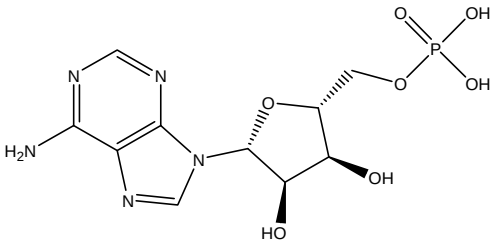
1. シチジンーリン酸 (25 μg/mL)
   Cytidine monophosphate (M.W. 323.2)



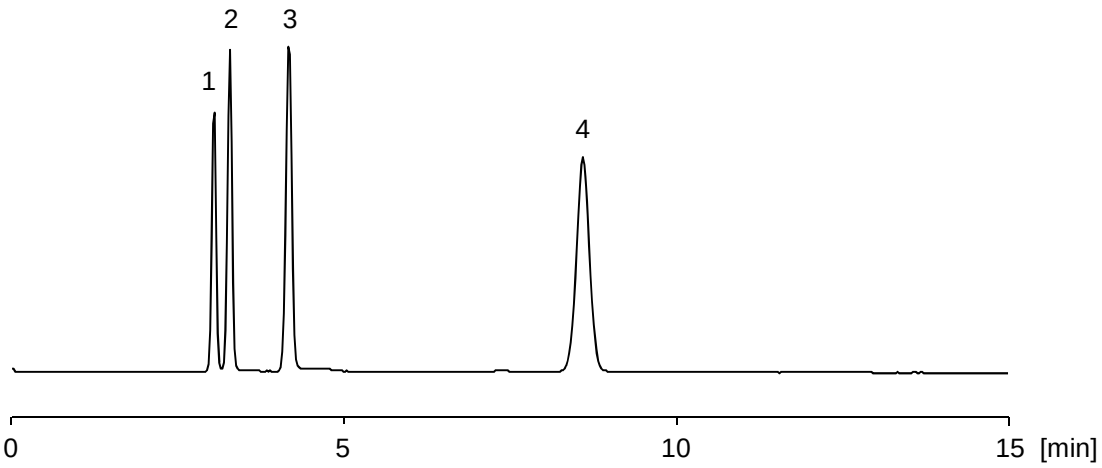
2. ウリジンーリン酸 (25 μg/mL)
   Uridine monophosphate (M.W. 324.2)



3. グアノシンーリン酸 (25 μg/mL)
   Guanosine monophosphate (M.W. 363.2)



4. アデノシンーリン酸 (25 μg/mL)
   Adenosine monophosphate (M.W. 347.2)



【HPLC Conditions】

Column	: CAPCELL PAK ADME S5 ; 4.6 mm i.d. x 250 mm
Mobile phase	: 10 mmol/L $HCOONH_4$ / CH_3OH = 98 / 2
Flow rate	: 1 mL/min
Temperature	: 40 ˚C
Detection	: UV 254 nm
Inj. vol.	: 5 μL
Sample dissolved in	: H_2O

※ 1 μg/mL = 1 ppm

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