Waters™

□□□□

Analysis of Nucleotide Phosphates using ACQUITY UPLC BEH Amide Columns

Waters Corporation

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

Abstract

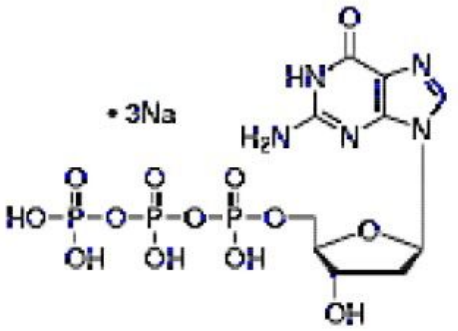
This application brief highlights analysis of nucleotide phosphates.

Introduction

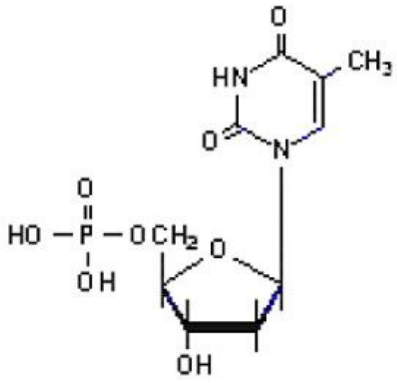
Compounds analysed in this application brief :

1. 2′-Deoxyguanosine-5′-Triphosphate Trisodium Salt Dihydrate (dGTP) 100 µg/mL
2. Thymidine 5′-monophosphate (TMP) 10 µg/mL
3. 2′-Deoxyadenosine 5′-monophosphate (dAMP) 10 µg/mL
4. 2′-Deoxycytidine 5′-monophosphate sodium salt (dCMP) 25 µg/mL
5. 2′-Deoxyguanosine 5′-monophosphate sodium salt hydrate (dGMP) 15 µg/mL
6. 2′-Deoxyadenosine 5′-diphosphate sodium salt (dADP) 15 µg/mL

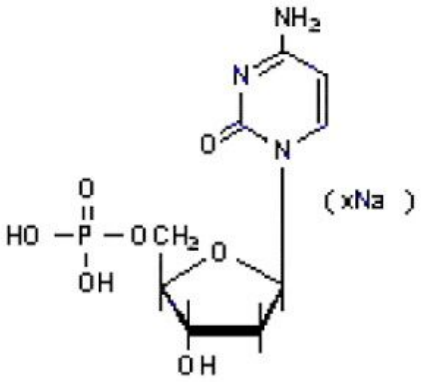
Structures



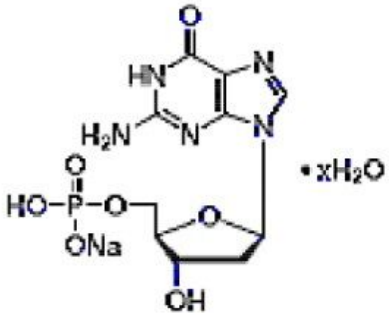
2’-Deoxyguanosine-5’-Triphosphate Trisodium Salt Dihydrate (dGTP)



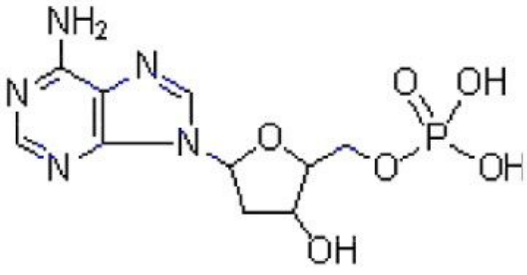
Thymidine 5’-mono-phosphate (TMP)



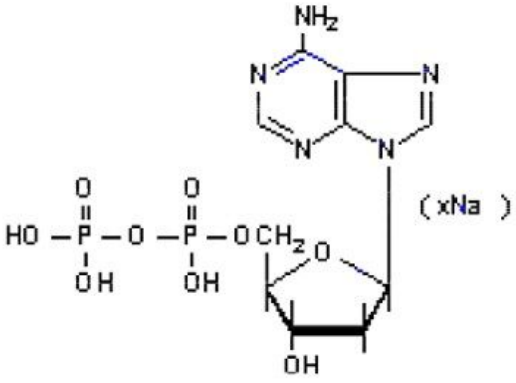
2’-Deoxycytidine 5’-monophosphate sodium salt (dCMP)



2’-Deoxyguanosine 5’-monophosphate sodium salt hydrate (dGMP)



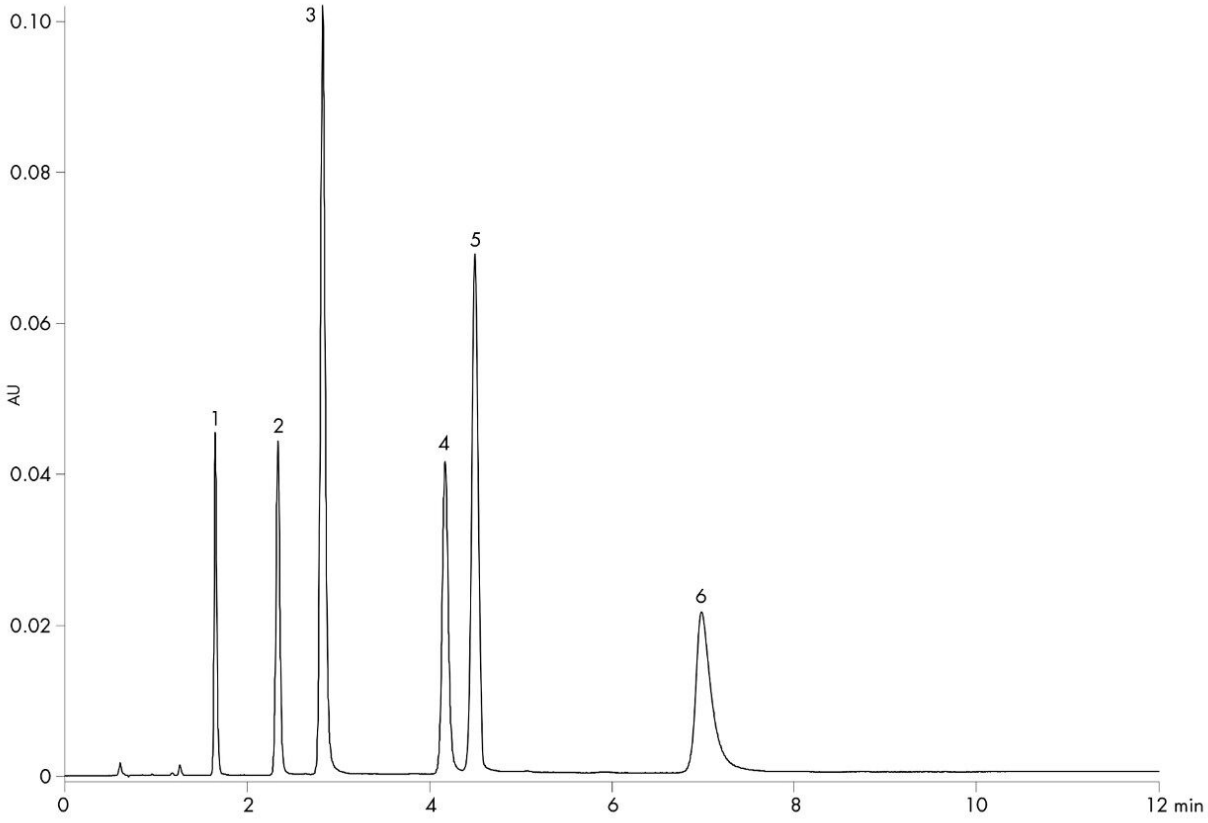
2’-Deoxyadenosine 5’-monophosphate (dAMP)



2’-Deoxyadenosine 5’-diphosphate sodium salt (dADP)

Part Number:	186004802
Isocratic Mobile Phase:	80/20 MeCN/H_2O with 2 mM KH_2PO_4
Flow Rate:	0.5 mL/min
Injection Volume:	5.0 µL (PLNO)
Sample Diluent:	80/20 MeCN/H_2O with 10 mM CH_3COONH_4 and 0.02% CH_3COOH
Column Temperature:	25 °C
Weak Needle Wash:	95/5 MeCN/H_2O
Detection:	UV @ 254 nm
Sampling Rate:	20 points/sec
Filter Time Constant:	0.2
Instrument:	Waters ACQUITY UPLC with ACQUITY UPLC PDA Detector

Results and Discussion



1. 2′-Deoxyguanosine-5′-Triphosphate Trisodium Salt Dihydrate (dGTP) 100 µg/mL, 2. Thymidine 5′-monophosphate (TMP) 10 µg/mL, 3. 2′-Deoxyadenosine 5′-monophosphate (dAMP) 10 µg/mL, 4. 2′-Deoxycytidine 5′-monophosphate sodium salt (dCMP) 25 µg/mL, 5. 2′-Deoxyguanosine 5′-monophosphate sodium salt hydrate (dGMP) 15 µg/mL, 6. 2′-Deoxyadenosine 5′-diphosphate sodium salt (dADP) 15 µg/mL

Featured Products

ACQUITY UPLC System <https://www.waters.com/514207>

ACQUITY UPLC PDA Detector <https://www.waters.com/514225>

WA60097, June 2009