Waters[™]

Nota de aplicación

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

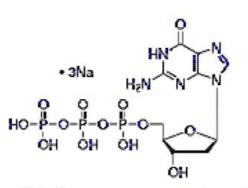
This application brief highlights analysis of nucleotide phosphates.

Introduction

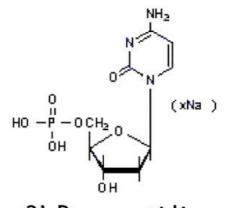
Compounds analysed in this application brief :

- 1. 2'-Deoxyguanosine-5'-Triphosphate Trisodium Salt Dihydrate (dGTP) 100 μ g/mL
- 2. Thymidine 5'-monophosphate (TMP) 10 $\mu\text{g/mL}$
- 3. 2'-Deoxyadenosine 5'-monophosphate (dAMP) 10 μ g/mL
- 4. 2'-Deoxycytidine 5'-monophosphate sodium salt (dCMP) 25 $\mu\text{g/mL}$
- 5. 2'-Deoxyguanosine 5'-monophosphate sodium salt hydrate (dGMP) 15 $\mu\text{g/mL}$
- 6. 2'-Deoxyadenosine 5'-diphosphate sodium salt (dADP) 15 μ g/mL

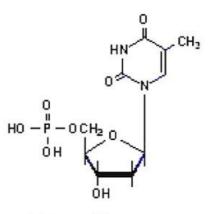
Structures



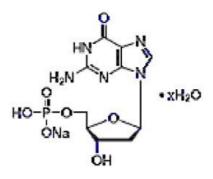
2'-Deoxyguanosine-5'-Triphosphate Trisodium Salt Dihydrate (dGTP)

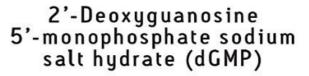


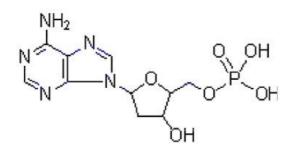
2'-Deoxycytidine 5'-monophosphate sodium salt (dCMP)



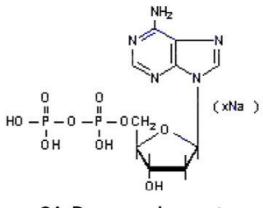
Thymidine 5'-monophosphate (TMP)

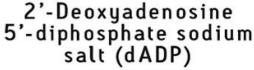






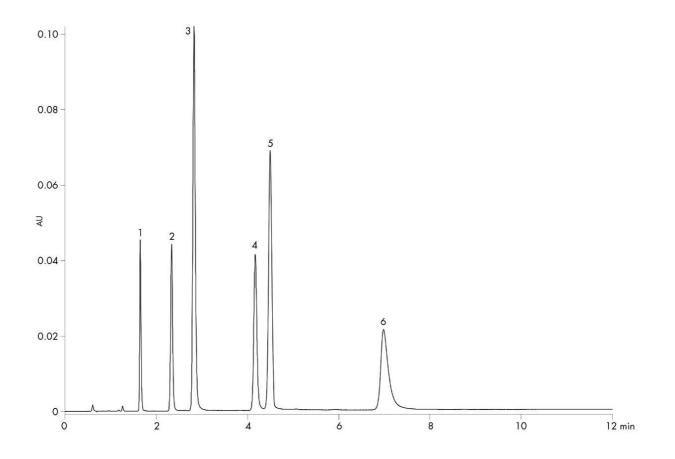
2'-Deoxyadenosine 5'-monophosphate (dAMP)





Part Number:	186004802
Isocratic Mobile Phase:	80/20 MeCN/H ₂ O with 2 mM KH ₂ PO ₄
Flow Rate:	0.5 mL/min
Injection Volume:	5.0 μL (PLNO)
Sample Diluent:	80/20 MeCN/H ₂ O with 10 mM CH ₃ COONH ₄ and 0.02% CH ₃ COOH
Column Temperature:	25 °C
Weak Needle Wash:	95/5 MeCN/H ₂ O
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>

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