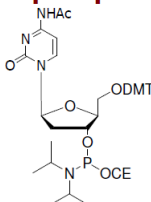


Certificate of Analysis

Beta-L-deoxy Cytidine (n-acetyl) CED phosphoramidite



Lot #: AC67-7
Catalog #: ANP-8035

Formula Weight: 771.84
Chemical Formula: C₄₁H₅₀N₅O₈P

Purity Check By:	Specifications (ANP-8035, Rev. 2)	Results	Pass/Fail
Appearance:	White to off-white free flowing powder	Conforms (Yes/No) Yes	Pass
³¹ P-NMR:	P(III) Impurities: ≤ 0.5% (100 to 169 ppm) 1 st Diastereomer: 149.810 to 150.005ppm 2 nd Diastereomer: 149.268 to 149.406ppm Overall Purity: ≥ 98.0%	P(III) Impurities: 0.0% (100 to 169 ppm) Diastereomers at 149.893 ppm & 149.323 ppm Overall Purity: 98.4%	Pass
UHPLC:	Method: 50-98 0.3 20 Column: RP C18, 2.1x100mm Overall Purity: ≥ 98.0%	Purity: 99.4%	Pass
Identity Test (1) By UV:	Method: UV-C3.sme Optical Density Ratio at; 250/260nm: 1.395 to 2.297 260/280nm: 1.079 to 1.821 ε _{max} (at 250 nm): 14568 to 21857	Optical Density Ratio at; 250/260nm = 1.951 260/280nm = 1.551 ε _{max} at 250 nm = 17827	Pass
(2) By ESI-MS:	771.84 +/- 2 Dalton (Conform to Formula Weight)	-ve Ion mode; 770.5 (M)	Pass
Water Content: (By Karl Fischer)	Moisture Content: < 1000ppm	926 ppm	Pass
Coupling Efficiency: (functional test)	Pass Refer to table: dN-CEP	Coupling Efficiency: Pass	Pass
Solubility:	0.1M Solution in dry anhydrous Acetonitrile (Cat# RN-1447). Leaves no visible particulate matter.	Conforms, no visible particulate matter: (Yes/No): Yes	Pass
Optical Rotation:	Conforms: -16.6° to -56.5°	Result: -24.1° Solvent: ACN Conc.: 0.54 Temp: 25.1°C	Pass

CofA Revision# 0

Storage at: -20°C

Manufactured Date: 05/04/2020

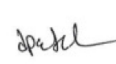
Retest Date: 05/04/2023

Approval Signatures:

Quality Control Technician:



Quality Assurance Manager:



PLEASE NOTE:

Any damage, due to thawing and breakage in transit, must be reported in less than five days. Any quality related problems, which do not conform to the technical data sheet, must be reported in less than thirty days. No return authorization or credit will be allowed after thirty days. All products returned need proper authorization from us.