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Certificate of Analysis

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

 Lot #:
 AC67-7
 Formula Weight:
 771.84

 Catalog #:
 ANP-8035
 Chemical Formula:
 C41H50N508P

Appearance: White to off-white free flowing powder Conforms (Yes/No) Yes Pass 3³IP-NMR: P(III) Impurities; ≤ 0.5% (100 to 169 ppm) P(III) Impurities; 0.0% (100 to 169 ppm) P(III) Impurities; 0.0% (100 to 169 ppm) Pass 1° Diastereomer: 149.810 to 150.005ppm P(III) Impurities; 0.0% (100 to 169 ppm) Diastereomers at 149.893 ppm & 149.323 ppm Pass UHPLC: Method: 50-98_0.3_20 Column: RP C18, 2.1x100mm Purity: 99.4% Pass Identity Test (1) By UV: Method: UV-C3.sme Optical Density Ratio at; 250/260nm: 1.995 to 2.297 260/280nm: 1.079 to 1.821 emax at 250 nm = 1.951 260/280nm: 1.079 to 1.821 emax 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: (8y 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	Purity Check By:	Specifications (ANP-8035, Rev. 2)	Results	Pass/Fai
1º Diastereomer: 149.810 to 150.005ppm 2ºº Diastereomer: 149.268 to 149.406ppm Diastereomers at 149.893 ppm & 149.323 ppm Overall Purity: ≥ 98.0% Overall Purity: 98.4%	Appearance:	White to off-white free flowing powder	Conforms (Yes/No) Yes	Pass
Column: RP C18, 2.1x100mm Overall Purity: ≥ 98.0% Optical Density Ratio at; (1) By UV: Optical Density Ratio at; 250/260nm = 1.951 250/260nm: 1.395 to 2.297 260/280nm = 1.551 260/280nm: 1.079 to 1.821 emax at 250 nm = 17827 8	³¹ P-NMR:	1 st Diastereomer: 149.810 to 150.005ppm 2 nd Diastereomer: 149.268 to 149.406ppm	Diastereomers at 149.893 ppm & 149.323 ppm	Pass
(1) By UV: Optical Density Ratio at; 250/260nm: 1.395 to 2.297 260/280nm: 1.079 to 1.821 Emax (at 250 nm): 14568 to 21857 (2) By ESI-MS: 771.84 +/- 2 Dalton (Conform to Formula Weight) Water Content: (By Karl Fischer) Coupling Efficiency: (functional test) Optical Density Ratio at; 250/260nm = 1.951 260/280nm = 1.7827 Pass Pass Pass Coupling Efficiency: Pass On 1M Solution in dry anhydrous Acetonitrile (Cat# RN-1447). Leaves no visible particulate matter: Optical Rotation: Optical Density Ratio at; 250/260nm = 1.951 260/280nm = 1.95	UHPLC:	Column: RP C18, 2.1x100mm	Purity: 99.4%	Pass
Water Content: (By Karl Fischer) Coupling Efficiency: (functional test) O.1M Solution in dry anhydrous Acetonitrile (Cat# RN-1447). Leaves no visible particulate matter: (Yes/No): Yes Optical Rotation: Conforms: -16.6° to -56.5° Result: -24.1° Pass Pass Coupling Efficiency: Pass Coupling Efficiency: Pass Conforms, no visible particulate matter: (Yes/No): Yes Result: -24.1° Pass		Optical Density Ratio at; 250/260nm: 1.395 to 2.297 260/280nm: 1.079 to 1.821	250/260nm = 1.951 260/280nm = 1.551	Pass
(By Karl Fischer) Coupling Efficiency: (functional test) O.1M Solution in dry anhydrous Acetonitrile (Cat# RN-1447). Leaves no visible particulate matter: (Yes/No): Yes Optical Rotation: Conforms: -16.6° to -56.5° Result: -24.1° Pass	(2) By ESI-MS:	771.84 +/- 2 Dalton (Conform to Formula Weight)	-ve Ion mode; 770.5 (M)	Pass
(functional test) Solubility: 0.1M Solution in dry anhydrous Acetonitrile (Cat# RN-1447). Leaves no visible particulate matter. Optical Rotation: Conforms: -16.6° to -56.5° Result: -24.1° Pass		Moisture Content: < 1000ppm	926 ppm	Pass
RN-1447). Leaves no visible particulate matter. (Yes/No): Yes Optical Rotation: Conforms: -16.6° to -56.5° Result: -24.1° Pass		Pass Refer to table: dN-CEP	Coupling Efficiency: Pass	Pass
1.00	Solubility:			Pass
	Optical Rotation:	Conforms: -16.6° to -56.5°		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: April

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.