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CERTIFICATE OF ANALYSIS

		STRUCTURE
PRODUCT NAME:	dC(bz) Amidite, 4.62 g	
PRODUCT NUMBER:	4339779	
LOT NUMBER:	VK2732	
BULK NUMBER:	VG0215	
DESCRIPTION:	5'-O-Dimethoxytrityl-N^4-benzoyl-2'-deoxycytidine-3'-O-(β-cyanoethyl-N,N-diisopropyl) phosphoramidite	
CHEMICAL FORMULA:	$C_{46}H_{52}N_5O_8P$	
MOLECULAR WEIGHT:	833.93 g/mol	
CAS NUMBER:	102212-98-6	
STORE:	-20°C	
SHIP:	Ambient	
MANUFACTURE DATE:	08/06/2020	
RETEST DATE:	02/07/2024	
EXPIRATION DATE:	08/05/2024	
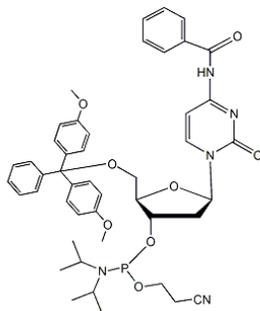
ANALYSIS RESULTS

Property	Specification Limits	Observed Value
Purity by HPLC	$\geq$ 99%	99%
	Single Impurity: None > 0.5%	None
	Presence of dA, dG or T amidite $\leq$ 0.10%	0.00%
	Sum of dA, dG or T amidite $\leq$ 0.3%	0.0%
Identification by UV Spectrum via HPLC Analysis	Matches Reference	Pass
Purity by ^{31}P NMR	$\geq$ 99%	100%
	Sum of non-primary peaks at 140-152 ppm $\leq$ 0.3%	0.0%
	Sum of non-primary peaks at 5-35 ppm $\leq$ 1.0%	0.4%
	Peaks > 170 ppm: None Detected	None
Color	Color intensity of the powder must not exceed Pantone #P1-4U or #P4-2U	Pass
Water Content	$\leq$ 0.3% w/w	0.2%
Solution Clarity	0.2 M solution in acetonitrile is free from undissolved particulate	Pass
Average Coupling Efficiency	$\geq$ 98.0%	98.3%
Residual Solvent	$\leq$ 3.0% total % by weight solvent residue	0.9%
Material Origin (TSE/BSE)	No known animal-derived materials were used in the manufacture of this product	Pass

For Research Use Only. Not for use in diagnostic procedures.
Phosphoramidites are sensitive to environmental conditions when in powder or liquid form. Take precautions to avoid potential precipitation, degradation or hydrolysis that can affect performance or delivery of the phosphoramidite during synthesis. Control temperature, humidity, and exposure time to air for both the phosphoramidite and diluent.

QC Release By:

Gina Kogutkiewicz
Manager, Business Systems & Compliance

QC Release Date: 8/3/2020

Revision 8