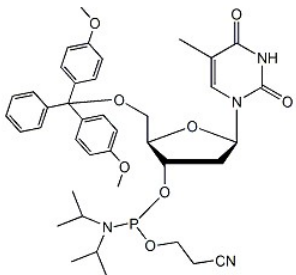


CERTIFICATE OF ANALYSIS

PRODUCT NAME:	T Phosphoramidite, 500 mg	STRUCTURE 
PRODUCT NUMBER:	400333	
LOT NUMBER:	YC1372	
BULK NUMBER:	XF0175	
DESCRIPTION:	5'-O-Dimethoxytrityl-thymidine-3'-O-(β-cyanoethyl-N,N-diisopropyl) phosphoramidite	
CHEMICAL FORMULA:	C ₄₀ H ₄₉ N ₄ O ₈ P	
MOLECULAR WEIGHT:	744.82 g/mol	
CAS NUMBER:	98796-51-1	
STORE:	-20°C	
SHIP:	Ambient	
MANUFACTURE DATE:	06/13/2022	
RETEST DATE:	12/14/2025	
EXPIRATION DATE:	06/12/2026	

ANALYSIS RESULTS

Property	Specification Limits	Observed Value
Purity by HPLC	≥ 99%	99%
	Single Impurity: None > 0.5%	None
	Presence of dA, dC or dG amidite ≤ 0.10%	0.00%
	Sum of dA, dC or dG amidite ≤ 0.3%	0.0%
Identification by UV Spectrum via HPLC Analysis	The λ maxima of the sample and standard spectra are within ± 2nm	Pass
Purity by ³¹ P NMR	≥ 99%	100%
	Sum of non-primary peaks at 140-152 ppm ≤ 0.3%	0.0%
	Sum of non-primary peaks at 5-35 ppm ≤ 1.0%	0.3%
	Peaks > 170 ppm: None Detected	None
Color	Color intensity of the powder must not exceed Pantone #P1-4U or #P4-2U	Pass
Water Content	≤ 0.3% w/w	0.2%
Solution Clarity	0.2 M solution in acetonitrile is free from undissolved particulate	Pass
Average Coupling Efficiency	≥ 98.0%	98.9%
Residual Solvent	≤ 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.



Gina Kogutkiewicz
Sr. Manager, Business Systems & Quality Compliance

QC Release By:

QC Release Date:

6/8/2022

Revision 10