

# Certification



**PRODUCT NAME:** dG(iBu) Phosphoramidite, 1g  
**PRODUCT NUMBER:** 400327  
**LOT NUMBER:** T11862  
**BULK NUMBER:** SC0225  
**DESCRIPTION:** 5'-O-Dimethoxytrityl-N<sup>2</sup>-isobutryl-2'-deoxyguanosine-3'-O-(β-cyanoethyl-N,N-diisopropyl) phosphoramidite  
**CHEMICAL FORMULA:** C<sub>44</sub>H<sub>54</sub>N<sub>7</sub>O<sub>8</sub>P  
**FORMULA WEIGHT:** 839.92 g/mol  
**STORE:** -20°C  
**SHIP:** Ambient  
**DATE OF MANUFACTURE:** 3/27/2017  
**EXPIRATION DATE:** 3/28/2021

## ANALYSIS

Value	Specification	Observed Value
Purity by HPLC	≥ 99%	99%
Purity by <sup>31</sup> P NMR	≥ 99%	99%
Color	Color intensity must not exceed Pantone #P1-4U or #P4-2U	Pass
Identification by UV Spectrum via HPLC Analysis	Matches Reference	Pass
Water Content	≤ 0.3% w/w	0.1%
Solution Clarity	0.2 M solution in acetonitrile is free from undissolved particulate	Pass
Average Coupling Efficiency	≥ 98.0%	99.1%
Residual Solvent	≤ 3.0% total % by weight solvent residue	1.4%
Material Origin (TSE/BSE)	No known animal-derived materials were used in the manufacture of this product	Pass

## HPLC Impurity Profile

Range	Specification	Observed Value
Single Impurity	None > 0.5%	None
Presence of dA, dC or T amidite	≤ 0.10%	0.00%
Sum of dA, dC or T amidite	≤ 0.3%	0.0%

## NMR Impurity Profile

Range	Specification	Observed Value
Sum of 140-152 ppm	≤ 0.3%	0.0%
Sum of 5-35 ppm	≤ 1.0%	0.8%
>170 ppm	none detected	None

For Research Use Only. Not for use in diagnostic procedures.

Use of this product for the synthesis of polynucleotides may require a license from a third party. It is the responsibility of the purchaser of this product to determine the necessity of obtaining such a license and acquiring the same. Other than as indicated above, no license is granted to the purchaser either directly, by implication, estoppel or otherwise.

## Revision 7