Certificate of Analysis

Product	: dA^{bz} Phosphoramidite, (1.0g) 5'-dimethoxytrityl-(deoxyadenosine-N6 benzoyl)-3'-cyanoethyl diisopropyl phosphoramidite
Part No.	: 400326
Lot No.	: PH1842
Chemical Formula	: $C_{47}H_{52}N_7O_7P$
Molecular Weight	: 857.7
CAS #	: 98796-53-3
Release Date	: 04/16/2014

Appearance
Specification: The product should be a white to pale yellow amorphous powder free of foreign particulate material.

Result: Pass

Identity
Specification: Identity of each phosphoramidite lot is confirmed by reverse-phase HPLC against a control lot.

Result: dA^{bz} Phosphoramidite
5'-dimethoxytrityl-(deoxyadenosine-N6 benzoyl)-3'-cyanoethyl diisopropyl phosphoramidite

HPLC Analysis
Each phosphoramidite lot is analyzed by reverse phase HPLC. Purity is the phosphoramidite peak area reported as a percent of the total area of the chromatogram.

Specification: ≥98.0% purity
Result: 100%

^{31}P-NMR Analysis
Each bulk phosphoramidite lot is analyzed by phosphorous NMR. Purity is reported as a percent based on integrated peak areas.

Specification: ≥98.0% purity
Result: 100%

Solution Clarity
Each bulk phosphoramidite lot is dissolved in anhydrous acetonitrile (0.1 M) and visually inspected.

Specification: A clear liquid free of particulate precipitates
Result: Pass

Water Content
Each bulk phosphoramidite lot is analyzed for moisture content using the Karl Fischer method.

Specification: ≤0.40% moisture content
Result: 0.00%

Coupling Efficiency
The coupling efficiency is based on the synthesis of a proprietary sequence at the 0.2 µmol scale.

Specification: ≥98.0% standard average coupling efficiency
Result: 98.5% standard average coupling efficiency

Approved by:

Quality Assurance Manager

Applied Biosystems
an Applera Corporation Business

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