

Abasic phosphoramidite

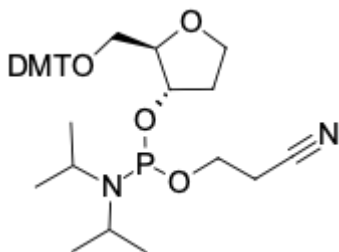
<http://www.lumiprobe.com/p/abasic-phosphoramidite>

A compound for the phosphoramidite synthesis of oligonucleotides and the creation of the abasic step in the oligonucleotide sequence.

Cleavage of the N-glycosyl bond between a base and its 2-deoxyribose moiety in DNA generates an apurinic/apyrimidinic (so-called abasic) site. This phenomenon, which is referred to as depurination or depyrimidination occurs spontaneously under physiological conditions.

Abasic phosphoramidites are used in DNA and oligonucleotide synthesis. Abasic phosphoramidite imitates the loss of base pairing ability by a nucleotide. This modification of phosphoramidite is more stable than the natural abasic insert and can be used when examining DNA damage and repair.

Abasic phosphoramidite (dSpacer CE-Phosphoramidite) is a modification of 1',2'-dideoxyribose, contains a DMT protection of the hydroxymethyl group, and exhibits stability during synthesis and purification of oligonucleotides under standard conditions 15 minutes at 65 °C using AMA mixture, ammonium hydroxide - 40% methylamine (1:1).



Structure of Abasic phosphoramidite

General properties

Appearance:	white, off white to faint yellow oil
Molecular weight:	620.73
CAS number:	129821-76-7
Molecular formula:	C ₃₅ H ₄₅ N ₂ O ₆ P
Quality control:	NMR ¹ H, ³¹ P and HPLC-MS (95+%), functional testing
Storage conditions:	12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
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Oligo synthesis details

Diluent:	anhydrous acetonitrile
Coupling conditions:	standard coupling, identical to normal nucleobases
Deprotection conditions:	Standard conditions 15 minutes at 65 °C using AMA mixture, ammonium hydroxide - 40% methylamine (1:1).