Thermo Scientific Nucleic Acid Technologies Amidites for DNA Synthesis: Preparation and Usage Notes

REAGENT PREPARATION:
To prepare a 0.1 M solution, add the appropriate volume of anhydrous acetonitrile [CH3CN dried over activated 3 angstrom molecular sieves (8-12 mesh) for a minimum of 24 hours]. Refer to the table below.
Molecular sieves can be activated by heating overnight under high vacuum at 150-200°C. Once activated, sieves should be stored in a sealed jar, preferably in a desiccator containing a drying agent (Drierite or equivalent).

Table 1. Recommended dilution volumes for producing [0.1 M] phosphoramidite solutions

Product Code	Phosphoramidite Quantity (grams)	Volume of solvent to be added (mL)/bottle
27-1730-xx	0.50	5.8
27-1730-xx	1.0	11.6
27-1730-xx	2.0	23.3
27-1730-xx	4.0	46.6
27-1730-xx	5.0	58
27-1730-xx	10.0	116
27-1730-xx	100.0	580
27-1732-xx	0.50	6.0
27-1732-xx	1.0	12
27-1732-xx	2.0	24
27-1732-xx	4.0	48
27-1732-xx	5.0	60
27-1732-xx	10.0	120
27-1732-xx	100.0	600
27-1734-xx	0.50	6.0
27-1734-xx	1.0	11.8
27-1734-xx	2.0	23.8
27-1734-xx	4.0	47.6
27-1734-xx	5.0	60
27-1734-xx	10.0	120
27-1734-xx	100.0	600
27-1736-xx	0.50	6.7
27-1736-xx	1.0	13.4
27-1736-xx	2.0	26.9
27-1736-xx	4.0	53.7
27-1736-xx	5.0	67
27-1736-xx	10.0	134
27-1736-xx	100.0	670

OLIGONUCLEOTIDE DEPROTECTION CONDITIONS
Rapid or mild deprotection protocols may be employed when using these standard DNA phosphoramidites in conjunction with oligonucleotide synthesis supports and “PAC” amidites. Otherwise, standard deprotection conditions should be used.

Rapid Deprotection Conditions
Incubate at 60°C for 20 minutes in concentrated ammonia. If the oigonucleotide is greater than 50 bases in length, incubate for
30-60 minutes at 60°C.

Mild Deprotection Conditions
Incubate at room temperature for 16 hours in concentrated ammonia.

Standard Deprotection Conditions
Incubate at 55°C for 16 hours in concentrated ammonia.

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