Thermo Scientific Nucleic Acid Technologies Amidites for Fast Deprotection Conditions: Preparation and Usage Notes

REAGENT PREPARATION:
To prepare a 0.1 M solution, add the appropriate volume of anhydrous acetonitrile [CH_3CN dried over activated 3 Å molecular sieves (8-12 mesh) for a minimum of 24 hours]. Refer to Table 1 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.

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
27-1723-xx	0.50	5.6
27-1723-xx	1.00	11.3
27-1723-xx	2.00	22.6
27-1723-xx	5.00	56.5
27-1725-xx	0.50	6.3
27-1725-xx	1.00	12.5
27-1725-xx	2.00	62.5
27-1725-xx	5.00	25.0
27-1726-xx	0.50	5.3
27-1726-xx	1.00	10.5
27-1726-xx	2.00	21.1
27-1726-xx	5.00	52.5

OLIGONUCLEOTIDE DEPROTECTION CONDITIONS
Rapid or mild deprotection protocols may be employed when using PAC dA phosphoramidites, IBU dC phosphoramidites or iPr-PAC dG phosphoramidite in conjunction with oligonucleotide synthesis supports and "PAC" amidites. Otherwise, standard deprotection conditions should be used.

Rapid Deprotection Conditions
Incubate at 60°C for 20-60 minutes in concentrated ammonia. If the oligonucleotide 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.

REFERENCES
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