Thermo Scientific Nucleic Acid Technologies Amidites for RNA and 2'-Modifications – TheraPure: Preparation and Usage Notes

REAGENT PREPARATION:
To prepare a 0.1 M solution, add the appropriate volume of anhydrous acetonitrile (maintain the anhydrous state by storing the acetonitrile over 3 Å or 4 Å molecular sieves). Refer to Table 1 below.

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
27-1803-xx	0.50	4.9
27-1803-xx	1.00	9.8
27-1803-xx	5.00	49.0
27-1803-xx	10.00	98.0
27-1803-xx	2.00	19.6
27-1804-xx	0.50	5.8
27-1804-xx	1.00	11.6
27-1804-xx	2.50	29.0
27-1804-xx	5.00	58.0
27-1804-xx	10.00	116.0
27-1804-xx	2.00	23.2
27-1805-xx	0.50	5.5
27-1805-xx	1.00	11.1
27-1805-xx	2.50	27.8
27-1805-xx	5.00	55.0
27-1805-xx	10.0	110.0
27-1805-xx	2.00	22.2
27-1806-xx	0.50	4.6
27-1806-xx	1.00	9.3
27-1806-xx	5.00	46.0
27-1806-xx	10.00	93.0
27-1806-xx	2.00	18.6

OLIGORIBONUCLEOTIDE DEPROTECTION CONDITIONS
Incubate at room temperature for 16 hours in concentrated ammonia/ethanol (3/1). Evaporate the ammonia/ethanol solution to dryness at ambient temperature. The concentrated oligoribonucleotide may be safely stored for extended periods of time at -20°C in this form.

Removal of 2'-Hydroxyl Protection
All equipment used for this step should be treated to remove ribonucleases or degradation of the oligoribonucleotide is possible. Dissolve the concentrated oligoribonucleotide from the ammonia deprotection step in 600 µl of 1 M Tetrabutylammonium fluoride in THF, vortex to mix the solution and let stand 6-16 hours at room temperature. Evaporate the oligoribonucleotide deprotection solution to dryness. Please refer to the references listed below for recommended oligoribonucleotide purification methods.

OLIGORIBONUCLEOTIDE PURIFICATION REFERENCES

1. Webster, Kevin R. et al., BioTechniques **11**, 658 (1991).
2. Gasparutto, Didier et al., Nucleic Acids Research **20**, 5159 (1992).
3. Chaix, Carole et al., Tetrahedron Letters **30**, 71 (1989).

Literature code: 0007511E01U

Thermo SCIENTIFIC