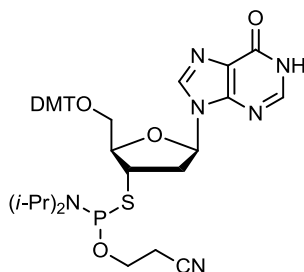


3'-Thio-dI CEP

Product No. BA 0260

Product Information



C₄₀H₄₇N₆O₆PS
Mol. Wt.: 770.88

Use In Oligo Synthesis: Several reports in the literature describe conditions for automated synthesis of oligonucleotides containing a 3'-thio deoxyribonucleotide.¹⁻³ In our hands, the best results were obtained with the following protocol: Dissolve the phosphoramidite in acetonitrile at double the concentrations recommended by the synthesizer manufacturer. Coupling should be carried out using 1 M ETT as the activator, and the standard coupling sequence was modified to include oxidation after the first coupling, followed by a second coupling and a second oxidation prior to capping. Cleavage from the solid support and deprotection can be carried out under standard conditions with ammonium hydroxide at 55 °C overnight, or 65 °C for 2 hours.

References

- 1) Sabbagh, G.; Fettes, K. J.; Gosain, R.; O'Neill, I. A.; Cosstick, R. *Nucleic Acid Research*, **2004**, *32*, 495-501.
- 2) Fettes, K. J.; O'Neill, I. A.; Roberts, J. D.; Cosstick, R. *Nucleosides, Nucleotides & Nucleic Acids*, **2001**, *20*, 1351-1354.
- 3) Gaynor, J.; Fish, J.; Campbell, B.; Cosstick, R. *Nucleic Acids Symposium Series No. 52*, **2008**, 319-320.