

Anthraquinones may be incorporated into oligonucleotides by a variety of methods using a host of different phosphoramidites. The anthraquinone moiety is useful for applications such as intercalation, duplex and triplex stabilization, photochemical immobilization, quenching of fluorescence, electrochemical detection, and charge transport through nucleic acids. Anthraquinone-C2-dT CEP features an electronically insulating tether that places the anthraquinone at a significant distance from the oligonucleotide. Installation at the 5'-terminus or internally are efficient.

Use: Employ acetonitrile diluent at the concentration recommended by the synthesizer manufacturer. *Note:* It may take several hours to fully dissolve the phosphoramidite in acetonitrile. If more rapid dissolution is required, a small amount (10-20%) of anhydrous dichloromethane may be used, and should be added before the acetonitrile. Use standard coupling protocols; extended coupling times are not required. Cleavage from the solid support and nucleobase deprotection with concentrated ammonium hydroxide may be carried out using standard protocols, e.g., 55 °C for 8-16 h or 65 °C for 4 h. For HPLC, the anthraquinone amide moiety can be observed at 334 nm.

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