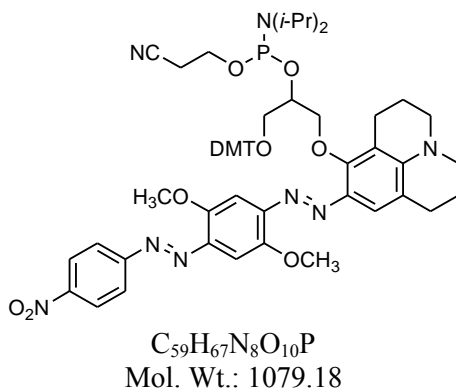


BlackBerry® Quencher 650(DMT) CEP
Product No. BL 1030
Product Information



May be used for incorporation of a DMT-bearing quencher for aid in purification and monitoring of coupling efficiency.

5'-BBQ-650[®] CEP is not very soluble in acetonitrile and should be dissolved in seven parts of anhydrous dichloromethane and then diluted with three parts of anhydrous acetonitrile to achieve the standard dilution recommended by the instrument manufacturer. It is important to dissolve the phosphoramidite in dichloromethane first by shaking for at least 15 minutes; do not premix the two solvents. After shaking, allow the mixture to settle and tip the vial to check for residual solids. Coupling is achieved in high yield using standard protocols and 15 minute coupling times. We recommend mild deprotection conditions (65 °C, 10 min) to avoid quencher degradation.

To prevent precipitation and cross contamination, we found it best to flush the instrument with dichloromethane followed by acetonitrile immediately after use of BL 1030.

The lipophilicity of the BBQ-650[®] moiety may require the use of relatively high concentrations of the organic mobile phase in RP-HPLC purifications, especially with shorter oligonucleotides.

For quantification, the following extinction coefficients may be useful, which were determined using a simple BBQ-650[®] chromophore (i.e., no oligonucleotide): At 598 nm in methanol, $\epsilon = 40,667 \text{ M}^{-1}\text{cm}^{-1}$; at 260 nm in methanol, $\epsilon = 15,077 \text{ M}^{-1}\text{cm}^{-1}$.