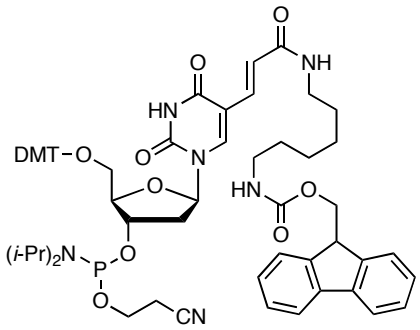
Fmoc-Amino-Modifier-C6-dT CEP
Product No. BA 0287
Product Information



$C_{63}H_{73}N_6O_{11}P$
Mol. Wt.: 1121.26

The (fluorenylmethyl)carbamoyl (Fmoc) group has been shown to be a useful amine protecting group for amine modification of oligonucleotides.[1] It is removed during cleavage/deprotection with ammonium hydroxide. Alternatively, *the Fmoc group can be removed before cleavage of the oligonucleotide from the solid support*,[2] e.g., with piperidine, simplifying the acylation process. After the acylation is complete, the labeled oligonucleotide can then be cleaved from the support and further deprotected with ammonium hydroxide.

For applications requiring a nucleobase-tethered amine at internal or 5' positions, we offer the new Fmoc-protected compound Fmoc-Amino-Modifier-C6-dT CEP (BA 0287), which offers the possibility of on-bead acylation as discussed above. It is an alternative to the venerable Amino-Modifier-C6-dT CEP (BA 0015), which bears a trifluoroacetyl (TFA) protecting group. The TFA group cannot be removed without cleavage of the oligonucleotide from the resin.

Use: Employ acetonitrile diluent at the concentration recommended by the synthesizer manufacturer. Use standard coupling protocols; extended coupling is not required. Cleavage from the solid support and nucleobase deprotection with concentrated ammonium hydroxide may be carried out using standard protocols.

Literature

(1) Nelson, P. S.; Kent, M.; Muthini, S. *Nucl. Acids Res.* **1992**, *20*, 6253-6259.

(2) For example, see: Gartner, Z. J.; Kanan, M. W.; Liu, D. R. *J. Am. Chem. Soc.* **2002**, *124*, 10304-10306; see Supporting Information, p. 3. (b) Gartner, Z. J.; Tse, B. N.; Grubina, R.; Doyon, J. B.; Snyder, T. M.; Liu, D. R. *Science 2004*, **305**, 1601-1605; see Supporting Online Material, p. 2.