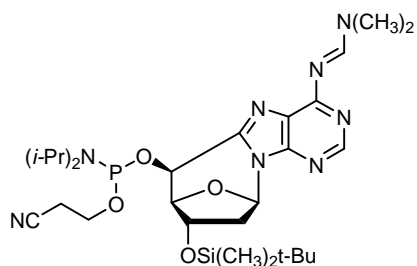


(5'S)-8,5'-Cyclodeoxyadenosine 5'-O-CEP
Product No. BA 0109
Product Information



$C_{28}H_{47}N_8O_4PSi$
Mol. Wt.: 618.78

Note: This 5'-O phosphoramidite is intended for incorporation into DNA via 5' to 3' synthesis.

8,5'-Cyclodeoxyadenosine (cyclo-dA) is a naturally occurring free-radical-induced DNA lesion. This bulky lesion has been shown to be present in human cells.¹ Cyclo-dA is a strong block to gene expression in both CHO and human cells but can be repaired *via* nucleoside excision repair mechanisms, but not by base excision repair mechanisms.² Our (5'S)-8,5'-Cyclodeoxyadenosine 5'-O-CEP can be used for efficient incorporation of cyclo-dA into oligonucleotides.

Use: See reference 2 for details of 5' to 3' synthesis for incorporation into DNA. Cleavage from the solid support can be carried out under standard conditions, and the 8,5'-cyclodeoxyadenosine residue is stable to standard deprotection conditions. The TBDMS protecting group can be removed from the oligonucleotide while on the solid support with TBAF.² BA 0109 can be added to the 5' terminus in 3' to 5' coupling using standard instrument protocols. Please see our related phosphoramidite BA 0329 if you are interested in incorporation of cyclo-dA in the standard 3' to 5' manner.

(1) Dizdaroglu, M.; Dirksen, M.L.; Jiang, H.X.; Robbins, J.H. *J. Biochem.* **1987**, *241*, 929-932.

(2) Brooks, P.J.; Wise, D.S.; Berry, D.A.; Kosmoski, J.V.; Smerdon, M.J.; Somers, R.L.; Mackie, H.; Spoonde, A.Y.; Ackerman, E.J.; Coleman, K.; Tarone, R.E.; Robbins, J.H. *J. Biol. Chem.* **2000**, *275*, 22355-22362.