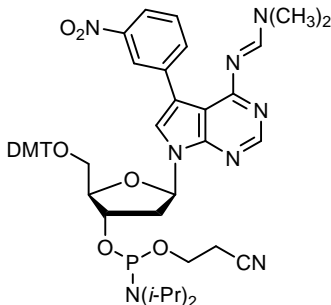


5-(3-Nitrophenyl)-2'-dA CEP

Product No. BA 0355

Product Information



$C_{50}H_{57}N_9O_9P$
Mol. Wt.: 929.01

Electrochemical detection is a less expensive alternative to common optical methods in DNA biosensors and chips. Hocek and coworkers¹ have shown that when aminophenyl (i.e. BA 0342) and nitrophenyl (i.e. BA 0355) substituted 2'-deoxyribonucleosides are incorporated into oligonucleotides, they exhibit excellent electrochemical label properties. Both types of markers in the same oligonucleotide can be easily detected and differentiated since the aminophenyl tag is irreversibly oxidized, and the nitrophenyl tag is irreversibly reduced.

Use: For oligonucleotide synthesis, employ acetonitrile diluent at the concentration recommended by the synthesizer manufacturer. Use standard coupling protocols; in our hands, extended coupling times were not required and coupling efficiencies of 99% could be obtained. Cleavage from the solid support may be carried out by standard procedures, and standard nucleobase deprotection conditions may be employed.

References

1. Cahova, H.; Havran, L.; Brazdilova, P.; Pivonkova, H.; Pohl, R.; Fojta, M.; Hocek, M. *Angew. Chem. Int. Ed.* **2008**, *47*, 2059-2062.