

# N-Alkylated Phosphoramidites

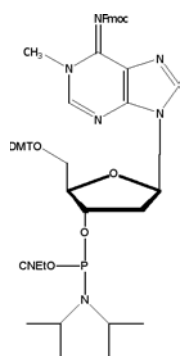
# 7-Deaza products



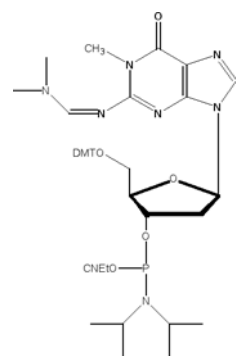
- ChemGenes offers the phosphoramidites for studies and possibilities of reversal of methylated lesions by use of oligonucleotides incorporation alkylated purine/pyrimidine.
- Due to mutagenic effects of carcinogens, DNA in living organisms is vulnerable to alkylation.

- It has been shown that there is a direct reversal of n-alkylation of methylated bases in oligonucleotides.
- The discovery of an enzyme which is substrate for DNA repair has great implications for repair of such carcinogenic and mutagenic effects.

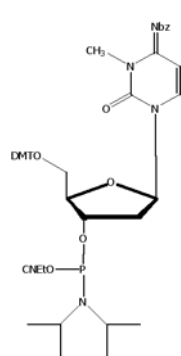
## Our featured products include:



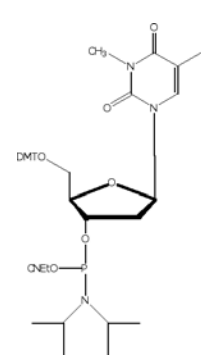
N1-Methyl deoxy Adenosine Phosphoramidite  
Catalog # **ANP-6121**



N1-Methyl deoxy Guanosine Phosphoramidite  
Catalog # **ANP-6122**



N3-Methyl deoxy Cytidine Phosphoramidite  
Catalog # **ANP-3851**



N3-Methyl Thymidine Phosphoramidite  
Catalog # **ANP-6153**

[S.C. Trewick, T.F. Henshaw, R.P.Hausinger, T. Lindahl and B. Sedgwick, *Nature*, 419, 174-177, 2002; and another report confirming these observations, P.Falnes, R.F. Johansen, E. Seeberg, *Nature* 419, 178, 2002].

## ChemGenes has perfected the technology of productions of these modified bases and the corresponding phosphoramidites.

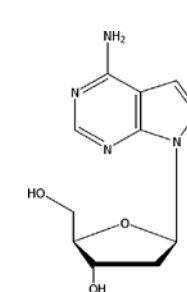
These modifications find extensive application in the design and selection introduction of these modified bases into DNA. Some of the key properties of the 7-deaza modification are outlined:

- Avoids the problem of extensive secondary structure formation, and thereby improves the targeted hybridization.
- Antiparallel triple helix formation with double stranded DNA is favored with this modification.
- The nucleoside and corresponding triphosphates are currently used in DNA sequencing analysis.

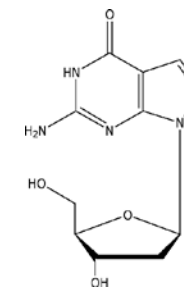
## ChemGenes has extensive capabilities in the following:

- Bulk quantities of the 7-deaza-2'-deoxy nucleosides for DNA sequencing and molecular biology studies.
- Highest purity 7-deaza-2'-deoxy nucleoside phosphoramidites for specific introduction of these modified bases into synthetic DNA sequences.

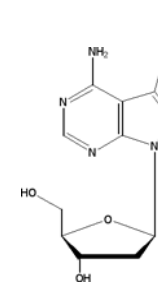
ChemGenes currently has available the nucleosides; 7-Deaza-r-adenosine, 7-deaza-r-guanosine and 7-deaza-r-inosine, as well as the corresponding 2'-tBDSilyl phosphoramidites.



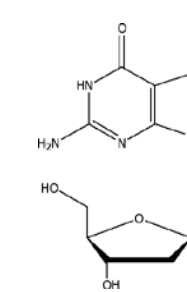
N1-Methyl 7-Deaza deoxy Adenosine  
Catalog # **DN-1143**



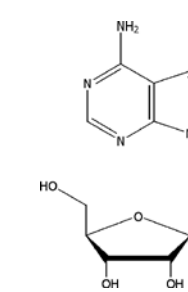
N1-Methyl 7-Deaza deoxy Guanosine  
Catalog # **DN-4567**



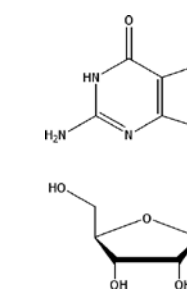
7-Deaza-7-Iodo deoxy Adenosine  
Catalog # **DN-2561**



7-Deaza-7-Iodo deoxy Guanosine  
Catalog # **DN-2563**



7-Deaza ribo Adenosine  
Catalog # **RP-2312**



7-Deaza ribo Guanosine  
Catalog # **RP-2313**