# Product Specifications

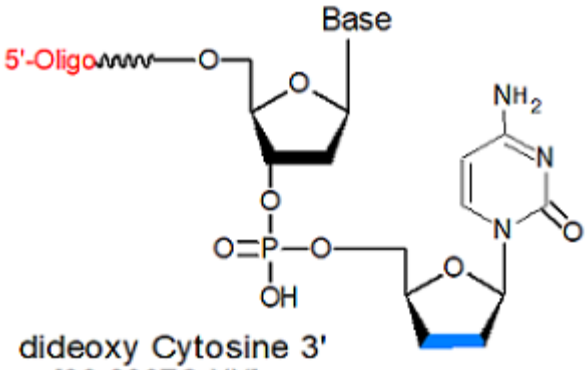
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2′-5′ linked Oligos

## Oligo Modifications

For research use only. Not for use in diagnostic procedures for clinical purposes.

## ddC-3'

| | |
|---|---|
| Category | End Blockers |
| Modification Code | ddC-3 |
| Reference Catalog Number | 26-6337C |
| 5 Prime | N |
| 3 Prime | Y |
| Internal | N |
| Molecular Weight(mw) | 273.19 |



dideoxy Cytosine 3'
[26-6337C-XX]

Dideoxycytosine (ddC) is a dideoxyribonucleoside, and is a synthetic analog of deoxycytosine. The difference between the two is that, in ddC, both the 2'- and 3'-positions of the ribose have a hydrogen (-H) group substituted for the -OH group, whereas in dC, only the 2'-position is so substituted.

ddC is generally used in two applications. First, to block the 3'-end of oligonucleotides to prevent their extension by a polymerase in a PCR reaction or PCR-based assay. For example, 3'ddC-blocked oligos have been used in microarray-based DNA re-sequencing (1). ddC is also used to block the 3'-end of 5'-adenylated oligos (5'-App) that are used as adapters in miRNA library generation. Blocking the 3'-end in this manner prevents the oligo from either circularization (by self-ligation) or concatemerization to other 5'-App oligos (2). **References**

1. Sram, J., Sommer, S.S., Liu, Q. Microarray-based DNA re-sequencing using 3' blocked primers. *Anal. Biochem.* (2008), **3744**: 41-47.
2. Lau, N.C., Lim, L.P., Weinstein, E.G., Bartel, D.P. An abundant class of tiny RNAs with probable regulatory roles in Caenorhabditis elegans.*Science* (2001), **294**: 858-862.