

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.

Spacer 18

Category	Spacers	
Modification Code	Sp18	5'-Oligo wo — O O O O O O O O O O O O O O O O O O
Reference Catalog Number	26-6447	
5 Prime	Υ	Ho 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3 Prime	Υ	
Internal	Υ	5-Oligo WOOOOO O O O O O O O O O O
Molecular Weight(mw)	344.3	но 3' Spacer 18 Spacer 18 (hexaethyleneglycol) [26-6447-XX]

Spacer 18 is a hexaethylene glycol chain that is 18 atoms long (12 carbons + 6 oxygens), and is used to incorporate a long spacer arm into an oligonucleotide. Spacer 18 can be incorporated in consecutive additions whenever a longer spacer is required. Spacer 18 had been used to form bold folds and hairpin loops in oligonucleotides (1,2), and for solid-phase immobilization of hybridization probes (3). Spacer 18 has also been used to modify random primers used in whole genome amplification (WGA)-based applications, as a way to eliminate self-priming events that form spurious DNA products (that is, false-positive amplification) in the PCR reactions (4). **References**

- 1. Salunkhe, M., Wu, T.F., Letsinger, R.L. Control of folding and binding of oligonucleotides by use of non-nucleotide linker. *J. Am. Chem. Soc.* (1992), **114**: 8768-8772.
- 2. Durand, M., Chevrie, K., Chassignol, M., Thuong, N.T., Maurizot, J. Circular dichroism studies of an oligodeoxyribonucleotide containing a hairpin loop made of a hexaethylene glycol chain: conformation and stability. *Nucleic Acids Res.* (1990), **18**: 6353-6359.
- 3. Zhang, Y., Coyne, M.Y., Will, S.G., Levenson, C.H., Kawasaki, E.S. Single-base mutational analysis of cancer and genetic diseases using membrane bound modified oligonucleotides. *Nucleic Acids Res.* (1991), **19**: 3929-3933.
- 4. Brukner, I., Paquin, B., Belouchi, M., Labuda, D., Krajinovic, M. Self-priming arrest by modified random oligonucleotides facilitates the quality control of whole genome amplification. *Anal. Biochem.* (2005), **339**: 345-347.



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