

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 C12

| Category | Spacers | 9. |
|--------------------------|---------|-------------------------|
| Modification Code | SpC12 | HO OH OH |
| Reference Catalog Number | 26-6441 | 5' Spacer C12 |
| 5 Prime | Υ | 5-Oligowwo – P |
| 3 Prime | Υ | Internal Spacer C12 |
| Internal | Υ | 5'-Oligowwo_p |
| Molecular Weight(mw) | 264.3 | 3' Spacer 12 |
| | | Spacer C12 [26-6441-XX] |

Spacer modifications C3, C6, C9, C12 and triethylene glycol Spacer 9 and 18 are used to insert a spacer arm in an oligonucleotide. These modifications can be added in multiple additions when a longer spacer is required. 3'-Spacer C3 CPG may also act as a blocker of exonuclease and polymerase activity at the 3'-terminus. dSpacer is used to introduce a stable abasic site within an oligonucleotide. See "Photo-Cleavable" modification category for photo-cleavable Spacer.

Spacer C12 is a 12-carbon spacer that is used to incorporate a long spacer arm into an oligonucleotide. Spacer C12 can be incorporated in consecutive additions if a longer spacer is required. Spacer C12 is frequently used for solid-phase immobilization of DNA probes or aptamers for microarray applications (1,2), but can be used for any oligonucleotide-based application requiring a long spacer arm. **References**

- 1. Reese, M.O., van Dam, R.M., Scherer, A., Quake, S.R. Microfabricated Fountain Pens for High-Density DNA Arrays. *Genome Res.* (2003), **13**: 2348-2352.
- 2. Lao, Y-H., Peck, K., Chen, L-C. Enhancement of Aptamer Microarray Sensitivity through Spacer Optimization and Avidity Effect. *Anal. Chem.* (2006), **81**: 1747-1754.

