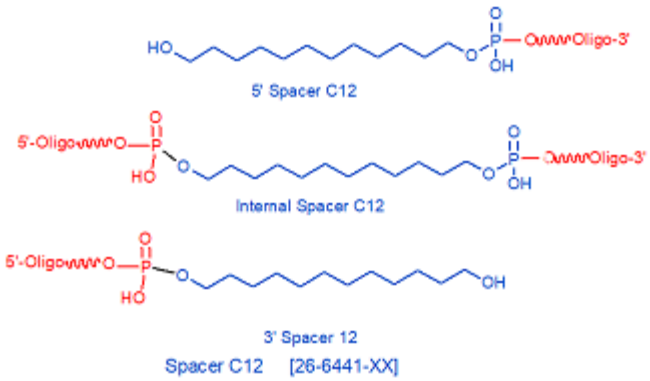
Spacer C12

Category	Spacers
Modification Code	SpC12
Reference Catalog Number	26-6441
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	264.3



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.