



## Product Specifications

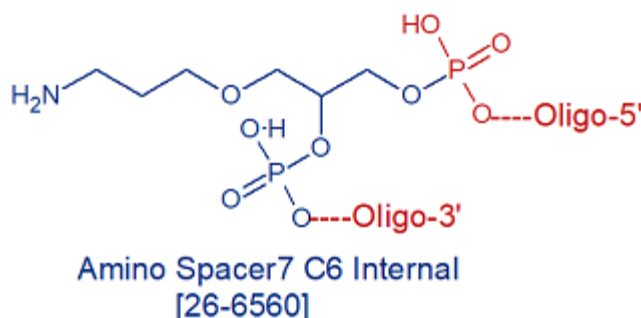
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2'-5' linked Oligos

## Oligo Modifications

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

### Amino Spacer 7 C6 Internal

Category	Conjugation Chemistry
Modification Code	AmSp7-C6-Int
Reference Catalog Number	26-6560
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	211.2



Name and Code change effective September 19, 2023. Amino Spacer 7 C6 Internal, Code [AmSp7-C6-Int] was previously called Amino C6 internal with a code [AmC6-Int]. The name change reflect more accurately the total spacer length of 7 that includes C6 and 1 oxygen.

Amino Spacer 7 C6 Internal can be placed at any internal site and at the 3' end for oligos longer than 120mer with the use of the Universal CPG to initiate synthesis. Amino Spacer 7 C6 Internal is a non-nucleoside modification primarily offered for internal labeling for eventual conjugation to solid surface or other ligands including fluorophores and quencher. The internally placed Amino Spacer 7 C6 Internal will enable the oligo to fold. Amino C6 nucleosidic modifications are available for all 4 bases. For 3' and 5' amino modification consider our other appropriate 3' and 5' amino modifications listed in related modifications.

Amino Spacer 7 C6 Internal is a non-nucleoside modification that can be used to incorporate an active primary amino group at an internal position of an oligo. This is helpful when the purpose is to have the oligo conjugated to a surface or ligand at this position. The amino group can also be used to conjugate reporter fluorophore or quencher internally in an oligo. This can then be conjugated to a NHS Activated ligand. The amino group then becomes internal to the 5' end ligand. The amino group is separated from the 5' end nucleotide base by a 6-carbon spacer arm to reduce steric interaction between the amino group and the oligo.

The presence of the primary amino group allows the user to label the oligo with a variety of different ligands for affinity, reporter or protein moieties (as NHS esters or isothiocyanates), depending on the application. Examples include biotin, digoxigenin, and fluorescent dyes or quenchers, magnetic beads and enzymes (for example, alkaline phosphatase).

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The primary amine labelled oligos can also be conjugated to carboxyl functional groups usually for solid supports applications using EDC mediated reaction as shown in the figure below.