



## Product Specifications

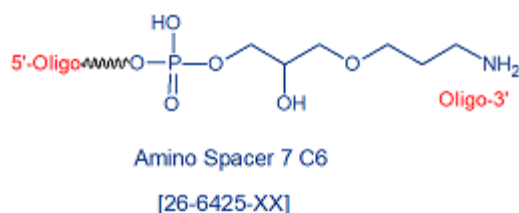
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2'-5' linked Oligos

## Oligo Modifications

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

### Amino Spacer 7-C6 (3')

Category	Conjugation Chemistry
Modification Code	AmSp7-C6
Reference Catalog Number	26-6425
5 Prime	N
3 Prime	Y
Internal	N
Molecular Weight(mw)	211.2



Amino Spacer 7 C6 contains C6 and one oxygen for a total space of 7. The Amino Spacer 7 C6 can be used to incorporate an active primary amino group onto the 3' end of an oligonucleotide followed by conjugation to the desired NHS activated ligand. The amino Spacer 7 thus becomes internal to the 3' end conjugated ligand. The amino group is separated from the 3' end nucleotide base by a 7-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). NHS ester-activated ligands react with primary amines to yield stable amide bonds. The reaction releases N-hydroxysuccinimide (NHS). NHS ester reaction scheme for chemical conjugation to a primary amine in an oligo is given below.

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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.