

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

 NH_2

Oligo Modifications

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

Amino C7-3'

Category Conjugation Chemistry

Modification Code AmC7

Reference Catalog Number 26-6406

5 Prime N

3 Prime Y 5'-Oligo \(\sqrt{N} \sqrt{P} \)

Internal N

Molecular Weight(mw) 209.18 3' Amino Linker C7 [26-6406-XX]

A similar less expensive 3' amino spacer 7 with C6 is available. See this link. Amino Spacer 7-C6 (3'). See other related modifications. Conjugation Chemistry Modifications.

Amino Spacer C7 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 C7 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).

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.

