Product Specifications

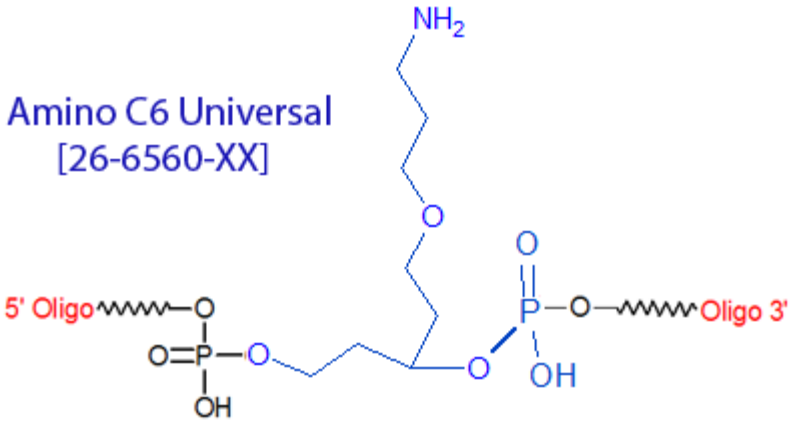
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2′-5′ linked Oligos

Oligo Modifications

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

Amino C6 Universal

Category	Others
Modification Code	AmC6Uni
Reference Catalog Number	26-6560
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	240.21



Amino C6 universal is primarily offered for internal labeling for eventual conjugation to solid surface or other ligands. The internally placed Amino C6 will enable the oligo to fold. For 3' and 5' amino modification consider our other appropriate 3' and 5' amino modifications.

Amino C6 universal can be used to incorporate an active primary amino group at any position of an oligo. If inserted internally it will occupy a space of ~6 carbon atoms. This is helpful when the purpose is to have the oligo conjugated to a surface or ligand at this position and have the oligo fold. The amino group is used for conjugation. 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.