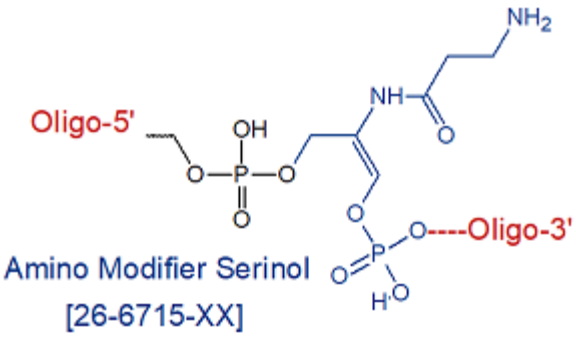
Amino Serinol

Category	Conjugation Chemistry
Modification Code	Am-Ser
Reference Catalog Number	26-6715
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	224.15



Amino-Modifier Serinol can be used to add amino groups at the 5' end or at the 3' end of long oligos that require CPG with pore size of greater than 1000 Angstrom that are not available. The synthesis is started with a T 3000 Angstrom base CPG followed amino serinol coupling with synthesis continued till the 5'-end. Upon deprotection the 3'-T base is automatically removed leaving a priamry amino group.
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.

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