



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.

Universal Support Introduction

A universal support, in the context of phosphoramidite-based oligonucleotide synthesis, is a specially designed chemical linker, attached to a controlled pore glass (CPG) bead, which can efficiently couple to any phosphoramidite (1). Gene Link offers the option of a universal support in order to provide the customer with the maximum possible number of moiety options that can be placed at the 3'-end of an oligonucleotide. Using a universal support is often necessary when an unusual base or rare modification is desired at the 3'-end, but said base/modification is not itself available as a CPG reagent, that is, pre-attached to CPG beads.

Universal Support Design Protocols

N/A

Universal Support Applications

As described in the Introduction, the chief advantages of a universal support is that it allows the maximum possible number of moiety options at the 3'-end of a synthesized oligo, and permits synthesis of oligo with 3'-modifications that are not themselves available as a support.

References

(1) Azhayev, A.V., Antopolsky, M.L. Amide group assisted 3'-dephosphorylation of oligonucleotides synthesized on universal A-supports. *Tetrahedron* (2001), 57: 4977-4986.

Modificaton Code List

Modification	Code	Catalog Number
Universal Support (CPG)	[Univ]	26-6575



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Universal Support (CPG)

Category Conjugation Chemistry

Modification Code Univ

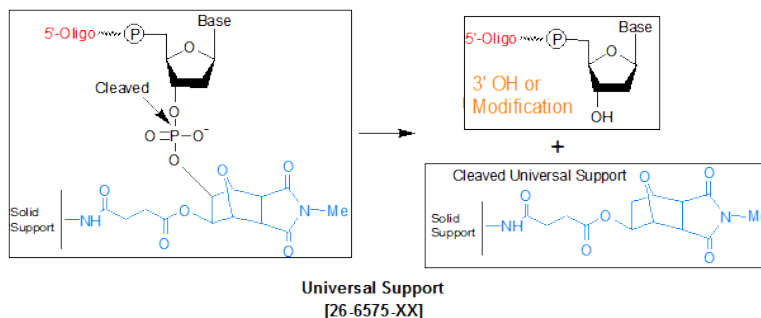
Reference Catalog Number 26-6575

5 Prime N

3 Prime Y

Internal N

Molecular Weight(mw) 0



Oligonucleotide synthesis is performed on solid support that is predominantly controlled pore glass of various pore size (500 Angstrom to 300 Angstrom) or at Gene Link using membrane support as well. For standard unmodified oligos a solid support is used that has the 3' base attached to it. Universal supports do not have any base attached to it and can be used to initiate oligo synthesis. These solid supports are specifically designed to allow coupling of any phosphoramidite to it and at Gene Link used to initiate oligo synthesis for specially modified bases that can be placed at the 3'-end of an oligonucleotide (1).

The universal support group is removed during deprotection scheme and the 3' base will have a hydroxyl group or the modified base is at the 3' end when supplied to the customer. References

1. Azhayev, A.V., Antopolsky, M.L. Amide group assisted 3'-dephosphorylation of oligonucleotides synthesized on universal A-supports. *Tetrahedron* (2001), **57**: 4977-4986.